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**Department of Defense
Fiscal Year (FY) 2019 Budget Estimates**

February 2018



Air Force

Justification Book Volume 1 of 1

Other Procurement, Air Force

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Air Force • Budget Estimates FY 2019 • Procurement

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Appropriation Language
Fiscal Year (FY) 2019 Budget Estimates
Other Procurement, Air Force

For procurement and modification of equipment (including ground guidance and electronic control equipment, and ground electronic and communication equipment), and supplies, materials, and spare parts therefor, not otherwise provided for; the purchase of passenger motor and expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon, prior to approval of title; reserve plant and Government, contractor-owned equipment layaway, and overseas contingency operations, \$4,128,675,000 to remain available for obligation until September 30, 2021.

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: Other Procurement, Air Force

| Budget Activity ----- | FY 2017 (Base + OCO) ----- | FY 2018 PB Request with CR Adj Base ----- | FY 2018 Total PB Requests* with CR Adj Base ----- | FY 2018 PB Request with CR Adj OCO ----- |
|--|----------------------------------|---|--|--|
| 02. Vehicular Equipment | 481,634 | 270,954 | 270,954 | 119,018 |
| 03. Electronics and Telecommunications Equip | 1,533,918 | 1,517,059 | 1,517,059 | 130,343 |
| 04. Other Base Maintenance and Support Equip | 20,942,000 | 17,788,809 | 17,788,809 | 3,759,526 |
| 05. Spares and Repair Parts | 16,600 | 26,675 | 26,675 | |
| 20. Undistributed | | -2,015,748 | -2,015,748 | 824,834 |
| Total Other Procurement, Air Force | 22,974,152 | 17,587,749 | 17,587,749 | 4,833,721 |

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Other Procurement, Air Force

| Budget Activity ----- | FY 2018 Total PB Requests+ with CR Adj OCO ----- | FY 2018 Emergency Requests** Emergency ----- | FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs ----- | FY 2018 Remaining Req Emergency ----- |
|--|---|--|--|--|
| 02. Vehicular Equipment | 119,018 | | | |
| 03. Electronics and Telecommunications Equip | 130,343 | | | |
| 04. Other Base Maintenance and Support Equip | 3,759,526 | 288,055 | -288,055 | |
| 05. Spares and Repair Parts | | | | |
| 20. Undistributed | 824,834 | | | |
| Total Other Procurement, Air Force | 4,833,721 | 288,055 | -288,055 | |

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Other Procurement, Air Force

| Budget Activity ----- | FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** ----- | FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs ----- | FY 2018 Remaining Req with CR Adj Base + OCO + Emergency ----- |
|--|---|--|---|
| 02. Vehicular Equipment | 389,972 | | 389,972 |
| 03. Electronics and Telecommunications Equip | 1,647,402 | | 1,647,402 |
| 04. Other Base Maintenance and Support Equip | 21,836,390 | -288,055 | 21,548,335 |
| 05. Spares and Repair Parts | 26,675 | | 26,675 |
| 20. Undistributed | -1,190,914 | | -1,190,914 |
| Total Other Procurement, Air Force | 22,709,525 | -288,055 | 22,421,470 |

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Other Procurement, Air Force

| Budget Activity ----- | FY 2019 Base ----- | FY 2019 OCO ----- | FY 2019 Total ----- |
|--|--------------------------|-------------------------|---------------------------|
| 02. Vehicular Equipment | 338,435 | 152,376 | 490,811 |
| 03. Electronics and Telecommunications Equip | 1,545,506 | 139,687 | 1,685,193 |
| 04. Other Base Maintenance and Support Equip | 18,595,819 | 3,757,920 | 22,353,739 |
| 05. Spares and Repair Parts | 86,365 | | 86,365 |
| 20. Undistributed | | | |
| Total Other Procurement, Air Force | 20,566,125 | 4,049,983 | 24,616,108 |

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2017 (Base + OCO) | | FY 2018 PB Request with CR Adj Base | | FY 2018 Total PB Requests* with CR Adj Base | | FY 2018 PB Request with CR Adj OCO | | S e c |
|---|-------------------------------------|------------|----------------------|---------|-------------------------------------|--------|---|--------|------------------------------------|--------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 02: Vehicular Equipment | | | | | | | | | | | |
| Passenger Carrying Vehicles | | | | | | | | | | | |
| 1 | Passenger Carrying Vehicles | A | | 13,440 | | 15,651 | | 15,651 | | 3,855 | U |
| Cargo and Utility Vehicles | | | | | | | | | | | |
| 2 | Medium Tactical Vehicle | A | | 25,878 | | 54,607 | | 54,607 | | | U |
| 3 | Cap Vehicles | A | | 1,684 | | 1,011 | | 1,011 | | | U |
| 4 | Cargo and Utility Vehicles | A | | 19,035 | | 28,670 | | 28,670 | | 1,882 | U |
| Special Purpose Vehicles | | | | | | | | | | | |
| 5 | Joint Light Tactical Vehicle | A | | | | | | | | | U |
| 6 | Security And Tactical Vehicles | A | | 6,433 | | 59,398 | | 59,398 | | 1,100 | U |
| 7 | Special Purpose Vehicles | A | | 56,832 | | 19,784 | | 19,784 | | 32,479 | U |
| Fire Fighting Equipment | | | | | | | | | | | |
| 8 | Fire Fighting/Crash Rescue Vehicles | A | | 130,041 | | 14,768 | | 14,768 | | 22,583 | U |
| Materials Handling Equipment | | | | | | | | | | | |
| 9 | Materials Handling Vehicles | A | | 20,480 | | 13,561 | | 13,561 | | 5,353 | U |
| Base Maintenance Support | | | | | | | | | | | |
| 10 | Runway Snow Remov And Cleaning Equ | A | | 61,608 | | 3,429 | | 3,429 | | 11,315 | U |

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|--------------------------------------|---|----------------|----------------|----------------|----------------|
| 11 Base Maintenance Support Vehicles | A | 146,203 | 60,075 | 60,075 | 40,451 U |
| Total Vehicular Equipment | | <u>481,634</u> | <u>270,954</u> | <u>270,954</u> | <u>119,018</u> |

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Emergency | | FY 2018 Less Enacted | | FY 2018 Remaining | | S e c |
|---|-------------------------------------|------------|---------------|--------|-------------------|------|----------------------|------|-------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 02: Vehicular Equipment | | | | | | | | | | | |
| Passenger Carrying Vehicles | | | | | | | | | | | |
| 1 | Passenger Carrying Vehicles | A | | 3,855 | | | | | | | U |
| Cargo and Utility Vehicles | | | | | | | | | | | |
| 2 | Medium Tactical Vehicle | A | | | | | | | | | U |
| 3 | Cap Vehicles | A | | | | | | | | | U |
| 4 | Cargo and Utility Vehicles | A | | 1,882 | | | | | | | U |
| Special Purpose Vehicles | | | | | | | | | | | |
| 5 | Joint Light Tactical Vehicle | A | | | | | | | | | U |
| 6 | Security And Tactical Vehicles | A | | 1,100 | | | | | | | U |
| 7 | Special Purpose Vehicles | A | | 32,479 | | | | | | | U |
| Fire Fighting Equipment | | | | | | | | | | | |
| 8 | Fire Fighting/Crash Rescue Vehicles | A | | 22,583 | | | | | | | U |
| Materials Handling Equipment | | | | | | | | | | | |
| 9 | Materials Handling Vehicles | A | | 5,353 | | | | | | | U |
| Base Maintenance Support | | | | | | | | | | | |
| 10 | Runway Snow Remov And Cleaning Equ | A | | 11,315 | | | | | | | U |

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|--------------------------------------|---|---------|-------|-------|-------|---|
| 11 Base Maintenance Support Vehicles | A | 40,451 | ----- | ----- | ----- | U |
| Total Vehicular Equipment | | 119,018 | | | | |

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** | | FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs | | FY 2018 Remaining Req with CR Adj Base + OCO + Emergency | | S e c - |
|---|-------------------------------------|---------------|--|--------|---|------|--|------|------------------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 02: Vehicular Equipment | | | | | | | | | |
| Passenger Carrying Vehicles | | | | | | | | | |
| 1 | Passenger Carrying Vehicles | A | | 19,506 | | | 19,506 | | U |
| Cargo and Utility Vehicles | | | | | | | | | |
| 2 | Medium Tactical Vehicle | A | | 54,607 | | | 54,607 | | U |
| 3 | Cap Vehicles | A | | 1,011 | | | 1,011 | | U |
| 4 | Cargo and Utility Vehicles | A | | 30,552 | | | 30,552 | | U |
| Special Purpose Vehicles | | | | | | | | | |
| 5 | Joint Light Tactical Vehicle | A | | | | | | | U |
| 6 | Security And Tactical Vehicles | A | | 60,498 | | | 60,498 | | U |
| 7 | Special Purpose Vehicles | A | | 52,263 | | | 52,263 | | U |
| Fire Fighting Equipment | | | | | | | | | |
| 8 | Fire Fighting/Crash Rescue Vehicles | A | | 37,351 | | | 37,351 | | U |
| Materials Handling Equipment | | | | | | | | | |
| 9 | Materials Handling Vehicles | A | | 18,914 | | | 18,914 | | U |
| Base Maintenance Support | | | | | | | | | |
| 10 | Runway Snow Remov And Cleaning Equ | A | | 14,744 | | | 14,744 | | U |

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|--------------------------------------|---|---------|-------|-----------|
| 11 Base Maintenance Support Vehicles | A | 100,526 | ----- | 100,526 U |
| Total Vehicular Equipment | | 389,972 | | 389,972 |

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2019 Base Quantity | Cost | FY 2019 OCO Quantity | Cost | FY 2019 Total Quantity | Cost | Se c |
|---|-------------------------------------|------------|--------------------------|--------|-------------------------|--------|---------------------------|--------|---------|
| Budget Activity 02: Vehicular Equipment | | | | | | | | | |
| Passenger Carrying Vehicles | | | | | | | | | |
| 1 | Passenger Carrying Vehicles | A | | 6,949 | | 9,680 | | 16,629 | U |
| Cargo and Utility Vehicles | | | | | | | | | |
| 2 | Medium Tactical Vehicle | A | | 36,002 | | 9,680 | | 45,682 | U |
| 3 | Cap Vehicles | A | | 1,022 | | | | 1,022 | U |
| 4 | Cargo and Utility Vehicles | A | | 42,696 | | 19,680 | | 62,376 | U |
| Special Purpose Vehicles | | | | | | | | | |
| 5 | Joint Light Tactical Vehicle | A | | 30,145 | | | | 30,145 | U |
| 6 | Security And Tactical Vehicles | A | | 1,230 | | 24,880 | | 26,110 | U |
| 7 | Special Purpose Vehicles | A | | 43,003 | | 34,680 | | 77,683 | U |
| Fire Fighting Equipment | | | | | | | | | |
| 8 | Fire Fighting/Crash Rescue Vehicles | A | | 23,328 | | 9,736 | | 33,064 | U |
| Materials Handling Equipment | | | | | | | | | |
| 9 | Materials Handling Vehicles | A | | 11,537 | | 24,680 | | 36,217 | U |
| Base Maintenance Support | | | | | | | | | |
| 10 | Runway Snow Remov And Cleaning Equ | A | | 37,600 | | 9,680 | | 47,280 | U |

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|--------------------------------------|---|----------------|----------------|----------------|
| 11 Base Maintenance Support Vehicles | A | 104,923 | 9,680 | 114,603 U |
| Total Vehicular Equipment | | <u>338,435</u> | <u>152,376</u> | <u>490,811</u> |

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2017 (Base + OCO) | | FY 2018 PB Request with CR Adj Base | | FY 2018 Total PB Requests* with CR Adj Base | | FY 2018 PB Request with CR Adj OCO | | S e c |
|--|--|------------|----------------------|--------|-------------------------------------|---------|---|---------|------------------------------------|--------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 03: Electronics and Telecommunications Equip | | | | | | | | | | | |
| ----- | | | | | | | | | | | |
| Comm Security Equipment (Comsec) | | | | | | | | | | | |
| 12 | Comsec Equipment | A | | 81,738 | | 115,000 | | 115,000 | | | U |
| Intelligence Programs | | | | | | | | | | | |
| 13 | International Intel Tech & Architectures | A | | | | 22,335 | | 22,335 | | 8,873 | U |
| 14 | Intelligence Training Equipment | A | | 6,982 | | 5,892 | | 5,892 | | | U |
| 15 | Intelligence Comm Equipment | A | | 37,874 | | 34,072 | | 34,072 | | 2,000 | U |
| Electronics Programs | | | | | | | | | | | |
| 16 | Air Traffic Control & Landing Sys | A | | 70,728 | | 66,143 | | 66,143 | | 56,500 | U |
| 17 | National Airspace System | A | | 2,673 | | 12,641 | | 12,641 | | | U |
| 18 | Battle Control System - Fixed | | | 5,677 | | 6,415 | | 6,415 | | | U |
| 19 | Theater Air Control Sys Improvemen | A | | 1,163 | | 23,233 | | 23,233 | | 4,970 | U |
| 20 | Weather Observation Forecast | A | | 21,667 | | 40,116 | | 40,116 | | | U |
| 21 | Strategic Command And Control | A | | 39,803 | | 72,810 | | 72,810 | | | U |
| 22 | Cheyenne Mountain Complex | A | | 19,718 | | 9,864 | | 9,864 | | | U |
| 23 | Mission Planning Systems | A | | 13,330 | | 15,486 | | 15,486 | | | U |
| 24 | Drug Interdiction Spt | A | | 23,892 | | | | | | | U |

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25 Integrated Strat Plan & Analy Network (ISPAN)

A

10,670

9,187

9,187

U

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Department of the Air Force
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 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Emergency | | FY 2018 Less Enacted | | FY 2018 Remaining | | S e c |
|--|--|------------|---------------|--------|-------------------|------|----------------------|------|-------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 03: Electronics and Telecommunications Equip | | | | | | | | | | | |
| Comm Security Equipment (Comsec) | | | | | | | | | | | |
| 12 | Comsec Equipment | A | | | | | | | | | U |
| Intelligence Programs | | | | | | | | | | | |
| 13 | International Intel Tech & Architectures | A | | 8,873 | | | | | | | U |
| 14 | Intelligence Training Equipment | A | | | | | | | | | U |
| 15 | Intelligence Comm Equipment | A | | 2,000 | | | | | | | U |
| Electronics Programs | | | | | | | | | | | |
| 16 | Air Traffic Control & Landing Sys | A | | 56,500 | | | | | | | U |
| 17 | National Airspace System | A | | | | | | | | | U |
| 18 | Battle Control System - Fixed | | | | | | | | | | U |
| 19 | Theater Air Control Sys Improvemen | A | | 4,970 | | | | | | | U |
| 20 | Weather Observation Forecast | A | | | | | | | | | U |
| 21 | Strategic Command And Control | A | | | | | | | | | U |
| 22 | Cheyenne Mountain Complex | A | | | | | | | | | U |
| 23 | Mission Planning Systems | A | | | | | | | | | U |
| 24 | Drug Interdiction Spt | A | | | | | | | | | U |

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25 Integrated Strat Plan & Analy Network (ISPAN) A

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 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Less Enacted | | FY 2018 Remaining Req | | S e c |
|--|--|------------|---------------|---------|----------------------|------|-----------------------|---------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 03: Electronics and Telecommunications Equip | | | | | | | | | |
| ----- | | | | | | | | | |
| Comm Security Equipment (Comsec) | | | | | | | | | |
| 12 | Comsec Equipment | A | | 115,000 | | | | 115,000 | U |
| Intelligence Programs | | | | | | | | | |
| 13 | International Intel Tech & Architectures | A | | 31,208 | | | | 31,208 | U |
| 14 | Intelligence Training Equipment | A | | 5,892 | | | | 5,892 | U |
| 15 | Intelligence Comm Equipment | A | | 36,072 | | | | 36,072 | U |
| Electronics Programs | | | | | | | | | |
| 16 | Air Traffic Control & Landing Sys | A | | 122,643 | | | | 122,643 | U |
| 17 | National Airspace System | A | | 12,641 | | | | 12,641 | U |
| 18 | Battle Control System - Fixed | | | 6,415 | | | | 6,415 | U |
| 19 | Theater Air Control Sys Improvemen | A | | 28,203 | | | | 28,203 | U |
| 20 | Weather Observation Forecast | A | | 40,116 | | | | 40,116 | U |
| 21 | Strategic Command And Control | A | | 72,810 | | | | 72,810 | U |
| 22 | Cheyenne Mountain Complex | A | | 9,864 | | | | 9,864 | U |
| 23 | Mission Planning Systems | A | | 15,486 | | | | 15,486 | U |
| 24 | Drug Interdiction Spt | A | | | | | | | U |

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25 Integrated Strat Plan & Analy Network (ISPAN)

A

9,187

9,187 U

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Department of the Air Force
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 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2019 Base Quantity | Cost | FY 2019 OCO Quantity | Cost | FY 2019 Total Quantity | Cost | S e c |
|--|--|------------|--------------------------|---------|-------------------------|--------|---------------------------|------|-------------|
| Budget Activity 03: Electronics and Telecommunications Equip | | | | | | | | | |
| Comm Security Equipment (Comsec) | | | | | | | | | |
| 12 | Comsec Equipment | A | | 114,372 | | | 114,372 | | U |
| Intelligence Programs | | | | | | | | | |
| 13 | International Intel Tech & Architectures | A | | 8,290 | | | 8,290 | | U |
| 14 | Intelligence Training Equipment | A | | 2,099 | | | 2,099 | | U |
| 15 | Intelligence Comm Equipment | A | | 37,415 | | 6,156 | 43,571 | | U |
| Electronics Programs | | | | | | | | | |
| 16 | Air Traffic Control & Landing Sys | A | | 57,937 | | 56,884 | 114,821 | | U |
| 17 | National Airspace System | A | | | | | | | U |
| 18 | Battle Control System - Fixed | | | 3,012 | | | 3,012 | | U |
| 19 | Theater Air Control Sys Improvemen | A | | 19,989 | | | 19,989 | | U |
| 20 | Weather Observation Forecast | A | | 45,020 | | | 45,020 | | U |
| 21 | Strategic Command And Control | A | | 32,836 | | | 32,836 | | U |
| 22 | Cheyenne Mountain Complex | A | | 12,454 | | | 12,454 | | U |
| 23 | Mission Planning Systems | A | | 14,263 | | | 14,263 | | U |
| 24 | Drug Interdiction Spt | A | | | | | | | U |

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25 Integrated Strat Plan & Analy Network (ISPAN)

A

7,769

7,769 U

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 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2017 (Base + OCO) | | FY 2018 PB Request with CR Adj Base | | FY 2018 Total PB Requests* with CR Adj Base | | FY 2018 PB Request with CR Adj OCO | | S e c |
|--------------------------------|---|------------|----------------------|---------|-------------------------------------|---------|---|---------|------------------------------------|-------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Spcl Comm-Electronics Projects | | | | | | | | | | | |
| 26 | General Information Technology | A | | 50,774 | | 51,826 | | 51,826 | | | U |
| 27 | Af Global Command & Control Sys | A | | 14,729 | | 3,634 | | 3,634 | | | U |
| 28 | Mobility Command And Control | A | | 9,814 | | 10,083 | | 10,083 | | | U |
| 29 | Air Force Physical Security System | A | | 310,212 | | 201,866 | | 201,866 | | 3,000 | U |
| 30 | Combat Training Ranges | A | | 34,850 | | 115,198 | | 115,198 | | | U |
| 31 | Minimum Essential Emergency Comm N | A | | 198,925 | | 292 | | 292 | | | U |
| 32 | Wide Area Surveillance (WAS) | A | | 6,943 | | 62,087 | | 62,087 | | | U |
| 33 | C3 Countermeasures | A | | 15,200 | | 37,764 | | 37,764 | | | U |
| 34 | GCSS-AF Fos | A | | 1,743 | | 2,826 | | 2,826 | | | U |
| 35 | Defense Enterprise Accounting & Mgt Sys | A | | | | 1,514 | | 1,514 | | | U |
| 36 | Maintenance Repair & Overhaul Initiative | A | | | | | | | | | U |
| 37 | Theater Battle Mgt C2 System | A | | 10,219 | | 9,646 | | 9,646 | | | U |
| 38 | Air & Space Operations Center (AOC) | A | | 15,325 | | 25,533 | | 25,533 | | | U |
| 39 | Air Operations Center (AOC) 10.2 | A | | 8,180 | | | | | | | U |
| 40 | Spectrum Relocation Fund | A | | 1,393 | | | | | | | U |
| Air Force Communications | | | | | | | | | | | |
| 41 | Base Information Transpt Infrast (BITI) Wired | A | | 39,611 | | 28,159 | | 28,159 | | | U |

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|----------|---|---------|---------|---------|---|
| 42 AFNET | A | 127,574 | 160,820 | 160,820 | U |
|----------|---|---------|---------|---------|---|

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01 Feb 2018

Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 | | FY 2018 | | FY 2018 | | S e c |
|--------------------------------|--|------------|---------------|-------|----------------------|------|----------------------------------|---------------------|---------------|-----------|-------|
| | | | Quantity | Cost | Emergency Requests** | Cost | Less Enacted Div B P.L.115-96*** | MDDE + Ship Repairs | Remaining Req | Emergency | |
| Spcl Comm-Electronics Projects | | | | | | | | | | | |
| 26 | General Information Technology | A | | | | | | | | | U |
| 27 | Af Global Command & Control Sys | A | | | | | | | | | U |
| 28 | Mobility Command And Control | A | | | | | | | | | U |
| 29 | Air Force Physical Security System | A | | 3,000 | | | | | | | U |
| 30 | Combat Training Ranges | A | | | | | | | | | U |
| 31 | Minimum Essential Emergency Comm N | A | | | | | | | | | U |
| 32 | Wide Area Surveillance (WAS) | A | | | | | | | | | U |
| 33 | C3 Countermeasures | A | | | | | | | | | U |
| 34 | GCSS-AF Fos | A | | | | | | | | | U |
| 35 | Defense Enterprise Accounting & Mgt Sys | A | | | | | | | | | U |
| 36 | Maintenance Repair & Overhaul Initiative | A | | | | | | | | | U |
| 37 | Theater Battle Mgt C2 System | A | | | | | | | | | U |
| 38 | Air & Space Operations Center (AOC) | A | | | | | | | | | U |
| 39 | Air Operations Center (AOC) 10.2 | A | | | | | | | | | U |
| 40 | Spectrum Relocation Fund | A | | | | | | | | | U |
| Air Force Communications | | | | | | | | | | | |
| 41 | Base Information Transpnt Infrast (BITI) Wired | A | | | | | | | | | U |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Less Enacted | | FY 2018 Remaining Req | | S e c |
|--------------------------------|---|------------|---------------|---------|----------------------|------|-----------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Spcl Comm-Electronics Projects | | | | | | | | | |
| 26 | General Information Technology | A | | 51,826 | | | 51,826 | | U |
| 27 | Af Global Command & Control Sys | A | | 3,634 | | | 3,634 | | U |
| 28 | Mobility Command And Control | A | | 10,083 | | | 10,083 | | U |
| 29 | Air Force Physical Security System | A | | 204,866 | | | 204,866 | | U |
| 30 | Combat Training Ranges | A | | 115,198 | | | 115,198 | | U |
| 31 | Minimum Essential Emergency Comm N | A | | 292 | | | 292 | | U |
| 32 | Wide Area Surveillance (WAS) | A | | 62,087 | | | 62,087 | | U |
| 33 | C3 Countermeasures | A | | 37,764 | | | 37,764 | | U |
| 34 | GCSS-AF Fos | A | | 2,826 | | | 2,826 | | U |
| 35 | Defense Enterprise Accounting & Mgt Sys | A | | 1,514 | | | 1,514 | | U |
| 36 | Maintenance Repair & Overhaul Initiative | A | | | | | | | U |
| 37 | Theater Battle Mgt C2 System | A | | 9,646 | | | 9,646 | | U |
| 38 | Air & Space Operations Center (AOC) | A | | 25,533 | | | 25,533 | | U |
| 39 | Air Operations Center (AOC) 10.2 | A | | | | | | | U |
| 40 | Spectrum Relocation Fund | A | | | | | | | U |
| Air Force Communications | | | | | | | | | |
| 41 | Base Information Transpt Infrast (BITI) Wired | A | | 28,159 | | | 28,159 | | U |

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42 AFNET A 160,820 160,820 U

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2019 Base Quantity | FY 2019 Base Cost | FY 2019 OCO Quantity | FY 2019 OCO Cost | FY 2019 Total Quantity | FY 2019 Total Cost | Se |
|--------------------------------|--|------------|-----------------------|-------------------|----------------------|------------------|------------------------|--------------------|----|
| Spcl Comm-Electronics Projects | | | | | | | | | |
| 26 | General Information Technology | A | | 40,450 | | | 40,450 | | U |
| 27 | Af Global Command & Control Sys | A | | 6,619 | | | 6,619 | | U |
| 28 | Mobility Command And Control | A | | 10,192 | | | 10,192 | | U |
| 29 | Air Force Physical Security System | A | | 159,313 | | 46,236 | 205,549 | | U |
| 30 | Combat Training Ranges | A | | 132,675 | | | 132,675 | | U |
| 31 | Minimum Essential Emergency Comm N | A | | 140,875 | | | 140,875 | | U |
| 32 | Wide Area Surveillance (WAS) | A | | 92,104 | | | 92,104 | | U |
| 33 | C3 Countermeasures | A | | 45,152 | | | 45,152 | | U |
| 34 | GCSS-AF Fos | A | | 483 | | | 483 | | U |
| 35 | Defense Enterprise Accounting & Mgt Sys | A | | 802 | | | 802 | | U |
| 36 | Maintenance Repair & Overhaul Initiative | A | | 12,207 | | | 12,207 | | U |
| 37 | Theater Battle Mgt C2 System | A | | 7,644 | | 2,500 | 10,144 | | U |
| 38 | Air & Space Operations Center (AOC) | A | | 40,066 | | | 40,066 | | U |
| 39 | Air Operations Center (AOC) 10.2 | A | | | | | | | U |
| 40 | Spectrum Relocation Fund | A | | | | | | | U |
| Air Force Communications | | | | | | | | | |
| 41 | Base Information Transpnt Infrast (BITI) Wired | A | | 22,357 | | | 22,357 | | U |

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102,836 U

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2017 (Base + OCO) | | FY 2018 PB Request with CR Adj Base | | FY 2018 Total PB Requests* with CR Adj Base | | FY 2018 PB Request with CR Adj OCO | | S e c |
|--|---|------------|----------------------|-----------|-------------------------------------|-----------|---|-----------|------------------------------------|---------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 43 | Joint Communications Support Element (JCSE) | A | | 5,182 | | 5,135 | | 5,135 | | | U |
| 44 | USCENTCOM | A | | 13,418 | | 18,719 | | 18,719 | | | U |
| Organization and Base | | | | | | | | | | | |
| 45 | Tactical C-E Equipment | A | | 152,136 | | 123,206 | | 123,206 | | | U |
| 46 | Combat Survivor Evader Locater | A | | | | 3,004 | | 3,004 | | | U |
| 47 | Radio Equipment | A | | 16,266 | | 15,736 | | 15,736 | | | U |
| 48 | CCTV/Audiovisual Equipment | A | | 7,794 | | 5,480 | | 5,480 | | | U |
| 49 | Base Comm Infrastructure | A | | 88,215 | | 130,539 | | 130,539 | | 55,000 | U |
| Modifications | | | | | | | | | | | |
| 50 | Comm Elect Mods | A | | 69,500 | | 70,798 | | 70,798 | | | U |
| Total Electronics and Telecommunications Equip | | | | 1,533,918 | | 1,517,059 | | 1,517,059 | | 130,343 | |
| Budget Activity 04: Other Base Maintenance and Support Equip | | | | | | | | | | | |
| Personal Safety & Rescue Equip | | | | | | | | | | | |
| 51 | Personal Safety and Rescue Equipment | A | | 63,016 | | 52,964 | | 52,964 | | 8,469 | U |
| Depot Plant+Mtrls Handling Eq | | | | | | | | | | | |
| 52 | Mechanized Material Handling Equip | A | | 7,344 | | 10,381 | | 10,381 | | | U |
| Base Support Equipment | | | | | | | | | | | |

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|----------------------------------|---|---------|--------|--------|----------|
| 53 Base Procured Equipment | A | 6,852 | 15,038 | 15,038 | 7,500 U |
| 54 Engineering and EOD Equipment | A | 267,400 | 26,287 | 26,287 | 80,427 U |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total PB Requests+ with CR Adj OCO | | FY 2018 Emergency Requests** | | FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs | | FY 2018 Remaining Req Emergency | | S e c |
|--|---|------------|--|---------|------------------------------|------|--|------|---------------------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 43 | Joint Communications Support Element (JCSE) | A | | | | | | | | | U |
| 44 | USCENTCOM | A | | | | | | | | | U |
| | Organization and Base | | | | | | | | | | |
| 45 | Tactical C-E Equipment | A | | | | | | | | | U |
| 46 | Combat Survivor Evader Locater | A | | | | | | | | | U |
| 47 | Radio Equipment | A | | | | | | | | | U |
| 48 | CCTV/Audiovisual Equipment | A | | | | | | | | | U |
| 49 | Base Comm Infrastructure | A | | 55,000 | | | | | | | U |
| | Modifications | | | | | | | | | | |
| 50 | Comm Elect Mods | A | | | | | | | | | U |
| Total Electronics and Telecommunications Equip | | | | 130,343 | | | | | | | |
| Budget Activity 04: Other Base Maintenance and Support Equip | | | | | | | | | | | |
| | Personal Safety & Rescue Equip | | | | | | | | | | |
| 51 | Personal Safety and Rescue Equipment | A | | 8,469 | | | | | | | U |
| | Depot Plant+Mtrls Handling Eq | | | | | | | | | | |
| 52 | Mechanized Material Handling Equip | A | | | | | | | | | U |
| | Base Support Equipment | | | | | | | | | | |

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|----------------------------------|---|--------|---|
| 53 Base Procured Equipment | A | 7,500 | U |
| 54 Engineering and EOD Equipment | A | 80,427 | U |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Less Enacted | | FY 2018 Remaining Req | | S e c | |
|--|---|------------|---------------|-----------|----------------------|------|-----------------------|------|-------|--|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | | |
| 43 | Joint Communications Support Element (JCSE) | A | | 5,135 | | | 5,135 | | U | |
| 44 | USCENTCOM | A | | 18,719 | | | 18,719 | | U | |
| Organization and Base | | | | | | | | | | |
| 45 | Tactical C-E Equipment | A | | 123,206 | | | 123,206 | | U | |
| 46 | Combat Survivor Evader Locater | A | | 3,004 | | | 3,004 | | U | |
| 47 | Radio Equipment | A | | 15,736 | | | 15,736 | | U | |
| 48 | CCTV/Audiovisual Equipment | A | | 5,480 | | | 5,480 | | U | |
| 49 | Base Comm Infrastructure | A | | 185,539 | | | 185,539 | | U | |
| Modifications | | | | | | | | | | |
| 50 | Comm Elect Mods | A | | 70,798 | | | 70,798 | | U | |
| Total Electronics and Telecommunications Equip | | | | 1,647,402 | | | 1,647,402 | | | |
| Budget Activity 04: Other Base Maintenance and Support Equip | | | | | | | | | | |
| Personal Safety & Rescue Equip | | | | | | | | | | |
| 51 | Personal Safety and Rescue Equipment | A | | 61,433 | | | 61,433 | | U | |
| Depot Plant+Mtrls Handling Eq | | | | | | | | | | |
| 52 | Mechanized Material Handling Equip | A | | 10,381 | | | 10,381 | | U | |
| Base Support Equipment | | | | | | | | | | |

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|----------------------------------|---|---------|---------|---|
| 53 Base Procured Equipment | A | 22,538 | 22,538 | U |
| 54 Engineering and EOD Equipment | A | 106,714 | 106,714 | U |

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| Line No | Item Nomenclature | Ident Code | FY 2019 Base Quantity | Cost | FY 2019 OCO Quantity | Cost | FY 2019 Total Quantity | Cost | Se c |
|--|---|------------|--------------------------|-----------|-------------------------|---------|---------------------------|------|---------|
| 43 | Joint Communications Support Element (JCSE) | A | | 3,145 | | | 3,145 | | U |
| 44 | USCENTCOM | A | | 13,194 | | | 13,194 | | U |
| Organization and Base | | | | | | | | | |
| 45 | Tactical C-E Equipment | A | | 161,231 | | 27,911 | 189,142 | | U |
| 46 | Combat Survivor Evader Locater | A | | | | | | | U |
| 47 | Radio Equipment | A | | 12,142 | | | 12,142 | | U |
| 48 | CCTV/Audiovisual Equipment | A | | 6,505 | | | 6,505 | | U |
| 49 | Base Comm Infrastructure | A | | 169,404 | | | 169,404 | | U |
| Modifications | | | | | | | | | |
| 50 | Comm Elect Mods | A | | 10,654 | | | 10,654 | | U |
| Total Electronics and Telecommunications Equip | | | | 1,545,506 | | 139,687 | 1,685,193 | | |
| Budget Activity 04: Other Base Maintenance and Support Equip | | | | | | | | | |
| Personal Safety & Rescue Equip | | | | | | | | | |
| 51 | Personal Safety and Rescue Equipment | A | | 51,906 | | 13,600 | 65,506 | | U |
| Depot Plant+Mtrls Handling Eq | | | | | | | | | |
| 52 | Mechanized Material Handling Equip | A | | 88,298 | | | 88,298 | | U |
| Base Support Equipment | | | | | | | | | |

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|----------------------------------|---|--------|--------|---------|---|
| 53 Base Procured Equipment | A | 17,031 | 28,800 | 45,831 | U |
| 54 Engineering and EOD Equipment | A | 82,635 | 53,500 | 136,135 | U |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2017 (Base + OCO) | | FY 2018 PB Request with CR Adj Base | | FY 2018 Total PB Requests* with CR Adj Base | | FY 2018 PB Request with CR Adj OCO | | S e c |
|---------|--|------------|-------------------------|------------|--|------------|---|------------|---|-----------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 55 | Mobility Equipment | A | | 58,128 | | 8,470 | | 8,470 | | | U |
| 56 | Base Maintenance and Support Equipment | A | | 30,557 | | 28,768 | | 28,768 | | 110,405 | U |
| | Special Support Projects | | | | | | | | | | |
| 58 | DARP RC135 | A | | 25,287 | | 25,985 | | 25,985 | | 700 | U |
| 59 | DCGS-AF | A | | 237,455 | | 178,423 | | 178,423 | | 9,200 | U |
| 61 | Special Update Program | A | | 689,710 | | 840,980 | | 840,980 | | | U |
| 999 | Classified Programs | | | 19,556,251 | | 16,601,513 | | 16,601,513 | | 3,542,825 | U |
| | Total Other Base Maintenance and Support Equip | | | 20,942,000 | | 17,788,809 | | 17,788,809 | | 3,759,526 | |
| | Budget Activity 05: Spares and Repair Parts | | | | | | | | | | |
| | Spares and Repair Parts | | | | | | | | | | |
| 63 | Spares And Repair Parts | A | | 16,600 | | 26,675 | | 26,675 | | | U |
| | Total Spares and Repair Parts | | | 16,600 | | 26,675 | | 26,675 | | | |
| | Budget Activity 20: Undistributed | | | | | | | | | | |
| | Undistributed | | | | | | | | | | |
| 64 | Adj to Match Continuing Resolution | A | | | | -2,015,748 | | -2,015,748 | | 824,834 | U |
| | Total Undistributed | | | | | -2,015,748 | | -2,015,748 | | 824,834 | |
| | Total Other Procurement, Air Force | | | 22,974,152 | | 17,587,749 | | 17,587,749 | | 4,833,721 | |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2018 Total PB Requests+ with CR Adj OCO | | FY 2018 Emergency Requests** | | FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs | | FY 2018 Remaining Req Emergency | | S e c |
|---------|--|------------|--|-----------|------------------------------|---------|--|----------|---------------------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 55 | Mobility Equipment | A | | | | | | | | | U |
| 56 | Base Maintenance and Support Equipment | A | | 110,405 | | | | | | | U |
| | Special Support Projects | | | | | | | | | | |
| 58 | DARP RC135 | A | | 700 | | | | | | | U |
| 59 | DCGS-AF | A | | 9,200 | | | | | | | U |
| 61 | Special Update Program | A | | | | 41,000 | | -41,000 | | | U |
| 999 | Classified Programs | | | 3,542,825 | | 247,055 | | -247,055 | | | U |
| | Total Other Base Maintenance and Support Equip | | | 3,759,526 | | 288,055 | | -288,055 | | | |
| | Budget Activity 05: Spares and Repair Parts | | | | | | | | | | |
| | Spares and Repair Parts | | | | | | | | | | |
| 63 | Spares And Repair Parts | A | | | | | | | | | U |
| | Total Spares and Repair Parts | | | | | | | | | | |
| | Budget Activity 20: Undistributed | | | | | | | | | | |
| | Undistributed | | | | | | | | | | |
| 64 | Adj to Match Continuing Resolution | A | | 824,834 | | | | | | | U |
| | Total Undistributed | | | 824,834 | | | | | | | |
| | Total Other Procurement, Air Force | | | 4,833,721 | | 288,055 | | -288,055 | | | |

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| Line No | Item Nomenclature | Ident Code | FY 2018 Total | | FY 2018 Less Enacted | | FY 2018 Remaining Req | | S e c |
|---------|--|------------|---------------|------------|----------------------|----------|-----------------------|------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 55 | Mobility Equipment | A | | 8,470 | | | 8,470 | | U |
| 56 | Base Maintenance and Support Equipment | A | | 139,173 | | | 139,173 | | U |
| | Special Support Projects | | | | | | | | |
| 58 | DARP RC135 | A | | 26,685 | | | 26,685 | | U |
| 59 | DCGS-AF | A | | 187,623 | | | 187,623 | | U |
| 61 | Special Update Program | A | | 881,980 | | -41,000 | 840,980 | | U |
| 999 | Classified Programs | | | 20,391,393 | | -247,055 | 20,144,338 | | U |
| | Total Other Base Maintenance and Support Equip | | | 21,836,390 | | -288,055 | 21,548,335 | | |
| | Budget Activity 05: Spares and Repair Parts | | | | | | | | |
| | Spares and Repair Parts | | | | | | | | |
| 63 | Spares And Repair Parts | A | | 26,675 | | | 26,675 | | U |
| | Total Spares and Repair Parts | | | 26,675 | | | 26,675 | | |
| | Budget Activity 20: Undistributed | | | | | | | | |
| | Undistributed | | | | | | | | |
| 64 | Adj to Match Continuing Resolution | A | | -1,190,914 | | | -1,190,914 | | U |
| | Total Undistributed | | | -1,190,914 | | | -1,190,914 | | |
| | Total Other Procurement, Air Force | | | 22,709,525 | | -288,055 | 22,421,470 | | |

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Appropriation: 3080F Other Procurement, Air Force

| Line No | Item Nomenclature | Ident Code | FY 2019 Base Quantity | FY 2019 Base Cost | FY 2019 OCO Quantity | FY 2019 OCO Cost | FY 2019 Total Quantity | FY 2019 Total Cost | Se c |
|---------|--|------------|--------------------------|----------------------|-------------------------|---------------------|---------------------------|-----------------------|---------|
| 55 | Mobility Equipment | A | | 9,549 | | 78,562 | | 88,111 | U |
| 56 | Base Maintenance and Support Equipment | A | | 24,005 | | 28,055 | | 52,060 | U |
| | Special Support Projects | | | | | | | | |
| 58 | DARP RC135 | A | | 26,262 | | | | 26,262 | U |
| 59 | DCGS-AF | A | | 448,290 | | 2,000 | | 450,290 | U |
| 61 | Special Update Program | A | | 913,813 | | | | 913,813 | U |
| 999 | Classified Programs | | | 16,934,030 | | 3,553,403 | | 20,487,433 | U |
| | Total Other Base Maintenance and Support Equip | | | 18,595,819 | | 3,757,920 | | 22,353,739 | |
| | Budget Activity 05: Spares and Repair Parts | | | | | | | | |
| | Spares and Repair Parts | | | | | | | | |
| 63 | Spares And Repair Parts | A | | 86,365 | | | | 86,365 | U |
| | Total Spares and Repair Parts | | | 86,365 | | | | 86,365 | |
| | Budget Activity 20: Undistributed | | | | | | | | |
| | Undistributed | | | | | | | | |
| 64 | Adj to Match Continuing Resolution | A | | | | | | | U |
| | Total Undistributed | | | | | | | | |
| | Total Other Procurement, Air Force | | | 20,566,125 | | 4,049,983 | | 24,616,108 | |

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| | | | |
|---|-------------------|--|-----------------------------------|
| Model: | CRCPhase2 | | |
| Modification P-40a Aggregated Items Title: | TACSI Mods | | |
| Item Number | Item Title | | Applies to Multiple Models |
| Uncategorized | | | |
| CRC02 | CRC Phase 2 | | No |

| | | | |
|---|-------------------|--|-----------------------------------|
| Model: | OMMOD | | |
| Modification P-40a Aggregated Items Title: | TACSI Mods | | |
| Item Number | Item Title | | Applies to Multiple Models |
| Uncategorized | | | |
| TYQ23A | AN/TYQ23A OM MOD | | No |

| | | | |
|--------------------------------------|---------------------------|--|-----------------------------------|
| Model: | CRCPhase1 | | |
| P-3a Individual Modifications | | | |
| Modification Number | Modification Title | | Applies to Multiple Models |
| 1 | CRC Phase 1 | | No |

| | | | |
|--------------------------------------|----------------------------------|--|-----------------------------------|
| Model: | NWM | | |
| P-3a Individual Modifications | | | |
| Modification Number | Modification Title | | Applies to Multiple Models |
| 1 | Numerical Weather Modeling (NWM) | | No |

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| | | | |
|---|---|-----------------------------------|--|
| Model: | CheyenneMountainComplex | | |
| Modification P-40a Aggregated Items Title: | COCOM Mobile Command and Control Centers (MCCCs) | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 001 | Mobile Consolidated Command Center Upgrade Block 00 | No | |
| 003 | Mobile Consolidated Command Center Upgrade Block 01 | No | |
| 005 | Mobile Consolidated Command Center Upgrade Block 03 | No | |
| 002 | Mobile Consolidated Command Center Modification | No | |
| Modification P-40a Aggregated Items Title: | NMC - TW/AA System | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 001 | Core C2 Enterprise Network Infrastructure and Mission Equipment | No | |

| | | | |
|--------------------------------------|---|-----------------------------------|--|
| Model: | CheyenneMounatinComplex | | |
| P-3a Individual Modifications | | | |
| Modification Number | Modification Title | Applies to Multiple Models | |
| 004 | Mobile Consolidated Command Center Upgrade Block 02 | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | NORADCheyenneMountainComplex | | |
| Modification P-40a Aggregated Items Title: | NMC - TW/AA System | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 002 | NORAD Cheyenne Mountain Complex Block 00 | No | |
| NCMCB1 | NORAD Cheyenne Mountain Complex Block 01 | No | |
| NCMCB2 | NORAD Cheyenne Mountain Complex Block 02 | No | |

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| | | |
|---|--|-----------------------------------|
| Model: | NORADCheyenneMountainComplex | |
| Modification P-40a Aggregated Items Title: | NCMC - TW/AA System | |
| Item Number | Item Title | Applies to Multiple Models |
| NCMCB3 | NORAD Cheyenne Mountain Complex Block 03 | No |

| | | |
|--------------------------------------|--|-----------------------------------|
| Model: | CAMIS | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | Cadet Administration Management Information System | No |

| | | |
|---|---------------------------------------|-----------------------------------|
| Model: | Bases | |
| Modification P-40a Aggregated Items Title: | Base Physical Security Systems | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| AFPSS4 | Base Physical Security Systems | No |
| CENTCOM | C-sUAS CENTCOM JUON | No |
| EUJUON | C-sUAS EUCOM JUON | No |
| IBDSS-2 | IBDSS-2 | No |
| IBDSS-3 | IBDSS-3 | No |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | C-sUAS STRATCOM JEON | No |
| 2 | C-sUAS | No |
| 3 | IBDSS-1 | No |

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| | | |
|---|---|-----------------------------------|
| Model: | JointThreatEmitter | |
| Modification P-40a Aggregated Items Title: | Combat Training Range Equipment | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| CTR01 | Combat Training Ranges Joint Threat Emitter | No |

| | | |
|---|---------------------------------|-----------------------------------|
| Model: | CombatTrainingRange | |
| Modification P-40a Aggregated Items Title: | Combat Training Range Equipment | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| CTR02 | CEAR UMTE Mod | No |
| CTR03 | CEAR Mini MUTES Mod | No |

| | | |
|---|--|-----------------------------------|
| Model: | UC2 | |
| Modification P-40a Aggregated Items Title: | C2 Air Operations Suite - C2 Info Services | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| 1TBMC2 | UC2 | No |

| | | |
|---|--|-----------------------------------|
| Model: | PersonnelRecoveryCommandandControl | |
| Modification P-40a Aggregated Items Title: | Personnel Recovery Command & Ctrl (PRC2) | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| 2TBMC2 | PRC2 | No |

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| | | |
|--------------------------------------|-------------------------------------|-----------------------------------|
| Model: | BITI | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | BITI Mod/Recaps | No |
| 2 | BITI Mod/Recaps BITI Modification 2 | No |

| | | |
|--------------------------------------|---------------------------|-----------------------------------|
| Model: | ACD | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | ACD WS 0208088F | No |

| | | |
|--------------------------------------|---------------------------|-----------------------------------|
| Model: | AFINC-CSCS-WS | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | AFINC/CSCS WS 0303089 | No |

| | | |
|---|---|-----------------------------------|
| Model: | ANFMQ7 | |
| Modification P-40a Aggregated Items Title: | Weather Service | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| 08-001 | AN/FMQ-7 Solar Optical Observing Network (SOON) | No |

| | | |
|---|-------------------|-----------------------------------|
| Model: | ANUMQ13 | |
| Modification P-40a Aggregated Items Title: | Weather Service | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |

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| Model: | ANUMQ13 | | |
| Modification P-40a Aggregated Items Title: | Weather Service | | |
| Item Number | Item Title | Applies to Multiple Models | |
| 09-001 | AN/UMQ-13 MARK IV-B | No | |

| | | | |
|---|---|-----------------------------------|--|
| Model: | WSR-88D | | |
| Modification P-40a Aggregated Items Title: | Weather Service | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 14-001 | Next Generation Radar (NEXRAD) WSR-88D IT Refresh | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | ANFRR95 | | |
| Modification P-40a Aggregated Items Title: | Weather Service | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 14-007 | Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | Yes | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | AF24U1 | | |
| Modification P-40a Aggregated Items Title: | Weather Service | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 14-007 | Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | Yes | |

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|---|---|-----------------------------------|--|
| Model: | JET | | |
| Modification P-40a Aggregated Items Title: | Weather Service | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| 16-001 | Joint Environmental Toolkit (JET) Refresh | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | GRN-29 | | |
| Modification P-40a Aggregated Items Title: | Air Traffic Control, Approach, and Landing System (ATCALs) | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| AN/GRN-29 Instrument Landing System | ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F) | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | TRN-48 | | |
| Modification P-40a Aggregated Items Title: | Air Traffic Control, Approach, and Landing System (ATCALs) | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| ATCALs | Deployable TACAN Retrofit/Refurbishment | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | ATCALs | | |
| Modification P-40a Aggregated Items Title: | Air Traffic Control, Approach, and Landing System (ATCALs) | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| P-3A Low Cost Mods | ATCALs Low Cost Mods (PE 0305114F) | No | |

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| Model: | NAS | | |
| Modification P-40a Aggregated Items Title: | National Airspace System (NAS) Plan | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| NAS Mod 2 | NAS Low Cost Mods | No | |
| NAS Mod 3 | DASR Site Control Data Interface (SCDI) | No | |

| | | | |
|--------------------------------------|---------------------------|-----------------------------------|--|
| Model: | NASMod-1 | | |
| P-3a Individual Modifications | | | |
| Modification Number | Modification Title | Applies to Multiple Models | |
| 1 | NAS Gen4 MOD | No | |

| | | | |
|---|---|-----------------------------------|--|
| Model: | Raytheon | | |
| Modification P-40a Aggregated Items Title: | Ballistic Missile Early Warning System (BMEWS) 0305909F | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| P-3A BMEWS DP/ SP Suite Replacement | BMEWS DP/SP Suite Replacement | No | |

| | | | |
|---|--|-----------------------------------|--|
| Model: | Exelis | | |
| Modification P-40a Aggregated Items Title: | SLBM Radar Warning System 0305912F | | |
| Item Number | Item Title | Applies to Multiple Models | |
| Uncategorized | | | |
| P-3A PARCS Modifications | P-3A PARCS Modification (formerly PARCS PARSS) | No | |
| PARCS Block 00 Update | PARCS Block 00 Update | No | |

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| | | |
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| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| P-3A PAVE PAWS Modifications | P-3A PAVE PAWS Modification (formerly PAVE PAWS Front End) | No |
| PAVE PAWS Block 00 Update | BPP Block 00 SAPS ES | No |
| Modification P-40a Aggregated Items Title: | Ballistic Missile Early Warning System (BMEWS) 1203909F | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| BMEWS | BMEWS DP SP | No |
| BMEWS2 | BMEWS Block 02 | No |
| Modification P-40a Aggregated Items Title: | SLBM Radar Warning System 1203912F | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| PARCSB0 | PARCS Block 00 | No |
| PARCSB1 | PARCS Block 01 | No |
| PPB02 | Pave Paws Block 02 | No |

| | | |
|---|--|-----------------------------------|
| Model: | SEWS | |
| Modification P-40a Aggregated Items Title: | Shared Early Warning (SEW) | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| SEWS1 | Shared Early Warning System (SEWS) Low Cost Mods | No |

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| Model: | RC-135 | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | DARP Modification | No |

| | | |
|---|---|-----------------------------------|
| Model: | 0305208F | |
| Modification P-40a Aggregated Items Title: | Distributed Common Ground/Surface Systems | |
| Item Number | Item Title | Applies to Multiple Models |
| Uncategorized | | |
| DCGS1 | Geospatial Intelligence Bulk Release (GB) 4.1 | No |
| DCGS13 | NASIC | No |
| DCGS6 | System Release (SR) 3.0 | No |
| DCGS8 | DCGS Reference Imagery Transition (DRT) | No |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 2 | Network Infrastructure Transformation | No |
| 3 | Multi-Intelligence (Multi-INT) | No |
| 4 | Sensor Integration | No |
| 5 | Signals Intelligence (SIGINT) | No |

| | | |
|--------------------------------------|--------------------------------|-----------------------------------|
| Model: | DCGS | |
| P-3a Individual Modifications | | |
| Modification Number | Modification Title | Applies to Multiple Models |
| 1 | GEOINT Transformation (GEOINT) | No |

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Funding (\$ M)

| Modification P-40a Item Title P-3a Modification Title | PYS | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|---------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Exhibit P-40a | | | | | | | | | | |
| CRC Phase 2 | - | - | - | - | - | - | 11.852 | 13.393 | 18.879 | 8.579 |
| AN/TYQ23A OM MOD | 22.710 | 1.163 | 9.420 | 4.575 | - | 4.575 | - | - | - | - |
| Mobile Consolidated Command Center Upgrade Block 00 | - | 7.635 | - | - | - | - | - | - | - | - |
| Mobile Consolidated Command Center Upgrade Block 01 | - | - | 7.845 | 0.440 | - | 0.440 | - | - | - | - |
| Mobile Consolidated Command Center Upgrade Block 03 | - | - | - | - | - | - | 7.866 | 0.200 | - | - |
| Mobile Consolidated Command Center Modification | - | 0.000 | - | 0.000 | - | 0.000 | - | 8.013 | 8.358 | 8.508 |
| Core C2 Enterprise Network Infrastructure and Mission Equipment | - | - | - | - | - | - | - | 1.906 | 2.152 | 2.191 |
| NORAD Cheyenne Mountain Complex Block 00 | - | 12.083 | 0.000 | - | - | - | - | - | - | - |
| NORAD Cheyenne Mountain Complex Block 01 | - | - | 2.019 | 0.205 | - | 0.205 | - | - | - | - |
| NORAD Cheyenne Mountain Complex Block 02 | - | - | - | 1.837 | - | 1.837 | 0.205 | - | - | - |
| NORAD Cheyenne Mountain Complex Block 03 | - | - | - | 0.000 | - | 0.000 | 1.874 | 0.210 | - | - |
| Base Physical Security Systems | 69.989 | 26.987 | 1.767 | 1.606 | - | 1.606 | - | - | - | - |
| C-sUAS CENTCOM JUON | 115.201 | 12.742 | 0.000 | 0.000 | 0.000 | 0.000 | - | - | - | - |
| C-sUAS EUCOM JUON | - | 76.000 | 0.000 | - | - | - | - | - | - | - |
| IBDSS-2 | - | - | - | 0.000 | - | 0.000 | 71.292 | 49.877 | 50.760 | 4.966 |
| IBDSS-3 | - | - | - | - | - | - | - | - | - | 46.696 |
| Combat Training Ranges Joint Threat Emitter | - | 2.198 | 3.184 | 3.183 | - | 3.183 | 232.748 | 193.955 | 195.367 | - |
| CEAR UMTE Mod | 7.000 | 1.352 | 0.150 | 0.175 | - | 0.175 | - | - | - | - |
| CEAR Mini MUTES Mod | - | - | 0.150 | 0.000 | - | 0.000 | - | - | - | - |
| UC2 | - | - | 0.000 | 4.223 | 0.000 | 4.223 | 8.995 | 8.828 | 8.347 | 8.494 |

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

| Modification P-40a Item Title P-3a Modification Title | PYS | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|--------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| PRC2 | - | - | 1.286 | 1.301 | - | 1.301 | 1.323 | 1.347 | 1.372 | 1.396 |
| AN/FMQ-7 Solar Optical Observing Network (SOON) | - | 1.000 | - | - | - | - | - | - | - | - |
| AN/UMQ-13 MARK IV-B | 4.500 | 1.000 | 1.500 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - |
| Next Generation Radar (NEXRAD) WSR-88D IT Refresh | 2.260 | 3.508 | 5.800 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - |
| Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | 3.100 | - | 0.800 | - | - | - | - | - | - | - |
| Joint Environmental Toolkit (JET) Refresh | - | 1.464 | 1.055 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - |
| ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F) | 41.122 | 7.121 | 1.006 | 0.000 | - | 0.000 | - | - | - | - |
| Deployable TACAN Retrofit/Refurbishment | - | 3.800 | - | - | - | - | - | - | - | - |
| ATCALs Low Cost Mods (PE 0305114F) | 0.761 | 1.402 | 1.640 | 1.850 | - | 1.850 | 1.858 | 1.884 | 1.912 | 1.947 |
| NAS Low Cost Mods | - | - | - | - | - | - | 1.854 | 1.895 | 1.872 | 1.905 |
| DASR Site Control Data Interface (SCDI) | - | - | - | - | - | - | 3.840 | 1.779 | 0.605 | 0.616 |
| BMEWS DP/SP Suite Replacement | 22.263 | 36.629 | - | 0.000 | - | 0.000 | - | - | - | - |
| P-3A PARCS Modification (formerly PARCS PARSS) | - | 0.750 | - | - | - | - | - | - | - | - |
| P-3A PAVE PAWS Modification (formerly PAVE PAWS Front End) | - | 1.553 | - | - | - | - | - | - | - | - |
| PARCS Block 00 Update | - | 3.240 | - | - | - | - | - | - | - | - |
| BPP Block 00 SAPS ES | - | 4.437 | - | - | - | - | - | - | - | - |
| Shared Early Warning System (SEWS) Low Cost Mods | 0.220 | 0.403 | 0.392 | - | - | - | - | - | - | - |
| BMEWS DP SP | - | - | 0.500 | - | - | - | - | - | - | - |
| BMEWS Block 02 | - | - | 12.052 | - | - | - | 0.000 | 0.000 | 0.000 | 0.000 |
| PARCS Block 00 | - | - | 9.104 | - | - | - | - | - | - | - |
| PARCS Block 01 | - | - | 0.500 | - | - | - | - | - | - | - |

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Air Force • Budget Estimates FY 2019 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Funding for Modifications)

| Modification P-40a Item Title P-3a Modification Title | PYS | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|--------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Pave Paws Block 02 | - | - | 2.731 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Geospatial Intelligence Bulk Release (GB) 4.1 | - | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| NASIC | - | 0.800 | 1.800 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| System Release (SR) 3.0 | - | 5.018 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| DCGS Reference Imagery Transition (DRT) | - | 18.600 | 3.947 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Exhibit P-3a | | | | | | | | | | |
| CRC Phase 1 | 0.000 | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 | - |
| Numerical Weather Modeling (NWM) | 5.941 | 3.850 | 11.370 | 17.900 | 0.000 | 17.900 | 1.050 | 4.091 | 4.415 | - |
| Mobile Consolidated Command Center Upgrade Block 02 | - | 0.000 | 0.000 | 9.972 | 0.000 | 9.972 | 0.200 | 0.000 | 0.000 | 0.000 |
| Cadet Administration Management Information System | 0.000 | 3.300 | 9.103 | 2.359 | 0.000 | 2.359 | 0.000 | 0.000 | 0.000 | - |
| C-sUAS STRATCOM JEON | 11.903 | 70.500 | 116.000 | 12.100 | 0.000 | 12.100 | 0.000 | 0.000 | 0.000 | - |
| C-sUAS | - | 0.000 | 20.000 | 60.000 | 0.000 | 60.000 | 20.000 | 0.000 | 0.000 | 0.000 |
| IBDSS-1 | - | 57.405 | 48.670 | 78.248 | 0.000 | 78.248 | 4.392 | 0.000 | 0.000 | 0.000 |
| BITI Mod/Recaps | 0.000 | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 |
| BITI Mod/Recaps BITI Modification 2 | - | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 63.210 |
| ACD WS 0208088F | - | 14.383 | 37.947 | 50.490 | 0.000 | 50.490 | 18.161 | 14.008 | 14.288 | 35.965 |
| AFINC/CSCS WS 0303089 | - | 110.211 | 122.873 | 52.346 | 0.000 | 52.346 | 121.297 | 114.362 | 100.037 | 80.397 |
| NAS Gen4 MOD | - | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - |
| DARP Modification | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 |
| GEOINT Transformation (GEOINT) | - | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 |
| Network Infrastructure Transformation | - | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 |
| Multi-Intelligence (Multi-INT) | - | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 |
| Sensor Integration | - | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 |

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Air Force • Budget Estimates FY 2019 • Procurement
Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

| Modification P-40a Item Title P-3a Modification Title | PYS | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|----------------|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|
| Signals Intelligence (SIGINT) | - | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 |
| Totals (Total Obligation Authority) | | | | | | | | | | |
| Total Obligation Authority | 330.943 | 667.610 | 681.539 | 802.417 | 0.000 | 802.417 | 758.190 | 634.811 | 662.624 | 428.625 |

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ACRONYMS

GENERAL ACRONYMS

| | |
|---------|--|
| A&AS | - Advisory & Assistance Services |
| ABIDES | - Automated Budget Interactive Data Environment System |
| ACAT | - Acquisition Category |
| ACTD | - Advanced Concept Technology Demonstration |
| AGM | - Air-to-Ground Missile |
| AIM | - Air Intercept Missile |
| AIS | - Avionics Intermediate Shop |
| ACMI | - Aircraft Combat Maneuvering Instrumentation |
| AMRAAM | - Advanced Medium-Range Air-to-Air Missile |
| APPN | - Appropriation |
| ATD | - Advanced Technology Development |
| BA | - Budget Activity |
| BLSS | - Base Level Self-Sufficiency Spares |
| BY | - Budget Year |
| C3 | - Command, Control, and Communication System |
| CFE | - Contractor Furnished Equipment |
| CONOPS | - Concept of Operation |
| CONUS | - Continental United States |
| CPMS | - Comprehensive Power Management System |
| CPT | - Cockpit Procedures Trainer |
| CRA | - Continuing Resolution Authority |
| CTS | - Countermeasures Test Set |
| CY | - Current Year |
| ECCM | - Electronic Counter Counter-Measures |
| ECM | - Electronic Counter Measures |
| ECO | - Engineering Change Orders |
| EOQ | - Economic Order Quantity |
| ECP | - Engineering Change Proposal |
| EPA | - Economic Price Adjustment |
| EW | - Electronic Warfare |
| EWAIISP | - Electronic Warfare Avionics Integration Support Facility |
| FLIR | - Forward Looking Infra Red |

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| | |
|----------|---|
| FOT&E | - Follow-on Test and Evaluation |
| FOC | - Fully Operational Capability |
| FLTS | - Flight Line Test Set |
| FPIF | - Fixed Price Incentive Firm |
| FPIS | - Fixed Price Incentive Fee, Successive Targets |
| FY | - Fiscal Year |
| GANS | - Global Access Navigation & Safety |
| GATM | - Global Air Traffic Management |
| GFE | - Government Furnished Equipment |
| GFP | - Government Furnished Property |
| GPS | - Global Positioning System |
| GSE | - Ground Support Equipment |
| ICS | - Interim Contractor Support |
| IOC | - Initial Operating Capability |
| IPE | - Increased Performance Engine |
| JPALS | - Joint Precision Approach and Landing System |
| MAIS | - Major Automated Information System Program |
| MDAP | - Major Defense Acquisition Program |
| METS | - Mobile Electronic Test Stations |
| MYP | - Multiyear Procurement |
| MSIP | - Multi-Stage Improvement Program |
| NAVWAR | - Navigation Warfare |
| NMC Rate | - Not Mission Capable Rate |
| OFF | - Operational Flight Program |
| OT&E | - Operational Test and Evaluation |
| OWRM | - Other War Reserve Material |
| PAGEL | - Priced Aerospace Ground Equipment List |
| PB | - President's Budget |
| PGSE | - Peculiar Ground Support Equipment |
| PMA | - Program Management Administration |
| PMC | - Procurement Method Code |
| PNO | - Acquisition Program Number (MDAP Codes) |
| PR | - Purchase Request |
| PRCP | - Program Resource Collection Process |
| PTT | - Part Task Trainer |
| PY | - Prior Year |

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| | |
|-------|--|
| R&M | - Reliability and Maintainability |
| RAA | - Required Asset Availability |
| RDT&E | - Research, Development, Test and Evaluation |
| RWR | - Radar Warning Receiver |
| ROM | - Rough Order of Magnitude |
| SS | - Sole Source |
| SOF | - Special Operation Force |
| TAF | - Tactical Air Force |
| TCAS | - Traffic Collision Alert and Avoidance System |
| TEWS | - Tactical Electronic Warfare System |
| TISS | - TEWS Intermediate Support System |
| TOA | - Total Obligation Authority |
| WCF | - Working Capital Fund |
| WRM | - War Reserve Material |
| WST | - Weapon System Trainer |
| UAV | - Unmanned Aerial Vehicle |
| XML | - Extensible Markup Language |

BASE / ORGANIZATIONAL ACRONYMS

| | |
|----------|--|
| ACC | - Air Combat Command |
| AETC | - Air Education & Training Command |
| AFCAO | - Air Force Computer Acquisition Office |
| AFCEA | - Air Force Civil Engineering Support Agency |
| AFCIC | - AF Communications & Information Center |
| AFCSC | - Air Force Cryptologic Service Center |
| AFESC | - Air Force Engineering Services Center |
| AFGWC | - Air Force Global Weather Central |
| AFIT | - Air Force Institute of Technology |
| AFLCMC | - Air Force Life Cycle Management Center |
| AFMC | - Air Force Materiel Command |
| AFMETCAL | - Air Force Metrology and Calibration Office |
| AFMLO | - Air Force Medical Logistics Office |
| AFOSI | - Air Force Office of Special Investigation |
| AFOTEC | - Air Force Operational Test & Evaluation Center |
| AFPC | - Air Force Personnel Center |

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| | |
|------------|--|
| AFPSL | - AF Primary Standards Lab |
| AFR | - Air Force Reserve |
| AFSOC | - AF Special Operations Command |
| AFSPC | - Air Force Space Command |
| AIA | - Air Intelligence Agency |
| ALC | - Air Logistics Center |
| AMC | - Air Mobility Command |
| ANG | - Air National Guard |
| ASC | - Aeronautical Systems Center |
| AETC | - Air Education Training Command |
| AU | - Air University |
| AWS | - Air Weather Service |
| CIA | - Central Intelligence Agency |
| DGSC | - Defense General Support Center |
| DLA | - Defense Logistics Center |
| DOE | - Department of Energy |
| DPSC | - Defense Personnel Support Center |
| DSCC | - Defense Supply Center, Columbus |
| DTIC | - Defense Technical Information Center |
| ER | - Eastern Range |
| ESC | - Electronic Systems Center |
| FAA | - Federal Aviation Agency |
| FBI | - Federal Bureau of Investigation |
| GSA | - General Services Administration |
| JCS | - Joint Chiefs of Staff |
| NATO | - North Atlantic Treaty Organization |
| OSD | - Office of the Secretary of Defense |
| PACAF | - Pacific Air Forces |
| USAF | - United States Air Force |
| USAFA | - United States Air Force Academy |
| USAFE | - United States Air Force Europe |
| USCENTCOM | - United States Central Command |
| USEUCOM | - United States European Command |
| USMC | - United States Marine Corps |
| USSTRATCOM | - United States Strategic Command |
| WP AFB | - Wright-Patterson AFB, OH |

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CONTRACT METHOD / TYPE ACRONYMS

| | |
|----------|---|
| C | - Competitive |
| BA | - Basic Agreement |
| BOA | - Basic Ordering Agreement |
| BPA | - Blanket Purchasing Agreement |
| CS | - Cost Sharing |
| IDDQ | - Indefinite Delivery, Definite Quantity |
| IDIQ | - Indefinite Delivery, Indefinite Quantity |
| IDRT | - Indefinite Delivery, Requirements |
| Letter | - Letter |
| LH | - Labor-hour |
| MIPR | - Military Interdepartmental Purchase Request |
| MIPR-C | - Military Interdepartmental Purchase Request - Competitive |
| MIPR-OPT | - Military Interdepartmental Purchase Request - Option |
| MIPR-OTH | - Military Interdepartmental Purchase Request - Other |
| MIPR-SS | - Military Interdepartmental Purchase Request - Sole Source |
| OPT | - Option |
| OTH | - Other |
| PO | - Project Order |
| REQN | - Requisition |
| SS | - Sole Source |
| T&M | - Time and Materials |
| UCA | - Undefinitized Contract Action |
| WP | - Work Project |

CONTRACTED BY ACRONYMS

| | |
|---------|---|
| 11 WING | - 11th Support Wing, Washington, DC |
| ACC | - Air Combat Command, Langley AFB, VA |
| AEDC | - Arnold Engineering Development Center, Arnold AFB, TN |
| AAC | - Air Armament Center, Eglin AFB, FL |
| AEDC | - Arnold Engineering Development Center, Arnold AFB, TN |
| AETC | - Air Education and Training Command, Randolph AFB, TX |
| AFCIC | - Air Force Communications and Information Center, Washington, DC |
| AFCESA | - Air Force Civil Engineering Support Agency, Tyndall AFB, FL |
| AFFTC | - Air Force Flight Test Center, Edwards AFB, CA |

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|-------------|---|
| AFLCMC | - Air Force Life Cycle Management Center, Wright-Patterson AFB, OH |
| AFMC | - Air Force Materiel Command, Wright-Patterson AFB, OH |
| AFMETCAL | - Air Force Metrology and Calibration Office, Heath, Ohio |
| AFMLO | - Air Force Medical Logistics Office, Ft Detrick, MD |
| AIA | - Air Intelligence Agency, Kelly AFB, TX |
| AMC | - Air Mobility Command, Scott AFB, IL |
| ASC | - Aeronautical Systems Center, Wright-Patterson AFB, OH & Eglin AFB, FL |
| AFWA | - Air Force Weather Agency, Offutt AFB, NE |
| DGSC | - Defense General Support Center, Richmond, VA |
| DPSC | - Defense Personnel Support Center, Philadelphia, PA |
| ER | - Eastern Range, Patrick AFB, FL |
| ESC | - Electronic Systems Center, Hanscom AFB, MA |
| HSC | - Human Services Center, Brook AFB, TX |
| OC-ALC | - Oklahoma City Air Logistics Center, Tinker AFB, OK |
| OO-ALC | - Ogden Air Logistics Center, Hill AFB, UT |
| SMC | - Space & Missile Systems Center, Los Angeles AFB, CA |
| US STRATCOM | - US Strategic Command, Offutt AFB, NE |
| WACC | - Washington Area Contracting Center, Washington DC |
| WR | - Western Range, Vandenberg AFB, CA |
| WR-ALC | - Warner-Robins Air Logistics Center, Robins AFB, GA |
| AFSPC | - Air Force Space Command, Peterson AFB, CO |
| HQ ANG | - Headquarters, Air National Guard, Washington, DC |
| USAFE | - United States Air Force Europe, Ramstein AB, GE |
| USAFA | - United States Air Force Academy, Colorado Springs, CO |
| SSG | - Standard Systems Group, Maxwell AFB-Gunter Annex, AL |

IDENTIFICATION CODES

| | |
|----------|---|
| Code "A" | - Line items of material which have been approved for Air Force service use |
| Code "B" | - Line items of material that have not been approved for Service use |
| OBAN | - Operating Budget Account Number, 2-digit code for unit allocated funds |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles |
|--|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 13.440 | 19.506 | 6.949 | 9.680 | 16.629 | 16.906 | 27.152 | 25.773 | 24.838 | - | 144.244 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 13.440 | 19.506 | 6.949 | 9.680 | 16.629 | 16.906 | 27.152 | 25.773 | 24.838 | - | 144.244 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 13.440 | 19.506 | 6.949 | 9.680 | 16.629 | 16.906 | 27.152 | 25.773 | 24.838 | - | 144.244 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$2.003M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$3.855M appropriated for Overseas Contingency Operations.

Passenger Carrying Vehicles includes the procurement of sedans, station wagons, law enforcement sedans, ambulances and buses. These vehicles are general in nature, but they fulfill unique and distinct needs commensurate with their design.

Sedans are available in compact, mid-size, and large, and are used to support a variety of functions and missions at all levels of the Air Force. A portion of these sedans is dedicated for use by the Office of Special Investigations (OSI) and a portion is procured as chase cars used to support U-2 aircraft operations.

Station wagons are mid-sized vehicles which are primarily used to transport personnel and light cargo. They are mostly used in overseas locations and some high security areas located near missile installations. They are also used in the maintenance and flying operation areas to support aircraft sortie generation.

Law Enforcement Sedans (LE Sedans) come equipped with a heavy-duty component package for law enforcement and security missions. Security forces personnel use this type of vehicle for emergency response, traffic control, patrol duties, and base security operations.

Ambulances include both bus ambulances and modular ambulances that are used for medical evacuation operations. The bus ambulance is a 44 passenger bus converted to accommodate massive patient transport for medical emergency situations and humanitarian/disaster relief operations. The modular models are standard commercial ambulances that are available in 4x2 and 4x4 configurations. They are used for the movement of patients under field conditions, aircraft crash rescue operations, and routine transportation of patients to and from medical facilities.

Buses include a variety of commercial vehicles that support a broad range of mass transit requirements. Bus sizes range from the 16 passenger shuttle bus to the 52 passenger bus. These vehicles support Air Education and Training Command (AETC) training units, Air Force band organizations, protocol offices, and several other missions.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs: 0202834F, 0207142F, 0207597F, 0305202F, 0502834F, 0502844F, 0702831F,0804741F

| | Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|-----------------------------------|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|
| AF | Quantity | 173 | 226 | 70 | 95 | 165 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 13.045 | 19.212 | 6.657 | 9.680 | 16.337 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 11 | 5 | 2 | 0 | 2 | 1 | 1 | 2 | 1 |
| | Total Obligation Authority | 0.215 | 0.190 | 0.194 | 0.000 | 0.194 | 0.199 | 0.194 | 0.194 | 0.073 |
| AFR | Quantity | 5 | 4 | 3 | 0 | 3 | 2 | 3 | 3 | 3 |
| | Total Obligation Authority | 0.180 | 0.104 | 0.098 | 0.000 | 0.098 | 0.109 | 0.111 | 0.098 | 0.111 |
| Total: Secondary Distribution | Quantity | 189 | 235 | 75 | 95 | 170 | 3 | 4 | 5 | 4 |
| | Total Obligation Authority | 13.440 | 19.506 | 6.949 | 9.680 | 16.629 | 0.308 | 0.305 | 0.292 | 0.184 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Passenger Carrying Vehicles | | | | - / - | - / 13.440 | - / 19.506 | - / 6.949 | - / 9.680 | - / 16.629 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 13.440 | - / 19.506 | - / 6.949 | - / 9.680 | - / 16.629 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$6.949M will procure, but not be limited to, 75 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$9.680M will procure, but not be limited to, 95 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1 | | | | | | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles | | | | | | Aggregated Items Title: Passenger Carrying Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| BUS, 23 PAX SURREY (2310-01-382-3919) | A | | - | - | - | 0.083 | 3 | 0.250 | 0.109 | 8 | 0.872 | 0.109 | 3 | 0.326 | 0.109 | 4 | 0.435 | 0.109 | 7 | 0.761 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 3 | 0.250 | | 8 | 0.872 | | 3 | 0.326 | | 4 | 0.435 | | 7 | 0.761 |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | 0.009 | - | - | 0.001 | - | - | 0.012 | - | - | - | - | - | 0.012 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.009 | - | - | 0.001 | - | - | 0.012 | - | - | - | - | - | 0.012 |
| SUB COMPACT SEDAN (2310-01-434-2235) | A | | - | - | - | 0.019 | 12 | 0.225 | 0.026 | 35 | 0.910 | 0.026 | 6 | 0.156 | 0.026 | 13 | 0.341 | 0.026 | 19 | 0.497 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 12 | 0.225 | | 35 | 0.910 | | 6 | 0.156 | | 13 | 0.341 | | 19 | 0.497 |
| HYBRID SEDAN (2310-01-575-5380) | A | | - | - | - | 0.020 | 10 | 0.198 | 0.027 | 24 | 0.658 | 0.027 | 7 | 0.189 | 0.028 | 8 | 0.224 | 0.028 | 15 | 0.413 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 10 | 0.198 | | 22 | 0.604 | | 7 | 0.189 | | 8 | 0.224 | | 15 | 0.413 |
| AFR | | | - | - | - | | - | - | | 2 | 0.054 | | - | - | | - | - | | - | - |
| L.E. SEDAN, UNITED STATES (2310-01-018-6668) | A | | - | - | - | 0.036 | 61 | 2.209 | 0.038 | 31 | 1.178 | 0.037 | 11 | 0.406 | 0.037 | 14 | 0.518 | 0.037 | 25 | 0.924 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 56 | 2.029 | | 26 | 0.988 | | 9 | 0.332 | | 14 | 0.518 | | 23 | 0.850 |
| AFNG | | | - | - | - | | - | - | | 5 | 0.190 | | - | - | | - | - | | - | - |
| AFR | | | - | - | - | | 5 | 0.180 | | - | - | | 2 | 0.074 | | - | - | | 2 | 0.074 |
| HI PERFORMANCE SEDAN (2310-01-571-3859) | A | | - | - | - | - | - | - | - | - | - | 0.036 | 6 | 0.217 | - | - | - | 0.036 | 6 | 0.217 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | - | - | | - | - | | 6 | 0.217 | | - | - | | 6 | 0.217 |
| SEDAN, CMPT (2310-01-096-3343) | A | | - | - | - | 0.019 | 29 | 0.557 | 0.024 | 24 | 0.576 | 0.024 | 9 | 0.216 | 0.024 | 8 | 0.192 | 0.024 | 17 | 0.408 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 19 | 0.365 | | 24 | 0.576 | | 8 | 0.192 | | 8 | 0.192 | | 16 | 0.384 |
| AFNG | | | - | - | - | | 10 | 0.192 | | - | - | | - | - | | - | - | | - | - |
| AFR | | | - | - | - | | - | - | | - | - | | 1 | 0.024 | | - | - | | 1 | 0.024 |
| STN WGN CMPT CLII (2310-01-055-4948) | A | | - | - | - | 0.023 | 3 | 0.069 | 0.025 | 7 | 0.176 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|-------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1 | | | | | | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles | | | | | | Aggregated Items Title: Passenger Carrying Vehicles | | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.046 | | 5 | 0.126 | | - | - | | - | - | | - | - | |
| AFNG | | | | - | - | | 1 | 0.023 | | - | - | | - | - | | - | - | | - | - | |
| AFR | | | | - | - | | - | - | | 2 | 0.050 | | - | - | | - | - | | - | - | |
| AMB, 44 PAX CONV US (2310-00-289-9082) | A | | | - | - | | 0.132 | 5 | 0.661 | 0.139 | 9 | 1.251 | 0.139 | 2 | 0.278 | 0.139 | 3 | 0.417 | 0.139 | 5 | 0.695 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 0.661 | | 9 | 1.251 | | 2 | 0.278 | | 3 | 0.417 | | 5 | 0.695 | |
| AMB, MOD 4X4 US (2310-01-125-9516) | A | | | - | - | | 0.173 | 8 | 1.386 | 0.194 | 19 | 3.686 | 0.195 | 7 | 1.365 | 0.195 | 4 | 0.780 | 0.195 | 11 | 2.145 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 8 | 1.386 | | 19 | 3.686 | | 7 | 1.365 | | 4 | 0.780 | | 11 | 2.145 | |
| BUS, 16 PAX US (2310-01-186-2924) | A | | | - | - | | 0.075 | 2 | 0.149 | 0.073 | 17 | 1.245 | 0.073 | 5 | 0.363 | - | - | - | 0.073 | 5 | 0.363 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.149 | | 17 | 1.245 | | 4 | 0.290 | | - | - | | 4 | 0.290 | |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.073 | | - | - | | 1 | 0.073 | |
| BUS, 28 PAX US (2310-01-357-8985) | A | | | - | - | | 0.105 | 29 | 3.043 | 0.136 | 28 | 3.808 | 0.136 | 8 | 1.088 | 0.136 | 16 | 2.176 | 0.136 | 24 | 3.264 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 29 | 3.043 | | 28 | 3.808 | | 8 | 1.088 | | 16 | 2.176 | | 24 | 3.264 | |
| BUS, 41 PAX US (2310-00-877-5647) | A | | | - | - | | 0.508 | 3 | 1.523 | 0.505 | 3 | 1.515 | 0.506 | 1 | 0.506 | 0.506 | 2 | 1.012 | 0.506 | 3 | 1.518 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 1.523 | | 3 | 1.515 | | 1 | 0.506 | | 2 | 1.012 | | 3 | 1.518 | |
| BUS, 44 PAX US (2310-01-357-8986) | A | | | - | - | | 0.120 | 22 | 2.631 | 0.121 | 30 | 3.630 | 0.121 | 6 | 0.727 | 0.121 | 17 | 2.057 | 0.121 | 23 | 2.784 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 22 | 2.631 | | 30 | 3.630 | | 5 | 0.606 | | 17 | 2.057 | | 22 | 2.663 | |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.121 | | - | - | | 1 | 0.121 | |
| ARMORED SEDAN (2310-01-135-0997) | A | | | - | - | | 0.265 | 2 | 0.530 | - | - | | 0.275 | 4 | 1.100 | 0.275 | 5 | 1.375 | 0.275 | 9 | 2.475 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.530 | | - | - | | 4 | 1.100 | | 5 | 1.375 | | 9 | 2.475 | |
| AMBULANCE MODULAR 4X2 (2310-01-129-4702) | A | | | - | - | | - | - | | - | - | | - | - | | 0.153 | 1 | 0.153 | 0.153 | 1 | 0.153 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | 1 | 0.153 | | 1 | 0.153 | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1 | P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles | Aggregated Items Title: Passenger Carrying Vehicles |
|---|--|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Uncategorized</i> | | | - | - | - | - | - | 13.440 | - | - | 19.506 | - | - | 6.949 | - | - | 9.680 | - | - | 16.629 |
| Total | | | - | - | - | - | - | 13.440 | - | - | 19.506 | - | - | 6.949 | - | - | 9.680 | - | - | 16.629 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

 UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

 PMA OTHER GOVERNMENT COSTS: Travel funds required

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 25.878 | 54.607 | 36.002 | 9.680 | 45.682 | 34.646 | 45.906 | 44.763 | 44.292 | - | 295.774 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 25.878 | 54.607 | 36.002 | 9.680 | 45.682 | 34.646 | 45.906 | 44.763 | 44.292 | - | 295.774 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 25.878 | 54.607 | 36.002 | 9.680 | 45.682 | 34.646 | 45.906 | 44.763 | 44.292 | - | 295.774 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$9.066M appropriated for MRAP C4ISR installation.

The Family of Medium Tactical Vehicles (FMTV) has the capability to operate in austere and adverse terrain. These important tactical assets are used by Combat Communication Units, Air Support Operation Squadrons (ASOS), Explosive Ordnance Disposal units (EOD), and other tactical direct mission support units throughout the Air Force. FMTVs are a class of M-Series Vehicles.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for the exhibit contained in PEs 0202834F, 0502834F, 0502844F, 0702831F, 0802834F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|-----------------------------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|
| AF | Quantity | 143 | 308 | 205 | 57 | 262 | 12 | 10 | 8 | 8 |
| | Total Obligation Authority | 25.251 | 51.881 | 33.236 | 9.680 | 42.916 | 34.342 | 45.819 | 44.724 | 43.449 |
| AFNG | Quantity | 6 | 8 | 11 | 0 | 11 | 3 | 2 | 0 | 8 |
| | Total Obligation Authority | 0.429 | 1.700 | 1.725 | 0.000 | 1.725 | 0.265 | 0.087 | 0.000 | 0.643 |
| AFR | Quantity | 5 | 8 | 6 | 0 | 6 | 3 | 0 | 3 | 3 |
| | Total Obligation Authority | 0.198 | 1.026 | 1.041 | 0.000 | 1.041 | 0.039 | 0.000 | 0.039 | 0.200 |
| Total: Secondary Distribution | Quantity | 154 | 324 | 222 | 57 | 279 | 18 | 12 | 11 | 19 |
| | Total Obligation Authority | 25.878 | 54.607 | 36.002 | 9.680 | 45.682 | 34.646 | 45.906 | 44.763 | 44.292 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Medium Tactical Vehicle | | | | - / - | - / 25.878 | - / 54.607 | - / 36.002 | - / 9.680 | - / 45.682 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 25.878 | - / 54.607 | - / 36.002 | - / 9.680 | - / 45.682 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 procurement dollars in the amount of \$36.260M will procure, but not be limited to, 230 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | | |
|--|-------|----------------|------------------|------------|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 | | | | | P-1 Line Item Number / Title: 822230 / Medium Tactical Vehicle | | | | | | | | | | Aggregated Items Title: Medium Tactical Vehicle | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| TRK, CGO, MTV, M1083A1P2, W/ OUT WINCH (2320-01-549-8610) (1) | A | | - | - | - | 0.248 | 11 | 2.724 | 0.275 | 23 | 6.325 | 0.283 | 40 | 11.332 | 0.283 | 14 | 3.961 | 0.283 | 54 | 15.293 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 11 | 2.724 | | 21 | 5.775 | | 36 | 10.199 | | 14 | 3.961 | | 50 | 14.160 |
| AFNG | | | - | - | - | | - | - | | 2 | 0.550 | | 3 | 0.850 | | - | - | | 3 | 0.850 |
| AFR | | | - | - | - | | - | - | | - | - | | 1 | 0.283 | | - | - | | 1 | 0.283 |
| PMA OTHER GOVERNMENT COST | A | | - | - | - | 0.006 | 1 | 0.006 | 0.002 | 1 | 0.002 | 0.040 | 1 | 0.040 | - | - | - | 0.040 | 1 | 0.040 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 1 | 0.006 | | 1 | 0.002 | | 1 | 0.040 | | - | - | | 1 | 0.040 |
| MRAP C4ISR FUNDS | A | | - | - | - | 9.066 | 1 | 9.066 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 1 | 9.066 | | - | - | | - | - | | - | - | | - | - |
| TRK, CGO, LMTV, M1078A1P2, W/ OUT WINCH (2320-01-549-8577) (2) | A | | - | - | - | 0.199 | 19 | 3.778 | 0.175 | 107 | 18.725 | 0.180 | 69 | 12.449 | 0.180 | 5 | 0.902 | 0.180 | 74 | 13.351 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 19 | 3.778 | | 105 | 18.375 | | 65 | 11.729 | | 5 | 0.902 | | 70 | 12.631 |
| AFNG | | | - | - | - | | - | - | | 2 | 0.350 | | 4 | 0.720 | | - | - | | 4 | 0.720 |
| TRUCK, DUMP (2320-01-552-7787) (3) | A | | - | - | - | 0.398 | 6 | 2.386 | 0.451 | 16 | 7.216 | 0.463 | 2 | 0.925 | 0.462 | 2 | 0.924 | 0.462 | 4 | 1.849 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 6 | 2.386 | | 16 | 7.216 | | 2 | 0.925 | | 2 | 0.924 | | 4 | 1.849 |
| TRUCK, TRACTOR, M1070 (2320-01-318-9902) | A | | - | - | - | - | - | - | 0.397 | 1 | 0.397 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | - | - | | 1 | 0.397 | | - | - | | - | - | | - | - |
| TRK, WRECKER, M1089A1P2 W/WINCH (2320-01-595-3994) | A | | - | - | - | 0.548 | 3 | 1.644 | - | - | - | 0.542 | 8 | 4.339 | 0.542 | 5 | 2.711 | 0.542 | 13 | 7.050 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 3 | 1.644 | | - | - | | 7 | 3.797 | | 5 | 2.711 | | 12 | 6.508 |
| AFR | | | - | - | - | | - | - | | - | - | | 1 | 0.542 | | - | - | | 1 | 0.542 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 | | | | | | P-1 Line Item Number / Title: 822230 / Medium Tactical Vehicle | | | | | | Aggregated Items Title: Medium Tactical Vehicle | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| TRK DUMP 10T (2320013544528) | A | | - | - | - | - | - | - | 0.681 | 8 | 5.448 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 7 | 4.767 | | - | - | | - | - | | - | - |
| AFNG | | | - | - | - | - | - | - | | 1 | 0.681 | | - | - | | - | - | | - | - |
| TRK, WRECKER, M1089A1P2 W/WINCH (2320-01-552-7762) | A | | - | - | - | - | - | - | 0.450 | 15 | 6.750 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 15 | 6.750 | | - | - | | - | - | | - | - |
| TRK, CGO, MTV, M1078A1P2, W/ OUT WINCH (2320-01-549-8611) | A | | - | - | - | - | - | - | 0.175 | 17 | 2.975 | 0.175 | 2 | 0.350 | - | - | - | 0.175 | 2 | 0.350 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 12 | 2.100 | | 2 | 0.350 | | - | - | | 2 | 0.350 |
| AFR | | | - | - | - | - | - | - | | 5 | 0.875 | | - | - | | - | - | | - | - |
| TLR TK WTR, M149A1 (2330-00-060-6511) | A | | - | - | - | 0.040 | 64 | 2.529 | 0.040 | 45 | 1.800 | 0.041 | 45 | 1.850 | 0.041 | 28 | 1.154 | 0.041 | 73 | 3.004 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 59 | 2.331 | | 45 | 1.800 | | 43 | 1.768 | | 28 | 1.154 | | 71 | 2.922 |
| AFNG | | | - | - | - | | - | - | | - | - | | 1 | 0.041 | | - | - | | 1 | 0.041 |
| AFR | | | - | - | - | | 5 | 0.198 | | - | - | | 1 | 0.041 | | - | - | | 1 | 0.041 |
| TLR, ISO CONTAINER M872 (2330-01-142-1385) | A | | - | - | - | 0.048 | 3 | 0.144 | 0.071 | 20 | 1.420 | 0.070 | 5 | 0.350 | - | - | - | 0.070 | 5 | 0.350 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 3 | 0.144 | | 18 | 1.278 | | 4 | 0.280 | | - | - | | 4 | 0.280 |
| AFR | | | - | - | - | | - | - | | 2 | 0.142 | | 1 | 0.070 | | - | - | | 1 | 0.070 |
| TLR, 5T CGO, M1061A1 (2330-01-452-3157) (4) | A | | - | - | - | 0.010 | 2 | 0.020 | 0.013 | 4 | 0.050 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 2 | 0.020 | | 2 | 0.025 | | - | - | | - | - | | - | - |
| AFNG | | | - | - | - | | - | - | | 2 | 0.025 | | - | - | | - | - | | - | - |
| TLR, 2.5T CHS, M200 (2330-00-540-3950) | A | | - | - | - | 0.008 | 2 | 0.015 | 0.009 | 17 | 0.150 | 0.009 | 5 | 0.045 | 0.009 | 3 | 0.028 | 0.009 | 8 | 0.073 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 2 | 0.015 | | 16 | 0.141 | | 2 | 0.018 | | 3 | 0.028 | | 5 | 0.046 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle **Aggregated Items Title:** Medium Tactical Vehicle

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|-------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | |
| AFNG | | | | - | - | | - | - | | - | - | | 2 | 0.018 | | - | - | | 2 | 0.018 | |
| AFR | | | | - | - | | - | - | | 1 | 0.009 | | 1 | 0.009 | | - | - | | 1 | 0.009 | |
| 7.5TON DOLLY SET (2330-01-661-5190) (5) | A | | - | - | - | 0.092 | 35 | 3.206 | 0.094 | 17 | 1.600 | 0.096 | 45 | 4.322 | | - | - | | 0.096 | 45 | 4.322 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 32 | 2.931 | | 16 | 1.506 | | 43 | 4.130 | | - | - | | 43 | 4.130 | |
| AFNG | | | | - | - | | 3 | 0.275 | | 1 | 0.094 | | 1 | 0.096 | | - | - | | 1 | 0.096 | |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.096 | | - | - | | 1 | 0.096 | |
| M871, TRLR ISO CONTAINER (2330-01-226-0701) | A | | - | - | - | 0.051 | 7 | 0.360 | 0.053 | 33 | 1.749 | | - | - | | - | - | | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 0.206 | | 33 | 1.749 | | - | - | | - | - | | - | - | |
| AFNG | | | | - | - | | 3 | 0.154 | | - | - | | - | - | | - | - | | - | - | |
| Subtotal: Uncategorized | | | - | - | - | - | - | 25.878 | - | - | 54.607 | - | - | 36.002 | - | - | 9.680 | - | - | 45.682 | |
| Total | | | - | - | - | - | - | 25.878 | - | - | 54.607 | - | - | 36.002 | - | - | 9.680 | - | - | 45.682 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

Unit costs and quantities for FY19 are subject to change.

PMA OTHER GOVERNMENT COSTS: Travel funds required

Footnotes:

- (1) REPLACEMENT NSN PER TACOM FOR 2320-01-354-3386 (5TON CARGO TRK)
- (2) REPLACEMENT NSN PER TACOM FOR 2320-01-354-3385 (5TON CGO TRK)
- (3) REPLACEMENT NSN PER TACOM FOR 2320-01-354-4529 (10TON DUMP TRK)
- (4) REPLACEMENT NSN PER TACOM FOR 2330-00-210-8935 (M843 FLATBED TRL, 5TON)
- (5) REPLACEMENT NSN PER TACOM FOR 2330-01-378-9997 (DOLLYSET)

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles | P-1 Line Item Number / Title: 822910 / Cap Vehicles |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|--------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 1.684 | 1.011 | 1.022 | 0.000 | 1.022 | 1.040 | 1.060 | 1.079 | 1.098 | - | 7.994 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 1.684 | 1.011 | 1.022 | 0.000 | 1.022 | 1.040 | 1.060 | 1.079 | 1.098 | - | 7.994 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 1.684 | 1.011 | 1.022 | 0.000 | 1.022 | 1.040 | 1.060 | 1.079 | 1.098 | - | 7.994 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Civil Air Patrol (CAP) is a Congressionally chartered non-profit corporation that serves as the Auxiliary of the Air Force. CAP uses federally provided resources to provide assistance requested by the DoD, federal, state or local government authorities and non-governmental organizations (NGOs) to perform emergency or non-emergency public purpose missions and activities.

Pursuant to US Code (Title 10 & 36) the purpose of CAP Corporation is to encourage and aid citizens of the US in contributing their efforts, services, and resources in developing aviation and in maintaining air supremacy; and to encourage and develop, by example, the voluntary contribution of private citizens to the public welfare.

Vehicle procurements enable the Civil Air Patrol (CAP) to provide rapid deployment of emergency essential ground teams who are capable of providing critical communications and humanitarian support during national emergencies and disasters.

CAP's procurement processes/standards are described in Department of Defense Grant & Agreement Regulations.

Program element associated with this P-1 Line is: 0901223F

Justification:

FY19 funding procures, but is not limited to, 31 vehicles in support of CAP Emergency Services, Cadet and Aerospace Education programs that encourage and develop the voluntary contribution of private citizens to the public welfare.

Vehicle type and quantities may change in execution year due to market availability, cost changes, mission requirements, additional funding, and needs of the organization. CAP generally receives a mark-up in execution year funds from Congress.

CAP provides transportation for ground teams who support 90% of the Air Force's search and rescue (SAR) missions in accordance with the National SAR Plan and disaster relief activities. Vehicles also provide transportation for over 24,000 CAP cadets to support execution of the Aerospace Education and Cadet Program missions as directed by 36 U.S.C Section 403, 10 U.S.C. Section 9442.

AF central procurement processes are not applicable.

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| | | |
|---|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles | | P-1 Line Item Number / Title: 822910 / Cap Vehicles |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles

P-1 Line Item Number / Title:
822990 / Cargo and Utility Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 19.035 | 30.552 | 42.696 | 19.680 | 62.376 | 21.365 | 31.353 | 31.232 | 29.324 | - | 225.237 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 19.035 | 30.552 | 42.696 | 19.680 | 62.376 | 21.365 | 31.353 | 31.232 | 29.324 | - | 225.237 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 19.035 | 30.552 | 42.696 | 19.680 | 62.376 | 21.365 | 31.353 | 31.232 | 29.324 | - | 225.237 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$12.264M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$1.882M appropriated for Overseas Contingency Operations.

This vehicle group consists of pickup trucks, trailers, semi-trailers, trucks, vans, utility trucks, maintenance and facility vehicles essential to base and flying operations. Assets are critical to the Air Force mission and are essential to flight line operations (aircraft maintenance), depot maintenance, component routing to depot back shops and airfield maintenance, and Air Base Civil Engineers performing base housing maintenance and repairs. These items are critical across the spectrum of functional users throughout the Air Force and provide multi-purpose capabilities. These vehicles also support mission needs for light to heavy cargo transport, as well as transportation for air/flight crew personnel. Cargo utility vehicles also provide heavy cargo movement for civil engineering and construction projects. Without the procurement of these replacement vehicles, the Air Force will not have the ability to support broad spectrum Air Force operations.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs: 0202834F,0207597F, 0208028F, 0305114F, 0401221F, 0502834F, 0502844F, 0702831F, 1203915F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
|------------------------|----------------------------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------|
| AF | Quantity | 319 | 585 | 975 | 552 | 1,527 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 15.294 | 21.806 | 39.909 | 19.672 | 59.581 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 15 | 172 | 8 | 0 | 8 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.702 | 6.157 | 0.247 | 0.000 | 0.247 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 85 | 39 | 76 | 0 | 76 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 3.039 | 2.576 | 2.548 | 0.000 | 2.548 | 0.000 | 0.000 | 0.000 | 0.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|----------------------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Total: | Quantity | 419 | 796 | 1,059 | 552 | 1,611 | 0 | 0 | 0 | 0 |
| Secondary Distribution | Total Obligation Authority | 19.035 | 30.540 | 42.704 | 19.672 | 62.376 | 0.000 | 0.000 | 0.000 | 0.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Cargo and Utility Vehicles | | | | - / - | - / 19.037 | - / 30.553 | - / 42.697 | - / 19.679 | - / 62.376 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 19.035 | - / 30.552 | - / 42.696 | - / 19.680 | - / 62.376 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$8.685M will procure, but is not limited, to 234 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$10.000M will procure, but is not limited to, 302 vehicles in support of Overseas Contingency Operations.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|-------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | |
| Uncategorized | | | | | | | | | | | | | | | | | | | | | |
| PMA | A | | - | - | - | - | - | - | - | - | 0.012 | - | - | - | - | - | 0.008 | - | - | 0.008 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | 0.012 | - | - | - | - | - | 0.008 | - | - | 0.008 | |
| Subtotal: Uncategorized | | | - | - | - | - | - | - | - | - | 0.012 | - | - | - | - | - | 0.008 | - | - | 0.008 | |
| Uncategorized (1) | | | | | | | | | | | | | | | | | | | | | |
| TRK 1/2 Crew Cab 4x4 PU (2320-01-484-6745) | A | | - | - | - | 0.029 | 1 | 0.029 | 0.028 | 69 | 1.932 | 0.028 | 47 | 1.316 | - | - | - | 0.028 | 47 | 1.316 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 1 | 0.029 | - | 46 | 1.288 | - | 46 | 1.288 | - | - | - | - | - | 46 | 1.288 |
| AFNG | | | - | - | - | - | - | - | - | 23 | 0.644 | - | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | - | - | - | - | - | - | 1 | 0.028 | - | - | - | - | - | 1 | 0.028 |
| TRK PU 4DR 4X4 F450 (2320-01-501-6635) | A | | - | - | - | 0.030 | 2 | 0.059 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 2 | 0.059 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ARMORED 4X4 SUV (2320-01-537-7753) | A | | - | - | - | 0.120 | 10 | 1.200 | - | - | - | 0.187 | 11 | 2.052 | 0.187 | 1 | 0.187 | 0.187 | 0.187 | 12 | 2.239 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 10 | 1.200 | - | - | - | - | 11 | 2.052 | - | 1 | 0.187 | - | - | 12 | 2.239 |
| CUTAWAY CARGO VAN (2320-01-434-3217) | A | | - | - | - | 0.033 | 1 | 0.033 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 1 | 0.033 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4X2 CGO VAN FULL SIZE (2320-01-542-2289) | A | | - | - | - | 0.026 | 1 | 0.026 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 1 | 0.026 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TRK CGO 4X4 (2320-00-801-7593) | A | | - | - | - | 0.089 | 3 | 0.266 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 2 | 0.177 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | 1 | 0.089 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TRK UTILITY 4X4 4DOOR (2320-01-338-6502) | A | | - | - | - | 0.030 | 3 | 0.089 | - | - | - | 0.029 | 16 | 0.471 | - | - | - | 0.029 | 16 | 0.471 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | 1 | 0.030 | | - | - | | 16 | 0.471 | | - | - | | 16 | 0.471 |
| AFR | | | | - | - | | 2 | 0.059 | | - | - | | - | - | | - | - | | - | - |
| TRK CGO CMPT 4X4 3500G (2320-01-087-8223) | A | | - | - | - | 0.022 | 4 | 0.088 | - | - | - | 0.029 | 18 | 0.517 | - | - | - | 0.029 | 18 | 0.517 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 0.088 | | - | - | | 18 | 0.517 | | - | - | | 18 | 0.517 |
| PMA | A | | - | - | - | - | - | 0.003 | - | - | 0.006 | - | - | 0.006 | - | - | - | - | - | 0.006 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.003 | | - | 0.006 | | - | 0.006 | | - | - | | - | 0.006 |
| TRK TRAC 55 GVW 6X4 RH (2320-01-058-5724) | A | | - | - | - | 0.147 | 7 | 1.027 | 0.139 | 14 | 1.940 | 0.143 | 4 | 0.570 | 0.143 | 9 | 1.283 | 0.143 | 13 | 1.853 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 7 | 1.027 | | 7 | 0.970 | | 4 | 0.570 | | 9 | 1.283 | | 13 | 1.853 |
| AFNG | | | | - | - | | - | - | | 7 | 0.970 | | - | - | | - | - | | - | - |
| TRAILER, DROPDECK, 25T (2330-01-657-3335) | A | | - | - | - | - | - | - | - | - | - | 0.033 | 7 | 0.229 | 0.033 | 1 | 0.033 | 0.033 | 8 | 0.262 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 7 | 0.229 | | 1 | 0.033 | | 8 | 0.262 |
| 1T S&P 4X2 (2320-00-851-8481) | A | | - | - | - | 0.030 | 8 | 0.240 | - | - | - | 0.027 | 51 | 1.384 | 0.027 | 3 | 0.081 | 0.027 | 54 | 1.465 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 0.150 | | - | - | | 48 | 1.303 | | 3 | 0.081 | | 51 | 1.384 |
| AFR | | | | - | - | | 3 | 0.090 | | - | - | | 3 | 0.081 | | - | - | | 3 | 0.081 |
| 4X4 CREWCAB UTILITY TRK (2320-01-395-1368) (1) | A | | - | - | - | 0.070 | 6 | 0.420 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFNG | | | | - | - | | 6 | 0.420 | | - | - | | - | - | | - | - | | - | - |
| TRAILER TILT DECK 6TON (2330-01-657-2183) | A | | - | - | - | 0.019 | 2 | 0.038 | - | - | - | 0.016 | 8 | 0.127 | - | - | - | 0.016 | 8 | 0.127 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.038 | | - | - | | 8 | 0.127 | | - | - | | 8 | 0.127 |
| TRAILER VAN CARGO 12TON (2330-01-657-3336) | A | | - | - | - | 0.036 | 1 | 0.036 | - | - | - | 0.039 | 32 | 1.235 | - | - | - | 0.039 | 32 | 1.235 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|-------|-------|-------|-------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 | | | | | | P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles | | | | | | Aggregated Items Title: Cargo and Utility Vehicles | | | | | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | | | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | | | | |
| AF | | | | - | - | | - | - | | - | - | | 31 | 1.196 | | - | - | | 31 | 1.196 | | | | |
| AFNG | | | | - | - | | 1 | 0.036 | | - | - | | - | - | | - | - | | - | - | | | | |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.039 | | - | - | | 1 | 0.039 | | | | |
| TRAILER 20T 40FT W/COVER KIT (2330-01-094-0007) | A | | | - | - | | 0.078 | 5 | 0.390 | | - | - | | 0.053 | 11 | 0.580 | | - | - | 0.053 | 11 | 0.580 | | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 5 | 0.390 | | - | - | | 11 | 0.580 | | - | - | | 11 | 0.580 | | | |
| TRAILER LOWBED 35TON (2330-01-051-6648) | A | | | - | - | | 0.062 | 3 | 0.186 | | - | - | | 0.048 | 20 | 0.961 | | - | - | 0.048 | 20 | 0.961 | | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 1 | 0.062 | | - | - | | 19 | 0.913 | | - | - | | 19 | 0.913 | | | |
| AFR | | | | - | - | | | 2 | 0.124 | | - | - | | 1 | 0.048 | | - | - | | 1 | 0.048 | | | |
| TRAILER LOW-BED 20TON 25FT (2330-01-657-1333) | A | | | - | - | | 0.039 | 1 | 0.039 | | 0.041 | 20 | 0.820 | | - | - | | - | - | | - | - | | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 1 | 0.039 | | 9 | 0.369 | | - | - | | - | - | | - | - | | | |
| AFNG | | | | - | - | | | - | - | | 7 | 0.287 | | - | - | | - | - | | - | - | | | |
| AFR | | | | - | - | | | - | - | | 4 | 0.164 | | - | - | | - | - | | - | - | | | |
| TRK CGO 4DR 4X4 TLR TWG (2320-01-424-2760) | A | | | - | - | | 0.031 | 11 | 0.346 | | - | - | | 0.030 | 33 | 0.976 | | 0.030 | 2 | 0.059 | 0.030 | 35 | 1.035 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 11 | 0.346 | | - | - | | 32 | 0.946 | | | 2 | 0.059 | | 34 | 1.005 | | |
| AFR | | | | - | - | | | - | - | | - | - | | 1 | 0.030 | | - | - | | - | - | 1 | 0.030 | |
| TRAILER, 38 FT. SEMI (2330-01-381-9477) | A | | | - | - | | 0.044 | 19 | 0.836 | | 0.045 | 21 | 0.945 | | 0.045 | 63 | 2.835 | | 0.045 | 29 | 1.305 | 0.045 | 92 | 4.140 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 16 | 0.704 | | 18 | 0.810 | | 62 | 2.790 | | | 29 | 1.305 | | 91 | 4.095 | | |
| AFNG | | | | - | - | | | - | - | | 3 | 0.135 | | - | - | | - | - | | - | - | - | - | |
| AFR | | | | - | - | | | 3 | 0.132 | | - | - | | 1 | 0.045 | | - | - | | - | - | 1 | 0.045 | |
| STLR VAN 30FT 12 TON (2330-01-627-5975) | A | | | - | - | | 0.000 | - | - | | - | - | | - | - | | - | - | | - | - | - | - | |
| TRAILER, FLAT BED, 45 FT. AIR RIDE (2330-01-061-8609) (2) | A | | | - | - | | 0.041 | 8 | 0.328 | | 0.042 | 8 | 0.336 | | 0.033 | 5 | 0.166 | | - | - | 0.033 | 5 | 0.166 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |

UNCLASSIFIED

| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 | | | | | | P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles | | | | | | Aggregated Items Title: Cargo and Utility Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | 8 | 0.328 | | 8 | 0.336 | | 5 | 0.166 | | - | - | | 5 | 0.166 |
| TRAILER, 50 TON LOWBED (2330-01-058-5911) | A | | - | - | - | 0.068 | 1 | 0.068 | - | - | - | 0.056 | 11 | 0.612 | - | - | - | 0.056 | 11 | 0.612 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.068 | | - | - | | 11 | 0.612 | | - | - | | 11 | 0.612 |
| TRAILER, LOWBED, TILT DECK, 22 TON (2330-01-657-3337) | A | | - | - | - | 0.041 | 3 | 0.122 | - | - | - | 0.037 | 22 | 0.809 | 0.037 | 1 | 0.037 | 0.037 | 23 | 0.846 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.122 | | - | - | | 22 | 0.809 | | 1 | 0.037 | | 23 | 0.846 |
| TRUCK, PICKUP, CREW CAB, 1/2T, 4X4 (2320-01-484-6748) | A | | - | - | - | 0.026 | 11 | 0.285 | - | - | - | 0.026 | 24 | 0.617 | 0.026 | 8 | 0.206 | 0.026 | 32 | 0.823 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.052 | | - | - | | 21 | 0.540 | | 8 | 0.206 | | 29 | 0.746 |
| AFNG | | | | - | - | | 1 | 0.026 | | - | - | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 8 | 0.207 | | - | - | | 3 | 0.077 | | - | - | | 3 | 0.077 |
| TRUCK, PICKUP CREW CAB 4X4, 3/4T CU (2320-00-580-2955) (3) | A | | - | - | - | 0.034 | 29 | 0.986 | 0.036 | 50 | 1.813 | 0.035 | 43 | 1.510 | 0.035 | 90 | 3.161 | 0.035 | 133 | 4.671 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 16 | 0.544 | | 42 | 1.523 | | 32 | 1.124 | | 90 | 3.161 | | 122 | 4.285 |
| AFNG | | | | - | - | | 2 | 0.068 | | 7 | 0.254 | | 2 | 0.070 | | - | - | | 2 | 0.070 |
| AFR | | | | - | - | | 11 | 0.374 | | 1 | 0.036 | | 9 | 0.316 | | - | - | | 9 | 0.316 |
| TRUCK, PICKUP CREW CAB 4X2, 3/4T CU (2320-00-580-2954) (4) | A | | - | - | - | 0.031 | 39 | 1.209 | 0.032 | 48 | 1.536 | 0.032 | 47 | 1.504 | 0.032 | 28 | 0.896 | 0.032 | 75 | 2.400 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 36 | 1.116 | | 41 | 1.312 | | 42 | 1.344 | | 28 | 0.896 | | 70 | 2.240 |
| AFNG | | | | - | - | | 1 | 0.031 | | 7 | 0.224 | | 2 | 0.064 | | - | - | | 2 | 0.064 |
| AFR | | | | - | - | | 2 | 0.062 | | - | - | | 3 | 0.096 | | - | - | | 3 | 0.096 |
| TRUCK, STAKE AND PLATFORM 4X2 10000GVW (2320-01-250-7367) | A | | - | - | - | 0.032 | 7 | 0.225 | 0.031 | 29 | 0.899 | 0.031 | 40 | 1.240 | 0.031 | 13 | 0.403 | 0.031 | 53 | 1.643 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 6 | 0.190 | | 23 | 0.713 | | 39 | 1.209 | | 13 | 0.403 | | 52 | 1.612 |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFNG | | | | - | - | | - | - | | 6 | 0.186 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 1 | 0.035 | | - | - | | 1 | 0.031 | | - | - | | 1 | 0.031 |
| TRUCK, CARRYALL 4X2 8 PAX (2320-00-879-7662) (5) | A | | - | - | - | 0.027 | 7 | 0.189 | 0.028 | 36 | 1.002 | 0.028 | 64 | 1.783 | 0.028 | 18 | 0.501 | 0.028 | 82 | 2.284 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 6 | 0.162 | | 32 | 0.891 | | 63 | 1.755 | | 18 | 0.501 | | 81 | 2.256 |
| AFNG | | | | - | - | | - | - | | 4 | 0.111 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 1 | 0.027 | | - | - | | 1 | 0.028 | | - | - | | 1 | 0.028 |
| TRUCK, CARRYALL 4X2 15 PAX (2320-01-036-6569) | A | | - | - | - | 0.028 | 9 | 0.252 | 0.029 | 20 | 0.580 | 0.029 | 70 | 2.030 | 0.029 | 48 | 1.392 | 0.029 | 118 | 3.422 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 7 | 0.196 | | 17 | 0.493 | | 67 | 1.943 | | 48 | 1.392 | | 115 | 3.335 |
| AFNG | | | | - | - | | - | - | | 3 | 0.087 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 2 | 0.056 | | - | - | | 3 | 0.087 | | - | - | | 3 | 0.087 |
| TRUCK, CARRYALL 4X2 7 PAX (2320-01-173-6113) | A | | - | - | - | 0.024 | 8 | 0.194 | 0.027 | 25 | 0.675 | 0.023 | 23 | 0.524 | 0.023 | 7 | 0.159 | 0.023 | 30 | 0.683 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 7 | 0.170 | | 22 | 0.594 | | 23 | 0.524 | | 7 | 0.159 | | 30 | 0.683 |
| AFNG | | | | - | - | | - | - | | 3 | 0.081 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 1 | 0.024 | | - | - | | - | - | | - | - | | - | - |
| TRUCK, PICKUP 4X4 1/2 T 4600 & 5799 GVW (2320-00-811-6869) | A | | - | - | - | 0.024 | 10 | 0.242 | 0.026 | 32 | 0.847 | 0.026 | 31 | 0.820 | 0.026 | 18 | 0.476 | 0.026 | 49 | 1.296 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 0.121 | | 28 | 0.741 | | 28 | 0.741 | | 18 | 0.476 | | 46 | 1.217 |
| AFNG | | | | - | - | | - | - | | 4 | 0.106 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 5 | 0.121 | | - | - | | 3 | 0.079 | | - | - | | 3 | 0.079 |
| SUV, 4X4 COMPACT 4500 GVW (2320-01-563-7478) | A | | - | - | - | 0.025 | 14 | 0.350 | 0.027 | 23 | 0.621 | 0.027 | 27 | 0.729 | | - | - | 0.027 | 27 | 0.729 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 14 | 0.350 | | 23 | 0.621 | | 27 | 0.729 | | - | - | | 27 | 0.729 |
| VAN, MAINTENANCE UTILITY DELIVERY (2320-01-176-2223) (6) | A | | - | - | - | 0.037 | 36 | 1.332 | 0.037 | 53 | 1.961 | 0.037 | 52 | 1.924 | 0.037 | 66 | 2.442 | 0.037 | 118 | 4.366 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 | | | | | | P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles | | | | | | Aggregated Items Title: Cargo and Utility Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | 16 | 0.592 | | 38 | 1.406 | | 29 | 1.073 | | 66 | 2.442 | | 95 | 3.515 |
| AFNG | | | | - | - | | 2 | 0.074 | | 15 | 0.555 | | 1 | 0.037 | | - | - | | 1 | 0.037 |
| AFR | | | | - | - | | 18 | 0.666 | | - | - | | 22 | 0.814 | | - | - | | 22 | 0.814 |
| TRUCK, TRACTOR 44.5G (2320-00-271-1432) (7) | A | | - | - | - | 0.139 | 32 | 4.444 | - | - | - | 0.142 | 30 | 4.266 | 0.142 | 8 | 1.138 | 0.142 | 38 | 5.404 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 29 | 4.027 | | - | - | | 29 | 4.124 | | 8 | 1.138 | | 37 | 5.262 |
| AFR | | | | - | - | | 3 | 0.417 | | - | - | | 1 | 0.142 | | - | - | | 1 | 0.142 |
| TRUCK, VAN PANEL 4X2 (2320-01-013-2754) | A | | - | - | - | 0.024 | 14 | 0.332 | 0.024 | 36 | 0.855 | 0.024 | 58 | 1.392 | 0.024 | 10 | 0.240 | 0.024 | 68 | 1.632 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 11 | 0.261 | | 19 | 0.451 | | 55 | 1.320 | | 10 | 0.240 | | 65 | 1.560 |
| AFNG | | | | - | - | | - | - | | 13 | 0.309 | | 1 | 0.024 | | - | - | | 1 | 0.024 |
| AFR | | | | - | - | | 3 | 0.071 | | 4 | 0.095 | | 2 | 0.048 | | - | - | | 2 | 0.048 |
| TRUCK, TRACTOR 39.5G (2320-01-341-7627) | A | | - | - | - | - | - | - | 0.118 | 23 | 2.714 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 20 | 2.360 | | - | - | | - | - | | - | - |
| AFNG | | | | - | - | | - | - | | 3 | 0.354 | | - | - | | - | - | | - | - |
| TRUCK, 1/2 T REG CAB 4X2 (2320-00-540-1428) | A | | - | - | - | 0.024 | 43 | 1.032 | 0.024 | 75 | 1.800 | 0.024 | 24 | 0.576 | 0.024 | 12 | 0.288 | 0.024 | 36 | 0.864 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 31 | 0.744 | | 45 | 1.080 | | 18 | 0.432 | | 12 | 0.288 | | 30 | 0.720 |
| AFNG | | | | - | - | | 2 | 0.048 | | 24 | 0.576 | | 1 | 0.024 | | - | - | | 1 | 0.024 |
| AFR | | | | - | - | | 10 | 0.240 | | 6 | 0.144 | | 5 | 0.120 | | - | - | | 5 | 0.120 |
| 1/4 TON 4X4 EXT CAB P/U (2320-01-500-9498) | A | | - | - | - | - | - | - | 0.032 | 12 | 0.384 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 12 | 0.384 | | - | - | | - | - | | - | - |
| TRUCK, COMPACT CREW CAB 4X4 (2320-01-500-5203) (8) | A | | - | - | - | 0.030 | 16 | 0.480 | 0.031 | 46 | 1.426 | 0.031 | 24 | 0.744 | 0.031 | 84 | 2.604 | 0.031 | 108 | 3.348 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 15 | 0.450 | | 33 | 1.023 | | 22 | 0.682 | | 84 | 2.604 | | 106 | 3.286 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFNG | | | | - | - | | - | - | | 7 | 0.217 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 1 | 0.030 | | 6 | 0.186 | | 2 | 0.062 | | - | - | | 2 | 0.062 |
| TRUCK, PICKUP CREW CAB 4X2 (2320-01-504-1443) | A | | - | - | - | 0.029 | 16 | 0.464 | 0.029 | 25 | 0.725 | 0.029 | 33 | 0.957 | 0.029 | 92 | 2.668 | 0.029 | 125 | 3.625 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 16 | 0.464 | | 25 | 0.725 | | 33 | 0.957 | | 92 | 2.668 | | 125 | 3.625 |
| TRUCK, 1/4 TON 4X2 EXT CAB (2320-01-496-0404) | A | | - | - | - | 0.027 | 20 | 0.540 | 0.028 | 84 | 2.352 | 0.028 | 61 | 1.708 | 0.028 | 4 | 0.112 | 0.028 | 65 | 1.820 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 12 | 0.324 | | 52 | 1.456 | | 48 | 1.344 | | 4 | 0.112 | | 52 | 1.456 |
| AFNG | | | | - | - | | - | - | | 27 | 0.756 | | 1 | 0.028 | | - | - | | 1 | 0.028 |
| AFR | | | | - | - | | 8 | 0.216 | | 5 | 0.140 | | 12 | 0.336 | | - | - | | 12 | 0.336 |
| TRUCK, 4X2 UTILITY 9 PAX (2320-01-441-6916) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12 TON STAKE PLATFORM TRAILER (2330-01-331-8867) | A | | - | - | - | - | - | - | 0.043 | 14 | 0.602 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 9 | 0.387 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | - | - | | 5 | 0.215 | | - | - | | - | - | | - | - |
| 12 TON STAKE PLATFORM TRAILER (2330-01-657-3331) | A | | - | - | - | - | - | - | - | - | - | 0.041 | 9 | 0.369 | - | - | - | 0.041 | 9 | 0.369 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 8 | 0.328 | | - | - | | 8 | 0.328 |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.041 | | - | - | | 1 | 0.041 |
| STLR VAN 30FT 12T (2330-00-865-5443) | A | | - | - | - | - | - | - | 0.034 | 25 | 0.850 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 12 | 0.408 | | - | - | | - | - | | - | - |
| AFNG | | | | - | - | | - | - | | 9 | 0.306 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | - | - | | 4 | 0.136 | | - | - | | - | - | | - | - |
| TRK TRACTOR (2320-01-482-9775) | A | | - | - | - | - | - | - | 0.365 | 8 | 2.920 | 0.365 | 8 | 2.920 | - | - | - | 0.365 | 8 | 2.920 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 4 | 1.460 | | 8 | 2.920 | | - | - | | 8 | 2.920 |
| AFR | | | | - | - | | - | - | | 4 | 1.460 | | - | - | | - | - | | - | - |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| TRAILER, DETACHABLE GOOSENECK 60TON (2330-00-349-2572) | EA | | - | - | - | 0.077 | 8 | 0.612 | - | - | - | 0.070 | 32 | 2.238 | - | - | - | 0.070 | 32 | 2.238 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 8 | 0.612 | | - | - | | 32 | 2.238 | | - | - | | 32 | 2.238 |
| Subtotal: Uncategorized (1) | | | - | - | - | - | - | 19.037 | - | - | 30.541 | - | - | 42.697 | - | - | 19.671 | - | - | 62.368 |
| Total | | | - | - | - | - | - | 19.037 | - | - | 30.553 | - | - | 42.697 | - | - | 19.679 | - | - | 62.376 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.
 UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.
 PMA OTHER GOVERNMENT COSTS: Travel funds required

Footnotes:
 (1) FY17 - 1 EA OCO FUNDS \$0.420M
 (2) FY17 - 1 EA OCO FUNDS \$0.041M
 (3) FY17 - 56 EA OCO FUNDS \$1.904M
 (4) FY17 - 25 EA OCO FUNDS \$0.775M
 (5) FY17 - 25 EA OCO FUNDS \$0.675M
 (6) FY17 - 37 EA OCO FUNDS \$1.369M
 (7) (Airfield Damage Repair) FY16 REQ @10 each; PEC 0305114F AIR TRAFFIC CONTROL, APPROACH AND LANDING SYSTEM (ATCALs).
 (8) FY17 - 236 EA OCO FUNDS \$7.080M

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823210 / Joint Light Tactical Vehicle

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 30.145 | 0.000 | 30.145 | 51.234 | 51.772 | 54.604 | 52.990 | - | 240.745 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 30.145 | 0.000 | 30.145 | 51.234 | 51.772 | 54.604 | 52.990 | - | 240.745 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 30.145 | 0.000 | 30.145 | 51.234 | 51.772 | 54.604 | 52.990 | - | 240.745 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Joint Light Tactical Vehicle (JLTV) Family of Vehicles (FoV) have been chosen as the multi-service (USMC, Army, Navy, and Air Force) tactical vehicle replacement for the HMMWV. JLTV provides major operational improvements in Force Protection (FP), payload, mobility, fuel efficiency and reliability, along with the growth potential to meet future mission requirements. The JLTV also has a companion trailer that is available with the vehicle to replace the HMMWV trailer (M1101/M1102).

The USAF investment in JLTVs began in FY17 and FY18 under 823230 - Security and Tactical Vehicles. Starting in FY19 and throughout the FYDP, JLTVs will be procured under BPAC 823210. The USAF JLTV program will have multiple Work Directives generated and worked through the Joint Program Office (JPO) for USAF specific requirements and kit operability on three JLTV variants and a JLTV trailer.

General Purpose (GP) JLTV - The GP JLTV is the base vehicle that carries a 4 man-crew with a payload of 3,500 lbs. Users: ACC, AFMC, AMC, PACAF, USAFE

Utility (UT) JLTV - The Utility JLTV carries a 2 man crew for cargo delivery or shelter carrier. It supports a payload of 5,100 lbs. Users: ACC, AFMC, AMC, PACAF

Heavy Guns Carrier (HGC) JLTV - The HGC JLTV carries a 4 man-crew and a Gunner in Turret or Remote Weapon System (RWS). It supports crew served weapons (M-2 or MK-19) with Gunner's Protection Kit or RWS. Users: AETC, AFCENT, AFGSC, AFSPC, AMC, PACAF, USAFE

JLTV Trailer - The JLTV Trailer is capable of meeting similar mobility characteristics to the prime mover and is capable of safely carrying payload of 5500 lbs. Users: EOD

Expansion Kits - Expansion kits are made up of both the Contractor Furnished Equipment (CFE) kit and Government Furnished Equipment (GFE) kits. The total unit cost of each JLTV will vary based on the expansion kit requirements selected by each user community (EOD, SFS, TACP, Red Horse, Medical, AFSOC) based on mission requirements. If mission requirements change, certain kits may be added to the vehicle at a later time, post-production, to meet ops tempo.

- Contractor Furnished Equipment (CFE) Kits comes fully installed and integrated into the vehicle during production. CFE kits include, but are not limited to, Armor kits, intercom kit, run flats, combat bumpers, and explosively formed projectile protection kits.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles | | P-1 Line Item Number / Title: 823210 / Joint Light Tactical Vehicle |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>- Government Furnished Equipment (GFE) Kits when ordered as an expansion kit are integrated into the vehicle during production. Integration includes: "all necessary cabling (power, signal, RF), connector(s), and hardware required above and beyond the Contractor furnished Base Vehicle Platforms Infrastructure and Baseline Integration Kits. GFE kits include, but are not limited to, VRC radio kits, CREW-CVRJ kits, DVE kits, shot detection, CROWS and OGPK kits. No LRUs are included in the expansion kits.</p> <p>Work Directives: Funding will be needed to complete compatibility and operability testing work directives with the OEM on any new AF specific requirements that will be added to the JLTV based on user requirements. Work Directives will also be required for any repairs that will need to be executed prior to JPO long term repair and maintenance contracts are awarded.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823210 / Joint Light Tactical Vehicle

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Joint Light Tactical Vehicle | | | | - / - | - / - | - / - | - / 30.145 | - / - | - / 30.145 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 0.000 | - / 0.000 | - / 30.145 | - / 0.000 | - / 30.145 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

Unit Cost is subject to change from year-to-year based on buy quantities and user expansion kit requirements provided by each user community based on mission requirements. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823210 / Joint Light Tactical Vehicle **Aggregated Items Title:** Joint Light Tactical Vehicle

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|---------------|-------------------|------------------|------------|-------------------|------------------|---------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| uncategorized | | | | | | | | | | | | | | | | | | | | |
| JLTV, HEAVY GUNS CARRIER (HGC) 2320-01-653-6495 | A | | - | - | - | - | - | - | - | - | 0.296 | 25 | 7.400 | - | - | - | 0.296 | 25 | 7.400 | |
| PMA OTHER GOVERNMENT COSTS: A&AS CONTRACT | A | | - | - | - | - | - | - | - | - | - | - | 0.885 | - | - | - | - | - | 0.885 | |
| PMA OTHER GOVERNMENT COSTS: TRAVEL | A | | - | - | - | - | - | - | - | - | - | - | 0.010 | - | - | - | - | - | 0.010 | |
| GOVERNMENT FURNISHED EQUIPMENT (GFE) KITS | A | | - | - | - | - | - | - | - | - | - | - | 7.375 | - | - | - | - | - | 7.375 | |
| JLTV, UTILITY (UT) 2320-01-653-6516 | A | | - | - | - | - | - | - | - | - | 0.288 | 25 | 7.200 | - | - | - | 0.288 | 25 | 7.200 | |
| JLTV, GENERAL PURPOSE (GP) 2320-01-653-6557 | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| JLTV, TRAILER 2330-01-653-9745 | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| CONTRACTOR FURNISHED EQUIPMENT (CFE) KITS | A | | - | - | - | - | - | - | - | - | 0.275 | 25 | 6.875 | - | - | - | 0.275 | 25 | 6.875 | |
| WORK DIRECTIVES | A | | - | - | - | - | - | - | - | - | - | - | 0.400 | - | - | - | - | - | 0.400 | |
| Subtotal: uncategorized | | | - | - | - | - | - | - | - | - | - | - | 30.145 | - | - | - | - | - | 30.145 | |
| Total | | | - | - | - | - | - | - | - | - | - | - | 30.145 | - | - | - | - | - | 30.145 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: A&AS SUPPORT - Funding will be used to provide Program Management, Engineering, and Equipment Specialist support to the JLTV IPT. Funds pay for Tech Data Support and TOMA Support. Additional positions will need to be added as the JLTV program ops tempo continues to grow.

PMA OTHER GOVERNMENT COSTS: TRAVEL - Funding is provided for Government personnel who support the JLTV program to travel for meetings with JPO, TACOM, and OEM.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles

P-1 Line Item Number / Title:
823230 / Security And Tactical Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 6.433 | 60.498 | 1.230 | 24.880 | 26.110 | 1.335 | 11.162 | 8.758 | 8.203 | - | 122.499 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 6.433 | 60.498 | 1.230 | 24.880 | 26.110 | 1.335 | 11.162 | 8.758 | 8.203 | - | 122.499 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 6.433 | 60.498 | 1.230 | 24.880 | 26.110 | 1.335 | 11.162 | 8.758 | 8.203 | - | 122.499 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY18 funding totals include \$1.100M appropriated for Overseas Contingency Operations.

JLTV PROCUREMENT FY17 & FY18 IN THIS BPAC. FY19 AND OUT WILL BE BPAC 823210.

Funding provides for a variety of security and tactical vehicles essential to strategic military operations. This program previously procured the standard diesel powered High Mobility Multi-purpose Wheeled Vehicle (HMMWV) and all configurations used by the Air Force, Guardian Angel Air-Deployable Rescue Vehicle (GAARV), and cargo trailers. Funding will be used to procure next generation security and tactical vehicles to include the fielding of the Joint Light Tactical Vehicle (JLTV).

The M1101 and M1102 are light tactical trailers (designated by load weight) in a single axle, two wheel trailer designed to be towed by a HMMWV towing vehicle. The trailers have the same tires, wheels, and track width as the HMMWV. The only difference between the M1101 and the M1102 trailer is the model information and payload capacity. The trailers have various applications and provide the forces with a light, nimble, rugged trailer built primarily for hauling cargo.

Joint Light Tactical Vehicles (JLTV) is the HMMWV replacement for the DOD. The USAF investment in JLTVs began in FY17 and will continue through the FYDP. The USAF JLTV program will need multiple STS Work Directives generated and worked through the Joint Program Office (JPO) for USAF specific requirements and kit operability on three JLTV variants and a JLTV trailer. The three variants include the General Purpose (GP) JLTV, the Utility (UT) JLTV, and the Heavy Guns Carrier (HGC) JLTV. FY17 funding defined by the user configurations on each platform prior to Full Rate Production began in FY18. Purchase of CFE and GFE kits, as well as at least one JLTV in each variant: GP, UTL, and HGC was executed in FY17. Technical Data Packages, as well as USAF specific Tech Data and support will also be provisioned and worked during this time to support the incoming inventory once testing is complete.

Guardian Angel Air-Deployable Rescue Vehicle: The Guardian Angel Air-Deployable Rescue Vehicle (GAARV) is an air-deployable surface recovery platform capable of maneuvering over adverse terrain in order to search for and recover isolated personnel and/or equipment. It will provide increased survivability during "outside the wire" personnel recovery operations, more secure transportation capability to the recovery team and injured/isolated personnel from an area of high threat, and necessary training platforms for operators to familiarize themselves with vehicles they utilize in the area of operations. It also provides operators with increased protection from enemy fire and improvised explosive devices. Funding includes, but is not limited to procurement of end items, training, upgrades, spares, Interim Contractor Support (ICS), repairs, deployment packages and returns. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Due to rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. On 7 July

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles | | P-1 Line Item Number / Title: 823230 / Security And Tactical Vehicles |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

2017, ACC/A5/8R terminated the HDT Storm solution to the GAARV requirement. A new solution to the requirement will be developed if/when the GAARV requirement is revalidated. Subsequent funding will fund contract termination and Program Management Administration until a follow-on requirement is identified. Funding for GAARV is in Program Element 0207227F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs 0202834F, 0207227F, 0502834F, 0502844F, 0702831F, 0804731F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|--------------|---------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|
| AF | Quantity | 6 | 475 | 1 | 76 | 77 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 6.433 | 60.498 | 1.060 | 24.880 | 25.940 | 1.335 | 11.162 | 8.758 | 8.203 |
| AFNG | Quantity | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.000 | 0.000 | 0.104 | 0.000 | 0.104 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.000 | 0.000 | 0.066 | 0.000 | 0.066 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 6 | 475 | 14 | 76 | 90 | 0 | 0 | 0 | 0 |
| Secondary Distribution | Total Obligation Authority | 6.433 | 60.498 | 1.230 | 24.880 | 26.110 | 1.335 | 11.162 | 8.758 | 8.203 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823230 / Security And Tactical Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Security And Tactical Vehicles | | | | - / - | - / 6.433 | - / 60.498 | - / 1.230 | - / 24.880 | - / 26.110 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 6.433 | - / 60.498 | - / 1.230 | - / 24.880 | - / 26.110 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of 1.1696M will procure, but not be limited to, 13 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars (SHOULD BE MOVED TO BPAC 823210 FOR JLTV) in the amount of \$24.880M will procure, but not be limited to, 76 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823230 / Security And Tactical Vehicles **Aggregated Items Title:** Security And Tactical Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| HIGH MOBILITY TRAILER, LIGHT M1101 (NSN 2330-01-388-6662) | A | | - | - | - | - | - | - | 29,000.00 | 88 | 2.552 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 88 | 2.552 | - | - | - | - | - | - | - | - | |
| JLTV General Purpose (GP) - 2320-01-653-6557 | A | | - | - | - | - | - | - | 375,000.00 | 48 | 18.000 | - | - | - | 375,000.00 | 20 | 7.500 | 375,000.00 | 20 | 7.500 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 48 | 18.000 | - | - | - | 20 | 7.500 | | 20 | 7.500 | |
| JLTV Utility (UT) - 2320-01-653-6516 | A | | - | - | - | - | - | - | 375,000.00 | 46 | 17.250 | - | - | - | 375,000.00 | 21 | 7.875 | 375,000.00 | 21 | 7.875 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 46 | 17.250 | - | - | - | 21 | 7.875 | | 21 | 7.875 | |
| JLTV Heavy Guns Carrier (HGC) - 2320-01-653-6495 | A | | - | - | - | 439,000.00 | 5 | 2.195 | 375,000.00 | 46 | 17.250 | - | - | - | 375,000.00 | 25 | 9.375 | 375,000.00 | 25 | 9.375 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 5 | 2.195 | | 46 | 17.250 | - | - | - | 25 | 9.375 | | 25 | 9.375 | |
| JLTV Trailer - 2330-01-653-9745 | A | | - | - | - | - | - | - | 63,000.00 | 46 | 2.898 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 46 | 2.898 | - | - | - | - | - | - | - | - | |
| M1102 TRAILER (NSN: 2330-01-387-5426) | A | | - | - | - | - | - | - | 10,000.00 | 100 | 1.000 | 12,000.00 | 6 | 0.072 | 12,000.00 | 5 | 0.060 | 12,000.00 | 11 | 0.132 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 100 | 1.000 | | - | - | | 5 | 0.060 | | 5 | 0.060 |
| AFNG | | | - | - | - | - | - | - | | - | - | | 4 | 0.048 | | - | - | | 4 | 0.048 |
| AFR | | | - | - | - | - | - | - | | - | - | | 2 | 0.024 | | - | - | | 2 | 0.024 |
| GUARDIAN ANGEL AIR-DEPLOYABLE RESCUE VEHICLE (GAARV) | A | | - | - | - | 3,920K | 1 | 3.920 | 90,000.00 | 1 | 0.090 | 61,000.00 | 1 | 0.061 | - | - | - | 61,000.00 | 1 | 0.061 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 1 | 3.920 | | 1 | 0.090 | | 1 | 0.061 | | - | - | | 1 | 0.061 |
| TRL CGO 1.5T M105 (2330-00-541-6466) | A | | - | - | - | - | - | - | 14,000.00 | 100 | 1.400 | 14,000.00 | 7 | 0.098 | 14,000.00 | 5 | 0.070 | 14,000.00 | 12 | 0.168 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 100 | 1.400 | | - | - | | 5 | 0.070 | | 5 | 0.070 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823230 / Security And Tactical Vehicles **Aggregated Items Title:** Security And Tactical Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| AFNG | | | | - | - | | - | - | | - | | 4 | 0.056 | | - | - | | 4 | 0.056 | |
| AFR | | | | - | - | | - | - | | - | | 3 | 0.042 | | - | - | | 3 | 0.042 | |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | - | - | - | - | - | 0.016 | - | - | - | - | - | 0.016 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | | - | 0.016 | | - | - | | - | 0.016 | |
| PMA CONTRACTOR SERVICES | A | | - | - | - | - | - | 0.318 | - | - | 0.058 | - | - | 0.983 | - | - | - | - | 0.983 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.318 | | - | 0.058 | | - | 0.983 | | - | - | | - | 0.983 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 6.433 | - | - | 60.498 | - | - | 1.230 | - | - | 24.880 | - | - | 26.110 |
| Total | | | - | - | - | - | - | 6.433 | - | - | 60.498 | - | - | 1.230 | - | - | 24.880 | - | - | 26.110 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during the year of execution.

Unit costs and quantities for FY19 are subject to change. JLTV prices will vary depending on number of kits required by users to support their mission.

PMA Justification:

PROGRAM MANAGEMENT ADMINISTRATION (PMA): PMA supports the operation of the program office in its management and oversight role via travel, procurement of supplies and Advisory and Administrative Services (A&S). The A&S team of contractors began the program and sustainment planning to include provisioning/cataloging and technical order management support AF building of the Joint Light Tactical Vehicle (JLTV). Funding will also support TDY requirements associated with JLTV.

Guardian Angel Air-Deployable Rescue Vehicle (GAARV):

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution. GAARV unit cost is approximately \$300,000.00 per vehicle and does not include training, upgrades, spares, repairs, deployment packages and returns.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 56.832 | 52.263 | 43.003 | 34.680 | 77.683 | 23.088 | 33.949 | 32.379 | 30.993 | - | 307.187 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 56.832 | 52.263 | 43.003 | 34.680 | 77.683 | 23.088 | 33.949 | 32.379 | 30.993 | - | 307.187 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 56.832 | 52.263 | 43.003 | 34.680 | 77.683 | 23.088 | 33.949 | 32.379 | 30.993 | - | 307.187 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$16.789M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$32.479M appropriated for Overseas Contingency Operations.

The Special Purpose Vehicles group consists of various vehicles for flightline, maintenance, and facility operations used for a variety of purposes. Examples of these vehicles include the IW 40 tractor, 4 and 8 passenger over-the-snow-carriers, an assortment of wreckers and refuse trucks, potable and non-potable water distribution trucks, refueling vehicles, deicers, staircase trucks, lavatory service trucks, high reach maintenance trucks, glycol recovery vehicles, disabled patient vehicles, and tow tractors. Tow tractors are used to tow aircrafts, munition trailers, and ground support equipment. The IW 40 tractor is a small farm tractor used primarily to pull a mower and for other light tasks; the snow carriers are tracked vehicles which move personnel in snowy conditions and are used in search and rescue missions; the wreckers are used to move disabled vehicles, haul vehicles or to deploy a heavy duty winch. The refuse trucks in this group include one which tilts and dumps a payload and one which compacts refuse prior to discharge. Aircraft refueling vehicles refuel and defuel aircrafts. Potable water distribution trucks provide drinking water to personnel; non-potable water distribution trucks are used primarily to wet down and control dust at a construction site.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs 0202834F, 0207597F, 0401221F, 0502834F, 0502844F 0702831F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
|------------------------|----------------------------|---------|--------------|-------------|---------------|---------|---------|---------|---------|--------|
| AF | Quantity | 320 | 258 | 168 | 170 | 338 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 53.830 | 46.477 | 41.106 | 34.680 | 75.786 | 16.140 | 26.817 | 25.399 | 24.494 |
| AFNG | Quantity | 0 | 31 | 2 | 0 | 2 | 34 | 52 | 25 | 42 |
| | Total Obligation Authority | 0.000 | 4.001 | 0.097 | 0.000 | 0.097 | 5.104 | 5.247 | 5.047 | 4.560 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AFR | Quantity | 19 | 12 | 13 | 0 | 13 | 9 | 17 | 13 | 23 |
| | Total Obligation Authority | 3.002 | 1.785 | 1.800 | 0.000 | 1.800 | 1.844 | 1.885 | 1.933 | 1.939 |
| Total: Secondary Distribution | Quantity | 339 | 301 | 183 | 170 | 353 | 43 | 69 | 38 | 65 |
| | Total Obligation Authority | 56.832 | 52.263 | 43.003 | 34.680 | 77.683 | 23.088 | 33.949 | 32.379 | 30.993 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Special Purpose Vehicles | | | | - / - | - / 56.832 | - / 52.263 | - / 43.003 | - / 34.680 | - / 77.683 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 56.832 | - / 52.263 | - / 43.003 | - / 34.680 | - / 77.683 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$43.003M will procure, but not be limited to, 183 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$34.680M will procure, but is not limited to, 170 vehicles in support of Overseas Contingency Operations.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 | | | | | | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles | | | | | | Aggregated Items Title: Special Purpose Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| C5 STAIRCASE TRK (1730-01-602-5661YW) | A | | - | - | - | 0.320 | 1 | 0.320 | 0.323 | 8 | 2.583 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 7 | 2.260 | - | - | - | - | - | - | - | - | |
| AFNG | | | - | - | - | - | - | - | - | 1 | 0.323 | - | - | - | - | - | - | - | - | |
| AFR | | | - | - | - | - | 1 | 0.320 | - | - | - | - | - | - | - | - | - | - | - | |
| HI-REACH TRK 65 FT (2320-00-989-7163YW) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| TRK HILIFT (2320-00-540-3489) | A | | - | - | - | 0.195 | 1 | 0.195 | 0.199 | 4 | 0.795 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 1 | 0.195 | - | 3 | 0.596 | - | - | - | - | - | - | - | - | |
| AFNG | | | - | - | - | - | - | - | - | 1 | 0.199 | - | - | - | - | - | - | - | - | |
| 4000GAL DEICER (1730-01-605-7637YW) (1) | A | | - | - | - | 0.304 | 10 | 3.040 | 0.304 | 14 | 4.256 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 10 | 3.040 | - | 13 | 3.952 | - | - | - | - | - | - | - | - | |
| AFNG | | | - | - | - | - | - | - | - | 1 | 0.304 | - | - | - | - | - | - | - | - | |
| TRAC ACFT TWG MB-4 (1740-00-580-7990YW) | A | | - | - | - | 0.115 | 1 | 0.115 | 0.119 | 32 | 3.797 | 0.119 | 6 | 0.712 | 0.119 | 13 | 1.543 | 0.119 | 19 | 2.255 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 1 | 0.115 | - | 29 | 3.441 | - | 5 | 0.593 | - | 13 | 1.543 | - | 18 | 2.136 |
| AFNG | | | - | - | - | - | - | - | - | 3 | 0.356 | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | - | - | - | - | - | - | 1 | 0.119 | - | - | - | - | 1 | 0.119 |
| TOW TRACTOR, MB-2 (1740-00-143-8464YW) | A | | - | - | - | 0.150 | 1 | 0.150 | 0.158 | 36 | 5.692 | 0.158 | 18 | 2.846 | 0.158 | 13 | 2.056 | 0.158 | 31 | 4.902 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 33 | 5.218 | - | 15 | 2.372 | - | 13 | 2.056 | - | 28 | 4.428 |
| AFNG | | | - | - | - | - | - | - | - | 3 | 0.474 | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | 1 | 0.150 | - | - | - | - | 3 | 0.474 | - | - | - | - | 3 | 0.474 |
| FLIGHT LINE TOW TRACTOR, 4X2 (1740-01-068-8945YW) (2) | A | | - | - | - | 0.060 | 89 | 5.340 | 0.062 | 49 | 3.045 | 0.062 | 7 | 0.435 | 0.062 | 40 | 2.486 | 0.062 | 47 | 2.921 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 89 | 5.340 | - | 42 | 2.610 | - | 5 | 0.311 | - | 40 | 2.486 | - | 45 | 2.797 |
| AFNG | | | - | - | - | - | - | - | - | 4 | 0.249 | - | 1 | 0.062 | - | - | - | - | 1 | 0.062 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 | | | | | | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles | | | | | | Aggregated Items Title: Special Purpose Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFR | | | | - | - | | - | - | | 3 | 0.186 | | 1 | 0.062 | | - | - | | 1 | 0.062 |
| TRUCK, MAINTENANCE 3/4T 4X4 (2320-00-541-1714) | A | | - | - | - | 0.035 | 72 | 2.520 | 0.036 | 7 | 0.255 | 0.035 | 5 | 0.174 | - | - | - | 0.035 | 5 | 0.174 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 72 | 2.520 | | 2 | 0.074 | | 3 | 0.104 | | - | - | | 3 | 0.104 |
| AFNG | | | | - | - | | - | - | | 4 | 0.145 | | 1 | 0.035 | | - | - | | 1 | 0.035 |
| AFR | | | | - | - | | - | - | | 1 | 0.036 | | 1 | 0.035 | | - | - | | 1 | 0.035 |
| TRUCK, TELEPHONE MAINT STD UTIL 4x2 (2320-00-801-9193) | A | | - | - | - | 0.035 | 6 | 0.210 | - | - | - | 0.036 | 9 | 0.326 | - | - | - | 0.036 | 9 | 0.326 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 5 | 0.181 | | - | - | | 5 | 0.181 |
| AFR | | | | - | - | | 6 | 0.210 | | - | - | | 4 | 0.145 | | - | - | | 4 | 0.145 |
| 3 TON STAKE AND PLATFORM (2320-00-935-4696) | A | | - | - | - | 0.166 | 3 | 0.498 | 0.168 | 6 | 1.011 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 4 | 0.674 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 3 | 0.498 | | 2 | 0.337 | | - | - | | - | - | | - | - |
| TRK TANK 1200G 4X2 (2320-00-177-6777) | A | | - | - | - | 0.140 | 1 | 0.140 | - | - | - | 0.201 | 4 | 0.805 | 0.201 | 6 | 1.207 | 0.201 | 10 | 2.012 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 4 | 0.805 | | 6 | 1.207 | | 10 | 2.012 |
| AFR | | | | - | - | | 1 | 0.140 | | - | - | | - | - | | - | - | | - | - |
| TRK TANK 1200G 4X4 (2320-00-177-6778) | A | | - | - | - | - | - | - | - | - | - | - | - | - | 0.147 | 5 | 0.735 | 0.147 | 5 | 0.735 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | 5 | 0.735 | | 5 | 0.735 |
| TRK HI-LIFT 9TON (2320-00-540-3991) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TRK MAINT TEL 4DR (2320-00-451-2184) | A | | - | - | - | - | - | - | - | - | - | 0.040 | 3 | 0.120 | 0.040 | 1 | 0.040 | 0.040 | 4 | 0.160 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 3 | 0.120 | | 1 | 0.040 | | 4 | 0.160 |
| LARGE CAPACITY REFUELER VEHICLE (LCRV) (2320-01-592-4114YW) | A | | - | - | - | - | - | - | - | - | - | 1.245 | 1 | 1.245 | - | - | - | 1.245 | 1 | 1.245 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|--|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 | | | | | | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles | | | | | | Aggregated Items Title: Special Purpose Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 1 | 1.245 | | - | - | | 1 | 1.245 |
| TRK TNK FUEL 6000GAL R-11 (2320-00-433-5695) (3) | A | | - | - | - | 0.205 | 7 | 1.435 | 0.209 | 71 | 14.844 | 0.209 | 8 | 1.675 | 0.209 | 38 | 7.957 | 0.209 | 46 | 9.632 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.615 | | 59 | 12.331 | | 7 | 1.466 | | 38 | 7.957 | | 45 | 9.423 |
| AFNG | | | | - | - | | - | - | | 9 | 1.885 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 4 | 0.820 | | 3 | 0.628 | | 1 | 0.209 | | - | - | | 1 | 0.209 |
| TRUCK, EXTENDED REACH DEICER (1730-01-495-5449YW) (4) | A | | - | - | - | 0.663 | 20 | 13.260 | - | - | - | 0.676 | 10 | 6.759 | 0.676 | 9 | 6.083 | 0.676 | 19 | 12.842 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 20 | 13.260 | | - | - | | 10 | 6.759 | | 9 | 6.083 | | 19 | 12.842 |
| TRK MNT DIGGER DERRICK (2320-01-397-7528) | A | | - | - | - | 0.288 | 3 | 0.864 | 0.292 | 7 | 2.047 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 5 | 1.462 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | 3 | 0.864 | | 2 | 0.585 | | - | - | | - | - | | - | - |
| TRLR MAINT (2330-01-308-8926) | A | | - | - | - | 0.012 | 2 | 0.024 | 0.013 | 21 | 0.278 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.024 | | 15 | 0.199 | | - | - | | - | - | | - | - |
| AFNG | | | | - | - | | - | - | | 5 | 0.066 | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | - | - | | 1 | 0.013 | | - | - | | - | - | | - | - |
| 2000GAL DEICER (1730-01-605-7636YW) | A | | - | - | - | 0.250 | 2 | 0.500 | 0.250 | 3 | 0.751 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.500 | | 3 | 0.751 | | - | - | | - | - | | - | - |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | 0.004 | - | - | 0.005 | - | - | 0.010 | - | - | 0.004 | - | - | 0.014 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.004 | | - | 0.005 | | - | 0.010 | | - | 0.004 | | - | 0.014 |
| STAIRCASE TRK (1730-01-601-8086YW) | A | | - | - | - | - | - | - | - | - | - | 0.149 | 16 | 2.386 | 0.149 | 2 | 0.298 | 0.149 | 18 | 2.684 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 16 | 2.386 | | 2 | 0.298 | | 18 | 2.684 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | | |
|--|-------|----------------|------------------|------------|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 | | | | | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles | | | | | | | | | | Aggregated Items Title: Special Purpose Vehicles | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| LAVATORY SERVICE TRK (1730-00-981-7605YW) (5) | A | | - | - | - | 0.109 | 15 | 1.639 | - | - | - | 0.137 | 20 | 2.730 | 0.137 | 2 | 0.273 | 0.137 | 22 | 3.003 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 15 | 1.639 | | - | - | | 20 | 2.730 | | 2 | 0.273 | | 22 | 3.003 |
| TRAC ACFT TOW (1740-01-367-9485YW) (6) | A | | - | - | - | 0.320 | 16 | 5.120 | 0.346 | 28 | 9.674 | 0.346 | 5 | 1.728 | 0.346 | 14 | 4.837 | 0.346 | 19 | 6.565 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 16 | 5.120 | | 28 | 9.674 | | 4 | 1.382 | | 14 | 4.837 | | 18 | 6.219 |
| AFR | | | - | - | - | | - | - | | - | - | | 1 | 0.346 | | - | - | | 1 | 0.346 |
| TRK REFRGR 4X2 (2320-00-770-4467) (7) | A | | - | - | - | 0.115 | 4 | 0.460 | 0.097 | 4 | 0.390 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 4 | 0.460 | | 4 | 0.390 | | - | - | | - | - | | - | - |
| TRK HYDRANT FUEL (2320-01-125-2481) (8) | A | | - | - | - | 0.350 | 6 | 2.100 | 0.416 | 4 | 1.664 | 0.410 | 10 | 4.099 | 0.410 | 2 | 0.820 | 0.410 | 12 | 4.919 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 6 | 2.100 | | 4 | 1.664 | | 9 | 3.689 | | 2 | 0.820 | | 11 | 4.509 |
| AFR | | | - | - | - | | - | - | | - | - | | 1 | 0.410 | | - | - | | 1 | 0.410 |
| TRK FUEL AVGAS (2320-01-597-1728) (9) | A | | - | - | - | 0.150 | 10 | 1.500 | 0.168 | 7 | 1.176 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 10 | 1.500 | | 7 | 1.176 | | - | - | | - | - | | - | - |
| FFTT, 4X4 (1740014524117YW) | A | | - | - | - | 0.063 | 36 | 2.251 | - | - | - | 0.063 | 28 | 1.756 | 0.063 | 13 | 0.815 | 0.063 | 41 | 2.571 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 36 | 2.251 | | - | - | | 28 | 1.756 | | 13 | 0.815 | | 41 | 2.571 |
| DEICER TRK MOUNTED (1730005556205YW) | A | | - | - | - | 0.459 | 33 | 15.147 | - | - | - | 0.461 | 33 | 15.197 | 0.460 | 12 | 5.526 | 0.461 | 45 | 20.723 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 33 | 15.147 | | - | - | | 33 | 15.197 | | 12 | 5.526 | | 45 | 20.723 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 56.832 | - | - | 52.263 | - | - | 43.003 | - | - | 34.680 | - | - | 77.683 |
| Total | | | - | - | - | - | - | 56.832 | - | - | 52.263 | - | - | 43.003 | - | - | 34.680 | - | - | 77.683 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | Date: February 2018 |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 | P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles | Aggregated Items Title: Special Purpose Vehicles |
|---|---|--|

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: Travel funds required

- Footnotes:**
- (1) FY17 - 8 EA OCO FUNDS \$2.432M
 - (2) FY17 - 16 EA OCO FUNDS \$0.720M
 - (3) FY17 - 3 EA OCO FUNDS \$0.600M
 - (4) FY17 - 6 EA OCO FUNDS \$3.978M
 - (5) FY17 - 12 EA OCO FUNDS \$1.311M
 - (6) FY17 - 16 EA OCO FUNDS \$5.024M
 - (7) FY17 - 4 EA OCO FUNDS \$0.460M
 - (8) FY17 - 4 EA OCO FUNDS \$0.844M
 - (9) FY17 - 10 EA OCO FUNDS \$1.420M

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment | P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles |
|--|--|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0202834F, 0901279F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 130.041 | 37.351 | 23.328 | 9.736 | 33.064 | 28.604 | 39.383 | 36.289 | 36.405 | - | 341.137 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 130.041 | 37.351 | 23.328 | 9.736 | 33.064 | 28.604 | 39.383 | 36.289 | 36.405 | - | 341.137 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 130.041 | 37.351 | 23.328 | 9.736 | 33.064 | 28.604 | 39.383 | 36.289 | 36.405 | - | 341.137 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$48.590M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$22.583M appropriated for Overseas Contingency Operations.

This P-1 line procures a variety of critical fire fighting and crash rescue vehicles. Vehicles typically include, but are not limited to, the following:

-- The P-19 Crash Truck is an Air Rescue and Fire Fighting (ARFF) vehicle that is a first response vehicle on the scene of an aircraft fire emergency. It equips bases with the capability to rapidly extinguish aircraft fires. This truck is a mandatory flight line operations safety requirement and is essential at bases with a flying mission. The P-19 also provides fire fighting capability for Air National Guard and Air Force Reserve installations located at municipal airports. An installation's P-19 requirement is determined by the type of aircraft frequenting the aerial facility and the resulting gallons per minute of fire fighting agent required. This vehicle provides aircrew, passenger, weapons, and airframe fire protection at a crash site.

-- The P-21 Aerial Lift Truck is a fire fighting vehicle with a 105 foot aerial ladder. It provides improved agent delivery over older model vehicles, as well as the capability to provide elevated delivery of agent involving high rise buildings and warehouse facilities.

-- The P-22 4x2 and P-24 4x4 Pumper Trucks are designed primarily to fight structural fires. The trucks have a 750-gallon water tank and a 50-gallon Aqueous FilmFoam class "A" foam tank and are capable of applying 1250 gallons per minute. P-24 is built on a rugged 4x4 chassis that equips forces with limited off-road/rugged terrain capability. The P-22 4x2 Pumper Truck has the same fire fighting capability as the P-24, but is used in urban areas.

-- The P-23 Crash Truck is a larger version of the P-19 ARFF truck and has a larger fire suppression capacity. It is primarily assigned at transport, bomber, depot, and cargo aircraft bases.

-- The P-26 Water Tanker Truck is a 4000-gallon resupply truck used to support the ARFF vehicles, fight wild land fires, and provide mutual assistance to communities.

-- The P-29 Wild Land Firefighting Truck is a four-person crew cab truck which contains a modular agent and pump and roll delivery system as well as firefighting tools and equipment. This truck is outfitted with a Compressed Air Foam System (CAFS) and has a 500 gallon water tank. The truck is intended to combat wild land and brush type fires.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment | | P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0202834F, 0901279F |
| Line Item MDAP/MAIS Code: N/A | | |

-- The P-30 is a Medium Rescue Vehicle. It is designed to bring equipment, lighting, a winch, and a generator to the scene of a rescue event. This vehicle has 450 cubic feet of storage space and affords easy equipment access and improved storage compartments. This truck is assigned to the larger industrial bases.

-- The P-31 Hazardous Material Vehicle is a dual purpose vehicle that stows and transports hazardous material response equipment for the purpose of mitigating chemical leaks, spills, and releases. This vehicle also provides an incident command workstation area for the purpose of research, command, control, and communications during containment/cleanup operations.

-- The P-33 Quint Truck is a fire fighting truck with a 75 foot aerial ladder. It provides improved agent delivery over older models as well as the capability to provide elevated delivery of agent involving high rise and warehouse facilities.

-- The P-34 is a first response Air Rescue and Fire Fighting (ARFF) vehicle which equips forces with initial "knock down" capability. The P-34 is the first fire truck to employ Ultra High Pressure (UHP) technology which allows the vehicle to discharge a mixture of water and foam at 1350 psi. This UHP technology makes the vehicle three times more effective than a conventional ARFF truck. The truck has a 400 gallon water tank and a 50 gallon foam tank along with a bumper turret and 200 feet of hand line all mounted on an F-550 chassis.

-- The Rapid Intervention Vehicle (RIV) is a first response aircraft fire truck; it is the newest addition to the Air Force's fleet of crash response vehicles. The RIV is the first vehicle in the AF to use new Ultra High Pressure (UHP) fire fighting technology which makes this truck 3 to 3.5 times more efficient at knock-down than conventional ARFF vehicles. This feature increases the length of time the vehicle can remain on the scene without having to be resupplied. Perched on an F550 chassis, the RIV is equipped with a 4-wheel drive train; it provides seating for four, equips fire fighters with limited storage for rescue equipment; has a bumper turret, a 200 ft hand line and a winch. Because of its size, speed and agility this truck can get to a crash scene quickly and perform fire fighting operations until the larger trucks can arrive at the scene.

These vehicles are all built to meet the performance standards of the National Fire Protection Association (NFPA), Occupational Safety and Health Administration (OSHA), Federal Aviation Administration (FAA), and Air Force safety regulations.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PE 0202834F, 0702831, 0901279F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment

P-1 Line Item Number / Title:
824010 / Fire Fighting/Crash Rescue Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0202834F, 0901279F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Fire Fighting/Crash Rescue Vehicles | | | | - / - | - / 130.041 | - / 37.351 | - / 23.328 | - / 9.736 | - / 33.064 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 130.041 | - / 37.351 | - / 23.328 | - / 9.736 | - / 33.064 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$23.328M will procure, but not be limited to, 50 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$9.736M will procure, but not be limited to, 18 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 4 **P-1 Line Item Number / Title:** 824010 / Fire Fighting/Crash Rescue Vehicles **Aggregated Items Title:** Fire Fighting/Crash Rescue Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| TRUCK, AERIAL P-21 4210-01-057-0696 | A | | - | - | - | 834,936.00 | 5 | 4.175 | - | - | - | - | - | - | - | - | - | - | - | |
| TRUCK, PUMPER 4X2 P-22 4210-00-224-4564 ⁽¹⁾ | A | | - | - | - | 419,000.00 | 28 | 11.732 | 730,695.00 | 3 | 2.192 | 451,567.00 | 6 | 2.709 | - | - | - | 451,567.00 | 6 | 2.709 |
| TRUCK, PUMPER 4X4 P-24 4210-00-233-1538 ⁽²⁾ | A | | - | - | - | 451,120.00 | 18 | 8.120 | 489,102.00 | 6 | 2.935 | 503,775.00 | 7 | 3.526 | - | - | - | 503,775.00 | 7 | 3.526 |
| TRK FIRE CRS STRIKER 4210-00-702-6801 | A | | - | - | - | 875,750.00 | 2 | 1.752 | - | - | - | - | - | - | - | - | - | - | - | - |
| TRUCK, WATER TANKER P-26 4210-01-356-4907 ⁽³⁾ | A | | - | - | - | 306,500.00 | 39 | 11.954 | 308,442.00 | 11 | 3.393 | 317,695.00 | 6 | 1.906 | 317,695.00 | 3 | 0.953 | 317,695.00 | 9 | 2.859 |
| VEHICLE, MEDIUM RESCUE P-30 4210-01-452-5121 | A | | - | - | - | 255,070.00 | 10 | 2.551 | - | - | - | 255,342.00 | 9 | 2.298 | 255,342.00 | 3 | 0.766 | 255,342.00 | 12 | 3.064 |
| TRUCK, QUINT P-33 4210-01-500-1083 ⁽⁴⁾ | A | | - | - | - | 618,770.00 | 1 | 0.619 | 628,794.00 | 1 | 0.629 | - | - | - | - | - | - | - | - | - |
| TRUCK, WILDLAND P-29 4210-01-483-1025 | A | | - | - | - | 340,143.00 | 6 | 2.041 | 405,257.00 | 1 | 0.405 | 419,335.00 | 2 | 0.839 | - | - | - | 419,335.00 | 2 | 0.839 |
| TRUCK, QUICK ATTACK P-34 4210-01-553-4534 | A | | - | - | - | 203,470.00 | 3 | 0.610 | 341,500.00 | 1 | 0.342 | 343,573.00 | 3 | 1.031 | - | - | - | 343,573.00 | 3 | 1.031 |
| TRUCK, HAZMAT FIRE FIGHTING P31 4210-01-396-5219 ⁽⁵⁾ | A | | - | - | - | 461,292.00 | 20 | 9.226 | 478,355.00 | 3 | 1.435 | 492,706.00 | 3 | 1.478 | 492,706.00 | 1 | 0.493 | 492,706.00 | 4 | 1.971 |
| TRUCK, ARFF P19UHP 4210-01-608-7285 ⁽⁶⁾ | A | | - | - | - | 620,179.00 | 79 | 48.994 | 627,536.00 | 26 | 16.316 | 648,783.00 | 7 | 4.541 | 648,783.00 | 5 | 3.244 | 648,783.00 | 12 | 7.785 |
| TRK FIRE P23 4210-01-625-9765 | A | | - | - | - | 658,032.00 | 3 | 1.974 | - | - | - | - | - | - | - | - | - | - | - | - |
| TRUCK, ARFF P23UHP 4210-01-608-7287 ⁽⁷⁾ | A | | - | - | - | 674,000.00 | 39 | 26.286 | 692,176.00 | 14 | 9.690 | 713,435.00 | 7 | 4.994 | 713,435.00 | 6 | 4.281 | 713,435.00 | 13 | 9.275 |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | 0.008 | - | - | 0.014 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 130.041 | - | - | 37.351 | - | - | 23.328 | - | - | 9.736 | - | - | 33.064 |
| Total | | | - | - | - | - | - | 130.041 | - | - | 37.351 | - | - | 23.328 | - | - | 9.736 | - | - | 33.064 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | Date: February 2018 |
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| | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 4 | P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles | Aggregated Items Title: Fire Fighting/Crash Rescue Vehicles |
|---|--|---|

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: Travel funds required

Footnotes:

- (1) FY17 - 16 EA OCO FUNDS \$6.704M
- (2) FY17 - 17 EA OCO FUNDS \$7.669M
- (3) FY17 - 4 EA OCO FUNDS \$1.226M
- (4) FY17 - 13EA OCO FUNDS \$8.044M
- (5) FY17 - 11 EA OCO FUNDS \$5.074M
- (6) FY17 - 15 EA OCO FUNDS \$9.303M
- (7) FY17 - 15 EA OCO FUNDS \$10.110M

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 20.480 | 18.914 | 11.537 | 24.680 | 36.217 | 21.569 | 32.239 | 29.098 | 28.229 | - | 186.746 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 20.480 | 18.914 | 11.537 | 24.680 | 36.217 | 21.569 | 32.239 | 29.098 | 28.229 | - | 186.746 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 20.480 | 18.914 | 11.537 | 24.680 | 36.217 | 21.569 | 32.239 | 29.098 | 28.229 | - | 186.746 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$2.366M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$5.353M appropriated for Overseas Contingency Operations.

This program includes various material handling vehicles with an individual item procurement value of less than \$5M. These vehicles consist of Forklifts, Container Handlers, Locomotive, Baggage Conveyors, Warehouse Tugs and Warehouse Cranes critical to Depot and Base Supply Operations.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for these exhibits contained in PEs: 0202834F, 0207597F, 0208028F, 0502834F, 0702831F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|------------|--------------|-------------|---------------|------------|-----------|---------------|-----------|
| AF | Quantity | 146 | 164 | 119 | 159 | 278 | 0 | 0 | 0 |
| | Total Obligation Authority | 17.663 | 16.520 | 9.178 | 24.680 | 33.858 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 31 | 30 | 27 | 0 | 27 | 21 | 45,664 | 31 |
| | Total Obligation Authority | 2.817 | 2.394 | 2.359 | 0.000 | 2.359 | 2.415 | 2.255 | 2.519 |
| Total: | Quantity | 177 | 194 | 146 | 159 | 305 | 21 | 45,664 | 31 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles |
|--|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Secondary Distribution | Total Obligation Authority | 20.480 | 18.914 | 11.537 | 24.680 | 36.217 | 2.415 | 2.255 | 2.519 | 2.549 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles |
|--|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Materials Handling Vehicles | | | | - / - | - / 20.480 | - / 18.914 | - / 11.537 | - / 24.680 | - / 36.217 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 20.480 | - / 18.914 | - / 11.537 | - / 24.680 | - / 36.217 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$11.537M will procure, but not be limited to, 146 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$24.680M will procure, but not be limited to, 153 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | | |
|--|-------|----------------|----------------|------------|---|----------------|------------|-------------------|----------------|--|-------------------|----------------|------------|-------------------|---------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 | | | | | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles | | | | | Aggregated Items Title: Materials Handling Vehicles | | | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| FORKLIFT, 4K TRUCK 014221657 | A | | - | - | - | - | - | - | 108,176.00 | 2 | 0.216 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | 2 | 0.216 | - | - | - | - | - | - | - | - | - | |
| Halvorsen 25K Loader - ECAOS/EDI only | A | | - | - | - | - | - | - | - | - | - | - | - | - | 898,671.00 | 6 | 5.392 | 898,671.00 | 6 | 5.392 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | 6 | 5.392 | - | 6 | 5.392 | |
| FORKLIFT, 4K ELECTRIC STANDARD 000539175 | A | | - | - | - | 45,800.00 | 3 | 0.137 | 47,350.00 | 8 | 0.379 | 47,350.00 | 19 | 0.900 | - | - | - | 47,350.00 | 19 | 0.900 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 2 | 0.092 | - | 7 | 0.331 | - | 16 | 0.758 | - | - | - | - | 16 | 0.758 |
| AFR | | | - | - | - | - | 1 | 0.046 | - | 1 | 0.047 | - | 3 | 0.142 | - | - | - | - | 3 | 0.142 |
| FORKLIFT, 2K ELECTRIC STANDARD 006782580 | A | | - | - | - | 31,750.00 | 10 | 0.318 | 31,386.00 | 9 | 0.282 | 31,386.00 | 10 | 0.314 | - | - | - | 31,386.00 | 10 | 0.314 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 10 | 0.318 | - | 6 | 0.188 | - | 9 | 0.282 | - | - | - | - | 9 | 0.282 |
| AFR | | | - | - | - | - | - | - | - | 3 | 0.094 | - | 1 | 0.031 | - | - | - | - | 1 | 0.031 |
| FORKLIFT, 4K DED 010130338 | A | | - | - | - | 44,090.00 | 7 | 0.309 | 45,635.00 | 10 | 0.456 | 45,635.00 | 17 | 0.776 | 45,635.00 | 6 | 0.274 | 45,635.00 | 23 | 1.050 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 5 | 0.220 | - | 7 | 0.319 | - | 15 | 0.685 | - | 6 | 0.274 | - | 21 | 0.958 |
| AFR | | | - | - | - | - | 2 | 0.088 | - | 3 | 0.137 | - | 2 | 0.091 | - | - | - | - | 2 | 0.091 |
| FORKLIFT, 4K COMMERCIAL 014330885 | A | | - | - | - | 42,900.00 | 11 | 0.472 | 43,940.00 | 6 | 0.264 | 43,940.00 | 6 | 0.264 | 43,940.00 | 16 | 0.703 | 43,940.00 | 22 | 0.967 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 11 | 0.472 | - | 6 | 0.264 | - | 5 | 0.220 | - | 16 | 0.703 | - | 21 | 0.923 |
| AFR | | | - | - | - | - | - | - | - | - | - | - | 1 | 0.044 | - | - | - | - | 1 | 0.044 |
| FORKLIFT, 15K COMMERCIAL 010471597 | A | | - | - | - | 87,000.00 | 2 | 0.174 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFR | | | - | - | - | - | 2 | 0.174 | - | - | - | - | - | - | - | - | - | - | - | - |
| FORKLIFT, 6K RT 008792157 | A | | - | - | - | - | - | - | 124,948.00 | 4 | 0.500 | 124,948.00 | 6 | 0.750 | - | - | - | 124,948.00 | 6 | 0.750 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles | Aggregated Items Title: Materials Handling Vehicles |
|---|--|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | - | | 4 | 0.500 | | 4 | 0.500 | | - | - | | 4 | 0.500 | |
| AFR | | | | - | - | | - | | - | - | | 2 | 0.250 | | - | - | | 2 | 0.250 | |
| TRUCK MOUNTED CONVEYOR BELT 000195630 ⁽¹⁾ | A | | - | - | - | 57,394.00 | 2 | 0.115 | 58,394.00 | 18 | 1.051 | 58,394.00 | 10 | 0.584 | 58,394.00 | 4 | 0.234 | 58,394.00 | 14 | 0.818 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.057 | | 16 | 0.934 | | 10 | 0.584 | | 4 | 0.234 | | 14 | 0.818 |
| AFR | | | | - | - | | 1 | 0.057 | | 2 | 0.117 | | - | - | | - | - | | - | - |
| TRUCK, FORKLIFT NARROW AISLE 6K 014214083 | A | | - | - | - | 143,000.00 | 9 | 1.287 | 145,117.00 | 4 | 0.580 | - | - | - | 145,117.00 | 4 | 0.580 | 145,117.00 | 4 | 0.580 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 9 | 1.287 | | 4 | 0.580 | | - | - | | 4 | 0.580 | | 4 | 0.580 |
| FORKLIFT, 6K DED 010525219 ⁽²⁾ | A | | - | - | - | 51,920.00 | 20 | 1.038 | 53,880.00 | 19 | 1.024 | 53,880.00 | 20 | 1.078 | 53,880.00 | 17 | 0.916 | 53,880.00 | 37 | 1.994 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 20 | 1.038 | | 18 | 0.970 | | 15 | 0.808 | | 17 | 0.916 | | 32 | 1.724 |
| AFR | | | | - | - | | - | - | | 1 | 0.054 | | 5 | 0.269 | | - | - | | 5 | 0.269 |
| 4K AT 23.5FT RT BOOM FL 012104756 | A | | - | - | - | 152,930.00 | 19 | 2.906 | 123,575.00 | 3 | 0.371 | - | - | - | 123,763.00 | 5 | 0.619 | 123,763.00 | 5 | 0.619 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 19 | 2.906 | | 3 | 0.371 | | - | - | | 5 | 0.619 | | 5 | 0.619 |
| FORKLIFT, 6K COMMERCIAL 014330887 | A | | - | - | - | 42,490.00 | 6 | 0.255 | 45,496.00 | 10 | 0.455 | 45,496.00 | 6 | 0.273 | 45,496.00 | 18 | 0.819 | 45,496.00 | 24 | 1.092 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.127 | | 5 | 0.227 | | 5 | 0.227 | | 18 | 0.819 | | 23 | 1.046 |
| AFR | | | | - | - | | 3 | 0.127 | | 5 | 0.227 | | 1 | 0.045 | | - | - | | 1 | 0.045 |
| FORKLIFT, FAT 10K AT 004889695 ⁽³⁾ | A | | - | - | - | 209,940.00 | 18 | 3.779 | 210,998.00 | 27 | 5.697 | 210,998.00 | 9 | 1.899 | 210,998.00 | 24 | 5.064 | 210,998.00 | 33 | 6.963 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 14 | 2.939 | | 23 | 4.853 | | 4 | 0.844 | | 24 | 5.064 | | 28 | 5.908 |
| AFR | | | | - | - | | 4 | 0.840 | | 4 | 0.844 | | 5 | 1.055 | | - | - | | 5 | 1.055 |
| FORKLIFT, 10K STANDARD 008566897 ⁽⁴⁾ | A | | - | - | - | 89,000.00 | 40 | 3.560 | 90,037.00 | 28 | 2.521 | 90,024.00 | 15 | 1.350 | 90,024.00 | 25 | 2.251 | 90,024.00 | 40 | 3.601 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 25 | 2.225 | | 20 | 1.801 | | 12 | 1.080 | | 25 | 2.251 | | 37 | 3.331 |
| AFR | | | | - | - | | 15 | 1.335 | | 8 | 0.720 | | 3 | 0.270 | | - | - | | 3 | 0.270 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|----------------|------------|-------------------|---|------------|-------------------|----------------|------------|-------------------|--|------------|-------------------|----------------|---------------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 | | | | | | P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles | | | | | | Aggregated Items Title: Materials Handling Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| FORKLIFT, 3K ELECTRIC 011022185 | A | | - | - | - | 24,800.00 | 1 | 0.025 | 24,777.00 | 5 | 0.124 | 24,777.00 | 2 | 0.050 | 24,777.00 | 2 | 0.050 | 24,777.00 | 4 | 0.099 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.025 | | 5 | 0.124 | | 1 | 0.025 | | 2 | 0.050 | | 3 | 0.074 |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.025 | | - | - | | 1 | 0.025 |
| FORKLIFT, 6K ELECTRIC 010471157 | A | | - | - | - | 40,930.00 | 1 | 0.041 | 45,934.00 | 8 | 0.367 | - | - | - | 45,934.00 | 4 | 0.184 | 45,934.00 | 4 | 0.184 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.041 | | 8 | 0.367 | | - | - | | 4 | 0.184 | | 4 | 0.184 |
| 10K 55' REACH TELEHANDLER 015769312 | A | | - | - | - | 198,390.00 | 8 | 1.587 | 222,364.00 | 9 | 2.001 | - | - | - | 222,364.00 | 15 | 3.335 | 222,364.00 | 15 | 3.335 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 8 | 1.587 | | 9 | 2.001 | | - | - | | 15 | 3.335 | | 15 | 3.335 |
| 4K WHSE TRAC 010070115 | A | | - | - | - | 49,750.00 | 9 | 0.448 | 51,166.00 | 9 | 0.460 | 51,166.00 | 15 | 0.767 | 51,166.00 | 6 | 0.307 | 51,166.00 | 21 | 1.074 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 6 | 0.299 | | 6 | 0.307 | | 13 | 0.665 | | 6 | 0.307 | | 19 | 0.972 |
| AFR | | | | - | - | | 3 | 0.149 | | 3 | 0.153 | | 2 | 0.102 | | - | - | | 2 | 0.102 |
| FORKLIFT, 20K DED 010396763 | A | | - | - | - | - | - | - | 157,400.00 | 4 | 0.630 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 4 | 0.630 | | - | - | | - | - | | - | - |
| FORKLIFT, 3K ELECTRIC 011028903 | A | | - | - | - | - | - | - | 43,392.00 | 7 | 0.304 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 7 | 0.304 | | - | - | | - | - | | - | - |
| FORKLIFT, TRUCK 22000 DED 012203657 | A | | - | - | - | - | - | - | 181,044.00 | 3 | 0.543 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 3 | 0.543 | | - | - | | - | - | | - | - |
| FORKLIFT, TRUCK 50000 ATCNTR 013073658 | A | | - | - | - | 740,630.00 | 3 | 2.222 | 677,513.00 | 1 | 0.678 | 745,625.00 | 1 | 0.746 | 745,625.00 | 4 | 2.983 | 745,625.00 | 5 | 3.728 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 2.222 | | 1 | 0.678 | | 1 | 0.746 | | 4 | 2.983 | | 5 | 3.728 |
| FORKLIFT, 25K 013904562 | A | | - | - | - | 215,730.00 | 5 | 1.079 | - | - | - | - | - | - | 696,967.00 | 1 | 0.697 | 696,967.00 | 1 | 0.697 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 **P-1 Line Item Number / Title:** 825990 / Materials Handling Vehicles **Aggregated Items Title:** Materials Handling Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
|---|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|---------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 1.079 | | - | - | | - | - | | 1 | 0.697 | | 1 | 0.697 | |
| FORKLIFT, TRUCK ELEC NARI 3000# 011028906 | A | | - | - | - | | | - | | - | - | 33,145.00 | 3 | 0.099 | 33,145.00 | 1 | 0.033 | 33,145.00 | 4 | 0.133 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | 2 | 0.066 | | 1 | 0.033 | | 3 | 0.099 | |
| AFR | | | | - | - | | | - | | - | - | | 1 | 0.033 | | - | - | | 1 | 0.033 | |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | | - | 0.008 | | - | - | 0.011 | | - | 0.004 | | - | - | | - | 0.004 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.008 | | - | - | 0.011 | | - | 0.004 | | - | - | | - | 0.004 |
| FORKLIFT, TRUCK AT LGE CAP 13K 011260457 | A | | - | - | - | 240,620.00 | 3 | 0.722 | | - | - | - | 240,620.00 | 7 | 1.684 | 240,620.00 | 1 | 0.241 | 240,620.00 | 8 | 1.925 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.722 | | - | - | | 7 | 1.684 | | 1 | 0.241 | | 8 | 1.925 | |
| Subtotal: Uncategorized | | | - | - | - | - | - | 20.480 | | - | - | 18.914 | | - | 11.537 | | - | 24.680 | | - | 36.217 |
| Total | | | - | - | - | - | - | 20.480 | | - | - | 18.914 | | - | 11.537 | | - | 24.680 | | - | 36.217 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: Travel funds required

Footnotes:

- (1) FY17 - 7 EA OCO FUNDS
- (2) FY17 - 5 EA OCO FUNDS
- (3) FY17 - 6 EA OCO FUNDS
- (4) FY17 - 5 EA OCO FUNDS

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support | P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ |
|---|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|---------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 61.608 | 14.744 | 37.600 | 9.680 | 47.280 | 2.778 | 12.614 | 10.152 | 9.607 | - | 158.783 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 61.608 | 14.744 | 37.600 | 9.680 | 47.280 | 2.778 | 12.614 | 10.152 | 9.607 | - | 158.783 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 61.608 | 14.744 | 37.600 | 9.680 | 47.280 | 2.778 | 12.614 | 10.152 | 9.607 | - | 158.783 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$59.298M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$11.315M appropriated for Overseas Contingency Operations.

This program procures snow removal vehicles and commercial sweepers used on all airfield surfaces to remove snow and help prevent foreign object damage (FOD) to aircraft engines and tires. Snow removal equipment includes front mounted brooms, multi-purpose blowers, and plows. These vehicles provide critical mission support to airfield operations because fighter aircraft cannot land or take off with ice on the runway. Multi-purpose vacuum sweepers maintain airfields, roads, and grounds. Vacuum sweepers provide equally important support at all air bases due to the high cost of FOD and the potential for loss in FOD-related engine accidents.

These assets are critical to the Air Force mission. They are the primary equipment used for snow, ice, and debris removal from runways and taxiways year round. The vital functions of these vehicles prevent the closing of airfields due to debris and/or snow and ice buildup.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs: 0202834F, 0208028F, 0502834F, 0502844F, 0702831F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| AF | Quantity | 205 | 88 | 107 | 31 | 138 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 61.194 | 14.366 | 37.221 | 9.680 | 46.902 | 2.380 | 12.216 | 9.774 | 9.229 |
| AFNG | Quantity | 2 | 1 | 1 | 0 | 1 | 3 | 3 | 1 | 1 |
| | Total Obligation Authority | 0.340 | 0.303 | 0.303 | 0.000 | 0.303 | 0.323 | 0.323 | 0.303 | 0.303 |

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|---|--|--|---|--|---|--|----------------------------|--|--|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | | | | | | Date: February 2018 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support | | | | | P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ | | | | |
| ID Code (A=Service Ready, B=Not Service Ready): A | | | Program Elements for Code B Items: N/A | | | Other Related Program Elements: N/A | | | |
| Line Item MDAP/MAIS Code: N/A | | | | | | | | | |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|---------------|---------------|-----------------|----------------|------------------|--------------|---------------|---------------|--------------|
| AFR | Quantity | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| | Total Obligation Authority | 0.074 | 0.075 | 0.075 | 0.000 | 0.075 | 0.075 | 0.075 | 0.075 | 0.075 |
| Total: | Quantity | 208 | 90 | 109 | 31 | 140 | 4 | 4 | 2 | 2 |
| Secondary Distribution | Total Obligation Authority | 61.608 | 14.744 | 37.600 | 9.680 | 47.280 | 2.778 | 12.614 | 10.152 | 9.607 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support **P-1 Line Item Number / Title:** 826210 / Runway Snow Remov And Cleaning Equ

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Runway Snow Remov And Cleaning Equ | | | | - / - | - / 61.608 | - / 14.744 | - / 37.600 | - / 9.680 | - / 47.280 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 61.608 | - / 14.744 | - / 37.600 | - / 9.680 | - / 47.280 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$37.600M will procure, but not be limited to, 109 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$9.680M will procure, but not be limited to, 31 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|----------------|------------|-------------------|--|------------|-------------------|----------------|------------|-------------------|---|------------|-------------------|----------------|---------------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | | | | | | P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ | | | | | | Aggregated Items Title: Runway Snow Remov And Cleaning Equ | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| CLEANER, VAC MULTIPURPOSE (2438) ⁽¹⁾ | A | | - | - | - | 170,000.00 | 74 | 12.580 | 172,775.00 | 77 | 13.304 | 172,775.00 | 34 | 5.874 | 172,775.00 | 10 | 1.728 | 172,775.00 | 44 | 7.602 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 72 | 12.240 | | 77 | 13.304 | | 34 | 5.874 | | 10 | 1.728 | | 44 | 7.602 |
| AFNG | | | - | - | - | | 2 | 0.340 | | - | - | | - | - | | - | - | | - | - |
| RAPID RUNWAY REPAIR DIRT SWEEPER (1997) ⁽²⁾ | A | | - | - | - | 74,071.00 | 33 | 2.444 | 75,260.09 | 11 | 0.828 | 71,729.38 | 8 | 0.574 | 75,071.00 | 6 | 0.450 | 73,161.50 | 14 | 1.024 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 32 | 2.370 | | 10 | 0.753 | | 7 | 0.499 | | 6 | 0.450 | | 13 | 0.949 |
| AFR | | | - | - | - | | 1 | 0.074 | | 1 | 0.075 | | 1 | 0.075 | | - | - | | 1 | 0.075 |
| 54K PLOW (7657) | A | | - | - | - | 351,750.00 | 6 | 2.111 | 303,230.00 | 2 | 0.606 | 303,216.36 | 11 | 3.335 | - | - | - | 303,216.36 | 11 | 3.335 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 6 | 2.111 | | 1 | 0.303 | | 10 | 3.032 | | - | - | | 10 | 3.032 |
| AFNG | | | - | - | - | | - | - | | 1 | 0.303 | | 1 | 0.303 | | - | - | | 1 | 0.303 |
| DUMP W/SNOW PLOW (3963) ⁽³⁾ | A | | - | - | - | 216,000.00 | 6 | 1.296 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 6 | 1.296 | | - | - | | - | - | | - | - | | - | - |
| SNOW BROOM AND BLOWER (3770) ⁽⁴⁾ | A | | - | - | - | 517,000.00 | 25 | 12.925 | - | - | - | 526,614.00 | 24 | 12.639 | 526,614.00 | 4 | 2.106 | 526,614.00 | 28 | 14.745 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 25 | 12.925 | | - | - | | 24 | 12.639 | | 4 | 2.106 | | 28 | 14.745 |
| SNOW REMOVAL UNIT 3K TON PER HOUR (5554) | A | | - | - | - | 522,184.00 | 40 | 20.887 | - | - | - | 526,384.00 | 20 | 10.528 | 529,625.00 | 8 | 4.237 | 527,310.00 | 28 | 14.765 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 40 | 20.887 | | - | - | | 20 | 10.528 | | 8 | 4.237 | | 28 | 14.765 |
| 45K REVERSIBLE PLOW (1944) ⁽⁵⁾ | A | | - | - | - | 389,994.00 | 24 | 9.360 | - | - | - | 386,149.00 | 12 | 4.634 | 386,149.00 | 3 | 1.158 | 386,149.00 | 15 | 5.792 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 24 | 9.360 | | - | - | | 12 | 4.634 | | 3 | 1.158 | | 15 | 5.792 |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | 0.005 | - | - | 0.006 | - | - | 0.016 | - | - | - | - | - | 0.016 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | - | 0.005 | | - | 0.006 | | - | 0.016 | | - | - | | - | 0.016 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 61.608 | - | - | 14.744 | - | - | 37.600 | - | - | 9.680 | - | - | 47.280 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826210 / Runway Snow Remov And Cleaning Equ **Aggregated Items Title:** Runway Snow Remov And Cleaning Equ

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Total | | | - | - | - | - | - | 61.608 | - | - | 14.744 | - | - | 37.600 | - | - | 9.680 | - | - | 47.280 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: Travel funds required

Footnotes:

- (1) FY17 - 20 EA OCO FUNDS; FY16 OCO FUNDING TO SUPPORT USAFE ERI REQUIREMENT PROCURED 4EA @ \$640K.
- (2) FY17 - 10 EA OCO FUNDS; AIRFIELD DAMAGE REPAIR (ADR) FY18 RQMTS
- (3) FY17 - 6 EA OCO FUNDS
- (4) FY17 - 2 EA OCO FUNDS
- (5) FY17 - 10 EA OCO FUNDS

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|----------------|----------------|--------------|----------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 146.203 | 100.526 | 104.923 | 9.680 | 114.603 | 60.453 | 71.336 | 70.744 | 70.608 | - | 634.473 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 146.203 | 100.526 | 104.923 | 9.680 | 114.603 | 60.453 | 71.336 | 70.744 | 70.608 | - | 634.473 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 146.203 | 100.526 | 104.923 | 9.680 | 114.603 | 60.453 | 71.336 | 70.744 | 70.608 | - | 634.473 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY17 funding totals include \$97,407M appropriated for Overseas Contingency Operations.

FY18 funding totals include \$40.451M appropriated for Overseas Contingency Operations.

This vehicle group consist of maintenance/test vans, water distribution trucks and heavy construction equipment (dozers, large cranes, large dump trucks, rock crushers, motorized scrapers, well-drilling vehicles, compactors, wheel loaders, graders, cement mixers, paving machines, excavators, sewer trucks, refuse trucks, trenches and backhoes). The assets are critical to the Air Force mission and are crucial to keeping many sortie generation/sortie sustainment missions supported and operational. The types of items contained in this P-1 line are critical (deployed) assets used in direct support of Air Force units engaged in contingency operations.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs: 0202834F, 0207597, 0208028F, 0401221F, 0502834F, 0502844F, 0702831F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------------------|------------|------------|--------------|-------------|---------------|----------|----------|----------|----------|
| AF | | | | | | | | | |
| Quantity | 747 | 457 | 560 | 45 | 605 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 143.049 | 98.202 | 102.668 | 9.680 | 112.348 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | | | | | | | | | |
| Quantity | 11 | 19 | 12 | 0 | 12 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 2.818 | 2.043 | 1.985 | 0.000 | 1.985 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | | | | | | | | | |
| Quantity | 4 | 4 | 3 | 0 | 3 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 0.336 | 0.281 | 0.270 | 0.000 | 0.270 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | 762 | 480 | 575 | 45 | 620 | 0 | 0 | 0 | 0 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| Secondary Distribution | Total Obligation Authority | 146.203 | 100.526 | 104.923 | 9.680 | 114.603 | 0.000 | 0.000 | 0.000 | 0.000 |

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Base Maintenance Support Vehicles | | | | - / - | - / 146.203 | - / 100.526 | - / 104.923 | - / 9.680 | - / 114.603 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 146.203 | - / 100.526 | - / 104.923 | - / 9.680 | - / 114.603 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars in the amount of \$104.923M will procure, but not be limited to, 574 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY19 OCO dollars in the amount of \$9.680M will procure, but not be limited to, 45 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Set the Theater Initiatives for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | | | | | | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles | | | | | | Aggregated Items Title: Base Maintenance Support Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| DUMP TRUCK, 6X4, 64K GVW (2320-01-524-6043) | A | | - | - | - | 0.160 | 18 | 2.883 | - | - | - | 0.160 | 18 | 2.883 | - | - | - | 0.160 | 18 | 2.883 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 18 | 2.883 | - | - | - | | 18 | 2.883 | - | - | - | | 18 | 2.883 |
| SEWER TRUCK SINGLE AXLE (2320-01-501-8524) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MKR TRAFFIC (3825-00-542-2515) | A | | - | - | - | 0.310 | 3 | 0.930 | 0.311 | 10 | 3.110 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 3 | 0.930 | | 10 | 3.110 | | - | - | | - | - | | - | - |
| TRAC WHLD IND 4WD (2420-01-205-8579) | A | | - | - | - | 0.053 | 12 | 0.640 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 12 | 0.640 | | - | - | | - | - | | - | - | | - | - |
| TRAC FTRACD SZT4 (2410-00-166-4176) | A | | - | - | - | 0.118 | 5 | 0.591 | 0.119 | 14 | 1.666 | 0.119 | 5 | 0.595 | - | - | - | 0.119 | 5 | 0.595 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 5 | 0.591 | | 14 | 1.666 | | 5 | 0.595 | | - | - | | 5 | 0.595 |
| 25T R TERRAIN (3810-01-479-9745) | A | | - | - | - | 0.375 | 11 | 4.125 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 11 | 4.125 | | - | - | | - | - | | - | - | | - | - |
| FRONT HOIST REF TRK (2320-01-470-6102) | A | | - | - | - | 0.208 | 2 | 0.416 | 0.209 | 6 | 1.254 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 2 | 0.416 | | 6 | 1.254 | | - | - | | - | - | | - | - |
| SCOOP LOADER (3805-00-260-1967) | A | | - | - | - | 0.149 | 10 | 1.485 | 0.149 | 11 | 1.639 | 0.149 | 22 | 3.278 | - | - | - | 0.149 | 22 | 3.278 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 10 | 1.485 | | 10 | 1.490 | | 22 | 3.278 | | - | - | | 22 | 3.278 |
| AFNG | | | - | - | - | | - | - | | 1 | 0.149 | | - | - | | - | - | | - | - |
| TRK DP 24000-33000G 4X2 (2320-00-833-6117) | A | | - | - | - | 0.082 | 15 | 1.224 | 0.082 | 27 | 2.214 | 0.082 | 23 | 1.886 | - | - | - | 0.082 | 23 | 1.886 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 15 | 1.224 | | 16 | 1.312 | | 23 | 1.886 | | - | - | | 23 | 1.886 |
| AFNG | | | - | - | - | | - | - | | 8 | 0.656 | | - | - | | - | - | | - | - |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|-------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | | | | | | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles | | | | | | Aggregated Items Title: Base Maintenance Support Vehicles | | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | |
| AFR | | | | - | - | | - | - | | 3 | 0.246 | | - | - | | - | - | | - | - | |
| 8.5T CRANE (3810-01-538-4647) | A | | - | - | - | 0.146 | 3 | 0.438 | - | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.438 | | - | - | | - | - | | - | - | | - | - | |
| CARRIER CARGO 4PAX (2350-01-615-0415) | A | | - | - | - | 0.165 | 3 | 0.494 | - | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.494 | | - | - | | - | - | | - | - | | - | - | |
| DUMP TRK W/ SNOWPLOW (2320-01-206-9156) | A | | - | - | - | 0.137 | 3 | 0.410 | - | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 0.410 | | - | - | | - | - | | - | - | | - | - | |
| 5 TON DUMP TRUCK (2320-00-706-5348) | A | | - | - | - | 0.108 | 6 | 0.646 | - | - | - | 0.116 | 5 | 0.582 | 0.116 | 1 | 0.116 | 0.116 | 0.116 | 6 | 0.698 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 0.538 | | - | - | | 5 | 0.582 | | 1 | 0.116 | | 6 | 0.698 | |
| AFR | | | | - | - | | 1 | 0.108 | | - | - | | - | - | | - | - | | - | - | |
| 2.5 CY SCOOP LOADER FT (3805-00-728-9718) | A | | - | - | - | 0.251 | 2 | 0.502 | 0.252 | 19 | 4.788 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.502 | | 19 | 4.788 | | - | - | | - | - | | - | - | |
| EXCAVATOR DIESEL ENGINE DRIVEN PT (3805-01-106-7176) | A | | - | - | - | 0.240 | 45 | 10.793 | 0.108 | 7 | 0.757 | 0.278 | 4 | 1.111 | 0.278 | 10 | 2.778 | 0.278 | 0.278 | 14 | 3.889 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 45 | 10.793 | | 7 | 0.757 | | 4 | 1.111 | | 10 | 2.778 | | 14 | 3.889 | |
| WHEELED DITCHING MACHINE (3805-01-032-9974) | A | | - | - | - | 0.197 | 20 | 3.944 | - | - | - | 0.211 | 23 | 4.850 | - | - | - | 0.211 | 0.211 | 23 | 4.850 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 20 | 3.944 | | - | - | | 22 | 4.639 | | - | - | | 22 | 4.639 | |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.211 | | - | - | | 1 | 0.211 | |
| 1.5 CY SCOOP LDR W/Q CPLR (3805-01-074-8111) | A | | - | - | - | 0.125 | 7 | 0.877 | 0.126 | 35 | 4.410 | 0.126 | 24 | 3.024 | - | - | - | 0.126 | 0.126 | 24 | 3.024 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 6 | 0.752 | | 28 | 3.528 | | 22 | 2.772 | | - | - | | 22 | 2.772 | |
| AFNG | | | | - | - | | - | - | | 7 | 0.882 | | 2 | 0.252 | | - | - | | 2 | 0.252 | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | | | | | | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles | | | | | | Aggregated Items Title: Base Maintenance Support Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFR | | | | - | - | | 1 | 0.125 | | - | - | | - | - | | - | - | | - | - |
| 4 CY SCOOP LDR PT (3805-01-075-1816) | A | | - | - | - | 0.229 | 55 | 12.591 | - | - | - | 0.244 | 35 | 8.552 | 0.244 | 3 | 0.733 | 0.244 | 38 | 9.285 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 55 | 12.591 | | - | - | | 35 | 8.552 | | 3 | 0.733 | | 38 | 9.285 |
| SCOOP LDR W/BKHOE (3805-00-148-2169) | A | | - | - | - | 0.083 | 55 | 4.562 | 0.084 | 23 | 1.921 | 0.084 | 36 | 3.007 | 0.084 | 3 | 0.251 | 0.084 | 39 | 3.258 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 55 | 4.562 | | 23 | 1.921 | | 35 | 2.923 | | 3 | 0.251 | | 38 | 3.174 |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.084 | | - | - | | 1 | 0.084 |
| SCOOP LOADER, SKID STEER 1CY (3805-01-257-5636) | A | | - | - | - | 0.076 | 27 | 2.060 | - | - | - | 0.076 | 16 | 1.220 | - | - | - | 0.076 | 16 | 1.220 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 27 | 2.060 | | - | - | | 15 | 1.144 | | - | - | | 15 | 1.144 |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.076 | | - | - | | 1 | 0.076 |
| DISTR BIT TRK MTD (3895-00-352-8105) | A | | - | - | - | 0.169 | 2 | 0.339 | 0.170 | 23 | 3.916 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.339 | | 23 | 3.916 | | - | - | | - | - | | - | - |
| PAVING MACH BITU (3895-01-057-5288) | A | | - | - | - | - | - | - | 0.334 | 6 | 2.004 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 6 | 2.004 | | - | - | | - | - | | - | - |
| ROLLER MOT PT SP 15T (3895-00-078-5898) | A | | - | - | - | 0.087 | 7 | 0.607 | 0.088 | 14 | 1.232 | 0.088 | 8 | 0.704 | 0.088 | 3 | 0.264 | 0.088 | 11 | 0.968 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 7 | 0.607 | | 13 | 1.144 | | 8 | 0.704 | | 3 | 0.264 | | 11 | 0.968 |
| AFNG | | | | - | - | | - | - | | 1 | 0.088 | | - | - | | - | - | | - | - |
| RLR RD TAND 2RL (3895-00-243-6797) | A | | - | - | - | 0.035 | 5 | 0.176 | 0.035 | 37 | 1.303 | 0.035 | 4 | 0.141 | - | - | - | 0.035 | 4 | 0.141 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 0.141 | | 36 | 1.268 | | 4 | 0.141 | | - | - | | 4 | 0.141 |
| AFNG | | | | - | - | | 1 | 0.035 | | - | - | | - | - | | - | - | | - | - |
| AFR | | | | - | - | | - | - | | 1 | 0.035 | | - | - | | - | - | | - | - |
| RLR VIB TYPE II (3895-01-071-5625) | A | | - | - | - | 0.148 | 43 | 6.369 | 0.150 | 35 | 5.250 | 0.150 | 22 | 3.300 | 0.150 | 3 | 0.450 | 0.150 | 25 | 3.750 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 42 | 6.221 | | 35 | 5.250 | | 22 | 3.300 | | 3 | 0.450 | | 25 | 3.750 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | | Date: February 2018 | | | | |
|--|-------|----------------|------------------|------------|-------------------|---|------------|-------------------|------------------|------------|-------------------|--|------------|-------------------|------------------|---------------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | | | | | | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles | | | | | | Aggregated Items Title: Base Maintenance Support Vehicles | | | | | | | | |
| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFNG | | | | - | - | | 1 | 0.148 | | - | - | | - | - | | - | - | | - | - |
| 1500G WATER DISTR (3825-00-554-1808) | A | | - | - | - | 0.191 | 54 | 10.310 | - | - | - | 0.181 | 15 | 2.715 | 0.181 | 2 | 0.362 | 0.181 | 17 | 3.077 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 54 | 10.310 | | - | - | | 15 | 2.715 | | 2 | 0.362 | | 17 | 3.077 |
| TRAC IND IW-70 (2420-00-113-8984) | A | | - | - | - | 0.051 | 18 | 0.926 | 0.067 | 10 | 0.672 | 0.067 | 59 | 3.966 | - | - | - | 0.067 | 59 | 3.966 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 16 | 0.823 | | 10 | 0.672 | | 58 | 3.899 | | - | - | | 58 | 3.899 |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.067 | | - | - | | 1 | 0.067 |
| AFR | | | | - | - | | 2 | 0.103 | | - | - | | - | - | | - | - | | - | - |
| DOZER T7 (2410-00-756-1161) | A | | - | - | - | 0.710 | 10 | 7.100 | 0.713 | 5 | 3.567 | 0.713 | 25 | 17.837 | 0.713 | 3 | 2.140 | 0.713 | 28 | 19.977 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 9 | 6.390 | | 5 | 3.567 | | 25 | 17.837 | | 3 | 2.140 | | 28 | 19.977 |
| AFNG | | | | - | - | | 1 | 0.710 | | - | - | | - | - | | - | - | | - | - |
| GRADER, SIZE V, TYPE III (3805-01-337-4624) | A | | - | - | - | 0.312 | 30 | 9.348 | 0.312 | 20 | 6.240 | 0.312 | 29 | 9.048 | 0.312 | 3 | 0.936 | 0.312 | 32 | 9.984 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 30 | 9.348 | | 20 | 6.240 | | 29 | 9.048 | | 3 | 0.936 | | 32 | 9.984 |
| TRACTOR, WHLD IND. (2420-01-536-8542) | A | | - | - | - | 0.148 | 1 | 0.148 | 0.149 | 81 | 12.109 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.148 | | 81 | 12.109 | | - | - | | - | - | | - | - |
| SEWER TRK TANDEM AXLE (2320-01-500-5501) | A | | - | - | - | 0.401 | 5 | 2.006 | 0.415 | 5 | 2.075 | 0.415 | 3 | 1.245 | - | - | - | 0.415 | 3 | 1.245 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 2.006 | | 5 | 2.075 | | 3 | 1.245 | | - | - | | 3 | 1.245 |
| WATER WAGON (3825-01-539-6813) | A | | - | - | - | 0.109 | 1 | 0.109 | - | - | - | 0.112 | 8 | 0.900 | 0.112 | 3 | 0.337 | 0.112 | 11 | 1.237 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.109 | | - | - | | 8 | 0.900 | | 3 | 0.337 | | 11 | 1.237 |
| TLR DITCHING MACH (2330-01-079-4053) | A | | - | - | - | 0.017 | 24 | 0.419 | - | - | - | 0.017 | 4 | 0.069 | - | - | - | 0.017 | 4 | 0.069 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 23 | 0.402 | | - | - | | 3 | 0.052 | | - | - | | 3 | 0.052 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFNG | | | | - | - | | 1 | 0.017 | | - | - | | 1 | 0.017 | | - | - | | 1 | 0.017 |
| CR HYD TRK 100-150T (3810-01-259-9992) | A | | - | - | - | 0.968 | 1 | 0.968 | 0.969 | 7 | 6.783 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.968 | | 7 | 6.783 | | - | - | | - | - | | - | - |
| GRADER, SZ 6 (3805-01-373-5314) | A | | - | - | - | 0.201 | 6 | 1.205 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 6 | 1.205 | | - | - | | - | - | | - | - | | - | - |
| 7.5 T CRANE (3810-01-106-3991) | A | | - | - | - | 0.306 | 7 | 2.141 | 0.309 | 5 | 1.543 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 7 | 2.141 | | 5 | 1.543 | | - | - | | - | - | | - | - |
| TLR MANHOLE CLNR (2330-00-307-3295) | A | | - | - | - | 0.055 | 1 | 0.055 | 0.055 | 16 | 0.880 | 0.055 | 6 | 0.330 | - | - | - | 0.055 | 6 | 0.330 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.055 | | 16 | 0.880 | | 5 | 0.275 | | - | - | | 5 | 0.275 |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.055 | | - | - | | 1 | 0.055 |
| TRUCK, DUMP (2320-01-344-9282) | A | | - | - | - | 0.144 | 50 | 7.188 | 0.139 | 6 | 0.836 | 0.139 | 84 | 11.697 | 0.139 | 3 | 0.418 | 0.139 | 87 | 12.115 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 50 | 7.188 | | 6 | 0.836 | | 83 | 11.558 | | 3 | 0.418 | | 86 | 11.976 |
| AFR | | | | - | - | | - | - | | - | - | | 1 | 0.139 | | - | - | | 1 | 0.139 |
| DRIER-MXR, BIT CONCR (3895-01-624-1958) | A | | - | - | - | 0.254 | 16 | 4.057 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 16 | 4.057 | | - | - | | - | - | | - | - | | - | - |
| 2000 GAL WATER TANK (3825-01-624-1963) | A | | - | - | - | 0.082 | 13 | 1.072 | - | - | - | 0.067 | 8 | 0.534 | 0.067 | 3 | 0.200 | 0.067 | 11 | 0.734 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 13 | 1.072 | | - | - | | 8 | 0.534 | | 3 | 0.200 | | 11 | 0.734 |
| MIXER, BITUMINOUS MA (3895-01-627-1341) | A | | - | - | - | 0.359 | 2 | 0.718 | - | - | - | 0.205 | 8 | 1.641 | 0.205 | 3 | 0.615 | 0.205 | 11 | 2.256 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.718 | | - | - | | 8 | 1.641 | | 3 | 0.615 | | 11 | 2.256 |
| T11 DOZER (2410-00-731-7872) | A | | - | - | - | - | - | - | 0.581 | 15 | 8.715 | - | - | - | - | - | - | - | - | - |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 15 | 8.715 | | - | - | | - | - | | - | |
| MIXER CON TRLR MTD (3895-01-005-5422) | A | | - | - | - | 0.288 | 4 | 1.150 | - | - | - | 0.286 | 10 | 2.861 | - | - | - | 0.286 | 10 | 2.861 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 1.150 | | - | - | | 9 | 2.575 | | - | - | | 9 | 2.575 |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.286 | | - | - | | 1 | 0.286 |
| COMPACT EXCAVATOR CRAWLER (3805-01-565-8767) | A | | - | - | - | 0.042 | 9 | 0.381 | - | - | - | 0.053 | 4 | 0.210 | - | - | - | 0.053 | 4 | 0.210 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 9 | 0.381 | | - | - | | 4 | 0.210 | | - | - | | 4 | 0.210 |
| SCRAPPER MOTORIZED 18CY (3805-00-234-9778) | A | | - | - | - | 0.704 | 5 | 3.519 | - | - | - | 0.704 | 4 | 2.815 | - | - | - | 0.704 | 4 | 2.815 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 3.519 | | - | - | | 4 | 2.815 | | - | - | | 4 | 2.815 |
| CRUSH-SCREEN 150TH (3820-00-060-1841) | A | | - | - | - | - | - | - | 2.323 | 4 | 9.293 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 4 | 9.293 | | - | - | | - | - | | - | - |
| T7 DOZER (2410-00-816-5091) | A | | - | - | - | 0.424 | 4 | 1.694 | 0.488 | 10 | 4.881 | 0.488 | 5 | 2.441 | - | - | - | 0.488 | 5 | 2.441 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 1.694 | | 10 | 4.881 | | 5 | 2.441 | | - | - | | 5 | 2.441 |
| SEMI TRAILER DUMP (2330-00-141-5567) | A | | - | - | - | 0.042 | 1 | 0.042 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.042 | | - | - | | - | - | | - | - | | - | - |
| TRK CNTRN-MAINT 4X2 SZ 5 (2320-01-030-7370) | A | | - | - | - | 0.106 | 2 | 0.212 | - | - | - | 0.108 | 5 | 0.541 | - | - | - | 0.108 | 5 | 0.541 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.106 | | - | - | | 5 | 0.541 | | - | - | | 5 | 0.541 |
| AFNG | | | | - | - | | 1 | 0.106 | | - | - | | - | - | | - | - | | - | - |
| CARR PERS ARMD (2350-00-968-6321) | A | | - | - | - | 0.078 | 2 | 0.155 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | 2 | 0.155 | | - | - | | - | - | | - | - | | - | - |
| TRAC WHLD W-DOZER (2420-00-540-3881) | A | | - | - | - | 0.528 | 3 | 1.585 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 3 | 1.585 | | - | - | | - | - | | - | - | | - | - |
| TRACTOR WHLD IND 90HP(2420-01-406-2995) | A | | - | - | - | 0.043 | 9 | 0.389 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 9 | 0.389 | | - | - | | - | - | | - | - | | - | - |
| LOADER SKID STEER TRACK MTD (3805-00-278-1245) | A | | - | - | - | 0.062 | 11 | 0.680 | - | - | - | 0.062 | 7 | 0.433 | - | - | - | 0.062 | 7 | 0.433 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 11 | 0.680 | | - | - | | 5 | 0.309 | | - | - | | 5 | 0.309 |
| AFNG | | | | - | - | | - | - | | - | - | | 2 | 0.124 | | - | - | | 2 | 0.124 |
| 50 TON CRANE (3810-00-272-9031) | A | | - | - | - | 0.624 | 3 | 1.872 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 1.248 | | - | - | | - | - | | - | - | | - | - |
| AFNG | | | | - | - | | 1 | 0.624 | | - | - | | - | - | | - | - | | - | - |
| CR WHLD HYD 15T (3810-00-329-4154) | A | | - | - | - | 0.352 | 9 | 3.172 | - | - | - | 0.343 | 4 | 1.372 | - | - | - | 0.343 | 4 | 1.372 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 9 | 3.172 | | - | - | | 4 | 1.372 | | - | - | | 4 | 1.372 |
| CR MSL ENG CHG 8 1-2T (3810-00-827-9352) | A | | - | - | - | 0.512 | 1 | 0.512 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.512 | | - | - | | - | - | | - | - | | - | - |
| CR HYD TRK MTD 60-65T (3810-01-038-8315) | A | | - | - | - | 0.695 | 1 | 0.695 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.695 | | - | - | | - | - | | - | - | | - | - |
| CRANE HYDRAULIC 15T (3810-01-485-8693) | A | | - | - | - | 0.196 | 5 | 0.982 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 5 | 0.982 | | - | - | | - | - | | - | - | | - | - |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| CRANE TRK MTD 28 TON (3810-001-506-6637) | A | | - | - | - | 0.266 | 4 | 1.063 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 4 | 1.063 | | - | - | | - | - | | - | - | | - | |
| PAVEMENT PROFILER (3895-01-108-3606) | A | | - | - | - | 0.358 | 7 | 2.506 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 7 | 2.506 | | - | - | | - | - | | - | - | | - | |
| TRUCK, WASTE WATER TANKER (2320-01-627-2536) | A | | - | - | - | - | - | - | - | - | 0.336 | 8 | 2.684 | - | - | - | 0.336 | 8 | 2.684 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | | 8 | 2.684 | | - | - | | 8 | 2.684 | |
| ROLLER MOTORIZED (3895-01-603-8654) | A | | - | - | - | 0.042 | 10 | 0.420 | 0.042 | 8 | 0.336 | 0.042 | 6 | 0.252 | 0.040 | 2 | 0.080 | 0.042 | 8 | 0.332 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 10 | 0.420 | | 8 | 0.336 | | 5 | 0.210 | | 2 | 0.080 | | 7 | 0.290 |
| AFNG | | | - | - | - | - | - | - | - | - | | 1 | 0.042 | | - | - | | 1 | 0.042 | |
| DUMP TRUCK 6X4 55K GVW (2320-01-058-5725) | A | | - | - | - | 0.130 | 16 | 2.081 | 0.134 | 7 | 0.938 | 0.134 | 15 | 2.010 | - | - | - | 0.134 | 15 | 2.010 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 15 | 1.951 | | 5 | 0.670 | | 15 | 2.010 | | - | - | | 15 | 2.010 |
| AFNG | | | - | - | - | | 1 | 0.130 | | 2 | 0.268 | | - | - | | - | - | | - | - |
| EXCAVATOR CRAWLER MTD (3805-01-058-3562) | A | | - | - | - | 0.178 | 6 | 1.067 | - | - | - | 0.178 | 5 | 0.889 | - | - | - | 0.178 | 5 | 0.889 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 5 | 0.889 | | - | - | | 5 | 0.889 | | - | - | | 5 | 0.889 |
| AFNG | | | - | - | - | | 1 | 0.178 | | - | - | | - | - | | - | - | | - | - |
| MIXER CONCRETE TM 6-8 CY (3895-00-834-6124) | A | | - | - | - | 0.290 | 18 | 5.219 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 15 | 4.349 | | - | - | | - | - | | - | - | | - | - |
| AFNG | | | - | - | - | | 3 | 0.870 | | - | - | | - | - | | - | - | | - | - |
| CRUSHING PLANT (3820-01-218-0595) | A | | - | - | - | - | - | - | 0.503 | 9 | 4.526 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | - | | 9 | 4.526 | | - | - | | - | - | | - | - | |
| COMPACT SHEEPS FOOT (3805-01-359-7626) | A | | - | - | - | | - | | - | - | 0.426 | 1 | 0.426 | | - | - | 0.426 | 1 | 0.426 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFNG | | | | - | - | | - | | - | - | | 1 | 0.426 | | - | - | | 1 | 0.426 | |
| DRILL ROCK (3820-00-00-050-9964) | A | | - | - | - | 0.453 | 2 | 0.906 | | - | - | 0.476 | 6 | 2.857 | | - | - | 0.476 | 6 | 2.857 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 0.906 | | - | - | | 5 | 2.381 | | - | - | | 5 | 2.381 |
| AFNG | | | | - | - | | - | - | | - | - | | 1 | 0.476 | | - | - | | 1 | 0.476 |
| SEWER TRK SINGLE AXLE (2320-01-501-8524) | A | | - | - | - | 0.369 | 25 | 9.225 | | - | - | | - | - | | - | - | | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 25 | 9.225 | | - | - | | - | - | | - | - | | - | - |
| 50T CRANE (3810-01-079-8358) | A | | - | - | - | | - | - | 0.414 | 4 | 1.654 | | - | - | | - | - | | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 4 | 1.654 | | - | - | | - | - | | - | - |
| WHLD HYD 15T (3810-00-554-4103) | A | | - | - | - | 0.657 | 2 | 1.314 | | - | - | | - | - | | - | - | | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 2 | 1.314 | | - | - | | - | - | | - | - | | - | - |
| DISTR WTR STRL (3825-00-570-3417) | A | | - | - | - | 0.121 | 4 | 0.484 | | - | - | | - | - | | - | - | | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 4 | 0.484 | | - | - | | - | - | | - | - | | - | - |
| PMA OTHER GOVERNMENT COSTS | A | | - | - | - | 0.006 | 1 | 0.006 | 0.014 | 1 | 0.014 | 0.017 | 1 | 0.017 | | - | - | 0.017 | 1 | 0.017 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 1 | 0.006 | | 1 | 0.014 | | 1 | 0.017 | | - | - | | 1 | 0.017 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 146.203 | - | - | 100.526 | - | - | 104.923 | - | - | 9.680 | - | - | 114.603 |
| Total | | | - | - | - | - | - | 146.203 | - | - | 100.526 | - | - | 104.923 | - | - | 9.680 | - | - | 114.603 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY19 ARE SUBJECT TO CHANGE.

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| | | |
|---|--|---|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 | P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles | Aggregated Items Title: Base Maintenance Support Vehicles |

PMA OTHER GOVERNMENT COSTS: Travel funds required

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
|---|---|

| | | |
|--|--|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
|--|--|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|----------------|----------------|--------------|----------------|---------------|---------------|----------------|----------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 81.738 | 115.000 | 114.372 | 0.000 | 114.372 | 97.661 | 93.321 | 115.248 | 117.299 | - | 734.639 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 81.738 | 115.000 | 114.372 | 0.000 | 114.372 | 97.661 | 93.321 | 115.248 | 117.299 | - | 734.639 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 81.738 | 115.000 | 114.372 | 0.000 | 114.372 | 97.661 | 93.321 | 115.248 | 117.299 | - | 734.639 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0208064F AIR FORCE Operational HQ-Cyber/Cyberspace Command and Control Mission System (C3MS)

Provides the AFCYBER Commander with the tools necessary to effectively and efficiently plan, monitor, and execute missions in the cyber domain. This includes development and dissemination of Cyberspace Tasking Orders to ensure commander's intent is supported through the application of cyber forces using the latest intelligence. C3MS provides a common operational picture to maintain cyberspace threat activities and integrates cyberspace indications and warnings, analysis, and other actionable intelligence products into overall situational awareness, planning, and execution. In FY19 C3MS will field security patches, vendor unique patches, operating system upgrades, and DoD mandated policy updates. Funding supports capital equipment replacements/updates to maintain security posture and field updates to two locations (1 AD/1 ANG).

PE 0208087F AF OFFENSIVE CYBERSPACE OPERATIONS

Provides for the support and deployment of cyberspace solutions in the form of material and non-material cyberspace network attack tools and exploits for USAF Offensive Cyberspace Operations (OCO) to include but not limited to USAF OCO units, the Cyber Mission Forces, COCOMs, and other authorized agencies. Funding procures specialized hardware/software necessary for real time deployment, exploit identification, tool development, and testing in an environment simulating real-world operational infrastructures and enclaves. Funding also is used for the procurement of the USAF operated cyber test and training range, operated by the 346th Test Squadron under the 688th Cyber Wing.

PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS

Provides defensive counter cyberspace capability that protects the AFNet and DoD network enclaves, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction.

PE 0303135F PUBLIC KEY INFRASTRUCTURE (PKI)

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| | | |
|--|--|---|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>PKI provides identity management (IDM) services to support warfighter requirements. Air Force IDM programs align with DoD IDM efforts and support DoD IDM Roadmap and Strategic Plan. PKI provides the basic framework and services implemented within DoD to ensure information systems security. It provides the capability to attach digital signatures to electronic documents for identity management, and to encrypt and decrypt electronic documents for secure transmission. PKI-enabled applications afford confidentiality and authentication services to communications and/or network transactions, as well as verification of the data integrity and non-repudiation of those transactions. PKI is one of many security solutions used to protect information and provide attributes enabling authorization access to critical resources in the Air Force Information Networks (AFIN) and is used concurrently with other solutions. Funding supports several different requirement areas to procure infrastructure equipment for the field in support of AFIN, PKI, Evolutionary PKI End User Equipment to include multifactor authentication technologies and authorization services and Less Than Medium Assurance (LTMA) capabilities and services. The current DoD PKI token (DoD Common Access Card (CAC)) is undergoing a gradual evolution towards a higher assurance token. Additionally, Homeland Security Presidential Directive-12 (HSPD-12) mandates a common identification card across the Federal Government. Based on the HSPD-12 requirements, the National Institute of Standards and Technology (NIST) developed Federal Information Processing Standard 201 (FIPS 201) which adds security requirements to the identification card.</p> <p>PE 0303140F INFORMATION SYSTEMS SECURITY PROGRAM:</p> <p>This program funds procurement of Communications Security (COMSEC) equipment, ancillary encryption/decryption devices, and related equipment to enable the secure transport of information. ISSP delivers on rising national, DoD, and AF priorities to address cybersecurity threats and increasing warfighter dependence on cyberspace. United States Air Force (AF) and the Department of Defense (DoD) require the capability to collect, process, and disseminate an uninterrupted flow of information while denying an adversary the ability to intercept, collect, destroy, interpret, or manipulate our information flows. Secure communication allows the DoD to achieve and maintain decision superiority, the key to successful application of the military instrument of national power in modern, high-tempo, full spectrum operations. AF COMSEC equipment protects information such as, warfighter positions, mission planning, target strikes, commander's orders, intelligence, force strength, and force readiness. This COMSEC program ensures adversaries cannot interpret, manipulate, or destroy information. When an adversary is capable of interpretation, manipulation, or destruction of the information used by the warfighter, DoD military forces may suffer significant and/or devastating mission degradation that can result in loss of life and resources and/or exceptionally grave damage to national security. The COMSEC program includes equipment upgrades and replacements which incorporate latest and/or best technologies mandated to provide mission critical warfighter secure voice and data communications in tactical, strategic, and network applications for our globally-deployed COMSEC crypto assets supporting both AF and DoD missions. Details of the assets are included in each section's narrative.</p> <p>Funding for this exhibit contained in PE 0208064F; PE 0208087F; PE 0208088F; PE 0303135F; PE 0303140F.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 831010 / Comsec Equipment
Equip / BSA 1: Comm Security Equipment(Comsec)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207448F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | OPERATIONAL HQ - CYBER | P-5a | B | | - / - | - / 0.000 | - / 11.106 | - / 11.778 | - / 0.000 | - / 11.778 |
| P-40a | AF Offensive Cyberspace Operations | | | | - / - | - / 0.000 | - / 0.000 | - / 8.370 | - / 0.000 | - / 8.370 |
| P-5 | AF Defensive Cyberspace Operations | P-5a, P-21 | A | | - / - | - / 22.678 | - / 30.586 | - / 32.730 | - / 0.000 | - / 32.730 |
| P-5 | Public Key Infrastructure (PKI) | P-5a | A | | - / - | 67,240 / 4.005 | 68,525 / 4.120 | 69,745 / 4.165 | - / 0.000 | 69,745 / 4.165 |
| P-5 | Information Systems Security Program | P-5a, P-21 | B | | - / - | - / 55.055 | - / 69.188 | - / 57.329 | - / 0.000 | - / 57.329 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 81.738 | - / 115.000 | - / 114.372 | - / 0.000 | - / 114.372 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

PE 0208064F AIR FORCE Operational HQ-Cyber/Cyberspace Command and Control Mission System (C3MS)

1 C3MS HARDWARE AND COMMERCIAL OFF-THE-SHELF SOFTWARE: FY19 funding replaces end-of-life weapon system SIPR hardware and software; and complete integration of the Internal Defense Measures (IDM) into the weapon system

PE 0208087F AF OFFENSIVE CYBERSPACE OPERATIONS

1. CYBER WORKFORCE TRAINING 39 IOS Formal Training Unit (FTU) EXPANSION EQUIPMENT: Funds the fit-out of the 39 IOS FTU expansion. FY19 funding procures non-MILCON hardware, software, and training equipment for the 39 IOS Formal Training Unit facility expansion to support Cyber Mission Forces (CMF) training throughput objective of 2000 students per year.

PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS

1. CYBERSPACE VULNERABILITY ASSESSMENT /HUNTER (CVA/H): FY19 funding provides full operational capability of CVA/Hunter equipment (the Garrison Interceptor Platform, Mobile interceptor Platform and Deployable Interceptor Platform) to 12 Active duty Cyber Protection Teams (CPTs), six National Cyber Protection Teams (NCPTs), and six Air National Guard (ANG CPTs). Funding provides for subsystem procurements, developing system images and fielding to CPTs, and N-CPTs. Additionally the funding will provide for the recapitalization of 34 Information Operation Fly Away Kit platforms in support of Cyber Protection Teams (CPTs). Mission Defense Team (MDT) Tool Kits will be procured and delivered to the pathfinder units in FY18 via the CVA/H PMO.

2. COMPUTER SECURITY ASSISTANCE PROGRAM (CSAP) COUNTERMEASURES: FY19 funding procures hardware/software necessary for vulnerability analysis, vulnerability identification, countermeasure development, and testing in an environment simulating real-world operational environment. From combat operations to social media use, network bandwidth requirements continue to explode at unprecedented rates. This ever-increasing throughput adds unparalleled threats to targeting AF cyber networks. To thwart adversary strategies, effective and innovative solutions must be implemented. These solutions provide daily support to multiple efforts including U.S. Cyber Command and other Combatant Commanders; 24th Air Force: 624 Operations Center; 67th Network Warfare Wing: 33rd Network Warfare Squadron (NWS) and 26th Network Operations Squadron (NOS); Air Force Network Integration Center, Defense Information Systems Agency, Air Force Office of Special Investigations, and other organizations that are integral to the successful performance of the 318 Cyber Operations Group (COG) mission. Threat relevant and time critical countermeasures are required to maintain the advantage against agile and capable adversaries. Without the CSAP system, the security of AF networks may be compromised due to inadequate facilities needed to innovate, to develop and test new intrusion detection signatures and investigate new technologies and architectures being integrated into AF networks.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>3. AIR FORCE COMPUTER EMERGENCY RESPONSE TEAM (AFCERT): No Budget Year FY19 funding requested.</p> <p>4. CYBER DEFENSE ANALYSIS (CDA): FY19 funding supports the Cyberspace Defense Analysis Weapon System the ability to procure necessary hardware and software related to projects that will help the weapon system achieve Full Operational Capability (FOC), as well as additional projects. These projects include Alternate Operating Location (AOL), Analysis and Reporting database search capabilities, Voice Over Internet Protocol (VoIP) monitoring and collection at all AF installations, early system development for CDA Training Simulator, early systems development for Data Loss Prevention, along with other CDA sub-system components and pathfinder efforts.</p> <p>5. WEAPON SYSTEM CYBER RESPONSE (WSCR): For the Comm Squadron Initiative (CSI), the Mission Defense Team (MDT) Tool Kits will be procured and delivered to the pathfinder units in FY19 via the CVA/H PMO. The Pathfinder Units' MDTs will use the Toolkit to provide cyber assurance of the Air Force core missions. Funding is required to increase the cyber resiliency of AF weapon systems and accelerate the development cyber squadron initiative tools that will be used to defend cyberspace fielded weapon systems. These funds enable the deployment of tools into the Cyber Mission Defense teams hands 1 to 2 years early for path finding activities to discover the best defense posture for Air Force Information Network (AFIN) weapon system protection.</p> <p>PE 0303135F PUBLIC KEY INFRASTRUCTURE (PKI):</p> <p>1. EVOLUTIONARY PKI END USER EQUIPMENT: FY19 funding supports PKI Identity and Access Management needs that must be procured rapidly to strengthen and defend the Air Force Information Network (AFIN) from new and evolving vulnerabilities. Funding and quantities directly support PKI-based software authentication and hardware security afforded by smartcards or other hardware methods, enabling users to authenticate securely to the network. As PKI continues to evolve, there is an increased need for alternative methods of two-factor authentication as well as the introduction of multi-factor authentication methods. The classic paradigm for authentication systems identifies three factors as the cornerstone of authentication: 1) Something you know (e.g., a password or PIN), 2) Something you have (e.g., an ID badge or a cryptographic key), and 3) Something you are (e.g., a fingerprint or biometric data). Multi-factor authentication refers to the use of more than one of the factors. The strength of authentication systems is largely determined by the number of factors incorporated by the system. While the Alternative Tokens (ALT) provide usable two factor authentication for many use cases, the sustainability of continued issuance of such hardware tokens is short-lived for several reasons. This effort will examine alternate e-authentication technologies that may provide appropriate multi-factor authentication for users, privileged users and system administrators. FY19 Funding also supports identity management for mobile solutions and Less Than Medium Assurance (LTMA) solutions for non-person device.</p> <p>2. AIR FORCE DIRECTORY SERVICES (AFDS): AFDS is one of three pillars of DoD Identity Management. The others are PKI and CAC. AFDS ensures that AF user identities are common and synchronized across directories and information stores of various networks, systems, and applications. AFDS eliminates the disparity of maintaining stove-piped systems and through the use of directory technology, alleviates latency associated with the sharing/replication of identity data attributes. AFDS supports delivery of an enterprise security service and backbone for AF networks (both in-garrison and tactical), by providing AF user credentials to the AF Network Enterprise and AF system applications. AFDS addresses challenges and enhances AF mission performance through seamless integrated access to the right information anywhere, anytime. AFDS leverages and provides a core meta-directory service that "joins" and synchronizes personal identity data attributes from authoritative AF and DoD repositories for use by all AF systems and applications. FY19 funds will procure hardware, software, and support upgrades.</p> <p>PE 0303140F INFORMATION SYSTEMS SECURITY PROGRAM:</p> <p>1. AIR AND GROUND (A&G) COMSEC PROGRAM: The Air and Ground COMSEC Program procures and supports a wide range of secure encryption products supporting AF, inter-service, and various DoD agency customers; and includes items approved under National Security Agency's Commercial COMSEC Evaluation Program (CCEP) such as KIV-7M, Tactical fast lane (TACLANE), and other High Assurance Internet Protocol Encryptor (HAIPE) devices. The program includes equipment upgrades and replacements that incorporate state-of-the-art technologies for mission-critical warfighter secure voice and data communications. The program provides needed upgrades to encryption devices in FY17, FY18 and FY19 to comply with NSA's Advanced Cryptographic Capabilities (ACC) directives. The program supports tactical, strategic, and network applications for globally deployed cryptologic assets supporting Air Force and DoD. Supported systems fall within Air Force Information Systems Security and Information Assurance arenas. Funding for this effort is in PE 0303140F.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 8080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>a. IN-LINE NETWORK ENCRYPTORS: Previously called "Network Encryption Systems. FY19 funding fields the new In-Line Network Encryptors (INE) required to maintain the confidentiality, data integrity, and non-repudiation of classified communications. INEs are the mainstay for securing communications used in classified terrestrial and airborne communications networks. The new INEs feature robust data encryption improvements included in the HAIPE Interoperability Specification (HAIPE IS) as well as Internet Protocol Version 6 capability that will improve security and expand the bandwidth of USAF secure Internet Protocol networks.</p> <p>b. LINK ENCRYPTION FAMILY (LEF): FY19 funds provide for the replacement of the legacy LEF with new more secure crypto modernization compliant LEF devices. The LEF provides near real time secure communications for national and command level decision making authorities up to TOP SECRET SCI. The new LEF devices include more robust encryption algorithms, as well as dual channel, increased bandwidth capability, and reprogrability. NSA has issued classified instructions regarding the use of specific LEF devices.</p> <p>c. AIR AND GROUND COMSEC CONSOLIDATED: The following requirements have been combined into one line: Secure Telephones, COMSEC Acquisition Reform (CAR), Peculiar Support Equipment, Secure Communications Voice/Data, Embedded Encryption Devices, and Telemetry Encryption Devices. FY19 funds procure secure voice/data equipment, latest generation Tier 3 devices (SKLs/NGLD-Ms/TKLs), DOD Type I COMSEC equipment and commercial cryptography products, testing and support equipment, embedded COMSEC modules, and telemetry devices and Link-16. The Air and Ground COMSEC line is an aggregate of numerous items. Each year the type and/or quantity of items utilized to meet requirements varies; an average unit cost is based on number/type of units planned for purchase.</p> <p>2. CRYPTOGRAPHIC MODERNIZATION: The DoD is transforming its existing operational capabilities to realize a seamless Joint network of information and engagement grids that securely link sensors, command and control cells, and tactical units to support current and future warfighting capabilities. This includes cryptographic devices that are more robust, modular, scalable, capable, net-centric, and durable allowing more effective and efficient performance including reduced inventory, expanded data rates, simplified upgrades, reduced costs, and ensured Global Information Grid-compatibility. The Global Information Grid (GIG) requires a transformed cryptographic inventory. The DoD Cryptographic Modernization (CM) Initiative delivers that inventory, ensuring a strong security posture for national security and tactical communications systems by providing transparent cryptographic capabilities consistent with operational imperatives, National Security Agency mandates, and mission environments. The future inventory will provide security devices that ease logistics, support joint interoperability, improve interoperability with allies and coalition partners, enable network-centric and transparent key/equipment management, and allow effective future upgrades. These CM programs enable information dominance by developing and procuring communications security devices that deter and deny known and emerging threats while accommodating significantly increased bandwidths and processing speeds without increasing communication transient and information holding risk. Current CM programs will ensure modernized, secure communications capability to VINSON/ANDVT radios, the Identification Friend Foe (IFF) Mode 5 system, and miniaturized crypto for small unmanned systems. Current programs will replace/upgrade over 30,000 devices out of the Air Force's 245,000+ crypto devices and provided over 100,000 new devices where none were previously available. Other programs are undergoing development under the auspices of other lines in this PE in order to meet emerging COMSEC requirements for Key Management Infrastructure compatibility, as well as various enterprise-wide technological upgrades mandated under the National Security Agency assessments and Policy #3-9 Cryptographic Modernization Initiative Requirements for Type 1 Cryptographic Products. Funding for this effort is in PE 0303140F.</p> <p>a. IDENTIFICATION FRIEND OR FOE (IFF) MODE 5 CRYPTO MODERNIZATION: This program developed and is procuring devices to encrypt/decrypt IFF Mode 4 and Mode 5 interrogator and transponder operations. These devices, built to Air Traffic Control Radar Beacon System (ATCRBS), IFF, Mark XIIA, System (AIMS) 04-900 Cryptographic Interface Standard, are integrated into all airborne platforms and ground radar applications to provide critical, immediate tactical aircraft identification data to ground and airborne systems. Procurement of the two primary devices, KIV-77 and KIV-78, concluded in FY15 for the KIV-78 and will conclude in FY18 for KIV-77 (required to outfit most of the USAF fleet) and a remote form factor for certain C2 AF aircraft:</p> <p>(1). KIV-78 DEVICES: The FY19 funding procured the technical support and travel CLINS for the KIV-78s. KIV-78 is a cryptographic device developed by the USAF in conjunction with Navy IFF Mode 5 upgrades for USAF F-16s and U.S. Navy /U.S. Marine Corps F /A-18s.</p> <p>(2) KIV-77 DEVICES: The FY19 funding procures KIV-77s. KIV-77 is a cryptographic device developed by the USAF to integrate into the APX-119 IFF host box used in the majority of USAF aircraft and ground surveillance/control systems.</p> <p>b. VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM): FY19 funds support the VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) program. VACM is an element of the USAF CM Program designed to replace the legacy capability on VINSON/ANDVT secure voice communications on aircraft, ships, and ground fixed and mobile platforms including critical Nuclear Command and Control (NC2) and other Top Secret and Secret networks (Devices: KY-57/58,KY-99/100 and USC-43). The VACM Embedded Project upgrades the Baseband Input/Output (BBIO) module as a permanent modification of the ARC-234.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(1) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) COMPONENTS (ARC-234): The VACM Embedded Project was established to modernize cryptographic devices that are integrated within various Vinson/ANDVT radios. The BBIO module performs COMSEC functions for the ARC-234. The Permanent Sustainment Modification of the ARC-234 will retain Embedded Communications Security (COMSEC) capability by upgrading the BBIO module with reprogrammable hardware and modern crypto algorithms.</p> <p>(2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) COMPONENTS (ARC-234), Installation: The upgraded BBIOs will be installed/modified into the ARC-234 radios.</p> <p>(3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES: The VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) program is procuring devices. The production line will replace five crypto device types on critical national leadership networks including airborne, ground and mobile platforms.</p> <p>c. MISSILE ELECTRONIC ENCRYPTION DEVICE (MEED): The MEED Modification will procure modified Missile Entry Control System (MECS) KL-90 devices used encrypt/decrypt personnel authentication and lock combination transmission to ensure only authorized personnel enter into Intercontinental Ballistic Missile (ICBM) control centers and facilities. This effort will field the MEED equipment in compliance with current NSA information assurance (IA) security design guidance.</p> <p>FY19 Plans: Award Production Task Order (2QFY19) Begin fielding 2nd Task Order of KL-90 4QFY19</p> <p>FY20 Plans: Award Production Task Order (4QFY20) for Life of Type Buy (1080 units) Begin fielding 3rd and final task order of KL-90 4QFY20</p> <p>d. MINI CRYPTO (MC): Developing a Tactical Key Management (TKM) miniaturized cryptographic solution to protect Secret and Below (SaB) Command and Control (C2) and mission data for Size, Weight, and Power (SWaP) constrained platforms which currently have no cryptographic capability and transmit in the clear. MC's Tactical Key Management (TKM) solution has a self-generating key which removes the requirement for pre-placed keys and has the ability to add or remove users as tactical situation dictates.</p> <p>e. PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY19 program management administration funding supports management with engineering and technical expertise in support of development and procurement activities.</p> <p>f. TECHNOLOGY DEVELOPMENT (TD): Technical Development (TD) conducts concept development and early systems engineering activities to analyze evolving threats and Communications Security (COMSEC) capability gaps across AF mission areas. Develops, plans and executes foundational technology maturation efforts to inform COMSEC requirements, build capability roadmaps and support cost estimates prior to Materiel Development Decision (MDD). Mitigates risk for thousands of AF users affected by algorithm security issues and ensures required security upgrades can be integrated into the AF enterprise. Works with NSA and other services to develop standards that increase security of communication and information products and facilitate efficient crypto and COMSEC enterprise management.</p> <p>FY19 Plans: (1) Distributed Common Ground System (DCGS) Crypto (2) Classified Data at Rest (CDAR) Crypto: Continued procurement of legacy encryption solutions for application to unprotected legacy Air Force platforms. (3) Trusted Sensor (TS) Crypto: Completion of procurement of Trusted Sensor network encryptors with software package enabling intrusion detection on classified and unclassified networks by CVA/H weapon system.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(4) Integrated Data Denial (IDD) Crypto: No action planned</p> <p>(5) Advanced Crypto Capabilities (ACC): Planned modification activity in support of KG-245A.</p> <p>(6) COMSEC/CCI Tracking tool: Accountability of COMSEC items</p> <p>(7) CLASSIFIED DATA AT REST (CDAR): CDAR will initially support four use cases that have been identified as high priority by CYSS and NSA: Hard Disk (HDD) transfer, Large Manned ISR Platforms, Remotely Piloted Aircraft/Pods/Payloads, and Manned Tactical. Pending results of an Alternative of Analysis, two of the four use cases may be solvable by the procurement of off-the-shelf encryption products.</p> <p>(8) TRUSTED SENSOR (see item 3 under TD for description)</p> <p>FY19 Plans:</p> <p>(1) Complete Low Rate Initial Production (LRIP) activities</p> <p>(2) Provide remaining LRIP units to MC Users</p> <p>(3) Provide support to MC Users as they integrate MC into their platforms</p> <p>(4) Seek feedback from MC Users during embedment and any User's operational test activities</p> <p>(5) Prepare Engineering Change Proposals to address identified deficiencies</p> <p>(6) Exercise Full Rate Production (FRP) option</p> <p>3. AIR FORCE ELECTRONIC KEY MANAGEMENT SYSTEM (AFEKMS): AFEKMS is a part of the AF Key Management Enterprise (KME), a sustainment program that works in concert with the DoD EKMS Program to provide secure, flexible, and timely upgrades to cryptographic key generation, distribution, and management systems. AFEKMS sustains the current Electronic Key Management System and serves as the bridge to the full operational capability (FOC) of DoD KMI. The Air Force continues to purchase AF EKMS physical products required under the COMSEC Material Control System (CMCS). Funding for this effort is in program element 0303140F.</p> <p>a. TECHNICAL UPDATES: Effort ended in FY18. Effort procured hardware and software products necessary to update the Tier 1 Net Key Servers, Tier 3 system data management devices (DMDs); and systems to maintain an audit trail for COMSEC materials.</p> <p>b. SIMPLE KEY LOADER (SKL) & REFRESH: Effort ended in FY18. Effort procured AN/PYQ-10 SKL units which are controlled cryptographic items that are mission essential to load Crypto key into various platforms. SKLs replace the obsolete AN/CYZ-10 and SKLs that were fielded in prior years (end-of-life due to KOV-21 card). Disruption of the SKL delivery schedule could degrade and/or disrupt secure communications in the battlefield. Capital Equipment Replacement continues incrementally across the FYDP until the Air Force Last Mile Load Element is fielded.</p> <p>4. AIR FORCE KEY MANAGEMENT ENTERPRISE (AF KME): The Department of Defense (DoD) has directed the replacement of the legacy Air Force Electronic Key Management System (AFEKMS) portion of the AF Key Management Enterprise (KME) with the DoD Key Management Infrastructure (KMI). The Air Force KMI transition activity procures and deploys the DoD KMI training, equipment and software within the AF to provide mission critical Communications Security support for all AF mission and platforms implementing the core capability for the AF's future KME. The AF KMI transition activity procures KMI connectivity, key management and cryptographic unique/certified products (Tier 2) to replace legacy AFEKMS equipment per National Security Agency (NSA) mandates and to field KMI-enabled products that have been under previous years DOD development. Remote ReKey, a system for multiple Homeland Defense and other radar sites, will complete installation of the few remaining, unmodernized-Nuclear Command and Control (NC2) networks. Funding for this effort is in program element 0303140F.</p> <p>a. KMI Hardware (Tier 2): FY19 funding procures: KMI Management Clients (MGCs)that provide the user interface; Advanced Key Processors (AKPs) that provide the cryptographic capability to interact with the DOD KMI.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) | | P-1 Line Item Number / Title: 831010 / Comsec Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207448F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>b. REMOTE REKEY (RRK) (CI-33) DEVICES: The RRK modernization program, a part of the AF Key Management Enterprise (KME), will include the current CI-13 capabilities, expand ability to store keying material and rekey other cryptographic devices, and add capability to key/rekey the new Identification Friend or Foe Mode 5 system. RRK uses existing Defense Information Systems Network (DISN) infrastructure communications to distribute key material produced via the Electronic Key Management System (EKMS) or the Key Management Infrastructure (KMI) capabilities, to manage the distribution network, and to configure/status remote End Cryptographic Units (ECUs).</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: OPERATIONAL HQ - CYBER |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 11.106 | 11.778 | 0.000 | 11.778 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 11.106 | 11.778 | 0.000 | 11.778 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 11.106 | 11.778 | 0.000 | 11.778 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - OPERATIONAL HQ - CYBER Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| 1. HARDWARE AND COMMERCIAL OFF THE SHELF SOFTWARE ^(t) | - | - | - | - | - | - | 9.007 | 1 | 9.007 | 9.620 | 1 | 9.620 | - | - | - | 9.620 | 1 | 9.620 |
| 2. PROGRAM MANAGEMENT ADMINISTRATION (PMA) | - | - | - | - | - | - | - | - | 1.099 | - | - | 1.090 | - | - | - | - | - | 1.090 |
| 3. TRAINING and FIELDING | - | - | - | - | - | - | - | - | 1.000 | - | - | 1.068 | - | - | - | - | - | 1.068 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 11.106 | - | - | 11.778 | - | - | - | - | - | 11.778 |
| <i>Subtotal: Hardware - OPERATIONAL HQ - CYBER Cost</i> | - | - | - | - | - | - | - | - | 11.106 | - | - | 11.778 | - | - | - | - | - | 11.778 |
| Gross/Weapon System Cost | - | - | - | - | - | 0.000 | - | - | 11.106 | - | - | 11.778 | - | - | 0.000 | - | - | 11.778 |

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: OPERATIONAL HQ - CYBER |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| 1. HARDWARE AND COMMERCIAL OFF THE SHELF SOFTWARE | | 2018 | TBD / TBD | TBD | CPSG | Feb 2018 | Apr 2018 | 1 | 9.007 | N | Jan 2018 | |
| 1. HARDWARE AND COMMERCIAL OFF THE SHELF SOFTWARE | | 2019 | TBD / TBD | TBD | CPSG | Feb 2019 | Apr 2019 | 1 | 9.620 | N | Jan 2019 | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Aggregated Items Title: AF Offensive Cyberspace Operations |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Cyber Workforce Training PE 0208087F | | | | | | | | | | | | | | | | | | | | |
| 39 IOS FTU Expansion Equipment | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | 8.370 | 1 | 8.370 | - | - | 0.000 | 8.370 | 1 | 8.370 |
| Subtotal: Cyber Workforce Training PE 0208087F | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 8.370 | - | - | 0.000 | - | - | 8.370 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 8.370 | - | - | 0.000 | - | - | 8.370 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Funding supports Cyber Workforce Training requirements.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|--------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 22.678 | 30.586 | 32.730 | 0.000 | 32.730 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 22.678 | 30.586 | 32.730 | 0.000 | 32.730 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 22.678 | 30.586 | 32.730 | 0.000 | 32.730 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - 0208088F COMSEC Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Cyberspace Vulnerability Assessment/Hunter ^(†) | - | - | - | 4.970 | 4 | 19.878 | 2.125 | 9 | 19.126 | 2.813 | 9 | 25.318 | - | - | 0.000 | 2.813 | 9 | 25.318 |
| Computer Security Assistance Program (CSAP) Countermeasures | - | - | - | 0.463 | 5 | 2.314 | 0.791 | 5 | 3.954 | 0.481 | 5 | 2.403 | - | - | - | 0.481 | 5 | 2.403 |
| AFCERT Upgrade Sensors | - | - | - | 0.039 | 2 | 0.077 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFCERT Upgrade Switch | - | - | - | 0.045 | 2 | 0.089 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFCERT Virtual Private Network (VPN Module) | - | - | - | 0.038 | 2 | 0.076 | - | - | - | - | - | - | - | - | - | - | - | - |
| Cyberspace Defense Analysis ^(†) | - | - | - | 0.081 | 3 | 0.244 | 1.313 | 3 | 3.940 | 1.259 | 1 | 1.259 | - | - | - | 1.259 | 1 | 1.259 |
| WSCR ^(†) | - | - | - | - | - | - | 0.238 | 15 | 3.566 | 0.250 | 15 | 3.750 | - | - | - | 0.250 | 15 | 3.750 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | <i>22.678</i> | - | - | <i>30.586</i> | - | - | <i>32.730</i> | - | - | <i>0.000</i> | - | - | <i>32.730</i> |
| <i>Subtotal: Hardware - 0208088F COMSEC Cost</i> | - | - | - | - | - | <i>22.678</i> | - | - | <i>30.586</i> | - | - | <i>32.730</i> | - | - | <i>0.000</i> | - | - | <i>32.730</i> |
| Gross/Weapon System Cost | - | - | - | - | - | 22.678 | - | - | 30.586 | - | - | 32.730 | - | - | 0.000 | - | - | 32.730 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: | |
| ^(†) indicates the presence of a P-5a | | |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Cyberspace Vulnerability Assessment/Hunter | | 2017 | Multiple / Various | Various | CPSG | Sep 2017 | Mar 2018 | 4 | 4.970 | Y | | |
| Cyberspace Vulnerability Assessment/Hunter | | 2018 | Multiple / Various | Various | CPSG | Mar 2018 | Sep 2018 | 9 | 2.125 | Y | | |
| Cyberspace Vulnerability Assessment/Hunter ^(†) | | 2019 | Multiple / Various | Various | CPSG | Dec 2018 | Mar 2019 | 9 | 2.813 | Y | | |
| Cyberspace Defense Analysis | | 2017 | TBD / Texas | Various | CPSG | May 2017 | Jul 2017 | 3 | 0.081 | Y | | |
| Cyberspace Defense Analysis | | 2018 | TBD / Texas | Various | CPSG | Mar 2018 | Jul 2019 | 3 | 1.313 | Y | | |
| Cyberspace Defense Analysis | | 2019 | TBD / Texas | Various | CPSG | Feb 2019 | Jul 2021 | 1 | 1.259 | Y | | |
| WSCR | | 2018 | Multiple / Various | Various | CPSG | Jan 2017 | May 2018 | 15 | 0.238 | Y | | |
| WSCR | | 2019 | TBD / Texas | Various | CPSG | Mar 2019 | Jun 2019 | 15 | 0.250 | Y | | |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2017 | | | | | | | | | | | | Fiscal Year 2018 | | | | | | | | | | | | BALANCE | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2016 | BAL DUE AS OF 1 OCT | Calendar Year 2017 | | | | | | | | | | | | Calendar Year 2018 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| Cyberspace Vulnerability Assessment/Hunter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2019 | AF | 9 | 0 | 9 | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2019 | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | BALANCE | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| Cyberspace Vulnerability Assessment/Hunter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2019 | AF | 9 | 0 | 9 | | | A | - | - | - | 3 | | | | | | | | | | | | | | | | 6 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2019 Air Force | Date: February 2018 |
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| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: AF Defensive Cyberspace Operations |
|---|---|---|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | | |
|-----------|------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|---|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | |
| 1 | Multiple - Various | 2 | 3 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Public Key Infrastructure (PKI) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | 67,240 | 68,525 | 69,745 | - | 69,745 |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 4.005 | 4.120 | 4.165 | 0.000 | 4.165 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 4.005 | 4.120 | 4.165 | 0.000 | 4.165 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 4.005 | 4.120 | 4.165 | 0.000 | 4.165 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|-------|-------|-------|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - 0303135F COMSEC Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| 1. EVOLUTIONARY PKI END USER EQUIPMENT | - | - | - | 0.000 | 67,235 | 3.334 | 0.000 | 68,520 | 3.426 | 0.000 | 69,740 | 3.462 | - | - | - | 0.000 | 69,740 | 3.462 |
| 2. AIR FORCE DIRECTORY SERVICES ^(†) | - | - | - | 0.134 | 5 | 0.671 | 0.139 | 5 | 0.694 | 0.141 | 5 | 0.703 | - | - | 0.000 | 0.141 | 5 | 0.703 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 4.005 | - | - | 4.120 | - | - | 4.165 | - | - | 0.000 | - | - | 4.165 |
| <i>Subtotal: Hardware - 0303135F COMSEC Cost</i> | - | - | - | - | - | 4.005 | - | - | 4.120 | - | - | 4.165 | - | - | 0.000 | - | - | 4.165 |
| Gross/Weapon System Cost | - | - | - | 0.000 | 67,240 | 4.005 | 0.000 | 68,525 | 4.120 | 0.000 | 69,745 | 4.165 | - | - | 0.000 | 0.000 | 69,745 | 4.165 |

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Public Key Infrastructure (PKI) |
|---|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---------------------------------|-------------|------|-------------------------|--------------------------------------|------------------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| 2. AIR FORCE DIRECTORY SERVICES | | 2017 | TBD / TBD | Various | CAP, Inc. Maxwell AFB, AL | Sep 2017 | Nov 2017 | 5 | 0.134 | Y | | |
| 2. AIR FORCE DIRECTORY SERVICES | | 2018 | TBD / TBD | Various | CAP, Inc. Maxwell AFB, AL | Mar 2018 | May 2018 | 5 | 0.139 | Y | | |
| 2. AIR FORCE DIRECTORY SERVICES | | 2019 | TBD / TBD | Various | CAP, Inc. Maxwell AFB, AL | Mar 2019 | May 2019 | 5 | 0.141 | Y | | |

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|---|--|--|--|---|----------------|----------------------------|---|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | Date: February 2018 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | | | | P-1 Line Item Number / Title: 831010 / Comsec Equipment | | | Item Number / Title [DODIC]: Information Systems Security Program | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | - | 55.055 | 69.188 | 57.329 | 0.000 | 57.329 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | - | 55.055 | 69.188 | 57.329 | 0.000 | 57.329 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | - | 55.055 | 69.188 | 57.329 | 0.000 | 57.329 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - 1. AIR and GROUND COMSEC (PE 0303140F) Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| a. IN-LINE NETWORK ENCRYPTORS ^(†) | - | - | - | 0.016 | 960 | 15.412 | 0.016 | 117 | 1.876 | 0.016 | 235 | 3.756 | - | - | 0.000 | 0.016 | 235 | 3.756 |
| b. LINK ENCRYPTION FAMILY ^(†) | - | - | - | - | - | - | - | - | - | 0.009 | 387 | 3.479 | - | - | - | 0.009 | 387 | 3.479 |
| c. AIR AND GROUND CONSOLIDATED ^(†) | - | - | - | 0.003 | 1,100 | 2.864 | 0.003 | 5,408 | 14.083 | 0.003 | 3,344 | 10.033 | - | - | - | 0.003 | 3,344 | 10.033 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 18.276 | - | - | 15.959 | - | - | 17.268 | - | - | 0.000 | - | - | 17.268 |
| <i>Subtotal: Hardware - 1. AIR and GROUND COMSEC (PE 0303140F) Cost</i> | - | - | - | - | - | 18.276 | - | - | 15.959 | - | - | 17.268 | - | - | 0.000 | - | - | 17.268 |
| Hardware - 2. CRYPTOGRAPHIC MODERNIZATION (PE 0303140F) Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| a (1). KIV-78 ^(†) | - | - | - | - | - | - | 0.010 | 90 | 0.927 | 0.009 | 20 | 0.177 | - | - | - | 0.009 | 20 | 0.177 |
| a (2) KIV-77 | - | - | - | 0.062 | 17 | 1.058 | 0.065 | 17 | 1.105 | - | - | - | - | - | - | - | - | - |
| b. (1) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) COMPONENTS (ARC-234) | - | - | - | 0.025 | 201 | 5.014 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| b. (2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) | - | - | - | 0.012 | 101 | 1.184 | 0.011 | 63 | 0.698 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Information Systems Security Program |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| COMPONENTS (ARC-234) INSTALLATION | | | | | | | | | | | | | | | | | | |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES ^(f) | - | - | - | 0.011 | 453 | 4.987 | 0.013 | 1,216 | 15.361 | 0.012 | 1,023 | 12.014 | - | - | - | 0.012 | 1,023 | 12.014 |
| c. MISSILE ELECTRONIC ENCRYPTION DEVICES (MEED) ^(f) | - | - | - | - | - | - | 0.010 | 400 | 4.156 | 0.010 | 1,532 | 15.927 | - | - | - | 0.010 | 1,532 | 15.927 |
| e. PROGRAM MANAGEMENT (PMA) | - | - | - | - | - | 2.009 | - | - | 1.654 | - | - | 2.465 | - | - | - | - | - | 2.465 |
| h. MINI CRYPTO ^(f) | - | - | - | - | - | - | 0.002 | 1,191 | 2.827 | 0.030 | 229 | 6.805 | - | - | - | 0.030 | 229 | 6.805 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 14.252 | - | - | 26.728 | - | - | 37.388 | - | - | - | - | - | 37.388 |
| <i>Subtotal: Hardware - 2. CRYPTOGRAPHIC MODERNIZATION (PE 0303140F) Cost</i> | - | - | - | - | - | 14.252 | - | - | 26.728 | - | - | 37.388 | - | - | - | - | - | 37.388 |
| Hardware - 3. AF EKMS (PE 0303140F) Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| a. TECHNICAL UPDATES | - | - | - | - | - | 1.049 | - | - | 0.714 | - | - | - | - | - | - | - | - | - |
| b. SIMPLE KEY LOADER (SKL) and REFRESH | - | - | - | 0.003 | 3,153 | 9.460 | 0.003 | 2,888 | 8.664 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 10.509 | - | - | 9.378 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware - 3. AF EKMS (PE 0303140F) Cost</i> | - | - | - | - | - | 10.509 | - | - | 9.378 | - | - | - | - | - | - | - | - | - |
| Hardware - 4. AF KMI (PE 0303140F) Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| a. KMI HARDWARE | - | - | - | 0.032 | 350 | 11.203 | 0.035 | 65 | 2.283 | 0.041 | 65 | 2.673 | - | - | - | 0.041 | 65 | 2.673 |
| b. REMOTE REKEY (RRK) (CI-33) | - | - | - | - | - | 0.815 | 0.412 | 36 | 14.840 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 12.018 | - | - | 17.123 | - | - | 2.673 | - | - | - | - | - | 2.673 |
| <i>Subtotal: Hardware - 4. AF KMI (PE 0303140F) Cost</i> | - | - | - | - | - | 12.018 | - | - | 17.123 | - | - | 2.673 | - | - | - | - | - | 2.673 |
| Gross/Weapon System Cost | - | - | - | - | - | 55.055 | - | - | 69.188 | - | - | 57.329 | - | - | 0.000 | - | - | 57.329 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Information Systems Security Program |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |
| Remarks: COMSEC Equipment is procured as a centrally managed item using 3080. (t) indicates the presence of a P-5a | | |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Information Systems Security Program |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$ M) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|----------------------------|--------------------------------------|--------------------|---------------|------------------------------|---------------|---------------------|------------------------|-------------------------------|-------------------|
| a. IN-LINE NETWORK ENCRYPTORS | | 2017 | General Dynamics / Various | Various | NSA | Nov 2016 | Jan 2017 | 960 | 0.016 | Y | | |
| a. IN-LINE NETWORK ENCRYPTORS | | 2018 | General Dynamics / Various | Various | NSA | Nov 2017 | Jan 2018 | 117 | 0.016 | Y | | |
| a. IN-LINE NETWORK ENCRYPTORS | | 2019 | General Dynamics / Various | Various | NSA | Nov 2018 | Jan 2019 | 235 | 0.016 | Y | | |
| b. LINK ENCRYPTION FAMILY | | 2019 | General Dynamics / Various | Various | NSA | Nov 2018 | Jan 2019 | 387 | 0.009 | Y | | |
| c. AIR AND GROUND CONSOLIDATED | | 2017 | General Dynamics / Various | Various | NSA | Feb 2017 | Mar 2017 | 1,100 | 0.003 | Y | | |
| c. AIR AND GROUND CONSOLIDATED | | 2018 | General Dynamics / Various | Various | NSA | Nov 2017 | Jan 2018 | 5,408 | 0.003 | Y | | |
| c. AIR AND GROUND CONSOLIDATED | | 2019 | General Dynamics / Various | Various | NSA | Nov 2018 | Jan 2019 | 3,344 | 0.003 | Y | | |
| a (1). KIV-78 | | 2018 | Raytheon / Maryland | Various | CPSG | Jan 2018 | Oct 2018 | 90 | 0.010 | Y | | |
| a (1). KIV-78 | | 2019 | Raytheon / Maryland | Various | CPSG | Jan 2019 | Oct 2019 | 20 | 0.009 | Y | | |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES ^(f) | | 2017 | Raytheon / Florida | Various | CPSG | Dec 2017 | Jan 2019 | 453 | 0.011 | Y | | |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES ^(f) | | 2018 | Raytheon / Florida | Various | CPSG | Dec 2018 | Jan 2020 | 1,216 | 0.013 | Y | | |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES | | 2019 | Raytheon / Florida | Various | CPSG | Sep 2019 | Oct 2021 | 1,023 | 0.012 | Y | | |
| c. MISSILE ELECTRONIC ENCRYPTION DEVICES (MEED) | | 2019 | SAIC / Virginia | TBD | CPSG | May 2019 | Dec 2019 | 1,532 | 0.010 | Y | | |
| h. MINI CRYPTO | | 2018 | TBD / TBD | Various | AFLCMC Hanscom AFB | Mar 2018 | Feb 2019 | 1,191 | 0.002 | Y | | |
| h. MINI CRYPTO | | 2019 | TBD / TBD | Various | AFLCMC Hanscom AFB | Mar 2019 | Feb 2020 | 229 | 0.030 | Y | | |

^(f) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | P-1 Line Item Number / Title: 831010 / Comsec Equipment | Item Number / Title [DODIC]: Information Systems Security Program |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2019 | | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 | | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2017 | AF | | 453 | 0 | 453 | - | - | - | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 21 | 21 | | | | | | | | 211 | | | | |
| 1 | 2018 | AF | | 1,216 | 0 | 1,216 | | | A | - | - | - | - | - | - | - | - | - | - | - | - | 101 | 101 | 102 | 101 | 101 | 102 | 101 | 102 | 304 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 **P-1 Line Item Number / Title:** 831010 / Comsec Equipment **Item Number / Title [DODIC]:** Information Systems Security Program

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2021 | | | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | | | BALANCE | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| b. (3) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2017 | AF | 453 | 242 | 211 | | | | | | | | | | | | | | | | | | | | | | | 211 | | |
| 1 | | 2018 | AF | 1,216 | 912 | 304 | 101 | 101 | 102 | | | | | | | | | | | | | | | | | | | | 0 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2019 Air Force | | | | | | | | Date: February 2018 | | | | |
|---|------------------------------|--------------------------------|----------------|---|-------------------------------|-----------------|-------------------|---|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1 | | | | P-1 Line Item Number / Title: 831010 / Comsec Equipment | | | | Item Number / Title [DODIC]: Information Systems Security Program | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | Raytheon - Florida | 750 | 1,250 | 1,500 | 0 | 0 | 0 | 0 | 0 | 12 | 25 | 37 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
 832050 / International Intel Tech & Architectures

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305600F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 | 11.386 | 11.314 | 10.884 | 11.167 | - | 84.249 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 | 11.386 | 11.314 | 10.884 | 11.167 | - | 84.249 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 | 11.386 | 11.314 | 10.884 | 11.167 | - | 84.249 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

International Intelligence Technology and Architectures oversees, manages, and provides the United States (US) component of the multi-national Battlefield Information Collection and Exploitation System (US BICES) with a collaborative environment and intelligence sharing enterprise required for processing and disseminating critical intelligence information between and among US, North Atlantic Treaty Organization (NATO), allied and coalition forces. The US BICES program procures and maintains a standing intelligence information sharing capability across Department of Defense (DoD), Combat Support Agencies, and multiple Combatant Commands (CCMD) for the Office of the Under Secretary of Defense, Intelligence (OUSDI). At the request of OUSDI, US BICES is extended beyond U.S. European Command (EUCOM) into all CCMDs and is known as US BICES Extended (US BICES-X). US BICES provides an "enduring" US and Coalition interoperable intelligence sharing multi-level secure technical architecture utilizing releasable elements of the Defense Intelligence Information Enterprise (DI2E) framework and functions to support the full spectrum of intelligence operations and dissemination throughout the DoD community. Also, it enables instantiation of US BICES/BICES-X as the intelligence contribution to the Mission Partner Environment (MPE).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 832050 / International Intel Tech & Architectures
Equip / BSA 2: Intelligence Programs

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305600F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | International Intel Tech & Architectures | P-5a | B | | - / - | - / 0.000 | - / 31.208 | - / 8.290 | - / 0.000 | - / 8.290 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 0.000 | - / 31.208 | - / 8.290 | - / 0.000 | - / 8.290 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 In response to CCMD requirements, funding for US BICES/US BICES-X capabilities implements OUSD(I) global intelligence sharing arrangements. FY2019 funding procures hardware and software to support the expansion of the US BICES-X coalition information sharing capabilities for US Combatant Commanders to meet theater strategy worldwide. Specifically funding will support J2 (Joint Intelligence) network requirements to exchange intelligence information with bi-lateral, multi-lateral, and NATO partners. Will deliver procedures, workstations, switches, servers, cross-domain solutions, communications infrastructure, video teleconference suites, network equipment, storage and backup, encryption equipment, software licenses, infrastructure, deployable suites, Trusted Network Environment (TNE) equipment and software communications. Variations in quantity and unit price reflect planned capital investment.

Other Procurement funding will:

- Provide and support extension of the US BICES multilateral, and bilateral intelligence information sharing capabilities within each of the Combatant Commands via expanded communications, information technology systems, integrated wide area and meshed networking, deployable containers/elements, and advanced Joint Intelligence Operations Center (JIOC)-IT/Distributed Common Ground/Surface Systems (DCGS) releasable analytical applications.
- Procure the hardware and software needed to establish US BICES-X capabilities as a core infrastructure and enterprise for the intelligence component of the DoD MPE.
- Continue support to the (US as framework nation) US/Coalition Special Operations Forces (SOF) supporting NATO and worldwide intelligence needs for the Global Pursuit mission and the US contribution to the NATO Intelligence Fusion Center at the Joint Analysis Center, United Kingdom (UK).
- Procure work stations, enterprise hardware and software, security accreditation, and network connections supporting strategic, operational and forward deployed warfighting forces in multiple theaters.
- Provide enhanced capabilities for coalition Special Operations Command intelligence sharing capabilities.

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|---|--|--|---|------------------------|----------------|---|---------------------|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | Date: February 2018 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | | | P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures | | | Item Number / Title [DODIC]: International Intel Tech & Architectures | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | | | |
| Resource Summary | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | - | 0.000 | 31.208 | 8.290 | 0.000 | 8.290 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware - International Intel Tech Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Workstation Suites ^(†) | - | - | - | - | - | 0.000 | 2,000.00 | 466 | 0.932 | 2,000.00 | 216 | 0.432 | - | - | - | 2,000.00 | 216 | 0.432 |
| Server Suites ^(†) | - | - | - | - | - | 0.000 | 15,000.00 | 105 | 1.575 | 15,000.00 | 26 | 0.390 | - | - | - | 15,000.00 | 26 | 0.390 |
| Laptop Suites ^(†) | - | - | - | - | - | 0.000 | 2,000.00 | 23 | 0.046 | 2,000.00 | 5 | 0.010 | - | - | - | 2,000.00 | 5 | 0.010 |
| Printers | - | - | - | - | - | 0.000 | - | - | 0.041 | - | - | 0.010 | - | - | - | - | - | 0.010 |
| Storage and Backup Suites ^(†) | - | - | - | - | - | 0.000 | 24,000.00 | 23 | 0.552 | 24,000.00 | 7 | 0.168 | - | - | - | 24,000.00 | 7 | 0.168 |
| Network Equipment ^(†) | - | - | - | - | - | 0.000 | 561,000.00 | 13 | 7.293 | 516,000.00 | 9 | 4.644 | - | - | - | 516,000.00 | 9 | 4.644 |
| Video Teleconference Suite ^(†) | - | - | - | - | - | 0.000 | 83,000.00 | 25 | 2.075 | 83,000.00 | 4 | 0.332 | - | - | - | 83,000.00 | 4 | 0.332 |
| Encryption Equipment ^(†) | - | - | - | - | - | 0.000 | 15,000.00 | 109 | 1.635 | 15,000.00 | 27 | 0.405 | - | - | - | 15,000.00 | 27 | 0.405 |
| Infrastructure ^(†) | - | - | - | - | - | 0.000 | 56,000.00 | 47 | 2.632 | 56,000.00 | 22 | 1.232 | - | - | - | 56,000.00 | 22 | 1.232 |
| Deployable System Monitors 32 inch LCD (373 Base, 80 OCO) | - | - | - | - | - | 0.000 | - | - | 0.111 | - | - | 0.028 | - | - | - | - | - | 0.028 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | <i>0.000</i> | - | - | <i>16.892</i> | - | - | <i>7.651</i> | - | - | - | - | - | <i>7.651</i> |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Fly-Away Deployable BICES Mobile Units with Video ^(†) | - | - | - | - | - | 0.000 | 42,000.00 | 5 | 0.210 | 42,000.00 | 3 | 0.126 | - | - | - | 42,000.00 | 3 | 0.126 |

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|---|--|--|--|--|--|---|--|--|------------------------|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | | | | | | P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures | | | | | | Item Number / Title [DODIC]: International Intel Tech & Architectures | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | | | MDAP/MAIS Code: | | | | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.210 | - | - | 0.126 | - | - | - | - | - | 0.126 |
| <i>Subtotal: Hardware - International Intel Tech Cost</i> | - | - | - | - | - | 0.000 | - | - | 17.102 | - | - | 7.777 | - | - | - | - | - | 7.777 |
| Software - International Intel Tech Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Software Licenses ^(t) | - | - | - | - | - | 0.000 | 776,000.00 | 18 | 13.968 | 76,000.00 | 5 | 0.380 | - | - | - | 76,000.00 | 5 | 0.380 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 0.000 | - | - | 13.968 | - | - | 0.380 | - | - | - | - | - | 0.380 |
| <i>Subtotal: Software - International Intel Tech Cost</i> | - | - | - | - | - | 0.000 | - | - | 13.968 | - | - | 0.380 | - | - | - | - | - | 0.380 |
| Support - International Intel Tech Cost | | | | | | | | | | | | | | | | | | |
| US BICES Mobility | - | - | - | - | - | 0.000 | - | - | 0.044 | - | - | 0.044 | - | - | - | - | - | 0.044 |
| Program Support | - | - | - | - | - | 0.000 | - | - | 0.094 | - | - | 0.089 | - | - | 0.000 | - | - | 0.089 |
| <i>Subtotal: Support - International Intel Tech Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.138 | - | - | 0.133 | - | - | 0.000 | - | - | 0.133 |
| Gross/Weapon System Cost | - | - | - | - | - | 0.000 | - | - | 31.208 | - | - | 8.290 | - | - | 0.000 | - | - | 8.290 |

Remarks:
Automated P-Doc system rounds unit cost and does not allow unit costs below \$1,000.

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures | Item Number / Title [DODIC]: International Intel Tech & Architectures |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Workstation Suites | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 466 | 2,000.00 | N | Dec 2017 | |
| Server Suites | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 105 | 15,000.00 | N | Jan 2018 | |
| Laptop Suites | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 23 | 2,000.00 | N | Dec 2017 | |
| Storage and Backup Suites | | 2018 | GDIT / Springfield VA | SS / IDDQ | AA-CDM | Jan 2018 | Apr 2018 | 23 | 24,000.00 | N | Dec 2017 | |
| Network Equipment | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 13 | 561,000.00 | N | Dec 2017 | |
| Video Teleconference Suite | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 25 | 83,000.00 | N | Dec 2017 | |
| Encryption Equipment | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 109 | 15,000.00 | N | Dec 2017 | |
| Infrastructure | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 47 | 56,000.00 | N | Dec 2017 | |
| Fly-Away Deployable BICES Mobile Units with Video | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 5 | 42,000.00 | N | Dec 2017 | |
| Software Licenses | | 2018 | GDIT / Springfield VA | SS / IDIQ | AA-CDM | Jan 2018 | Apr 2018 | 18 | 776,000.00 | N | Dec 2017 | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
832060 / Intelligence Training Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 6.982 | 5.892 | 2.099 | - | 2.099 | 5.627 | 5.730 | 5.831 | 5.935 | - | 38.096 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 6.982 | 5.892 | 2.099 | - | 2.099 | 5.627 | 5.730 | 5.831 | 5.935 | - | 38.096 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 6.982 | 5.892 | 2.099 | - | 2.099 | 5.627 | 5.730 | 5.831 | 5.935 | - | 38.096 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Intelligence Training Equipment P-1 line procures equipment for use in initial and advanced training in the General Intelligence and Cryptologic and Signals Intelligence related career fields. The equipment supports training for intelligence officers, geospatial analysts, targeteers, operations analysts, linguists, network analysts, and all communications (except communications security) and electronic intelligence analysts. The systems support intelligence, surveillance, and reconnaissance applications. The major focus of the systems is to provide the sole source for functional training on the newest generation of intelligence systems with an emphasis on computer-based training systems through modeling and simulation. This equipment is critical in preparing military intelligence personnel to support warfighting commanders and the National Intelligence Program (NIP). The equipment supports enterprise-wide intelligence training for Air Force (AF), Department of Defense (DoD), Department of Homeland Security (DHS), and Joint/Coalition Partner personnel at Goodfellow Air Force Base (GAFB), Texas.

PE 0804733F GENERAL INTELLIGENCE SKILL TRAINING (GIST)

GOODFELLOW INTELLIGENCE TRAINING ARCHITECTURE (GITA) UPGRADE: Continues to incorporate new equipment to support the development of the enterprise architecture, consolidating multiple networks and systems into a single integrated GITA.

Funding for this exhibit contained in PE 0804733F.

Justification:

PE 0804733F GENERAL INTELLIGENCE SKILL TRAINING

GOODFELLOW INTELLIGENCE TRAINING ARCHITECTURE (GITA) FY18 funding will be used on the GITA infrastructure to modernize/upgrade the training network backbone and delivery systems supporting over 7600 students annually. Upgrades ensure that GITA meets/exceeds the latest in cyber security requirements at each security level. GITA provides lifecycle support of the hardware and software required to deliver training designed to meet operational customer requirements. GITA encompasses the following: student workstations; network; servers; storage solutions; thin client technology; scenario-based modeling and simulation models; courseware development software; delivery servers; application hardware; and networking equipment. GITA aligns technologies with advanced teaching techniques; increases system capabilities to support ever-evolving operational intelligence tools; and addresses uncertainty in continued sustainment capabilities to reduce failure rates and outages.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
832070 / Intelligence Comm Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305220F, 0305221F, 1203400F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 37.874 | 36.072 | 37.415 | 6.156 | 43.571 | 22.631 | 13.540 | 13.255 | 13.490 | - | 180.433 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 37.874 | 36.072 | 37.415 | 6.156 | 43.571 | 22.631 | 13.540 | 13.255 | 13.490 | - | 180.433 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 37.874 | 36.072 | 37.415 | 6.156 | 43.571 | 22.631 | 13.540 | 13.255 | 13.490 | - | 180.433 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0207431F Combat Air Intelligence System Activities - P-40A

Enhanced GEOSPATIAL PRODUCT LIBRARY (eGPL): eGPL provides all AF units access to digital GEOINT and targeting data products in support of targeting, intelligence and mission planning processes, including support to units deploying to South West Asia and North Africa. It provides the sole resource to store and immediately retrieve large digital files and mission essential GEOINT data required to conduct AF mission sets. This storage includes tape drives to ensure data survivability and rapid back-up/restoration 20 times faster than network technology, freeing units critical time to support mission tasks.

UNIT LEVEL INTELLIGENCE (ULI) SYSTEMS: ULI fields the Personal Computer- Integrated Imagery and Intelligence (PC-I3/T) and Targeting Application Workstation (TAW) systems which are used by intelligence analysts to produce Targeting and Mission Planning materials.

INFORMATION STORAGE (iSToRE): iSToRE replaces NGA's legacy Image Product Library (IPL), which NGA ceases funding upon iSToRE release. It provides state-of-the-art technology to rapidly access, store and disseminate intelligence to/from United States Imagery and Geospatial System (USIGS) library system, giving imagery analysts, cartographers, intelligence and operations personnel direct access to imagery products and associated data to support their respective mission needs.

GLOBAL COMMAND AND CONTROL SYSTEM -INTEGRATED IMAGERY AND INTELLIGENCE (GCCS-I3): GCCS-I3 provides the central targeting data infrastructure for the AFTC's distributed operations in support of worldwide targeting requirements from air component commanders and their subordinate units. It fields the capability to store/expose virtual electronic target folders through Joint Targeting Toolbox (JTT), order of battle data through Analyst Workshop (AWS) and access to tailored data sets to users via widget technology supported through the Ozone Widget Framework (OWF). It provides the Joint Force Air Component Commander (JFACC) and his Air Operations Center (AOC) staff machine to machine access to targeting and intelligence data support the planning, tasking, execution and assessment of air operations. It provides unit operation access to authoritative data in support of mission planning and tactical operations, to include locally collected tactical imagery, live video streams, and other intelligence with national and theater-produced intelligence.

JOINT TARGETING TOOLBOX (JTT): Provides JTT servers for interfacing programs to test against. Servers are needed on Unclassified and Secret environments and will require software licenses to support operations.

INFORMATION FOR OPERATIONAL AND TACTICAL ANALYSIS (IOTA): Provides web-based information management in the form of automated ingest and analysis of combat intelligence, surveillance, and reconnaissance (ISR) reports. The two ISR-related components of IOTA are the mission report (MISREP) analysis tool (MAT) and ISR Assessment Tool (IAT).

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305220F, 0305221F, 1203400F |
| Line Item MDAP/MAIS Code: N/A | | |

INTELLIGENCE AUTOMATED DATA PROCESSING EQUIPMENT (IADPE): Provides capital equipment replacement program funds for USAFE data processing systems and communications network. Provides unit operation access to authoritative data in support of mission planning and tactical operations, to include locally collected tactical imagery, live video streams, and other intelligence with national and theater-produced intelligence.

Targeting and Geospatial-Intelligence (T&G) Program Management Office (PMO) CENTER OF EXCELLENCE (COE): Provides the infrastructure that enables the agile development, sustainment, and fielding of new T&G capabilities, and ensures that the technical baseline is established and controlled by the Government. Sustainment includes help desk support, documentation, information assurance, STIGs/TCNOs, software patches and fixes. Fielding supports ULI, GPL, IOTA, and any new T&G capability not fielded via other paths.

PE 0208288F Intel Data Applications - P-40A

Enhance existing radar system via additional antennas and transmitters in order to expand simultaneous collection capability while providing an permanent capability for operations eliminating the need for full system maintenance downtime.

PE 0305146F Defense Joint Counterintelligence Activities - P-40A

Supports Cyber Counterintelligence and Technical Surveillance and Technical Surveillance Countermeasures (TSCM) to counterintelligence operations conducted by the Air Force Office of Special Investigations for AF and DoD entities to detect and deter covert activities conducted by Foreign Intelligence Services seeking to compromise classified or sensitive information. The technical equipment required for these investigations is unique and complex and is a part of the formally designated USAF TSCM weapons system and/or the Cyber Counterintelligence suite of tools.

PE 0305179F Integrated Broadcast Service (IBS) - P-40A

INTEGRATED BROADCAST SERVICE (IBS): The IBS is a multi-sensor, multisource system of systems for the dissemination of integrated threat warning and blue force tracking information. IBS provides intelligence producers and information sources the means to analyze and disseminate strategic, operational, and tactical intelligence and warning information directly to the warfighter. The IBS operational baseline represents the migration, integration, and consolidation of existing tactical data dissemination into a future common architecture message format.

PE 0305192F Military Intelligence Program (MIP) Activities - P-40A

Will fund information recovery technology for Enterprise Service Centers. Funds will also be used to procure servers, storage devices, associated hardware upgrades, and installation costs.

PE 0305208F Distributed Common Ground/Surface Systems - P-5

The FY19 OCO funding request will be used to procure communications equipment for the DCGS program.

PE 0305220F RQ-4 UAV - P-40A

PE 0305220F - RQ-4 UAV Fixed Site SATCOM Terminal (FSST): The FSST replaces the existing Global Hawk Tri-band Tactical Field Terminal (TTFT). The existing TTFTs are older, less capable, and suffering from diminished manufacturing sources (DMS) issues. The FSST provides continued access to geosynchronous satellite communications (SATCOM) to support worldwide operation of the Global Hawk unmanned aerial system. SATCOM is essential to command and control (C2) of the Global Hawk aircraft, as well as the operation and download/dissemination of IMINT, SIGINT and other vital payload data. Each FSST provides the capacity for eight separate connections, or threads, on a single satellite and polarity, compared with the TTFT capacity to only support two. Simultaneous mission sets within a given area of responsibility (AoR) dictate the capability to acquire an increasing number of threads without increasing the number of terminals or physical size of our existing worldwide terminal relay sites. The FSST will counter existing aging equipment problems and shortages with the TTFTs that arise due to operational use, and will help to resolve ground/relay station availability limitations.

PE 0305221F Network-Centric Collaborative Targeting - P-40A

Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies to horizontally and/or vertically integrate network collaborative Intelligence, Surveillance and Reconnaissance (ISR) sensor systems within and across intelligence disciplines. Operational uses of core technologies would include, but are not be limited to, Signals Intelligence to Signals Intelligence (SIGINT-SIGINT) correlation and Ground Moving Target Indicator to Signals Intelligence (GMTI-SIGINT) correlation. NCCT software applications employ Machine-to-Machine (M2M) interfaces and Internet Protocol (IP) connectivity to coordinate sensor cross-cues and collection activities. NCCT correlation and fusion services ingest collection data to produce a single, composite track (geo-location and

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305220F, 0305221F, 1203400F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>identification) for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (Operations Interfaces, Network Controller, Fusion Engines, Data Guard, Interface to Command & Control, and Interface to Overhead Intelligence Operations), the migration of the NCCT technologies to emerging network centric technologies (Service Oriented Architectures (SOA) and web services), and satisfying DoD standards and Information Assurance requirements. Funding for this exhibit is contained in PE 0305221F.</p> <p>PE 0307577F Intelligence Mission Data (IMD) - P-40A Funding will enable procurement of equipment for Advanced NCTR Collect and storage systems supporting Operational Reconnaissance data automation.</p> <p>PE 1203400F Space Superiority Intelligence - P-40A PE 123400F, SPACE SUPERIORITY INTELLIGENCE</p> <p>This PE executes requirements for SSI. Funds may be used for other AFNet requirements if required. Current year funding includes \$2M in Overseas Contingency Operations funds requested in the FY18 PB.</p> <p>ARC STORM: Uses commercially available technology and systems to provide the rapid geo-location of commercial satellite communication emitter locations, utilizing unmanned, remotely operated systems located in key area throughout the world.</p> <p>Funds are required to re-capitalize current fielded systems that have operated for 4 years. Processing equipment runs 24/7 to support high utilization rates. Antennas and supporting equipment are fully exposed to the elements, experience a great deal of physical movement, and are reaching end of life expectancy.</p> <p>ARC STORM systems will become inoperable without equipment recapitalization; resulting in loss of geo-location collection. Funds will allow immediate re-capitalization of two fielded systems plus an additional spare, allowing for continued support to operations.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305220F, 0305221F, 1203400F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Combat Air Intelligence System Activities | | | | - / - | - / 6.242 | - / 6.549 | - / 7.235 | - / 0.000 | - / 7.235 |
| P-40a | Intel Data Applications | | | | - / - | - / 0.000 | - / 0.000 | - / 0.000 | - / 5.000 | - / 5.000 |
| P-40a | Defense Joint Counterintelligence Activities | | | | - / - | - / 1.081 | - / 1.181 | - / 1.134 | - / 0.000 | - / 1.134 |
| P-40a | Integrated Broadcast Service (IBS) | | | | - / - | - / 23.452 | - / 17.283 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Military Intelligence Program (MIP) Activities | | | | - / - | - / 4.516 | - / 4.434 | - / 4.080 | - / 0.000 | - / 4.080 |
| P-5 | Distributed Common Ground/Surface Systems | | A | | - / - | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.400 | - / 0.400 |
| P-40a | RQ-4 UAV | | | | - / - | - / 0.000 | - / 0.000 | - / 21.269 | - / 0.000 | - / 21.269 |
| P-40a | Network-Centric Collaborative Targeting | | | | - / - | - / 2.583 | - / 3.312 | - / 3.095 | - / 0.000 | - / 3.095 |
| P-40a | Intelligence Mission Data (IMD) | | | | - / - | - / 0.000 | - / 1.313 | - / 0.602 | - / 0.000 | - / 0.602 |
| P-40a | Space Superiority Intelligence | | | | - / - | - / 0.000 | - / 2.000 | - / 0.000 | - / 0.756 | - / 0.756 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 37.874 | - / 36.072 | - / 37.415 | - / 6.156 | - / 43.571 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

This program, Intelligence Comm Equipment P-40A Item New Item, is a new start.
 This program, PE 0305208F ICE P-5, is a new start.
 This program, Intelligence Comm Equipment P-40A Item Fixed Site SATCOM Terminal (FSST), is a new start.
 This program, Intelligence Comm Equipment P-40A Item Space Superiority Intel Activities, is a new start.

PE 0207431F Combat Air Intelligence System Activities - P-40A
 ENHANCED GEOSPATIAL PRODUCT LIBRARY (EGPL): Funding provides for the capital equipment replacement of EGPL servers, drives, and associated equipment to ensure current, dependable data repository for intelligence threat assessment and combat mission planning support at over 260 units worldwide.

UNIT LEVEL INTELLIGENCE (ULI) SYSTEMS: Funding provides for the capital equipment replacement of ULI systems providing crucial capabilities to the Warfighter to include Intelligence Preparation of the Operational Environment (IPOE), data gathering and compilation, support to mission execution, intelligence reporting, targeting, weapon systems video processing, and post-mission assessment support at over 327 units worldwide

INFORMATION STORAGE (iSToRE): Funding provides for the capital equipment replacement of iSToRE systems to provide imagery analysts, cartographers, intelligence and operations personnel direct access to imagery products and associated data to support their respective mission needs at wing and below units, to include the Air Force Targeting Center.

GLOBAL COMMAND AND CONTROL SYSTEM -INTEGRATED IMAGERY AND INTELLIGENCE (GCCS-I3): Funding provides for the capital equipment replacement of GCCS-I3 servers and associated equipment to provide a centralized targeting data infrastructure throughout the Air Force Targeting Enterprise (AFTE).

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305220F, 0305221F, 1203400F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>JOINT TARGETING TOOLBOX (JTT): Funding will be used to provide an environment for interfacing programs to test against JTT. The JTT program interfaces with many other programs (AFATDS/JEMS/TOMAWK) that require an environment that they can test against. The NG effort had previously provided both unclassified/classified servers that interfacing programs could test against, but they no longer exist with the contract transfer to BAE. If the servers are not procured the fielding path for JTT releases has an increased risk to slip due to interface issues.</p> <p>INFORMATION FOR OPERATIONAL AND TACTICAL ANALYSIS (IOTA): Funding provided installation costs in support of fielding into the Air Operations Centers (AOC).</p> <p>INTELLIGENCE AUTOMATED DATA PROCESSING EQUIPMENT (IADPE): Funding will be used to procure servers, storage devices, associated hardware upgrades and installation costs.</p> <p>Targeting and Geospatial Intelligence (T&G) PMO CENTER OF EXCELLENCE (COE): The Center of Excellence is critical to the Unit Level Intelligence mission as the center performs all system integration work, conducts functional testing, runs cyber security scans, pushes necessary information assurance patches to the user community, provides help desk support, and fields the hardware and software components needed to successfully employ the Targeting Applications Workstation and the Personal Computer - Integrated Imagery and Intelligence/Targeting systems.</p> <p>PE 0208288F Intel Data Applications - P-40A FY19 funding will be used to enhance existing radar system via additional antennas and transmitters in order to expand simultaneous collection capability while providing an permanent capability for operations eliminating the need for full system maintenance downtime.</p> <p>This effort will be supported via the NASIC ATEP II contract. The project will be delivered 12 months from the date of obligation.</p> <p>PE 0305146F Defense Joint Counterintelligence Activities - P-40A Funding procures the periodic refresh of equipment to provide state of the art capabilities to detect and neutralize criminal activities targeted against sensitive and classified AF and DoD information and activities.</p> <p>PE 0305179F Integrated Broadcast Service (IBS) - P-40A FY17 funding for IBS procurement efforts are focused in the following areas:</p> <p>(1) CIB UPLINK SITE (CUS) Monitoring and Control System: CUS MC serves as the control system for the CIB Uplink Site and interface to the IBS Network Services (IBS-NS). Each major release of the software incorporates approved requirements as necessitated by mission changes, system interoperability, and system security. The new release supports migration to Common Interactive Broadcast Uplink Sites.</p> <p>(2) COMMON INTERACTIVE BROADCAST PLANNING TOOL (CIB-PT): The CIB-PT provides the COCOM Planners an integrated software/hardware mechanism to allocate space-based communications resources to theater and national producers, specifically to reliably optimize the timeliness of scarce bandwidth allocation of extremely time-critical messages. Each major release of the software/hardware.</p> <p>(3) COMMON MESSAGE FORMAT PARSER LIBRARY (CMFPL): The CMF repository is required for the automatic exchange of data among processing, exploitation, and dissemination (PED) systems. This effort procures the infrastructure for dynamic software library updates for multiple operating systems essential to broadcast operation.</p> <p>(4) IBS V&V Environment: Procures simulation and stimulation tools to certify and verify mission equipment for operational use. Included is the Integrated Waveform CIB Integration Tool (ICIT) a component of the IBS verification and validation process used to emulate the CIB over the air broadcast environment to include external system dependencies under operational conditions and the UNIVERSAL CIB TEST SET (UCTS) a component that emulates the UHF SATCOM environment. Additionally the IBS-NS-X equipment that provides operational representative IBS Network Service system component for supporting Developmental Test (DT), Conformance to Standards Test and Interoperability Test.</p> <p>(5) TERMINAL, DATALINK & ENTERPRISE MITIGATION: Funds direct mission support activities such as Intermediate Support Facility, verification & validation documentation; uplink and receive and transmit terminal upgrade, enhancements and spares; mitigation; CMF product support; Joint Tactical Data Link (JTDL/IBS) support; net-centric support; product documentation; studies and analyses; IBS Web Support and contractor systems engineering activities.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305220F, 0305221F, 1203400F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(6) IBS-NS: Scaling capability is required for messaging under operational use. Funds approved modernization of Global IBS Servers (GINS), and Theater Interface Nodes (TINS), technology refreshment and integration as necessitated by mission changes, system interoperability, and system security.</p> <p>PE 0305192F Military Intelligence Program (MIP) Activities - P-40A FY19 funding will procure information recovery technology for Enterprise Service Centers. Funds will also be used to procure servers, storage devices, associated hardware upgrades, and installation costs.</p> <p>PE 0305208F Distributed Common Ground/Surface Systems - P-5 The FY19 OCO funding request will be used to procure communications equipment for the DCGS program.</p> <p>PE 0305220F RQ-4 UAV - P-40A PE 0305220F - RQ-4 UAV Fixed Site SATCOM Terminal (FSST): The FSST is needed to replace aging Global Hawk TTFT assets. Current TTFT assets are insufficient to support existing and future directed architecture changes for ongoing and projected Global Hawk Missions at six locations in CONUS NORTHCOM/SOUTHCOM, EUCOM/AFRICOM, PACOM, and CENTCOM. Operational TTFTs are in excess of 15 years old, are experiencing DMS issues, and are in need of replacement. Additionally, the current number of satellites used throughout the AoR locations have thread count requirements far exceed existing TTFT capacity. The FSST will provide a 300% increase in capacity over the TTFT, and as the FSST is already in use as the preferred terminal for other UAS operations. This action will standardize terminals at our consolidated SATCOM relay sites enabling the sharing of fewer terminals among several UAS platforms.</p> <p>PE 0305221F Network-Centric Collaborative Targeting - P-40A FY19 funding is for NCCT hardware at ground stations in support of a new software baseline roll out and user requested upgrades. NCCT core technology investments include, but are not limited to, operational interfaces, network controllers, fusion engines, and data guards for multi-level security hardware and software items based on operator specified rule-sets. NCCT core technology also supports Air Force and Joint experiments, demonstrations and exercises as necessary.</p> <p>PE 0307577F Intelligence Mission Data (IMD) - P-40A IMD Advanced NCTR Collect: Funding will deliver 2 items</p> <p>Operational Reconnaissance Data Automation: Funding will deliver 2x Servers, 1x Storage Area Network, 2x Fiber Channel switches, 1 x KVM, 2x Rack, 2x Management switches, server management and database software</p> <p>PE 1203400F Space Superiority Intelligence - P-40A PE 123400F, SPACE SUPERIORITY INTELLIGENCE (SSI)</p> <p>FY19 funding executes requirements for SSI. FY19 OCO funding of \$.756M is being requested to support satellite communication interference detection for the intelligence and operational communities. Funds may be used for other AFNet requirements if required.</p> <p>ARC STORM: Uses commercially available technology and systems to provide the rapid geo-location of commercial satellite communication emitter locations, utilizing unmanned, remotely operated systems located in key area throughout the world.</p> <p>Funds are required to re-capitalize current fielded systems that have operated for 4 years. Processing equipment runs 24/7 to support high utilization rates. Antennas and supporting equipment are fully exposed to the elements, experience a great deal of physical movement, and are reaching end of life expectancy.</p> <p>ARC STORM systems will become inoperable without equipment recapitalization; resulting in loss of geo-location collection. Funds will allow immediate re-capitalization of two fielded systems plus an additional spare, allowing for continued support to operations.</p> | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Combat Air Intelligence System Activities

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| CAIS PE 0207431F | A | | - | - | - | - | - | 1.158 | - | - | 0.517 | - | - | 2.949 | - | - | 0.000 | - | - | 2.949 |
| ULI | A | | - | - | - | - | - | 0.408 | - | - | 2.527 | - | - | 2.286 | - | - | 0.000 | - | - | 2.286 |
| GPL | A | | - | - | - | - | - | 1.845 | - | - | 2.337 | - | - | 2.000 | - | - | 0.000 | - | - | 2.000 |
| IStore | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| GCCS-I3 | A | | - | - | - | - | - | 0.000 | - | - | 0.345 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| IOTA | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| COE T&G Integrator | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| JTT | A | | - | - | - | - | - | 2.831 | - | - | 0.823 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 6.242 | - | - | 6.549 | - | - | 7.235 | - | - | 0.000 | - | - | 7.235 |
| Total | | | - | - | - | - | - | 6.242 | - | - | 6.549 | - | - | 7.235 | - | - | 0.000 | - | - | 7.235 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Intel Data Applications

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Intel Data Applications | | | | | | | | | | | | | | | | | | | | |
| New Item | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | 5.000 | 1 | 5.000 | 5.000 | 1 | 5.000 |
| Subtotal: Intel Data Applications | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 5.000 | - | - | 5.000 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 5.000 | - | - | 5.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | | | | | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | | | | | | Aggregated Items Title: Defense Joint Counterintelligence Activities | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| DEFENSE JOINT COUNTERINTELLIGENCE PROGRAM PE 0305146F | A | | - | - | - | - | - | 1.081 | - | - | 1.181 | - | - | 1.134 | - | - | 0.000 | - | - | 1.134 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.081 | - | - | 1.181 | - | - | 1.134 | - | - | 0.000 | - | - | 1.134 |
| Total | | | - | - | - | - | - | 1.081 | - | - | 1.181 | - | - | 1.134 | - | - | 0.000 | - | - | 1.134 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | Aggregated Items Title: Integrated Broadcast Service (IBS) |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| IBS-NS PE 1203179F | A | | - | - | - | - | - | 23.452 | - | - | 17.283 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 23.452 | - | - | 17.283 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 23.452 | - | - | 17.283 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

(6) IBS-NS: Capital equipment replacement of the Global IBS Servers (GINS), Theater Interface Nodes (TINS), CIB Uplink Sites (CUS), and IBS Network equipment

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | | | | | | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | | | | | | Aggregated Items Title: Military Intelligence Program (MIP) Activities | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Equipment | | | | | | | | | | | | | | | | | | | | |
| New Item | A | | - | - | - | 4.516 | 1 | 4.516 | 4.434 | 1 | 4.434 | 4.080 | 1 | 4.080 | - | - | 0.000 | 4.080 | 1 | 4.080 |
| Subtotal: Equipment | | | - | - | - | - | - | 4.516 | - | - | 4.434 | - | - | 4.080 | - | - | 0.000 | - | - | 4.080 |
| Total | | | - | - | - | - | - | 4.516 | - | - | 4.434 | - | - | 4.080 | - | - | 0.000 | - | - | 4.080 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | Item Number / Title [DODIC]: Distributed Common Ground/Surface Systems |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | 0.400 | 0.400 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | 0.400 | 0.400 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | 0.400 | 0.400 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Distributed Common Ground/Surface Systems Cost | | | | | | | | | | | | | | | | | | |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Equipment | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.400 | - | - | 0.400 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.400 | - | - | 0.400 |
| <i>Subtotal: Hardware - Distributed Common Ground/Surface Systems Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.400 | - | - | 0.400 |
| Gross/Weapon System Cost | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.400 | - | - | 0.400 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | Aggregated Items Title: RQ-4 UAV |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Fixed Site SATCOM Terminal (FSST) | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | 3.038 | 7 | 21.269 | - | - | 0.000 | 3.038 | 7 | 21.269 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 21.269 | - | - | 0.000 | - | - | 21.269 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 21.269 | - | - | 0.000 | - | - | 21.269 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Network-Centric Collaborative Targeting

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Network Centric Collaborative Targeting | A | | - | - | - | - | - | 2.583 | - | - | 3.312 | - | - | 3.095 | - | - | 0.000 | - | - | 3.095 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 2.583 | - | - | 3.312 | - | - | 3.095 | - | - | 0.000 | - | - | 3.095 |
| Total | | | - | - | - | - | - | 2.583 | - | - | 3.312 | - | - | 3.095 | - | - | 0.000 | - | - | 3.095 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Intelligence Mission Data (IMD)

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Intelligence Mission Data (IMD) | | | | | | | | | | | | | | | | | | | | |
| Operational Reconnaissance Data Automation | A | | - | - | - | - | - | - | - | 0.500 | - | - | 0.301 | - | - | 0.000 | - | - | 0.301 | |
| Intelligence Mission Data (IMD) Advanced NCTR Collect | A | | - | - | - | - | - | 0.000 | - | - | 0.813 | - | - | 0.301 | - | - | 0.000 | - | - | 0.301 |
| Subtotal: Intelligence Mission Data (IMD) | | | - | - | - | - | - | 0.000 | - | - | 1.313 | - | - | 0.602 | - | - | 0.000 | - | - | 0.602 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 1.313 | - | - | 0.602 | - | - | 0.000 | - | - | 0.602 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 | P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment | Aggregated Items Title: Space Superiority Intelligence |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Space Superiority Intel | | | | | | | | | | | | | | | | | | | | |
| Space Superiority Intel Activities | A | | - | - | - | - | - | 0.000 | 2.000 | 1 | 2.000 | - | - | 0.000 | 0.756 | 1 | 0.756 | 0.756 | 1 | 0.756 |
| Subtotal: Space Superiority Intel | | | - | - | - | - | - | 0.000 | - | - | 2.000 | - | - | 0.000 | - | - | 0.756 | - | - | 0.756 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 2.000 | - | - | 0.000 | - | - | 0.756 | - | - | 0.756 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833010 / Air Traffic Control & Landing Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305114F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 70.728 | 122.643 | 57.937 | 56.884 | 114.821 | 58.939 | 66.654 | 99.614 | 52.595 | - | 585.994 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 70.728 | 122.643 | 57.937 | 56.884 | 114.821 | 58.939 | 66.654 | 99.614 | 52.595 | - | 585.994 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 70.728 | 122.643 | 57.937 | 56.884 | 114.821 | 58.939 | 66.654 | 99.614 | 52.595 | - | 585.994 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|-------|-------|-------|---|-------|-------|---------|-------|-------|---|-----------|
| Initial Spares (<i>\$ in Millions</i>) | - | 3.406 | 3.149 | 1.074 | - | 1.074 | 1.394 | 998.578 | 6.280 | 3.122 | - | 1,017.003 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Air Traffic Control and Landing Systems (ATCALs) procures and supports fixed-base and tactical radar, navigation aids, voice communications, and data processing/automation capabilities which enables Air Force (AF) air traffic controllers to provide advisory, sequencing, separation, and landing guidance services to all aircraft in AF-assigned airspace. In support of Global Mobility, Agile Combat Support, Global Strike, Homeland Security, and Global Response concepts of operation, ATCALs centrally manages the Air Force's Air Traffic Control capability to ensure Air Traffic Control facilities/equipment can safely and expeditiously support en route and terminal operations in benign and combat areas of responsibility. ATCALs operational and training systems must be interoperable with systems operated by other services, the Federal Aviation Administration (FAA), or host nations.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

AIR TRAFFIC CONTROL AND AIRFIELD OPERATIONS (ATC OPS): ATC OPS provides for procurement of new systems and replacement, modification, or mitigation of diminishing manufacturing source issues of legacy ATC navigation and landing systems, as well as related voice communications, data processing/automation systems, and ancillary equipment such as ATC digital audio legal recorders, flight data input/output systems, electronic flight strip systems, air traffic information systems, instrument procedures, and airfield management systems. Key elements of ATC OPS are: 1) The ATCALs Fixed Base (FB) Navigational Aids (NAVAIDs) Family of Systems (FOS) replacement program, which combines organizational realignments, process improvements, and investments in state-of-the-art commercial-off-the-shelf technology to replace legacy fixed-base equipment. The FB NAVAIDS FOS replacement program includes the fixed base Very High Frequency (VHF) Omnidirectional Range System (VOR), Tactical Air Navigation (TACAN), and VORTAC (combined VOR/TACAN); 2) Digital ATC radios replace 1970's-vintage Rivet Switch radios with state of the art digital radios which also possess the 8.33kHz channel spacing capability required by European mandate; 3) Deployable Radar Approach Control (D-RAPCON) which will replace legacy, 1960/1970s era, AN/MPN-14K and AN/TPN-19 Airport Surveillance Radar and Operations Shelter subsystems with state-of-the-art digital systems; and 4) Deployable Instrument Landing System (D-ILS) is a Category I (200ft decision height/2400ft runway visual range) ILS. D-ILS can provide precision approach capability in conjunction with D-RAPCON or in a stand-alone capacity. These deployable systems are designed to be used to establish a temporary precision approach/radar surveillance capability at austere/deployed locations worldwide. With fixed-based TACAN, VOR, ILS, ATC Radios, D-ILS, and D-RAPCON, the AF will have a supportable, adaptable, resilient, enduring/persistent capability that all joint, coalition and civil ILS-equipped aircraft will be able to use. These investments will result in significant manpower and operations/maintenance savings over the next 20-30 years.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys |
|---|--|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305114F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

1. **DIGITAL AIR TRAFFIC CONTROL (ATC) RADIO REPLACEMENT:** The ATC ground-to-air VHF and Ultra High Frequency (UHF) radios are 30 years old and difficult to maintain. The Digital ATC Radio Replacement Program will replace ATC fixed-base and mobile tower radios with state-of-the-art systems that will include a remote maintenance capability and 8.33kHz channel spacing (mandatory requirement in Europe by FY2018). In order to ensure system commonality and common logistics support and training, ATC radios are being procured as a centrally managed item by the Air Force Life Cycle Management Center at Tinker AFB. Approximately 5,200 radios will be replaced.

2. **ATCALs Fixed Base (FB) Navigational Aids (NAVAIDS) FOS:** The FB NAVAIDS FOS replaces the current 1970s era systems which have reached the end of their normal lifespan, are manpower intensive, and costly to support. New systems will include remote maintenance, monitoring, alignment, and flight inspection support capabilities via Remote Maintenance Centers (RMC). One VOR (1 AD), 28 VORTACs (25 AD/1 ANG/2 AFR), and 92 fixed-based TACANs (74 AD/11 ANG/7 AFR) will be procured from FY2012 through FY2018.

3. **DEPLOYABLE INSTRUMENT LANDING SYSTEM (D-ILS):** D-ILS is a deployable Category I (200ft decision height/2400ft runway visual range) ILS with remote monitoring and maintenance capabilities. D-ILS will provide precision approach capability in adverse weather conditions to support tactical military and worldwide humanitarian/disaster relief operations and provide interoperability with the Civil Reserve Air Fleet in an area of responsibility. D-ILS replaces the current Air Force mobile Precision Approach Radar (PAR) system. These systems were procured in the 1970s, are manpower intensive, and logistically unsupportable. On average, only four of 14 mobile PAR systems are operational on a daily basis and none are fully mission capable. Two ILSs are required to replace each PAR, one for each end of the primary runway (the mobile PAR is mounted on a turntable which allows it to be rotated to cover the operational runway end). A total of 30 D-ILSs will be procured to replace four Active Duty and ten Air National Guard (ANG) mobile PARs. One training system and one depot rotatable system will also be procured. D-ILS is normally deployed with the Deployable Radar Approach Control System, a mobile Air Traffic Control Tower, and mobile TACAN.

4. **DEPLOYABLE RADAR APPROACH CONTROL SYSTEM (D-RAPCON):** D-RAPCON will replace the 1960/1970s era AN/MPN-14K and AN/TPN-19 Airport Surveillance Radar and Operations Shelter subsystems with state-of-the-art digital systems. Modification and overhaul of the existing systems has proven to be ineffective due to diminishing manufacturing sources. On average, due to systemic equipment failures, no more than four of the existing 14 systems are deployable at any given time and none are fully mission capable. The current AN/TPN-19 (four systems) and AN/MPN-14K (ten systems) operational availability rates are 25% and 60% respectively versus the D-RAPCON requirement of 98%. D-RAPCON will provide aircraft surveillance/sequencing, air traffic control communications, and automation capabilities for terminal area air traffic control operations. D-RAPCON will also be deployed with a D-ILS, mobile control tower, and mobile TACAN to provide a complete air traffic control capability. The D-RAPCON will support tactical military and worldwide humanitarian operations and also support domestic disaster relief. The primary surveillance radar coverage (non-cooperative targets) is out to 60 nautical miles (nm) and the secondary surveillance radar coverage (cooperative targets) will increase from 120 nm up to 200 nm. Due to diminishing manufacturing sources, life of type purchases will be required each year. A total of 16 D-RAPCONs will be procured. Four for the Active Duty (three for the 53rd Air Traffic Control Squadron (ATCS) at Robins AFB, one for the 1st ATCS at Ramstein AB), one trainer, and one depot rotatable and one for each of 10 ANG ATCSs.

FY18 current year funding totals include \$56.500M appropriated for Overseas Contingency Operations.
 FY17 prior year funding totals include \$21.325M appropriated for Overseas Contingency Operations.

Funding for this exhibit is contained in Program Element (PE) 0305114F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| AF | Quantity | 206 | 210 | 123 | 1 | 124 | 483 | 773 | 966 | 982 |
| | Total Obligation Authority | 39.108 | 95.763 | 32.508 | 12.126 | 44.634 | 57.979 | 64.666 | 90.588 | 49.549 |
| AFNG | Quantity | 2 | 5 | 52 | 4 | 56 | 102 | 102 | 153 | 153 |
| | Total Obligation Authority | 31.620 | 26.880 | 24.634 | 44.758 | 69.392 | 1.986 | 1.988 | 9.026 | 3.046 |
| AFR | Quantity | 0 | 0 | 40 | 0 | 40 | 50 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.000 | 0.000 | 0.795 | 0.000 | 0.795 | 0.994 | 0.000 | 0.000 | 0.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys |
|--|--|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305114F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|----------------------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Total: | Quantity | 208 | 215 | 215 | 5 | 220 | 635 | 875 | 1,119 | 1,135 |
| Secondary Distribution | Total Obligation Authority | 70.728 | 122.643 | 57.937 | 56.884 | 114.821 | 60.959 | 66.654 | 99.614 | 52.595 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833010 / Air Traffic Control & Landing Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305114F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Digital Air Traffic Control Radio Replacement | | | | - / - | - / 3.282 | - / 3.599 | - / 4.234 | - / - | - / 4.234 |
| P-5 | D-ILS | P-5a, P-21 | A | | - / - | 4 / 32.731 | 7 / 44.038 | - / 0.000 | 3 / 23.484 | 3 / 23.484 |
| P-5 | Deployable Radar Approach Control (D-RAPCON) | P-5a | A | | - / - | 1 / 18.466 | 4 / 65.079 | 2 / 53.703 | 2 / 33.400 | 4 / 87.103 |
| P-5 | FB NAVAIDS FOS TACAN/VORTAC | P-5a | A | | - / - | 30 / 16.249 | 21 / 9.927 | - / 0.000 | - / - | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 70.728 | - / 122.643 | - / 57.937 | - / 56.884 | - / 114.821 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

1. DIGITAL AIR TRAFFIC CONTROL (ATC) RADIO REPLACEMENT: FY19 funds procure 213 systems (123 AD/50 ANG/40 AFR).
2. ATCALs Fixed Base (FB) Navigational Aids (NAVAIDS) Family of Systems (FOS): FY19 - No funds requested.
3. DEPLOYABLE INSTRUMENT LANDING SYSTEM (D-ILS): FY19 OCO funds procure 3 systems (1 AD/2 ANG/0 AFR). No FY19 base year funds requested.
4. DEPLOYABLE RADAR APPROACH CONTROL (D-RAPCON): FY19 base funds procure 2 systems: (0 AD/2 ANG/0 AFR). FY19 OCO funds procure 2 systems: (0 AD/2 ANG/0 AFR).

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | | | | | | | | Aggregated Items Title: Digital Air Traffic Control Radio Replacement | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Digital Air Traffic Control (ATC) Radio | | | | | | | | | | | | | | | | | | | | |
| Single Channel ATC Radio | A | | - | - | - | 0.019 | 173 | 3.282 | 0.020 | 183 | 3.599 | 0.020 | 213 | 4.234 | - | - | - | 0.020 | 213 | 4.234 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 173 | 3.282 | | 183 | 3.599 | | 123 | 2.445 | | - | - | | 123 | 2.445 |
| AFNG | | | | - | - | | - | - | | - | - | | 50 | 0.994 | | - | - | | 50 | 0.994 |
| AFR | | | | - | - | | - | - | | - | - | | 40 | 0.795 | | - | - | | 40 | 0.795 |
| Subtotal: Digital Air Traffic Control (ATC) Radio | | | - | - | - | - | - | 3.282 | - | - | 3.599 | - | - | 4.234 | - | - | - | - | - | 4.234 |
| Total | | | - | - | - | - | - | 3.282 | - | - | 3.599 | - | - | 4.234 | - | - | - | - | - | 4.234 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Radios are identified in supply system as centrally managed are being procured by the Air Force Life cycle Management Center at Tinker AFB through an FAA contract awarded to General Dynamics with fixed price options extending through 2022.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys |
| | | Item Number / Title [DODIC]: D-ILS |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|--------------|---------------|---------------|
| Procurement Quantity (Units in Each) | - | 4 | 7 | - | 3 | 3 |
| Gross/Weapon System Cost (\$ in Millions) | - | 32.731 | 44.038 | 0.000 | 23.484 | 23.484 |
| Less PY Advance Procurement (\$ in Millions) | - | 0.000 | 0.000 | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 32.731 | 44.038 | 0.000 | 23.484 | 23.484 |
| Plus CY Advance Procurement (\$ in Millions) | - | 0.000 | 0.000 | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 32.731 | 44.038 | 0.000 | 23.484 | 23.484 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|-------|-------|-------|-------|
| Initial Spares (\$ in Millions) | - | 0.446 | 0.000 | 0.000 | 0.000 | 0.000 |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 8.183 | 6.291 | - | 7.828 | 7.828 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - D-ILS Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| D-ILS Systems Active Duty ^(†) (1) | - | - | - | 5.073 | 2 | 10.146 | 5.376 | 2 | 10.752 | - | - | 0.000 | 5.679 | 1 | 5.679 | 5.679 | 1 | 5.679 |
| D-ILS ANG ^(†) | - | - | - | 5.073 | 2 | 10.146 | 5.376 | 5 | 26.880 | - | - | 0.000 | 5.679 | 2 | 11.358 | 5.679 | 2 | 11.358 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 20.292 | - | - | 37.632 | - | - | 0.000 | - | - | 17.037 | - | - | 17.037 |
| <i>Subtotal: Hardware - D-ILS Cost</i> | - | - | - | - | - | 20.292 | - | - | 37.632 | - | - | 0.000 | - | - | 17.037 | - | - | 17.037 |
| Support - D-ILS Cost | | | | | | | | | | | | | | | | | | |
| Direct Mission Support | - | - | - | - | - | 5.733 | - | - | 3.907 | - | - | 0.000 | - | - | 3.641 | - | - | 3.641 |
| PMA Contractor Services AFLCMC (Hanscom AFB) | - | - | - | - | - | 1.995 | - | - | 1.584 | - | - | 0.000 | - | - | 1.631 | - | - | 1.631 |
| Interim Contractor Support | - | - | - | - | - | 0.638 | - | - | 0.915 | - | - | 0.000 | - | - | 1.175 | - | - | 1.175 |
| ECP/Production Line Start Up | - | - | - | - | - | 4.073 | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Support - D-ILS Cost</i> | - | - | - | - | - | 12.439 | - | - | 6.406 | - | - | 0.000 | - | - | 6.447 | - | - | 6.447 |
| Gross/Weapon System Cost | - | - | - | 8.183 | 4 | 32.731 | 6.291 | 7 | 44.038 | - | - | 0.000 | 7.828 | 3 | 23.484 | 7.828 | 3 | 23.484 |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|------------------------|----------|---------|---------|--------------|-------------|---------------|
| AF | Quantity | 2 | 2 | 0 | 1 | 1 |

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: D-ILS |
|---|--|--|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------------------|-----------------------------------|---------------|---------------|--------------|---------------|
| Secondary Distribution | | | | | |
| | Total Obligation Authority | 1.111 | 17.158 | 0.000 | 12.126 |
| AFNG | Quantity | 2 | 5 | - | 2 |
| | Total Obligation Authority | 31.620 | 26.880 | 0.000 | 11.358 |
| AFR | Quantity | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 4 | 7 | - | 3 |
| Secondary Distribution | Total Obligation Authority | 32.731 | 44.038 | 0.000 | 23.484 |

(t) indicates the presence of a P-5a

Footnotes:

(1) Firm Fixed Price (FFP) contract with production option.

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: D-ILS |
|---|--|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--|-------------|------|-------------------------------|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| D-ILS Systems Active Duty ^(†) | | 2017 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Mar 2018 | Jan 2019 | 2 | 5.073 | Y | | Feb 2016 |
| D-ILS Systems Active Duty ^(†) | | 2018 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Jun 2018 | May 2019 | 2 | 5.376 | Y | | Feb 2016 |
| D-ILS Systems Active Duty ^(†) | ✓ | 2019 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Jan 2019 | Dec 2019 | 1 | 5.679 | Y | | Feb 2016 |
| D-ILS ANG ^(†) | | 2017 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Mar 2018 | Mar 2019 | 2 | 5.073 | Y | | Feb 2016 |
| D-ILS ANG ^(†) | | 2018 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Jun 2018 | Jul 2019 | 5 | 5.376 | Y | | Feb 2016 |
| D-ILS ANG ^(†) | ✓ | 2019 | Thales / Clarksburg, Maryland | SS / FFP | AFLCMC Hanscom AFB | Jan 2019 | Jan 2020 | 2 | 5.679 | Y | | Feb 2016 |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833010 / Air Traffic Control & Landing Sys **Item Number / Title [DODIC]:** D-ILS

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | BALANCE | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| D-ILS Systems Active Duty ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2017 | AF | 2 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | 0 | | |
| | 1 | 2018 | AF | 2 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | 0 | | |
| ✓ | 1 | 2019 | AF | 1 | 0 | 1 | - | - | 1 | | | | | | | | | | | | | | | | | | | | 0 | | |
| D-ILS ANG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2017 | AF | 2 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | 0 | | |
| | 2 | 2018 | AF | 5 | 3 | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | 0 | | |
| ✓ | 2 | 2019 | AF | 2 | 0 | 2 | - | - | - | 1 | 1 | | | | | | | | | | | | | | | | | | 0 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: D-ILS |
|---|--|--|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | | |
|-----------|-------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|----|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | |
| 1 | Thales - Clarksburg, Maryland | 3 | 10 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 11 | 15 |
| 2 | Thales - Clarksburg, Maryland | 3 | 10 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 12 | 16 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: Deployable Radar Approach Control (D-RAPCON) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|---------------|---------------|
| Procurement Quantity (Units in Each) | - | 1 | 4 | 2 | 2 | 4 |
| Gross/Weapon System Cost (\$ in Millions) | - | 18.466 | 65.079 | 53.703 | 33.400 | 87.103 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 18.466 | 65.079 | 53.703 | 33.400 | 87.103 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 18.466 | 65.079 | 53.703 | 33.400 | 87.103 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|--------|--------|--------|--------|--------|
| Initial Spares (\$ in Millions) | - | 1.009 | 1.294 | 0.932 | 0.000 | 0.932 |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 18.466 | 16.270 | 26.852 | 16.700 | 21.776 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - D-RAPCON Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| PME Refurbished Unit Active Duty ^(†) | - | - | - | - | - | 0.000 | 3.181 | 1 | 3.181 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| PME Production Unit Active Duty ^(†) | - | - | - | 13.627 | 1 | 13.627 | 11.144 | 3 | 33.432 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| PME Production Unit ANG ^(†) | - | - | - | - | - | 0.000 | - | - | - | 11.820 | 2 | 23.640 | 11.820 | 2 | 23.640 | 11.820 | 4 | 47.280 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 13.627 | - | - | 36.613 | - | - | 23.640 | - | - | 23.640 | - | - | 47.280 |
| <i>Subtotal: Hardware - D-RAPCON Cost</i> | - | - | - | - | - | 13.627 | - | - | 36.613 | - | - | 23.640 | - | - | 23.640 | - | - | 47.280 |
| Support - D-RAPCON Cost | | | | | | | | | | | | | | | | | | |
| Other Procurement Cost | - | - | - | - | - | 3.896 | - | - | 10.294 | - | - | 7.280 | - | - | 6.980 | - | - | 14.260 |
| Direct Mission Support/ GFE | - | - | - | - | - | 0.352 | - | - | 1.078 | - | - | 0.733 | - | - | 0.733 | - | - | 1.466 |
| PMA Contractor Services AFLCMC (Hanscom AFB) | - | - | - | - | - | 0.161 | - | - | 0.776 | - | - | 0.873 | - | - | 0.000 | - | - | 0.873 |
| PMA Other Government Costs | - | - | - | - | - | 0.334 | - | - | 3.973 | - | - | 3.614 | - | - | 0.560 | - | - | 4.174 |
| Depot Activation/Stand-up | - | - | - | - | - | - | - | - | 9.801 | - | - | 15.996 | - | - | 0.000 | - | - | 15.996 |
| Shelter Mobilizer | - | - | - | - | - | - | - | - | 2.262 | - | - | 1.137 | - | - | 1.137 | - | - | 2.274 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: Deployable Radar Approach Control (D-RAPCON) |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Interim Contractor Support | - | - | - | - | - | 0.096 | - | - | 0.282 | - | - | 0.430 | - | - | 0.350 | - | - | 0.780 |
| <i>Subtotal: Support - D-RAPCON Cost</i> | - | - | - | - | - | 4.839 | - | - | 28.466 | - | - | 30.063 | - | - | 9.760 | - | - | 39.823 |
| Gross/Weapon System Cost | - | - | - | 18.466 | 1 | 18.466 | 16.270 | 4 | 65.079 | 26.852 | 2 | 53.703 | 16.700 | 2 | 33.400 | 21.776 | 4 | 87.103 |

Remarks:
 Unit cost difference: FY17 funds procure one production system for \$13.627M. FY18 funding procures three production systems at unit cost of \$11.144M and refurbishes one pre-production unit for 3.181M for a total of \$36.613M. FY18 funding also includes \$9.801M for standup of organic depot. FY19 funds procure four production systems (two Base/two OCO) at a unit cost of \$11.820M for a total of \$47.280M. The lower FY18/19 unit costs reflect contract variable quantity table economic order efficiencies for procurement of more than one system per year. FY19 funds also include \$15.996M for continued standup of the organic depot.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| AF | Quantity | 1 | 4 | 0 | 0 | 0 |
| | Total Obligation Authority | 18.466 | 65.079 | 30.063 | 0.000 | 30.063 |
| AFNG | Quantity | 0 | 0 | 2 | 2 | 4 |
| | Total Obligation Authority | 0.000 | 0.000 | 23.640 | 33.400 | 57.040 |
| AFR | Quantity | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: Secondary Distribution | Quantity | 1 | 4 | 2 | 2 | 4 |
| | Total Obligation Authority | 18.466 | 65.079 | 53.703 | 33.400 | 87.103 |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | | | | Item Number / Title [DODIC]: Deployable Radar Approach Control (D-RAPCON) | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------------|-------------|------|-----------------------------|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| PME Refurbished Unit Active Duty | | 2018 | Raytheon IDS / Marlboro, MA | C / FPIF | AFLCMC Hanscom AFB | Mar 2019 | Sep 2019 | 1 | 3.181 | Y | | Sep 2016 |
| PME Production Unit Active Duty | | 2017 | Raytheon IDS / Marlboro, MA | C / FPIF | AFLCMC Hanscom AFB | Jan 2019 | Apr 2020 | 1 | 13.627 | Y | | Sep 2016 |
| PME Production Unit Active Duty | | 2018 | Raytheon IDS / Marlboro, MA | C / FPIF | AFLCMC Hanscom AFB | Mar 2019 | Mar 2020 | 3 | 11.144 | Y | | Sep 2016 |
| PME Production Unit ANG | | 2019 | Raytheon IDS / Marlboro, MA | C / FPIF | AFLCMC Hanscom AFB | Mar 2019 | Jun 2020 | 2 | 11.820 | Y | | Sep 2016 |
| PME Production Unit ANG | ✓ | 2019 | Raytheon IDS / Marlboro, MA | C / FPIF | AFLCMC Hanscom AFB | Mar 2019 | Oct 2020 | 2 | 11.820 | Y | | Sep 2016 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: FB NAVAIDS FOS TACAN/VORTAC |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | 30 | 21 | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 16.249 | 9.927 | 0.000 | - | 0.000 |
| Less PY Advance Procurement (\$ in Millions) | - | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Net Procurement (P-1) (\$ in Millions) | - | 16.249 | 9.927 | 0.000 | - | 0.000 |
| Plus CY Advance Procurement (\$ in Millions) | - | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Total Obligation Authority (\$ in Millions) | - | 16.249 | 9.927 | 0.000 | - | 0.000 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|-------|-------|---|-------|
| Initial Spares (\$ in Millions) | - | 1.875 | 1.783 | 0.000 | - | 0.000 |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 0.542 | 0.473 | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - FB NAVAIDS FOS TACAN/VORTAC Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| FB NAVAIDS FOS TACAN Replacement Active Duty ^(†) | - | - | - | 0.388 | 23 | 8.924 | 0.395 | 12 | 4.740 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| FB NAVAIDS FOS VORTAC Replacement Active Duty ^(†) | - | - | - | 0.470 | 7 | 3.290 | 0.478 | 9 | 4.302 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 12.214 | - | - | 9.042 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Hardware - FB NAVAIDS FOS TACAN/VORTAC Cost</i> | - | - | - | - | - | 12.214 | - | - | 9.042 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Support - FB NAVAIDS FOS TACAN/VORTAC Cost | | | | | | | | | | | | | | | | | | |
| Tech Order Digitization | - | - | - | - | - | 0.260 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Interim Contractor Support | - | - | - | - | - | 0.250 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Depot Activation | - | - | - | - | - | 1.551 | - | - | 0.204 | - | - | - | - | - | - | - | - | - |
| Direct Mission Support | - | - | - | - | - | 0.590 | - | - | 0.275 | - | - | - | - | - | - | - | - | - |
| ATCALs PMA AFLCMC (Tinker AFB) Contractor Services | - | - | - | - | - | 0.980 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| ATCALs PMA AFLCMC (Tinker AFB) Other Government Costs | - | - | - | - | - | 0.204 | - | - | 0.201 | - | - | - | - | - | - | - | - | - |
| Installation Travel | - | - | - | - | - | 0.200 | - | - | 0.205 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | | | | | | Item Number / Title [DODIC]: FB NAVAIDs FOS TACAN/VORTAC | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - FB NAVAIDs FOS TACAN/VORTAC Cost</i> | - | - | - | - | - | 4.035 | - | - | 0.885 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | 0.542 | 30 | 16.249 | 0.473 | 21 | 9.927 | - | - | 0.000 | - | - | - | - | - | 0.000 |

Remarks:
No FY19 funds requested.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--------------------------------------|-----------------------------------|---------------|--------------|--------------|-------------|---------------|
| AF | Quantity | 30 | 21 | - | - | - |
| | Total Obligation Authority | 16.249 | 9.927 | 0.000 | - | 0.000 |
| AFNG | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | - | 0.000 |
| AFR | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Total: Secondary Distribution | Quantity | 30 | 21 | - | - | - |
| | Total Obligation Authority | 16.249 | 9.927 | 0.000 | - | 0.000 |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys | Item Number / Title [DODIC]: FB NAVAIDs FOS TACAN/VORTAC |
|---|--|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--------------------------------|--------------------------------------|-------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| FB NAVAIDs FOS TACAN Replacement Active Duty | | 2017 | Thales / Overland Park, Kansas | C / FFP | AFLCMC Tinker AFB | Jun 2017 | Jan 2018 | 23 | 0.388 | Y | | Jan 2012 |
| FB NAVAIDs FOS TACAN Replacement Active Duty | | 2018 | Thales / Overland Park, Kansas | C / FFP | AFLCMC Tinker AFB | May 2018 | Jul 2018 | 12 | 0.395 | Y | | Jan 2012 |
| FB NAVAIDs FOS VORTAC Replacement Active Duty | | 2017 | Thales / Overland Park, Kansas | C / FFP | AFLCMC Tinker AFB | Jun 2017 | Dec 2017 | 7 | 0.470 | Y | | Jan 2012 |
| FB NAVAIDs FOS VORTAC Replacement Active Duty | | 2018 | Thales / Overland Park, Kansas | C / FFP | AFLCMC Tinker AFB | May 2018 | Jul 2018 | 9 | 0.478 | Y | | Jan 2012 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | P-1 Line Item Number / Title: 833020 / National Airspace System |
|---|---|

| | | |
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| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305114F |
|--|---|---|

Line Item MDAP/MAIS Code: 537

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|----------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | 140 | - | - | - | - | - | - | - | - | - | - | 140 |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 771.093 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 771.093 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 771.093 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|-------|---|-------|---|---|---|---|---|---|---|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | - | 0.247 | - | - | - | - | - | - | - | - | 0.247 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | 5.398 | - | - | - | - | - | - | - | - | - | - | 5.508 |

Description:

PE 0305137F NATIONAL AIRSPACE SYSTEM (NAS)

NAS is an Acquisition Category (ACAT) IC (Component) program which entered full rate production on 15 Jun 05. It modernizes the Department of Defense (DoD) Air Traffic Control (ATC) system in concert with the Federal Aviation Administration (FAA) modernization effort. The FAA is the overall NAS program lead and the Air Force (AF) is the DoD lead. NAS increases safety of flight, provides systems and facilities inter-operable with FAA modernization, replaces aging DoD ATC systems, provides identical service to military and civilian aircraft, and reduces DoD flight cancellations/delays and maintenance. Equipment procured includes ATC automation systems, surveillance radars, voice switches, military site-unique equipment (at test range facilities), associated Pre-Planned Product Improvements, site preparation, installation support, ancillary equipment and supplies, direct production support, and flight, periodic security interoperability, and information technology certifications. For the AF, this includes procurement funding for 91 DoD Advanced Automation Systems (DAASs) [45 Radar Approach Control Facilities and 46 Air Traffic Control Towers], 49 Digital Airport Surveillance Radars (DASRs), and other equipment required to interface with the FAA.

DAAS replaces the 1978 era Programmable Indicator Data Processor and is comprised of equipment tailored to support two types of ATC operations facilities: Radar Approach Control (RAPCON) and military control tower facilities. DAAS includes digital radar displays, consoles, and automation hardware and software to replace systems approaching the end of their life cycle.

DASR replaces the current generation of DoD analog ATC surveillance radars and consists of two subsystems: a primary and a secondary surveillance radar. These subsystems provide aircraft position and other data to controller displays in the RAPCON and at select control tower locations.

To date, the NAS program has procured and installed 48 DASR and 91 DAAS systems. The last DASR is funded in FY18 and will be installed in FY20. NAS is also transitioning to the operations and support phase which will focus on mitigation of DAAS/DASR diminishing manufacturing source (DMS) and sustainment issues. Funds for NAS sustainment modifications are being programmed in the Communications Electronics Modification P-1 Line under the NAS program element 0305137F.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. Reserve component allocations are subject to Total Force priorities and demand.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
 833020 / National Airspace System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305114F

Line Item MDAP/MAIS Code: 537

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | National Airspace System (NAS) Plan | P-5a, P-21 | A | | 140 / 755.779 | - / 2.673 | - / 12.641 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | 140 / 755.779 | - / 2.673 | - / 12.641 | - / 0.000 | - / 0.000 | - / 0.000 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 PE 0305137F NATIONAL AIRSPACE SYSTEM (NAS): FY19 - No funds requested.

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|---|--|--|--|---|----------------|----------------------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | Date: February 2018 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | P-1 Line Item Number / Title: 833020 / National Airspace System | | | Item Number / Title [DODIC]: National Airspace System (NAS) Plan | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Procurement Quantity (Units in Each) | | | | 140 | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 755.779 | 2.673 | 12.641 | 0.000 | 0.000 | 0.000 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | 0.000 | 0.247 | 0.000 | - | 0.000 |
| Gross/Weapon System Unit Cost (\$ in Millions) | | | | 5.398 | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - NAS Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| DAAS/DASR ^(†) | 4.806 | 140 | 672.771 | - | - | 0.000 | 12.121 | 1 | 12.121 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Recurring Cost</i> | - | - | 672.771 | - | - | 0.000 | - | - | 12.121 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Hardware - NAS Cost | - | - | 672.771 | - | - | 0.000 | - | - | 12.121 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Logistics - Logistics End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| DASR Site Activation | - | - | 49.437 | - | - | 0.000 | - | - | 0.220 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Recurring Cost</i> | - | - | 49.437 | - | - | 0.000 | - | - | 0.220 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Subtotal: Logistics - Logistics End Item Cost | - | - | 49.437 | - | - | 0.000 | - | - | 0.220 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |
| Program Management Administration Contractor Services | - | - | 33.571 | - | - | 2.588 | - | - | 0.150 | - | - | - | - | - | - | - | - | - |
| Program Management Administration Other Government Costs | - | - | - | - | - | 0.085 | - | - | 0.150 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Subtotal: Support - Support End Item Cost | - | - | 33.571 | - | - | 2.673 | - | - | 0.300 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Gross/Weapon System Cost | 5.398 | 140 | 755.779 | - | - | 2.673 | - | - | 12.641 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833020 / National Airspace System | Item Number / Title [DODIC]: National Airspace System (NAS) Plan |
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: | |
| (†) indicates the presence of a P-5a | | |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833020 / National Airspace System | Item Number / Title [DODIC]: National Airspace System (NAS) Plan |
|---|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--------------------------|-------------|------|-------------------------|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| DAAS/DASR ^(†) | | 2018 | Raytheon / Marlboro, MA | C / FFP | AFLCMC Hanscom AFB | Mar 2018 | Feb 2020 | 1 | 12.121 | Y | | Jul 2017 |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833020 / National Airspace System **Item Number / Title [DODIC]:** National Airspace System (NAS) Plan

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2018 | | | | | | | | | | | | Fiscal Year 2019 | | | | | | | | | | | | BALANCE | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2017 | BAL DUE AS OF 1 OCT | Calendar Year 2018 | | | | | | | | | | | | Calendar Year 2019 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| DAAS/DASR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2018 | AF | | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833020 / National Airspace System **Item Number / Title [DODIC]:** National Airspace System (NAS) Plan

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | BALANCE | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| DAAS/DASR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2018 | AF | | 1 | 0 | 1 | - | - | - | - | 1 | | | | | | | | | | | | | | | | | | 0 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2019 Air Force | Date: February 2018 |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833020 / National Airspace System | Item Number / Title [DODIC]: National Airspace System (NAS) Plan |
|---|---|--|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | | |
|-----------|------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|----|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | |
| 1 | Raytheon - Marlboro, MA | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 23 | 29 |

Remarks:
 NAS is an ACAT IC program. The Air Force is the lead Service. With the exception of the AF DASR for Creech AFB, DAAS and DASR equipment deliveries and installation funded under the NAS PE0305137A/F/N are complete. Total number of systems are:

AF - 91 DAASs and 49 DASRs
 Army - 24 DAASs and 12 DASRs
 Navy - 47 DAASs and 29 DASRs. Note: Funding for last 3 DAAS procurements and 4 installations and support costs for FY17/beyond have been realigned to Ashore ATC Equipment (BLI 2820).

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833030 / Battle Control System - Fixed

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0102326F **Other Related Program Elements:** 0102326F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 3.681 | 5.677 | 6.415 | 3.012 | - | 3.012 | 3.063 | 3.119 | 3.175 | 3.232 | - | 31.374 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 3.681 | 5.677 | 6.415 | 3.012 | - | 3.012 | 3.063 | 3.119 | 3.175 | 3.232 | - | 31.374 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 3.681 | 5.677 | 6.415 | 3.012 | - | 3.012 | 3.063 | 3.119 | 3.175 | 3.232 | - | 31.374 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

BCS-F supports the North American Aerospace Defense Command/ Northern Command (NORAD/NORTHCOM) homeland defense and air sovereignty mission for fixed Air Defense Sectors.

BATTLE CONTROL SYSTEM-FIXED (BCS-F): BCS-F is a Bi-national program with Canada. The BCS-F Program is an AF Homeland Defense battle management command and control system with the capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive air picture. BCS-F provides tactical communications and data link capabilities with other military and civil systems responsible for planning, directing, coordinating and controlling forces for air surveillance, air defense, and control of sovereign US air space. This integrated air picture enhances the capability to conduct peacetime air sovereignty operations and transition to active air defense operations in the event of aggression. The BCS-F baseline expanded in FY2014 to include the Remote Tactical Air Picture/Remote Work Station (RTAP/RWS). Life cycle replacement will be required, to prevent system obsolescence, account for new cyber-security requirements to posture the program to seamlessly integrate future capabilities.

NATIONAL CAPITOL REGION - INTEGRATED AIR DEFENSE SYSTEM (NCR-IADS): NCR-IADS is a post-September 11, 2001 rapidly fielded capability that improves low altitude detection capability in order to prosecute airborne threats to the NCR. NCR-IADS provides ground-based air defense of the National Capitol Region airspace, and provides an integrated air picture, ground air defense weapons, enhanced regional situational awareness and forensic data collection capabilities for the war-fighter mission to protect the NCR. FY2019 life cycle replacement will be required, to prevent system obsolescence, account for new cyber-security requirements to posture the program to seamlessly integrate future capabilities.

BATTLE CONTROL SYSTEM MODIFICATION: Provides for capital equipment replacement activities at the fixed Air Defense Sector under the modification efforts for Release 3.2.5 and beyond, which include, but are not limited to: infrastructure upgrades, future Diminishing Manufacturing Sources (DMS), and replacement of other equipment that does not qualify for Centralized Asset Management (CAM) funding.

Justification:

- National Capitol Region - Integrated Air Defense System (NCR-IADS): Life cycle replacement will be required to prevent system obsolescence, account for new cyber- security requirements and will posture the program to seamlessly integrate future capabilities. Funds will be utilized for hardware upgrades and spares that do not qualify for Centralized Asset Management (CAM) funding, to include, but not limited to: updated configurations of existing sites to match the modified baseline, and hardware to maintain the mandated cyber security posture and Authority to Operate (ATO) requirements.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833030 / Battle Control System - Fixed |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0102326F | Other Related Program Elements: 0102326F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>- BATTLE CONTROL SYSTEM MODIFICATION: FY2019 funds will support hardware upgrades for Mode 5. Funds will be utilized for hardware upgrades and spares that do not qualify for Centralized Asset Management (CAM) funding, to include, but not limited to: updated configurations of existing sites to match the modified baseline, and hardware to maintain the mandated cyber security posture and Authority to Operate (ATO) requirements.</p> <p>- PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY2019 funds for PMA costs provide the management, engineering and technical support for the program office.</p> <p>- This funding request supports potential Diminishing Manufacturing Sources (DMS) and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833040 / Theater Air Control Sys Improvemen

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207412F **Other Related Program Elements:** 0207412F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 22.710 | 1.163 | 28.203 | 19.989 | 0.000 | 19.989 | 11.852 | 13.393 | 18.879 | 8.579 | - | 124.768 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 22.710 | 1.163 | 28.203 | 19.989 | 0.000 | 19.989 | 11.852 | 13.393 | 18.879 | 8.579 | - | 124.768 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 22.710 | 1.163 | 28.203 | 19.989 | 0.000 | 19.989 | 11.852 | 13.393 | 18.879 | 8.579 | - | 124.768 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

CONTROL AND REPORTING CENTER (CRC)

The Control and Reporting Center (CRC) is a mobile, ground-based theater air control system (TACS) surveillance and battle management command and control (BMC2) element. It consists of facilities, equipment, and people. It is a customizable, modular, transportable, and persistent weapon system employed at the tactical level to support air and surface operations. The CRC is a family of systems which includes: AN/TYQ-23(V)1 Operations Module (OM) (to be replaced by the AN/TYQ-23v5), a low density/high demand (LD/HD), rapidly deployable, ground-based C2 asset that features an automated, computer-based information system to provide operators with a real-time battle space picture necessary to plan, direct, and control tactical air operations and airspace management tasks; AN/TSC-147 Joint Tactical Information Distribution System (JTIDS) Module (JM) (to be replaced by the Link 16 Upgrade using the Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS)); AN/TRC-213/214 Remote Radio Secure Voice System (RRSVS); and the AN/TPS-75 Radar, CRC's organic radar, (to be replaced by the Three-Dimensional Expeditionary Long Range Radar (3DELRR) (PE 0207455)). Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

In order to meet warfighter requirements, incremental updates are required. Phase 1 capabilities include, but are not limited to: JM Link 16 Upgrade kits and DMSMS updates (JM Link 16 Upgrade will provide for crypto modernization and will meet FAA mandated frequency re-mapping requirements, as well as stand up organic software and hardware support); stand up of the System Integrated Lab (SIL) and a Cross Domain Solution (CDS) to update cyber security. Fielding and DMSMS updates and interim contract support will continue through FY21.

Funding for this exhibit contained in PE 0207412F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| AF | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | 1.163 | 18.655 | 10.133 | - | 10.133 | 7.432 | 4.553 | 17.399 | 8.579 |
| AFNG | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | 0.000 | 9.548 | 9.856 | - | 9.856 | 4.420 | 8.840 | 1.480 | - |
| Total: | - | - | - | - | - | - | - | - | - |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen |
|--|---|

| | | |
|--|--|---|
| ID Code (A=Service Ready, B=Not Service Ready): B | Program Elements for Code B Items: 0207412F | Other Related Program Elements: 0207412F |
|--|--|---|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|
| Secondary Distribution | Total Obligation Authority | 1.163 | 28.203 | 19.989 | - | 19.989 | 11.852 | 13.393 | 18.879 | 8.579 |

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|
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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen | |
| ID Code (A=Service Ready, B=Not Service Ready): B | | Program Elements for Code B Items: 0207412F | Other Related Program Elements: 0207412F |
| Line Item MDAP/MAIS Code: N/A | | | |

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | TACSI Mods | | | | - / 22.710 | - / 1.163 | - / 9.420 | - / 4.575 | - / 0.000 | - / 4.575 |
| P-3a | 1 / CRC Phase 1 (Other) | | B | | - / 0.000 | - / 0.000 | - / 18.783 | - / 15.414 | - / 0.000 | - / 15.414 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 22.710 | - / 1.163 | - / 28.203 | - / 19.989 | - / 0.000 | - / 19.989 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | TACSI Mods | | | | - / 11.852 | - / 13.393 | - / 18.879 | - / 8.579 | - / 0.000 | - / 90.571 |
| P-3a | 1 / CRC Phase 1 (Other) | | B | | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / - | - / 34.197 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 11.852 | - / 13.393 | - / 18.879 | - / 8.579 | - / - | - / 124.768 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 funding supports:

a. Operations Module (OM) MOD & Phase 1 capabilities include, but are not limited to, the following: Interim Contractor Support (ICS), Direct Mission Support (DMS), Diminishing Manufacturing Sources and Material Shortages (DMSMS) support, Joint Tactical Information Distribution System Module (JM) Link 16 Upgrade Production Kits.

b. SUPPORT: (OM Mod, Phase 1) Includes efforts, but are limited to Program Management Administration (PMA) activities in support of the Control and Reporting Center (CRC).

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833040 / Theater Air Control Sys Improvemen **Aggregated Modification Items Title:** TACSI Mods

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | | | | |
|-------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|---------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|---|---|---|---------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | | | | |
| CRC02 / CRC Phase 2 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | | | | |
| AFNG | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | | | | |
| TYQ23A / AN/TYQ23A OM MOD | | | - | - | 22.710 | | - | - | 1.163 | | - | - | 9.420 | | - | - | | - | 4.575 | | | | | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.163 | | - | 9.420 | | - | 4.575 | | - | - | | - | | | | | |
| AFNG | | | | - | - | | - | 0.000 | | - | 0.000 | | - | - | | - | - | | - | | | | | |
| Total | | | - | - | 22.710 | | - | 1.163 | | - | 9.420 | | - | 4.575 | | - | 0.000 | | 4.575 | | | | | |
| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | | | | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | | | | |
| CRC02 / CRC Phase 2 | | | - | - | 11.852 | | - | - | 13.393 | | - | - | 18.879 | | - | - | 8.579 | | - | - | - | - | - | 52.703 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 7.432 | | - | - | 4.553 | | - | - | 17.399 | | - | - | 8.579 | | - | - | | - | - | - |
| AFNG | | | | - | 4.420 | | - | - | 8.840 | | - | - | 1.480 | | - | - | 0.000 | | - | - | | - | - | - |
| TYQ23A / AN/TYQ23A OM MOD | | | - | - | - | | - | - | - | | - | - | - | | - | - | - | | - | - | | - | - | 37.868 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | - | | - | - | - | | - | - | - | | - | - | | - | - | - |
| AFNG | | | | - | - | | - | - | - | | - | - | - | | - | - | - | | - | - | | - | - | - |
| Total | | | - | - | 11.852 | | - | - | 13.393 | | - | - | 18.879 | | - | - | 8.579 | | - | 0.000 | | - | - | 90.571 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---------------------------|----------------------------|-------------------|
| CRC02 / CRC Phase 2 | CRCPhase2 | Other |
| TYQ23A / AN/TYQ23A OM MOD | OMMOD | Other |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen | Modification Number / Title: 1 / CRC Phase 1 |
|---|---|--|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|----------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 | - | - | 34.197 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 | - | - | 34.197 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 | - | - | 34.197 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0207412F CONTROL AND REPORTING CENTER (CRC)
CRC Phase 1

In order to meet warfighter requirements, incremental updates are required. Phase 1 capabilities include, but are not limited to: JM Link 16 Upgrade kits and DMSMS updates (JM Link 16 Upgrade will provide for crypto modernization and will meet FAA mandated frequency re-mapping requirements, as well as stand up organic software and hardware support); and a Cross Domain Solution (CDS) to update cyber security. Fielding and DMSMS updates and interim contract support will continue through FY21.

Milestone/Development Status

N/A

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|-----------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|
| AF | Quantity | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | 9.235 | 5.558 | - | 5.558 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | 9.548 | 9.856 | - | 9.856 | 0.000 | 0.000 | 0.000 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen | | | | | | Modification Number / Title: 1 / CRC Phase 1 | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: CRCPhase1 | | | | Modification Type: Other | | | | Related RDT&E PEs: | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> CRC Phase 1 | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| CRC Phase 1:EQUIPMENT Group B (Active) | - / - | - / - | 9 / 7.336 | 3 / 2.112 | - / - | 3 / 2.112 | - / - | - / - | - / - | - / - | - / - | 12 / 9.448 | |
| CRC Phase 1:EQUIPMENT Group B (Guard) | - / - | - / - | 12 / 9.548 | 14 / 9.856 | - / - | 14 / 9.856 | - / - | - / - | - / - | - / - | - / - | 26 / 19.404 | |
| <i>Subtotal: Recurring</i> | - / - | - / - | - / 16.884 | - / 11.968 | - / - | - / 11.968 | - / - | - / - | - / - | - / - | - / - | - / 28.852 | |
| <i>Subtotal: CRC Phase 1</i> | - / - | - / - | - / 16.884 | - / 11.968 | - / - | - / 11.968 | - / - | - / - | - / - | - / - | - / - | - / 28.852 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / - | - / 16.884 | - / 11.968 | - / - | - / 11.968 | - / - | - / - | - / - | - / - | - / - | - / 28.852 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| PMA - Other Gov't Costs | - / - | - / - | - / - | - / 1.945 | - / - | - / 1.945 | - / - | - / - | - / - | - / - | - / - | - / 1.945 | |
| Type 1 Training | - / - | - / - | - / 1.899 | - / 1.501 | - / - | - / 1.501 | - / - | - / - | - / - | - / - | - / - | - / 3.400 | |
| <i>Subtotal: Support</i> | - / - | - / - | - / 1.899 | - / 3.446 | - / - | - / 3.446 | - / - | - / - | - / - | - / - | - / - | - / 5.345 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> CRC Phase 1 | - / - | - / - | - / - | - / - | - / - | - / - | 0 / 0.000 | 21 / 0.000 | 17 / 0.000 | - / - | - / - | 38 / 0.000 | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | 0 / - | 21 / 0.000 | 17 / 0.000 | - / - | - / - | 38 / 0.000 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 0.000 | 0.000 | 18.783 | 15.414 | 0.000 | 15.414 | 0.000 | 0.000 | 0.000 | - | - | 34.197 | |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen | Modification Number / Title: 1 / CRC Phase 1 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 1: CRC Phase 1

Manufacturer Information

| | |
|--|---------------------------------------|
| Manufacturer Name: 309th SMXG | Manufacturer Location: Hill AFB, Utah |
| Administrative Leadtime (in Months): 3 | Production Leadtime (in Months): 18 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|---------|----------|----------|---------|---------|---------|---------|
| Contract Dates | | Jan 2018 | Jan 2019 | | | | |
| Delivery Dates | | Jul 2019 | Jul 2020 | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | - / - | - / - | - / - | - / - | 0 / 0.000 | 21 / 0.000 | - / - | - / - | - / - | 21 / 0.000 |
| FY 2019 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 17 / 0.000 | - / - | - / - | 17 / 0.000 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | - / - | - / - | - / - | - / - | 0 / 0.000 | 21 / 0.000 | 17 / 0.000 | - / - | - / - | 38 / 0.000 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 | 7 | 7 | 5 | 4 | 4 | 4 | - | - | - | - | 0 | 38 |
| Out | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 | 7 | 7 | 5 | 4 | 4 | 4 | - | - | - | - | 0 | 38 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833070 / Weather Observation Forecast

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305111F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|---------------|---------------|---------------|-------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 5.941 | 21.667 | 40.116 | 45.020 | - | 45.020 | 33.417 | 36.554 | 32.762 | 33.345 | - | 248.822 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 5.941 | 21.667 | 40.116 | 45.020 | - | 45.020 | 33.417 | 36.554 | 32.762 | 33.345 | - | 248.822 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 5.941 | 21.667 | 40.116 | 45.020 | - | 45.020 | 33.417 | 36.554 | 32.762 | 33.345 | - | 248.822 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|-------|-------|---|---|---|---|---|---|---|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | 0.100 | 0.109 | - | - | - | - | - | - | - | - | 0.209 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0305111F WEATHER SERVICE

The Weather Observation Forecast procurement line acquires meteorological equipment and ground-based space environment sensing systems supporting the global missions of the Air Force (AF), Army, Special Operations Forces (SOF), combatant commands, and other government agencies. Additionally, these funds procure information system equipment for processing, storing, and disseminating weather information for analysis, forecasting, and mission integration at the strategic, operational, and tactical levels. Fixed and transportable equipment provide observing and forecasting capabilities for home station and deployed locations in support of worldwide Air and Space Expeditionary Forces and Army forces. Weather system technological upgrades provide critical support to modern air and space combat operations. These systems enhance the effectiveness and survivability of AF weapon systems and precision munitions by accurately predicting environmental impacts to optimize mission execution and planning, targeting, weaponeering, and battle damage assessment, as well as both AF and government agency space systems operations and effectiveness. Management services costs include Federally Funded Research and Development Centers and Advisory and Assistance Services.

AF Weather Services (AFWS) activities align under four capability areas: 1) Weather Data Collection, 2) Weather Data Analysis and Dissemination, 3) Weather Forecasting, and 4) Product Tailoring/Warfighter Applications. This alignment ensures an integrated and systems-oriented approach to program management decisions. Development funding for Weather Observation/Forecast is in Program Element (PE) 0305111F, Weather Service.

In FY 2019 PB PE 0305111F (WEATHER SERVICE), LINE NUMBER 838010 (COMM ELECTRIC MODS) efforts transferred to PE 0305111F (WEATHER SERVICE), LINE NUMBER 833070 (WEATHER OBSERVATION FORECAST), in order to enhance transparency of Weather Service programs execution.

1. Weather Data Collection Systems: Provides automated atmospheric (a.k.a. terrestrial) and ground-based space environmental sensing capabilities at fixed and deployed locations worldwide. The data gathered by multiple sensor systems is exploited for environmental battlespace awareness, characterization, safety of flight, and resource protection.

A. Observing System 21/AN/FMQ-23--This is not a new start. The program transitioned from AN/FMQ-23 to Observing System 21/AN/FMQ-23 to better describe and capture scope of work. Observing System 21/AN/FMQ-23 provides automated weather observing systems to collect weather elements and formulate aviation surface weather reports. Program actions include but are not limited to the acquisition of new weather sensors and the normalization to a standard weather sensing baseline comprised of fixed and tactical weather collection components.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305111F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>B. Ionospheric Ground Sensors (IGS)--This is not a new start. The program name transitioned from "Next Generation Ionosonde (NEXION)/Ionospheric Ground Sensors (IGS) to Ionospheric Ground Sensors (IGS) for simplicity and to better capture the scope of work. IGS capital equipment replacement consists of the replacement of unsupported, functionally obsolete, and inoperable NEXION, Ionospheric Scintillation Total Electron Count Observer (ISTO), and other similar equipment. IGS data is transmitted via Non-classified Internet Protocol Router Network (NIPRNET) to the Air Force Weather Enterprise and is utilized to show real-time impacts to DoD and government agency Satellite Communication (SATCOM) users; provide geo-location, Global Positioning System (GPS) error and corrections; and communication forecasts. NEXION is a Commercial off-the-shelf (COTS) vertical incidence low-power radar sensor that obtains measurements of the ionosphere from directly overhead in the medium and high frequency radio bands (2-30 MHz). ISTO is a world-wide network of ground-based, passive, multi-frequency COTS receivers that measure ionospheric scintillation and total electron content in real-time by analyzing various satellite signals.</p> <p>The current and future space domain demands that space systems be responsive to new and changing threats, and can rapidly integrate new capabilities to make our warfighting force more effective. This agility must extend through the entire space warfighting enterprise, to include how we learn about the threat; develop solutions; acquire, test, deploy, train, operate and integrate new systems into the greater system of systems; and ensure our space mission force is ready to defeat a thinking adversary in a complex, multi-domain battlespace. The enterprise will use all of its elements to speed decision-making, prototype potential solutions, rapidly integrate decision-making tools and sustain a war-winning capability by delivering multi-domain effects in, from, and through space and cyberspace enabling battle management and resilience options to "fight through.</p> <p>C. Portable Doppler Radar (PDR)--AN/TMS-2 is a Commercial-off-the-shelf (COTS) system that detects weather hazards, to include precipitation and wind threats. The AN/TMS-2 also collects and delivers weather data to feed the production of weather warnings, watches, advisories, and other mission-essential weather products to support air and ground operations. AN/TMS-2 also serves as a data feed in austere and data sparse areas for the Global Synthetic Radar capability.</p> <p>D. Next-Generation Radar (NEXRAD)--Tri-agency (National Weather Service, US Air Force and Federal Aviation Administration) program that manages 159 Doppler weather radars that provides radar data and products for flight operations and resource protection. The US Air Force owns 25 systems. Program actions include capital equipment replacement of components reaching end of life and Service Life Extension Program which includes the transmitter, pedestal and shelters.</p> <p>E. (MARK IV-B)--Was formally reported in LINE NUMBER 838010 and transferred to LINE NUMBER 833070 in FY 2019 PB. MARK IV-B provides warfighters tactical access to timely, accurate data from the latest generation of weather satellites for consideration in making mission critical decisions affecting the safety of personnel and equipment. MARK IV-B systems receive, process, display, store, and distribute METSAT information to operational users worldwide to support warfighter planning and execution. This system also provides cloud modeling and forecast validation data for the Air Force Weather Weapon System.</p> <p>F. Solar Electro-Optical Network (SEON)--Was formally reported in LINE NUMBER 838010 and transferred to LINE NUMBER 833070 in FY 2019 PB. Consists of three ground base systems, the AN/FMQ-7 Solar Observing Optical Network (SOON), AN/FRR-95 Radio Interference Measuring Set (RIMS), and A/F24U-10 Solar Radio Spectrograph (SRS). SEON provides real time data of solar activity that interferes with radio frequency bands of satellites, radars, radio communications, and power grids. SEON has five sites located at Learmonth, Australia, San Vito, Italy, Kaena Point, HI, (RIMS and SRS) Sagamore Hill, MA, (RIMS and SRS) and Holloman AFB, NM (SOON).</p> <p>2. Weather Data Analysis and Dissemination capability provides centralized Weather Web Service capability, increased availability of weather impacts and products, improved global, regional, and execution forecasts, specific, mission-tailored weather data on demand, and finally increased weapon system interoperability which shortens the Combatant Commander kill chain through machine to machine interfaces. The Weather Data Analysis and Dissemination capability area includes activities for Weather Data Analysis Increment 4 and Increment 5 (WDA and WDA-Inc 5).</p> <p>A. Weather Data Analysis (WDA)--The WDA program of record provides a large-scale data processing, product generation, and presentation system supporting Open Geospatial Consortium (OGC) services architecture and providing capability to ingest, process, store, access, and disseminate meteorological oceanographic (METOC) data. DoD Warfighter Capability/Benefits include the following; centralized Weather Web Service capability, increased availability of weather impacts and products, improved global, regional, and execution forecasts, specific, mission tailored weather data on demand, and finally integrated machine to machine interfaces that shorten the Combatant Command (COCOM) kill chain. Additionally, WDA provides data storage and network infrastructure supporting production, development and testing activities and transport of data among multiple nodes and classification levels. Specifically, Enterprise Storage provides the storage and capability to move data between various storage devices. Ingest</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305111F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Services ensure data providers can present their data to designated storage and Dissemination Services and ensure data consumers have access to storage and/or the ability to move data to location specified by the consumer. Ingest, Dissemination, and Storage services are provided in Non-classified Internet Protocol Router (NIPR), Secret Internet Protocol Router (SIPR), and Sensitive Compartmented Information (SCI) for Production, Test and Development activities in varying degrees. All aspects of Enterprise Storage are in the approved architecture and bound by best security practice principles in an effort to meet security requirements, standardize, and eliminate one-off solutions wherever possible. With Build D, WDA Inc 4 will migrate the Strategic Data Center towards COTS capabilities, expand Open Geospatial Consortium (OGC) services in order to increase machine to machine integration with AF, Army, and government agency programs and weapon systems, provide additional enterprise infrastructure extension/augmentation, and integrate with the Air Force Weather-Web Services (AFW-WEBS) capability. The majority of services will migrate into a cloud computing environment to decrease Operations and Maintenance Costs.</p> <p>B. Weather Data Analysis-Increment 5 (WDA-Inc 5)--WDA-Inc 5 is a continuation of WDA-Increment 4. WDA will achieve an open architecture following Modular Open System Architecture (MOSA) guidelines, providing a flexible, responsive, expandable, and cost effective system. MOSA facilitates easy "plug-and-play" of Government off-the-shelf (GOTS) and commercial off-the-shelf (COTS) hardware and software products, enabling server consolidation and the transition to cloud computing. The WDA-Inc 5 program will operate in Non-classified Internet Protocol Router (NIPR), Secret Internet Protocol Router (SIPR), and Sensitive Compartmented Information (SCI) environments to ensure interoperability with AF, Army, and government agency programs and weapon systems. It will also overhaul the forecaster interface and integrate the multitude of weather information distribution systems. All of this will be achieved using latest state-of-the-art technology. This is the final increment prior to FOC/Sustainment.</p> <p>C. Weather Data Analysis-Capital Equipment Replacement(WDA-CER): WDA Ingest, Dissemination, and Enterprise Storage (IDES) provides for storage and the capability to move data between various storage devices in the Air Force Weather enterprise. Ingest Services ensure data providers can present their data to designated storage and Dissemination Services ensure data consumers have access to storage and/or the ability to move data to location specified by the consumer. IDES services are provided in the Non-classified Internet Protocol Router (NIPR), Secret Internet Protocol Router (SIPR), and Sensitive Compartmented Information (SCI) environments for Production, Test and Development activities in varying degrees. All aspects of IDES are in the approved architecture, bound by best security practice principles, in an effort to meet security requirements, standardize, and eliminate one-off solutions, wherever possible. WDA4C, WPMDS Revector Phase I, and Enterprise Storage Solution (ESS) 5 are predecessors of IDES. The IDES contract vehicle will address hardware and software enhancements from FY18-20. It will also will be used to retire End of Life/End of Service legacy equipment.</p> <p>3. Weather Forecasting: provides advanced scientific numerical weather prediction capabilities for automated, high resolution forecast products for mission execution, rehearsal, and planning. Weather Forecasting includes activities for Numerical Weather Modeling (NWM).</p> <p>A. Numerical Weather Modeling (NWM)--Provides warfighter with increased environmental battlespace awareness for use in strategic, operational, and tactical mission planning, rehearsal, and execution through advanced scientific numerical weather prediction capabilities. Supports technology insertion/scientific improvements to AF weather analysis and forecasting capability with emphasis on clouds, theater-scale weather, and aerosol/chemical constituents. Provides improvements to specific weather capability gaps to Joint/USAF mission areas, and provides forecast products to create advisories and warnings for DoD resource protection and support additional national defense missions and capabilities.</p> <p>4. Product Tailoring/Warfighter Applications: Provides timely, local and regional target-scale weather information to operational commanders within a given Area of Responsibility and at tactical levels provides front-line weather information to warfighters in support of combat operations. Supports the 'train as you fight' concept by assuring fixed and deployable systems have similar performance parameters and user interfaces.</p> <p>A. Joint Environmental Toolkit (JET)--Provides a standard AF Weather forecaster toolkit to ingest weather data and deliver timely, tailorable, precise weather impacts to the warfighter.</p> <p>Funding for this exhibit is contained in PE 0305111F</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305111F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | FMQ-23 | | A | | - / - | 7 / 2.585 | 1 / 1.358 | 1 / 1.229 | - / - | 1 / 1.229 |
| P-5 | JET | | B | | - / - | - / 3.670 | - / 1.104 | - / 1.522 | - / - | - / 1.522 |
| P-40a | Weather Data Collection Systems | | | | - / - | - / 2.823 | - / 11.618 | - / 7.162 | - / - | - / 7.162 |
| P-5 | WDA | | B | | - / - | - / 8.739 | - / 14.666 | - / 3.822 | - / - | - / 3.822 |
| P-40a | WDA-CER | | | | - / - | - / - | - / - | - / 13.385 | - / - | - / 13.385 |
| P-3a | 1 / Numerical Weather Modeling (NWM) (Capability Improvement) | | A | | - / 5.941 | - / 3.850 | - / 11.370 | - / 17.900 | - / 0.000 | - / 17.900 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 5.941 | - / 21.667 | - / 40.116 | - / 45.020 | - / - | - / 45.020 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | FMQ-23 | | A | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-5 | JET | | B | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Weather Data Collection Systems | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-5 | WDA | | B | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | WDA-CER | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-3a | 1 / Numerical Weather Modeling (NWM) (Capability Improvement) | | A | | - / 1.050 | - / 4.091 | - / 4.415 | - / - | - / - | - / 48.617 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 33.417 | - / 36.554 | - / 32.762 | - / 33.345 | - / - | - / 248.822 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

PE 0305111F WEATHER SERVICE

1. Weather Data Collection Systems:

A. AN/FMQ-23: FY19 funding will procure capital equipment replacement of sensor collection appliances at Air Force and Army airfields hosting individual systems. Replacement Sensor Collection Appliances will ensure the continued delivery of observed weather conditions to the warfighter, compliance with cyber security requirements, and interoperability with the Joint Environmental Toolkit.

B. Ionospheric Ground Sensors (IGS): FY19 funding will procure site feasibility surveys and equipment installations as well as the replacement of unsupported, obsolete, and inoperable capital equipment. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.

C. Portable Doppler Radar (PDR): N/A, no FY19 procurement is planned.

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|---|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305111F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>D. MARK IV-B: Was formally reported in LINE NUMBER 838010 and will be transferred to LINE NUMBER 833070 in FY 2019 PB. FY19 funding will maintain antenna data feed software and hardware architecture as well as capital equipment replacement of damaged antenna radomes. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.</p> <p>E. Solar Electro-Optical Network (SEON): Was formally reported in LINE NUMBER 838010 and will be transferred to LINE NUMBER 833070 in FY 2019 PB. FY19 will continue its Obsolete Parts Replacement Project for the Radio Interference Measuring Set (RIMS) and Solar Radio Spectrograph (SRS). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.</p> <p>2. Weather Data Analysis (WDA) and Dissemination:</p> <p>A. WDA: FY19 funding will procure computer hardware and associated integration software within DoD Data Centers 14866 and 17036 in order to complete WDA Inc 4 Build C and begin Inc 4 Build D as well as Air Force Weather Web Services (AFW-WEBS) Build 2.0. Efforts will expand the WDA database, begin a single services delivery baseline, provide a net-centric delivery of weather data to weather, command and control, and other forces, provide a Cross Domain Solution data filter life cycle replacement and provides a robust infrastructure to enable exploitation of environmental data records from DoD and leveraged satellite sources. In addition, it will increase the storage capacity for the new weather satellites and numerical weather modeling data by procuring additional information technology infrastructure to support new data sources during this fiscal year.</p> <p>B. WDA-Inc 5: WDA-Inc 5 is a continuation of the program WDA. WDA-Inc 5 will ensure the Air Force Weather enterprise is postured to respond to data-driven warfighter requirements, particularly in the Secret Internet Protocol Router (SIPR), and Sensitive Compartmented Information (SCI) environments. The growth in standardized data formatting, increased environmental model and forecast resolution, and machine to machine integration with warfighter and national agency programs necessitates an open-system architecture. WDA Inc 5 activities may include but are not limited to modular open system architecture, which will enable server consolidation, the transfer to a cloud computing environment, and increase in capability bandwidth on Non-classified Internet Protocol Router (NIPR), Secret Internet Protocol Router (SIPR), and Sensitive Compartmented Information (SCI) environments. This architecture will be built in layers to allow the science models and functional components to be added, removed, or upgraded independently as needed. As a result, each capability (service) can be upgraded or replaced with minimal impact to the other capabilities.</p> <p>C. WDA-CER: WDA IDES (IDES) procures hardware for storage and movement of data between various storage devices in the Air Force Weather enterprise. The IDES contract vehicle will address hardware and software enhancements from FY18-20. It will also will be used to retire End of Life/End of Service legacy equipment.</p> <p>3. Weather Forecasting:</p> <p>A. Numerical Weather Modeling (NWM): FY19 activities may include, but are not limited to replacement of outdated appliances and the procurement of a new High Performance Computing capability on Non-classified Internet Protocol Router (NIPR) and Secret Internet Protocol Router (SIPR) enclaves.</p> <p>4. Product Tailoring/Warfighter Applications:</p> <p>A. Joint Environmental Toolkit (JET): FY19 funding will purchase 4 additional Sensor Collection Appliances.</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | Date: February 2018 | | | | |
|---|--|--|--|-------------|--------------|---|--------------|-------------|---------------|--|---|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | | | | | Item Number / Title [DODIC]: FMQ-23 | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | | | | | | | |
| Resource Summary | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | | | | | | |
| Procurement Quantity (Units in Each) | | | | - | 7 | 1 | 1 | - | 1 | | | | | | |
| Gross/Weapon System Cost (\$ in Millions) | | | | - | 2.585 | 1.358 | 1.229 | - | 1.229 | | | | | | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - | | | | | | |
| Net Procurement (P-1) (\$ in Millions) | | | | - | 2.585 | 1.358 | 1.229 | - | 1.229 | | | | | | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - | | | | | | |
| Total Obligation Authority (\$ in Millions) | | | | - | 2.585 | 1.358 | 1.229 | - | 1.229 | | | | | | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | 0.000 | - | - | - | - | | | | | | |
| Gross/Weapon System Unit Cost (\$ in Millions) | | | | - | 0.369 | 1.358 | 1.229 | - | 1.229 | | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| FMQ-23 | - | - | - | 0.223 | 7 | 1.561 | 0.250 | 1 | 0.250 | 0.250 | 1 | 0.250 | - | - | - | 0.250 | 1 | 0.250 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 1.561 | - | - | 0.250 | - | - | 0.250 | - | - | - | - | - | 0.250 |
| <i>Subtotal: Hardware - Hardware End Item Cost</i> | - | - | - | - | - | 1.561 | - | - | 0.250 | - | - | 0.250 | - | - | - | - | - | 0.250 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |
| TESTING FMQ-23 | - | - | - | - | - | 0.053 | - | - | 0.041 | - | - | 0.045 | - | - | - | - | - | 0.045 |
| INTERIM CONTRACTOR SUPPORT LABOR FMQ-23 | - | - | - | - | - | 0.154 | - | - | 0.158 | - | - | - | - | - | - | - | - | - |
| DIRECT MISSION SUPPORT CONTRACTOR SERVICES FMQ-23 | - | - | - | - | - | 0.204 | - | - | 0.055 | - | - | 0.340 | - | - | - | - | - | 0.340 |
| PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES FMQ 23 | - | - | - | - | - | 0.555 | - | - | 0.830 | - | - | 0.531 | - | - | - | - | - | 0.531 |
| PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES FMQ 23 | - | - | - | - | - | 0.058 | - | - | 0.024 | - | - | 0.063 | - | - | - | - | - | 0.063 |
| <i>Subtotal: Support - Support End Item Cost</i> | - | - | - | - | - | 1.024 | - | - | 1.108 | - | - | 0.979 | - | - | - | - | - | 0.979 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | | | | | | Item Number / Title [DODIC]: FMQ-23 | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | - | 0.369 | 7 | 2.585 | 1.358 | 1 | 1.358 | 1.229 | 1 | 1.229 | - | - | - | 1.229 | 1 | 1.229 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | Item Number / Title [DODIC]: JET |

| | |
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| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 3.670 | 1.104 | 1.522 | - | 1.522 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 3.670 | 1.104 | 1.522 | - | 1.522 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 3.670 | 1.104 | 1.522 | - | 1.522 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - JET Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| JET EQUIPMENT LIFE CYCLE REPLACEMENT | - | - | - | - | - | 2.911 | - | - | 0.924 | - | - | 0.645 | - | - | - | - | - | 0.645 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 2.911 | - | - | 0.924 | - | - | 0.645 | - | - | - | - | - | 0.645 |
| <i>Subtotal: Hardware - JET Cost</i> | - | - | - | - | - | 2.911 | - | - | 0.924 | - | - | 0.645 | - | - | - | - | - | 0.645 |
| Support - JET Cost | | | | | | | | | | | | | | | | | | |
| DIRECT MISSION SUPPORT CONTRACTOR SERVICES JET | - | - | - | - | - | 0.105 | - | - | 0.000 | - | - | 0.211 | - | - | - | - | - | 0.211 |
| PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES JET | - | - | - | - | - | 0.607 | - | - | 0.123 | - | - | 0.599 | - | - | - | - | - | 0.599 |
| PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES JET | - | - | - | - | - | 0.047 | - | - | 0.057 | - | - | 0.067 | - | - | - | - | - | 0.067 |
| <i>Subtotal: Support - JET Cost</i> | - | - | - | - | - | 0.759 | - | - | 0.180 | - | - | 0.877 | - | - | - | - | - | 0.877 |
| Gross/Weapon System Cost | - | - | - | - | - | 3.670 | - | - | 1.104 | - | - | 1.522 | - | - | - | - | - | 1.522 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | Item Number / Title [DODIC]: JET |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |
| Remarks: In FY 2019, PE 0305111F, (WEATHER SERVICE), line number 838010 (COMM ELECTRIC MODS) efforts were transferred to PE 0305111F, (WEATHER SERVICE), line number 833070 (WEATHER OBSERVATION FORECAST), in order to enhance transparency of Weather Service programs execution. | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast **Aggregated Items Title:** Weather Data Collection Systems

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost | | | | | | | | | | | | | | | | | | | | |
| IGS | A | | - | - | - | 0.251 | 2 | 0.501 | 0.185 | 2 | 0.370 | - | - | - | - | - | - | - | - | - |
| Portable Doppler Radar | A | | - | - | - | - | - | - | 0.750 | 11 | 8.250 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| MARK IV-B | A | | - | - | - | - | - | - | - | - | - | 1.179 | 1 | 1.179 | - | - | - | 1.179 | 1 | 1.179 |
| NEXRAD | A | | - | - | - | - | - | - | - | - | - | - | - | 2.151 | - | - | - | - | - | 2.151 |
| Subtotal: Hardware - Hardware End Item Cost | | | - | - | - | - | - | 0.501 | - | - | 8.620 | - | - | 3.330 | - | - | - | - | - | 3.330 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | | | |
| INSTALLATION IGS | A | | - | - | - | 1.161 | 2 | 2.322 | 1.499 | 2 | 2.998 | 1.916 | 2 | 3.832 | - | - | - | 1.916 | 2 | 3.832 |
| ASSISTANCE AND ADVISORY SERVICE A&AS | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Subtotal: Support - Support End Item Cost | | | - | - | - | - | - | 2.322 | - | - | 2.998 | - | - | 3.832 | - | - | - | - | - | 3.832 |
| Total | | | - | - | - | - | - | 2.823 | - | - | 11.618 | - | - | 7.162 | - | - | - | - | - | 7.162 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
The program name Next Generation Ionosonde (NEXION)/Ionospheric Ground Sensors (IGS) has transitioned to Ionospheric Ground Sensors (IGS) for simplicity and to better capture the scope of work.

In FY 2019 PB PE 0305111F (WEATHER SERVICE), line number 838010 (COMM ELECTRIC MODS), MARK IV-B and SEON efforts were transferred to PE 0305111F (WEATHER SERVICE), line number 833070 (WEATHER OBSERVATION FORECAST), in order to enhance transparency of Weather Service programs execution. FY17

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | Item Number / Title [DODIC]: WDA |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|--------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 8.739 | 14.666 | 3.822 | - | 3.822 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 8.739 | 14.666 | 3.822 | - | 3.822 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 8.739 | 14.666 | 3.822 | - | 3.822 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - WDA Cost | | | | | | | | | | | | | | | | | | |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Hardware-Weather Service Cost | - | - | - | - | - | 8.427 | - | - | 14.275 | - | - | 3.549 | - | - | - | - | - | 3.549 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 8.427 | - | - | 14.275 | - | - | 3.549 | - | - | - | - | - | 3.549 |
| <i>Subtotal: Hardware - WDA Cost</i> | - | - | - | - | - | 8.427 | - | - | 14.275 | - | - | 3.549 | - | - | - | - | - | 3.549 |
| Support - WDA Cost | | | | | | | | | | | | | | | | | | |
| PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES | - | - | - | - | - | 0.157 | - | - | 0.112 | - | - | 0.131 | - | - | - | - | - | 0.131 |
| PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES | - | - | - | - | - | 0.155 | - | - | 0.279 | - | - | 0.142 | - | - | - | - | - | 0.142 |
| <i>Subtotal: Support - WDA Cost</i> | - | - | - | - | - | 0.312 | - | - | 0.391 | - | - | 0.273 | - | - | - | - | - | 0.273 |
| Gross/Weapon System Cost | - | - | - | - | - | 8.739 | - | - | 14.666 | - | - | 3.822 | - | - | - | - | - | 3.822 |

Remarks:

In FY 2019, PE 0305111F, (WEATHER SERVICE), line number 838010 (COMM ELECTRIC MODS) efforts were transferred to PE 0305111F, (WEATHER SERVICE), line number 833070 (WEATHER OBSERVATION FORECAST), in order to enhance transparency of Weather Service programs execution.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | Item Number / Title [DODIC]: WDA |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |
| | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast **Aggregated Items Title:** WDA-CER

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware | | | | | | | | | | | | | | | | | | | | |
| Capital Equipment Replacement | A | | - | - | - | - | - | - | - | - | 13.385 | 1 | 13.385 | - | - | - | 13.385 | 1 | 13.385 | |
| Subtotal: Hardware | | | - | - | - | - | - | - | - | - | - | - | 13.385 | - | - | - | - | - | 13.385 | |
| Support | | | | | | | | | | | | | | | | | | | | |
| New Item | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Subtotal: Support | | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Total | | | - | - | - | - | - | - | - | - | - | - | 13.385 | - | - | - | - | - | 13.385 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | Modification Number / Title: 1 / Numerical Weather Modeling (NWM) |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|---------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 5.941 | 3.850 | 11.370 | 17.900 | 0.000 | 17.900 | 1.050 | 4.091 | 4.415 | - | - | 48.617 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 5.941 | 3.850 | 11.370 | 17.900 | 0.000 | 17.900 | 1.050 | 4.091 | 4.415 | - | - | 48.617 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 5.941 | 3.850 | 11.370 | 17.900 | 0.000 | 17.900 | 1.050 | 4.091 | 4.415 | - | - | 48.617 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Supports technology insertion/scientific improvements to USAF cloud forecasting, global scale modeling, aerosol/chemical constituent modeling, ensemble prediction. Acquires high performance computing for unclassified and classified enclaves to operate the weather forecast models.

Milestone/Development Status

Reached IOC on 01 Oct 15; target FOC date in 2020

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | | | | | Modification Number / Title: 1 / Numerical Weather Modeling (NWM) | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: NWM | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> Numerical Weather Modeling | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| Numerical Weather Modeling:EQUIPMENT Group B (Active) | 1 / 5.686 | 1 / 3.595 | 1 / 11.162 | 1 / 17.846 | - / - | 1 / 17.846 | 1 / 0.995 | 1 / 4.035 | 1 / 4.358 | - / - | - / - | 7 / 47.677 | |
| <i>Subtotal: Recurring</i> | - / 5.686 | - / 3.595 | - / 11.162 | - / 17.846 | - / - | - / 17.846 | - / 0.995 | - / 4.035 | - / 4.358 | - / - | - / - | - / 47.677 | |
| <i>Subtotal: Numerical Weather Modeling</i> | - / 5.686 | - / 3.595 | - / 11.162 | - / 17.846 | - / - | - / 17.846 | - / 0.995 | - / 4.035 | - / 4.358 | - / - | - / - | - / 47.677 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / 5.686 | - / 3.595 | - / 11.162 | - / 17.846 | - / - | - / 17.846 | - / 0.995 | - / 4.035 | - / 4.358 | - / - | - / - | - / 47.677 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| OTHER GOVT | - / 0.255 | - / 0.255 | - / 0.208 | - / 0.054 | - / - | - / 0.054 | - / 0.055 | - / 0.056 | - / 0.057 | - / - | - / - | - / 0.940 | |
| <i>Subtotal: Support</i> | - / 0.255 | - / 0.255 | - / 0.208 | - / 0.054 | - / - | - / 0.054 | - / 0.055 | - / 0.056 | - / 0.057 | - / - | - / - | - / 0.940 | |
| Installation | | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 5.941 | 3.850 | 11.370 | 17.900 | 0.000 | 17.900 | 1.050 | 4.091 | 4.415 | - | - | 48.617 | |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | P-1 Line Item Number / Title: 833070 / Weather Observation Forecast | | | Modification Number / Title: 1 / Numerical Weather Modeling (NWM) | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Modification Item 1 of 1: Numerical Weather Modeling | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Northrup Grumman | | | | Manufacturer Location: Bellevue NE | | | |
| Administrative Leadtime (in Months): 5 | | | | Production Leadtime (in Months): 6 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | Mar 2017 | Feb 2018 | Jun 2019 | Jun 2020 | Jun 2021 | Jun 2022 | |
| Delivery Dates | Sep 2017 | Aug 2018 | Dec 2019 | Dec 2020 | Dec 2021 | Dec 2022 | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 7 | | |
| | | | | | | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833140 / Strategic Command And Control

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0301112F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 39.803 | 72.810 | 32.836 | 0.000 | 32.836 | 27.034 | 19.682 | 18.181 | 17.211 | - | 227.557 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 39.803 | 72.810 | 32.836 | 0.000 | 32.836 | 27.034 | 19.682 | 18.181 | 17.211 | - | 227.557 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 39.803 | 72.810 | 32.836 | 0.000 | 32.836 | 27.034 | 19.682 | 18.181 | 17.211 | - | 227.557 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0101127F B-2 Squadrons - P-40A
PE 0101127F B-2 SQUADRONS

B-2 SUPPORT: The B-2 weapon system relies heavily on C2 equipment to meet its operational capability. Funding is used to replace obsolete computer equipment, backbone infrastructure hardware and software, and long haul communications equipment at the Weapon System Support Center (WSSC) Ground Test Facility (GTF), and contractor laboratories. This includes COTS items such as computers, displays, printers, disk and tape drives, software (e.g. computer-aided design (CAD) and analysis software) as well as engineering and logistical support. Funds also procure specialized computers that provide on-line access to B-2 aircraft data and low observable analysis capabilities. Unique B-2 security and communication infrastructure needs are also addressed.

The B-2 Weapon System Support Center (WSSC) Ground Test Facility (GTF), located at Oklahoma Air Logistics Center, Tinker AFB, OK, supports two critical functions: aircraft software development and maintenance/support, plus systems engineering support for the fielded weapon system. Software maintenance fixes to aircraft systems include flight controls, flight management, navigation systems, weapons/ armament and the defensive management system. These software fixes are accomplished and tested with the use of the WSSC software development system and integration/test laboratory complex by analyzing and designing fixes to the existing aircraft software. The WSSC GTF also provides engineering support with specialized computer systems that provide online access to B-2 aircraft data. This data consists of items such as engineering and organic low observable analysis, manufacturing, aircraft design data used to help solve technical issues on the B-2. Locations where this data is used include Tinker AFB, Whiteman AFB, Wright-Patterson AFB, Northrop-Grumman in Palmdale, CA and forward operating locations (FOL).

PE 0101313F Strat War Planning System - USSTRATCOM - P-40A
PE 0101313F - STRATEGIC WAR PLANNING SYSTEM - USSTRATCOM:

Funding for this program has moved to WSC 833560

PE 0101316F Worldwide Joint Strategic Communications - P-40A
PE 0101316F WORLDWIDE JOINT STRATEGIC COMMUNICATIONS

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|--|---|--|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0301112F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Emergency Action Messages (EAMs) are highly structured, authenticated messages primarily used in the command and control of nuclear forces. They are disseminated over numerous survivable and non-survivable communication systems including terrestrial and space systems. Programmed funds procure system components, spares, software, and necessary support services for systems such as the Strategic Automated Command and Control System (SACCS), the Defense Injection Reception Emergency Action Message (EAM) C2 Terminals (DIRECT), Aircrew Alerting Communications Electromagnetic Pulse (AAEC), the Strategic Emergency Action Transmission System (SEATS), and the Defense Red Switch Network (DRSN). SACCS is a secure Nuclear Command, Control, and Communications (NC3) system that directly supports National Command Authority (NCA) communications in the command and control of strategic and non-strategic forces. SACCS enables the NCA to disseminate Higher Authority Command Messages, Force Direction Messages, EAMs, and automated ICBM re-targeting data to the USAF's two legs (ICBM and bomber fleets) of the nuclear triad; the reconnaissance, tanker, USAF munitions, and Special Operations communities; and to other Active Duty, Guard, and Reserve DoD users worldwide. DIRECT includes the hardware and software to enable the NCA to transmit nuclear and non-nuclear EAMs and other time-critical messages to strategic and non-strategic forces. The equipment requested is representative of those items capable of providing the required operational capability. The specific items procured may vary depending upon available technology at the time of procurement. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Development funding for this exhibit contained in PE 0101316F.</p> <p>PE 0208059F Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) - P-40A US Cyber Command (USCYBERCOM) Cyberspace Situational Awareness (SA) capabilities provides Combatant Commands the ability to detect anomalies within friendly networks, and to link cyber key terrain to cyber and kinetic mission needs and timelines. FY18 was the last year of funding for Cyber SA.</p> <p>PE 0301112F Nuclear Planning and Execution System (NPES) - P-40A</p> <p>NPES is the single, survivable national C2 Automated Information System (AIS) supporting the President, Secretary of Defense, Joint Staff, and nuclear Combatant Commanders in the transition/post phases of nuclear conflict. The requirement includes NPES development, test, and operational server integration with fixed command centers, distributed sites, and mobile platforms (USNORTHCOM's Mobile Consolidated Command Center, Navy E-6B Airborne National Command Post, and Air Force E-4B National Airborne Operations Center). Programmed funds support the integration of an upgraded communication interface, new test suites and deployable, ruggedized prototypes for the mobile platform. They also support the technical life cycle replacements of all NPES fixed and mobile sites and the migration of them into a Net-Centric environment. NOTE: Beginning in FY18 the NPES Legacy procurement portfolio has moved out of PE 0303255F to PE 0301112F under the Air Force Life Cycle Management Command (AFLCMC)</p> <p>NPES is a National C2 automated information system (AIS) that supports all phases of nuclear conflict. The requirement includes NPES development, test, communication systems and operational server integration with fixed command centers, distributed sites, and mobile platforms. NPES is a joint program, with the Air Force assigned lead service responsibilities. All NPES funding covers the development, test, and operational server suites for fixed command centers, distributive sites and mobile platforms. Funding for this effort is in program element 0301112F.</p> <p>Funding supports the NPES environment suites as well as the 4th Generation Servers for the mobile platform environment. Currently, all sites are operating under an x86 architecture with the airborne platforms still under Solaris/SPARC. The FY19 funding covers a communications equipment life cycle replacements for additional ancillary equipment for the operational sites, and PMA contractor support for equipment purchases, sustainment activities, and security certifications. Also, a life cycle replacement of the Development/Test displays was necessary due to end-of-life/support. FY19 funding will be necessary for life cycle replacements of the NPES development environment in the new C2F. This life cycle replacement will be accomplished by SPAWAR and in-house contractor support (PMA). Funding for this effort is in program element 0301112F.</p> <p>PE 0303255F Command, Control, Communication, and Computers (C4) - STRATCOM - P-40A</p> <p>5. SERVICE SUPPORT TO USSTRATCOM - C4:</p> <p>a. USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT: This effort provides the C2 infrastructure and hardware to acquire, process, and deliver information, as needed, to enhance decision making for USSTRATCOM and Air Force Space Command (AFSPC). This effort employs a set of underlying information services, technologies, and tools that enable the Commander of USSTRATCOM to achieve the broad operational warfighting capabilities. The effort adds capability as it builds to a final architecture. The cyber architecture is a collection of distributed databases and applications, integrated through a grid of supporting services. This effort was previously referred to as "C2 Modernization and is NOT a new start.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0301112F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>b. ANALYSIS AND TARGETING - JOINT WARFARE ANALYSIS CENTER (JWAC): effort provides the hardware that enables the JWAC to develop and recommend strategic technical solutions. JWAC coordinates directly with the staffs of all Unified Commands, Department of Defense (DoD) elements, Combatant Commands, military services, and other government departments and agencies to respond to crises.</p> <p>c. FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT SYSTEM (FSAM): FSAM is a decision support system and is designed to provide the commander with Force Management (pre attack) and Force Survival (post attack) information needed to ensure survival of strategic forces. FSAM provides the commander vital decision making data by correlating strategic force status reported by Force Status Reporting (FSR) with missile attack warning information. Processing and Display Subsystem - Migration (PDS-M) will continue to provide the commander with missile attack warning information</p> <p>d. GLOBAL DISTRIBUTED COMMAND AND CONTROL (GDC2): Detailed information is classified and will be provided on a need to know basis. For further information please contact the Strategic C2 Systems Branch (SAF/AQID) at (202) 404-3405.</p> <p>e. USSTRATCOM REPLACEMENT FACILITY FIT-OUT: USSTRATCOM is tasked with the vital roles of strategic deterrence, space operations, and cyberspace operations in our nation's defense. Nuclear, space, and network command and control operations require secure and survivable infrastructure. The facility includes features and capabilities such as secure High-Altitude Electromagnetic Pulse (HEMP) Shielded Command and Control Center, mainframe computer data centers, multiple 24/7 mission operations centers, storage and maintenance areas, labs/workrooms, back-up generators, Uninterruptible Power Source, Technical Control Facility, and Fiber Ring.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 833140 / Strategic Command And Control
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0301112F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | B-2 Squadrons | | | | - / - | - / 0.496 | - / 0.511 | - / 0.516 | - / 0.000 | - / 0.516 |
| P-40a | Worldwide Joint Strategic Communications | | | | - / - | - / 0.246 | - / 6.497 | - / 2.979 | - / 0.000 | - / 2.979 |
| P-40a | Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) | | | | - / - | - / 7.872 | - / 5.961 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Nuclear Planning and Execution System (NPES) | | | | - / - | - / 0.000 | - / 2.330 | - / 2.278 | - / 0.000 | - / 2.278 |
| P-40a | Command, Control, Communication, and Computers (C4) - STRATCOM | | | | - / - | - / 31.189 | - / 57.511 | - / 27.063 | - / 0.000 | - / 27.063 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 39.803 | - / 72.810 | - / 32.836 | - / 0.000 | - / 32.836 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

PE 0101127F B-2 Squadrons - P-40A
 PE 0101127F B-2 SQUADRONS

B-2 SUPPORT: Funding continues the replacement of obsolete computer equipment, backbone infrastructure hardware and software, and long haul communications equipment at the Weapon System Support Center (WSSC) and contractor software laboratories. Hardware and software purchased are COTS items such as uninterruptible power supplies, computers, displays, printers, disk and tape drives, software and installation and support services. These replacements are also required to implement mandatory security controls driven by the Special Access Program security manuals, as well as to support major modification programs such as the Defensive Management System Modernization (DMSM) effort.

PE 0101313F Strat War Planning System - USSTRATCOM - P-40A
 PE 0101313F STRATEGIC WAR PLANNING SYSTEM - USSTRATCOM

Funding for this program has moved to WSC 833560

PE 0101316F Worldwide Joint Strategic Communications - P-40A
 PE 0101316F WORLDWIDE JOINT STRATEGIC COMMUNICATIONS

Emergency Action Messages (EAMs) are highly structured, authenticated messages primarily used in the command and control of nuclear forces. They are disseminated over numerous survivable and non-survivable communication systems including terrestrial and space systems. Programmed funds procure system components, spares, software, and necessary support services for systems such as the Strategic Automated Command and Control System (SACCS), the Defense Injection Reception Emergency Action Message (EAM) C2 Terminals (DIRECT), Aircrew Alerting Communications Electromagnetic Pulse

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0301112F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(AACE), the Strategic Emergency Action Transmission System (SEATS), and the Defense Red Switch Network (DRSN). SACCS is a secure Nuclear Command, Control, and Communications (NC3) system that directly supports National Command Authority (NCA) communications in the command and control of strategic and non-strategic forces. SACCS enables the NCA to disseminate Higher Authority Command Messages, Force Direction Messages, EAMs, and automated ICBM re-targeting data to the USAF's two legs (ICBM and bomber fleets) of the nuclear triad; the reconnaissance, tanker, USAF munitions, and Special Operations communities; and to other Active Duty, Guard, and Reserve DoD users worldwide. DIRECT includes the hardware and software to enable the NCA to transmit nuclear and non-nuclear EAMs and other time-critical messages to strategic and non-strategic forces. The equipment requested is representative of those items capable of providing the required operational capability. The specific items procured may vary depending upon available technology at the time of procurement. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Development funding for this exhibit contained in PE 0101316F.</p> <p>PE 0208059F Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) - P-40A PE 0208059F US Cyber Command (USCYBERCOM)ACTIVITIES:</p> <p>FY18 supports fielding Cyberspace Situational Awareness EOA Phase I to three combatant commands (USSOUTHCOM, USSOCOM, PACOM).</p> <p>PE 0301112F Nuclear Planning and Execution System (NPES)</p> <p>NPES - FY19 funding continues procurement of hardware for the Fact-of-Life (FoL) update of the NPES operational environment to support the DoD migration into the X86 environment. Hardware procurement will also support mobile platforms as we introduce X86 blades to the platform server configuration. NOTE: Beginning in FY18 the NPES Legacy procurement portfolio has moved out of PE 0303255F to PE 0301112F under the Air Force Life Cycle Management Command (AFLCMC).</p> <p>PE 0303255F Command, Control, Communication, and Computers (C4) - STRATCOM - P-40A PE 0303255F SERVICE SUPPORT TO STRATCOM, COMMAND, CONTROL, COMMUNICATION AND COMPUTER (C4):</p> <p>a. USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT: FY 19 continues the phased update of the full C2 LAN Back Up and Recovery System, update of the Mass Storage appliances on the C2 LAN and the Top Secret LAN, life-cycle replacement of C2 application and database servers, and other ongoing activities.</p> <p>b. ANALYSIS AND TARGETING - JOINT WARFARE ANALYSIS CENTER (JWAC): FY19 funding will continue life cycle replacement of critical analytical software and hardware for strategic solutions</p> <p>c. FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT (FSAM). FY19 funding continues hardware/software updates for FSAM as well as the decision making tools of Force Status Readiness and Force Protection applications that feed FSAM.</p> <p>d. GLOBAL DISTRIBUTED COMMAND AND CONTROL (GDC2): Detailed information is classified and will be provided on a need to know basis. For further information please contact the Strategic C2 Systems Branch (SAF/AQID) at (202) 404-3405.</p> <p>e. USSTRATCOM REPLACEMENT FACILITY FIT-OUT: USSTRATCOM Replacement Facility: FY19 will focus on major areas: 1) Complete the installation of end-user Audio Visual/VTC hardware; and, 2) Complete the installation and transition of the Command and Control mission systems hardware, software.</p> <p>Items requested in FY19 are representative of items to be procured. Specific items procured during execution may change based on commercial availability and critical equipment needed to support current mission requirements.</p> | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833140 / Strategic Command And Control **Aggregated Items Title:** B-2 Squadrons

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| B-2 Weapon System Support Center (WSSC) Hardware | A | | - | - | - | - | - | 0.496 | - | - | 0.511 | - | - | 0.516 | - | - | 0.000 | - | - | 0.516 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.496 | - | - | 0.511 | - | - | 0.516 | - | - | 0.000 | - | - | 0.516 |
| Total | | | - | - | - | - | - | 0.496 | - | - | 0.511 | - | - | 0.516 | - | - | 0.000 | - | - | 0.516 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | Aggregated Items Title: Worldwide Joint Strategic Communications |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Defense Injection/ Reception Emergency Action Message Command and Control Terminal (DIRECT) System | A | | - | - | - | - | - | - | 6.000 | 1 | 6.000 | - | - | 2.979 | - | - | 0.000 | - | - | 2.979 |
| Strategic Automated Command Control Systems (SACCS) | A | | - | - | - | 0.004 | 62 | 0.246 | 0.007 | 75 | 0.497 | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.246 | - | - | 6.497 | - | - | 2.979 | - | - | 0.000 | - | - | 2.979 |
| Total | | | - | - | - | - | - | 0.246 | - | - | 6.497 | - | - | 2.979 | - | - | 0.000 | - | - | 2.979 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 FY17 PB funds (\$0.246M) will procure SACCS desktop terminal systems (Qty 62)
 FY18 PB funds (\$6.0M) will procure one DIRECT Terminal in support of EUCCOM.
 FY18 PB funds (\$0.497M) will procure SACCS desktop terminal systems (Qty 75).
 FY19 PB funds (\$2.979M) will be used for the installation of (1) DIRECT terminal in support of EUCCOM.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | | | | | | Aggregated Items Title: Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Service Support to Other Core Missions - USSTRATCOM (CYBERCOM Activities) | A | | - | - | - | 7.872 | 1 | 7.872 | - | - | 5.961 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 7.872 | - | - | 5.961 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 7.872 | - | - | 5.961 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | Aggregated Items Title: Nuclear Planning and Execution System (NPES) |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Nuclear Planning and Execution System (PE 31112) | | | | | | | | | | | | | | | | | | | | |
| Ruggedized Equipment, E-4B, E-6B, (includes GFE, NRE, Installs, etc.) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Operational Sites Life Cycle Replacement -- Turn-Key Systems (SUN/Windows Servers, Storage, Clie... | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Test-System Life Cycle Replacement (SUN/Windows Servers, Storage, Clients, etc) | A | | - | - | - | - | - | - | - | - | 1.944 | 1 | 1.944 | - | - | - | 1.944 | 1 | 1.944 | |
| DEV-System Life Cycle Replacement (X86 Blade Servers, Storage, Switches, Clients, etc) | A | | - | - | - | - | - | 1.980 | 1 | 1.980 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | |
| Subtotal: Nuclear Planning and Execution System (PE 31112) | | | - | - | - | - | - | - | - | 1.980 | - | - | 1.944 | - | - | 0.000 | - | - | 1.944 | |
| Program Management Administration | | | | | | | | | | | | | | | | | | | | |
| Systems Operations | A | | - | - | - | - | - | 0.000 | 0.175 | 2 | 0.350 | 0.334 | 1 | 0.334 | - | - | - | 0.334 | 1 | 0.334 |
| Subtotal: Program Management Administration | | | - | - | - | - | - | 0.000 | - | - | 0.350 | - | - | 0.334 | - | - | - | - | - | 0.334 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 2.330 | - | - | 2.278 | - | - | 0.000 | - | - | 2.278 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | | | | | | | Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 0032 | | | | | | | | | | | | | | | | | | | | |
| NPES - Ruggedized Equipment, E-4B, E-6B | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | |
| NPES - Operational Site Life Cycle Replacement | A | | - | - | - | 0.292 | 1 | 0.292 | - | - | - | - | - | - | - | - | - | - | - | |
| C2 LAN Infrastructure (C2 Modernization) | A | | - | - | - | 3.677 | 1 | 3.677 | - | - | - | 3.219 | 1 | 3.219 | - | - | - | 3.219 | 1 | 3.219 |
| NPES - Comm System (SMART NEXT Turn-Key System) | A | | - | - | - | 0.300 | 7 | 2.100 | - | - | - | - | - | - | - | - | - | - | - | |
| Mass Storage Devices [Secret, TS], (C2 Modernization) | A | | - | - | - | 3.714 | 1 | 3.714 | - | - | - | - | - | - | - | - | - | - | - | |
| SUN/Windows servers, storage, clients etc (C2 Modernization) | A | | - | - | - | - | - | - | 1.053 | 1 | 1.053 | - | - | - | - | - | - | - | - | |
| Global Operations Center (GOC) Hardware, (C2 Modernization) | A | | - | - | - | - | - | - | 2.793 | 1 | 2.793 | 3.300 | 1 | 3.300 | - | - | - | 3.300 | 1 | 3.300 |
| Miscellaneous Infrastructure and LAN Hardware, [Classified], (C2 Modernization) | A | | - | - | - | - | - | - | 2.880 | 1 | 2.880 | - | - | - | - | - | - | - | - | |
| Analysis and Targeting Systems, (C2 Modernization) | A | | - | - | - | 0.086 | 1 | 0.086 | 0.081 | 1 | 0.081 | 0.081 | 1 | 0.081 | - | - | - | 0.081 | 1 | 0.081 |
| FSAM - Modernization Procurement | A | | - | - | - | 2.136 | 1 | 2.136 | 2.061 | 1 | 2.061 | 2.047 | 1 | 2.047 | - | - | - | 2.047 | 1 | 2.047 |
| Global Distributed Command and Control (GDC2) | A | | - | - | - | 1.746 | 1 | 1.746 | 1.772 | 1 | 1.772 | 1.799 | 1 | 1.799 | - | - | - | 1.799 | 1 | 1.799 |
| Global Distributed Command and Control (GDC2 - Classified) | A | | - | - | - | - | - | - | - | - | - | 0.508 | 1 | 0.508 | - | - | - | 0.508 | 1 | 0.508 |
| New Bldg Fit Out - Fiber Ring | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| New Bldg Fit Out - Transition Infrastructure | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | | | | | | | Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| New Bldg Fit Out - Premise Wiring | A | | - | - | - | 2.289 | 1 | 2.289 | - | - | - | - | - | - | - | - | - | - | - | |
| New Bldg Fit Out - Electronic Security Systems | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| New Bldg Fit Out - Network / Communications systems | A | | - | - | - | 4.211 | 1 | 4.211 | 4.322 | 1 | 4.322 | - | - | - | - | - | - | - | - | |
| New Bldg Fit Out - Server / Client / Data systems hardware | A | | - | - | - | 3.672 | 1 | 3.672 | - | - | - | 4.850 | 1 | 4.850 | - | - | - | 4.850 | 1 | 4.850 |
| New Bldg Fit Out - Audio Visual / VTC systems hardware | A | | - | - | - | 4.898 | 1 | 4.898 | 39.199 | 1 | 39.199 | 9.103 | 1 | 9.103 | - | - | - | 9.103 | 1 | 9.103 |
| New Bldg Fit Out - Mission Systems hardware | A | | - | - | - | 1.650 | 1 | 1.650 | 0.350 | 1 | 0.350 | 2.156 | 1 | 2.156 | - | - | 0.000 | 2.156 | 1 | 2.156 |
| New Bldg Fit Out - Technical Control Facility hardware / Relocation | A | | - | - | - | 0.718 | 1 | 0.718 | 3.000 | 1 | 3.000 | - | - | - | - | - | - | - | - | - |
| Subtotal: 0032 | | | - | - | - | - | - | 31.189 | - | - | 57.511 | - | - | 27.063 | - | - | 0.000 | - | - | 27.063 |
| Total | | | - | - | - | - | - | 31.189 | - | - | 57.511 | - | - | 27.063 | - | - | 0.000 | - | - | 27.063 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Beginning in FY18 the NPES Legacy procurement portfolio has moved out of PE 0303255F to PE 0301112F under the Air Force Life Cycle Management Command (AFLCMC)

C2 Facility Fit-Out is broken down into 9 Major Categories:

Fiber Ring, Transition Infrastructure, Premise Wiring, Electronic Security Systems, Network / Communications Systems, Server / Client / Data Systems, Audio Visual / Video Teleconferencing Systems, Missions Systems, Technical Control Facility.

There are thousands of parts and pieces to satisfy requirements...for example:

Fiber Ring: Copper Cable (miles), Fiber Optic Cable (miles)

Premise Wiring: Equipment racks (2000+), Fiber Optic Cable (miles), CAT-6A Cable (miles), MUTOAs (6000+), Patch Cabling (thousands)

Network/Communications: Crypto Gear, Storage Chassis, IA Devices, Additional Cabling, Servers, Licensing, Access Layer Switches, Network Management Software, Intrusion Prevention Systems, Proxy System, Log Reduction Systems, Blade Server Enclosures, Multi-Control Units (MCUs), VoIP Instruments, Call Managers

Server/Client/Data Hardware: Client Machines, Printers, Devices, End-user Licensing, Additional Storage, Additional Server Blades, Cabling, Connectors

Audio Visual/VTC Hardware: AV/VTC Bridges, Audio/Video Switching

UNCLASSIFIED

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|---|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833140 / Strategic Command And Control | Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM |

Mission Systems Hardware: Servers, Storage Devices, Client Machines, Guards, Firewalls, Antennas, Bridges, Gateways, Gatekeepers, Border Controller

Tech Control Facility Relocation: Circuits, Cabling, Specialized Racks, Patch Fields

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex |
|---|--|

| | | |
|---|---|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0305903F, 1203906F | Other Related Program Elements: N/A |
|---|---|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 19.718 | 9.864 | 12.454 | 0.000 | 12.454 | 10.145 | 10.329 | 10.510 | 10.699 | - | 83.719 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 19.718 | 9.864 | 12.454 | 0.000 | 12.454 | 10.145 | 10.329 | 10.510 | 10.699 | - | 83.719 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 19.718 | 9.864 | 12.454 | 0.000 | 12.454 | 10.145 | 10.329 | 10.510 | 10.699 | - | 83.719 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Cheyenne Mountain Complex (CMC) systems provide real-time ballistic missile warning, air defense, force management, battle management and command, control and communications for the North American Air Defense (NORAD) missions.

PE 0305903F - COCOM MOBILE CONSOLIDATED COMMAND CENTERS (MCCC)

Modification for the COMBATANT COMMANDER (COCOM), MOBILE CONSOLIDATED COMMAND CENTER (MCCC): The COCOM's MCCC provides continuity of command capabilities to accomplish directed missions in the event primary command and control facilities are incapacitated. It provides a survivable and endurable command, control, communications, computers, and intelligence (C4I) capability accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Support/Homeland Defense HLS/HLD) and U.S. Northern Command (USNORTHCOM).

PE 1203906F - NCMC - ITW/AA SYSTEM

Modification for NORAD CHEYENNE MOUNTAIN COMPLEX-INTEGRATED TACTICAL WARNING/ATTACK ASSESSMENT(NCMC-ITW/AA) SYSTEMS: These systems integrate and correlate missile launch, space object orbit, and air surveillance information to assess the nature of an enemy attack and issue warnings to the President of the United States, the Prime Minister of Canada, United States Secretary of Defense and warfighting Combatant Commanders (C2). Funding procures replacement for reliability and maintainability of the information systems hardware and associated systems software for Cheyenne Mountain operating locations to include legacy space defense systems at Vandenberg AFB, CA and remote interfacing sites essential for executing US Strategic Command, NORAD, Joint Force Component Commander (JFCC) space missions exercised in the Cheyenne Mountain Complex (CMC), Joint Space Program Operations Center (JSpOC), and forward operating locations.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **Equip / BSA 3: Electronics Programs**
P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0305903F, 1203906F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | COCOM Mobile Command and Control Centers (MCCCs) | | | | - / 0.000 | - / 7.635 | - / 7.845 | - / 0.440 | - / 0.000 | - / 0.440 |
| P-3a | 004 / Mobile Consolidated Command Center Upgrade Block 02 (Reliability & Maintainability) | | B | | - / - | - / 0.000 | - / 0.000 | - / 9.972 | - / 0.000 | - / 9.972 |
| P-40a | NCMC - TW/AA System | | | | - / 0.000 | - / 12.083 | - / 2.019 | - / 2.042 | - / 0.000 | - / 2.042 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 19.718 | - / 9.864 | - / 12.454 | - / 0.000 | - / 12.454 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | COCOM Mobile Command and Control Centers (MCCCs) | | | | - / 7.866 | - / 8.213 | - / 8.358 | - / 8.508 | - / 0.000 | - / 48.865 |
| P-3a | 004 / Mobile Consolidated Command Center Upgrade Block 02 (Reliability & Maintainability) | | B | | - / 0.200 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 10.172 |
| P-40a | NCMC - TW/AA System | | | | - / 2.079 | - / 2.116 | - / 2.152 | - / 2.191 | - / 0.000 | - / 24.682 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 10.145 | - / 10.329 | - / 10.510 | - / 10.699 | - / - | - / 83.719 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 PE 0305903F - COCOM MOBILE CONSOLIDATED COMMAND CENTERS (MCCC)
 The COCOM's MCCC provides a survivable and durable command, control, communications, computers, intelligence (C4I), reliability and maintainability while accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Security Support/Homeland Defense (HLS/HLD) and USNORTHCOM missions. MCCC modification efforts funded in this line include upgrading MCCC shelters and incorporating additional C4I system capabilities via mobile Information Technology and Communication Upgrade projects; ensuring the platform's ability to rapidly deploy, re-constitute and operate. In FY18, this line will fund the MCCC Block 01 modifications which include but are not limited to: 1) Communication system upgrade; 2) Mission and support shelters upgrade; 3) Cyber security modernization, 4) Network upgrades; and 5) Environmental and Filtration system upgrade along with and including initial spares and test facility updates required by the fielding of these modification. Due to the limited spares demand rates, and indefinite system lifespan, Life of Type buys may be required to support weapons system modifications across the active MCCC Block Programs. Additionally, FY18 funding will support Program Management Administration (PMA) support for the MCCC Block 00 Program initiated in FY17, the MCCC Block 01 program initiated with FY18 funding, and finally the planning efforts for the MCCC Block 02 program. PMA includes acquisition support/strategy, engineering and technical expertise associated with procurement, support services, test, travel and other program related costs associated with install of procurement equipment. Funding for this effort is in program element 0305903F and is funded IAW full funding policy.

PE 1203906F - NCMC - ITW/AA SYSTEM
 Funding procures replacement for reliability and maintainability of the information systems hardware and associated systems software for NCMC/ITW/AA system. This system is a C2 enterprise of various critical information technology systems comprised of communications processors, network devices, C2 services, workstations, databases, and intelligence sources that are integrated to provide the means to assess an enemy attack. In FY18, this line will fund NCMC-ITW/AA Block 01 modifications, which include but are not limited to the two major components: 1) Mission systems (air, missile, and space) upgrades include all subsystems within the sensor-to-operator messaging string message-processing, database, communications processing systems, C2 services, mission operations management systems, and workstations.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0305903F, 1203906F | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>2). Network/infrastructure systems for ITW/AA and Space include but are not limited to those sub-systems that provide the fabric for the mission systems to operate within operational and security parameters such as system operations servers, security servers, backup systems, networks and network infrastructure components, support systems software and independent test systems. Additionally, FY18 funding will support continuation of Program Management Administration (PMA) support for the NCMC-ITW/AA Block 00 program in FY17, the NCMC-ITW/AA Block 01 program initiated with FY18 funding and finally the planning efforts for the NCMC-ITW/AA Block 02 program. PMA includes acquisition support/strategy, engineering and technical expertise associated with procurement, support services, test, travel and other program related costs associated with install of procurement equipment. Funding for this effort is in program element 1203906F and is funded IAW full funding policy.</p> | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | | | | | | | | | Aggregated Modification Items Title: COCOM Mobile Command and Control Centers (MCCCs) | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 001 / Mobile Consolidated Command Center Upgrade Block 00 | | | - | - | - | - | - | 7.635 | - | - | - | - | - | - | - | - | - | - | - | - |
| 003 / Mobile Consolidated Command Center Upgrade Block 01 | | | - | - | - | - | - | - | - | - | 7.845 | - | - | 0.440 | - | - | - | - | - | 0.440 |
| 005 / Mobile Consolidated Command Center Upgrade Block 03 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 002 / Mobile Consolidated Command Center Modification | | | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Total | | | - | - | 0.000 | - | - | 7.635 | - | - | 7.845 | - | - | 0.440 | - | - | 0.000 | - | - | 0.440 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 001 / Mobile Consolidated Command Center Upgrade Block 00 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.635 |
| 003 / Mobile Consolidated Command Center Upgrade Block 01 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.285 |
| 005 / Mobile Consolidated Command Center Upgrade Block 03 | | | - | - | 7.866 | - | - | 0.200 | - | - | - | - | - | - | - | - | - | - | - | 8.066 |
| 002 / Mobile Consolidated Command Center Modification | | | - | - | - | - | - | 8.013 | - | - | 8.358 | - | - | 8.508 | - | - | - | - | - | 24.879 |
| Total | | | - | - | 7.866 | - | - | 8.213 | - | - | 8.358 | - | - | 8.508 | - | - | 0.000 | - | - | 48.865 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| 001 / Mobile Consolidated Command Center Upgrade Block 00 | CheyenneMountainComplex | Reliability & Maintainability |
| 003 / Mobile Consolidated Command Center Upgrade Block 01 | CheyenneMountainComplex | Reliability & Maintainability |
| 005 / Mobile Consolidated Command Center Upgrade Block 03 | CheyenneMountainComplex | Reliability & Maintainability |

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | Aggregated Modification Items Title: COCOM Mobile Command and Control Centers (MCCCs) |

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| 002 / Mobile Consolidated Command Center Modification | CheyenneMountainComplex | Reliability & Maintainability |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | Modification Number / Title: 004 / Mobile Consolidated Command Center Upgrade Block 02 |

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 9.972 | 0.000 | 9.972 | 0.200 | 0.000 | 0.000 | 0.000 | - | 10.172 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 9.972 | 0.000 | 9.972 | 0.200 | 0.000 | 0.000 | 0.000 | - | 10.172 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 9.972 | 0.000 | 9.972 | 0.200 | 0.000 | 0.000 | 0.000 | - | 10.172 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

COMBATANT COMMANDER (COCOM), MOBILE CONSOLIDATED COMMAND CENTER (MCCC):

The COCOM's MCCC provides a survivable and enduring command, control, communications, computers, intelligence (C4I), reliability and maintainability while accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Security Support/Homeland Defense (HLS/HLD) and USNORTHCOM missions. MCCC modification efforts funded in this line include upgrading MCCC shelters and incorporating additional C4I system capabilities via mobile Information Technology and Communication Upgrade projects; ensuring the platform's ability to rapidly deploy, re-constitute and operate. In FY19, this line will fund the MCCC Block 02 modifications which include but are not limited to: 1) Communication system upgrade; 2) Mission and support asset upgrades; 3) Cyber security modernization, 4) Network upgrades; and 5) Environmental and Filtration system upgrade along with and including initial spares and test facility updates required by the fielding of these modification. Due to the limited spares demand rates, and indefinite system lifespan, Life of Type buys may be required to support weapons system modifications across the active MCCC Block Programs. Additionally FY19 will fund Program Management Administration (PMA) support for the MCCC Block 01 Program initiated in FY18, the MCCC Block 02 program initiated with FY19, and finally the planning efforts for the MCCC Block 03 program. PMA costs fund acquisition support/strategy, engineering and technical expertise associated with procurement activities. In addition, PMA costs will also support equipment test, travel and other program related costs associated with install of procurement equipment. Funding for this effort is in program element 0305903F and is funded IAW full funding policy.

Milestone/Development Status

Sustainment

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | Modification Number / Title: 004 / Mobile Consolidated Command Center Upgrade Block 02 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| | | |
|---|---|-------------------------------|
| Models of Systems Affected: CheyenneMounatinComplex | Modification Type: Reliability & Maintainability | Related RDT&E PEs: |
|---|---|-------------------------------|

| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> MCCC (4) | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | |
| MCCC:EQUIPMENT Group B (Active) | - / - | - / - | - / - | 1 / 7.411 | - / - | 1 / 7.411 | - / - | - / - | - / - | - / - | - / - | 1 / 7.411 |
| <i>Subtotal: Recurring</i> | - / - | - / - | - / - | - / 7.411 | - / - | - / 7.411 | - / - | - / - | - / - | - / - | - / - | - / 7.411 |
| <i>Subtotal: MCCC (4)</i> | - / - | - / - | - / - | - / 7.411 | - / - | - / 7.411 | - / - | - / - | - / - | - / - | - / - | - / 7.411 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / - | - / - | - / 7.411 | - / - | - / 7.411 | - / - | - / - | - / - | - / - | - / - | - / 7.411 |
| Support (All Modification Items) | | | | | | | | | | | | |
| PMA - Contractor Services | - / - | - / - | - / - | - / 0.601 | - / - | - / 0.601 | - / 0.200 | - / - | - / - | - / - | - / - | - / 0.801 |
| <i>Subtotal: Support</i> | - / - | - / - | - / - | - / 0.601 | - / - | - / 0.601 | - / 0.200 | - / - | - / - | - / - | - / - | - / 0.801 |
| Installation | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> MCCC (4) | | | | | | | | | | | | |
| | - / - | - / - | - / - | 1 / 1.960 | - / - | 1 / 1.960 | - / - | - / - | - / - | - / - | - / - | 1 / 1.960 |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | 1 / 1.960 | - / - | 1 / 1.960 | - / - | - / - | - / - | - / - | - / - | 1 / 1.960 |
| Total | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 0.000 | 0.000 | 9.972 | 0.000 | 9.972 | 0.200 | 0.000 | 0.000 | 0.000 | - | 10.172 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | Modification Number / Title: 004 / Mobile Consolidated Command Center Upgrade Block 02 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 1: MCCC (4)

Manufacturer Information

| | |
|--|--|
| Manufacturer Name: L-3 National Security Solutions Inc | Manufacturer Location: Albuquerque, NM |
| Administrative Leadtime (in Months): 2 | Production Leadtime (in Months): 6 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|---------|---------|----------|---------|---------|---------|---------|
| Contract Dates | | | Jan 2019 | | | | |
| Delivery Dates | | | Jul 2019 | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2019 | - / - | - / - | - / - | 1 / 1.960 | - / - | 1 / 1.960 | - / - | - / - | - / - | - / - | - / - | 1 / 1.960 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | - / - | 1 / 1.960 | - / - | 1 / 1.960 | - / - | - / - | - / - | - / - | - / - | 1 / 1.960 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1 |
| Out | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1 |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | | | | | | | Aggregated Modification Items Title: NCMC - TW/AA System | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 001 / Core C2 Enterprise Network Infrastructure and Mission Equipment | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 002 / NORAD Cheyenne Mountain Complex Block 00 | | | - | - | - | - | 12.083 | - | - | 0.000 | - | - | - | - | - | - | - | - | - | |
| NCMCB1 / NORAD Cheyenne Mountain Complex Block 01 | | | - | - | - | - | - | - | - | 2.019 | - | - | 0.205 | - | - | - | - | - | 0.205 | |
| NCMCB2 / NORAD Cheyenne Mountain Complex Block 02 | | | - | - | - | - | - | - | - | - | - | - | 1.837 | - | - | - | - | - | 1.837 | |
| NCMCB3 / NORAD Cheyenne Mountain Complex Block 03 | | | - | - | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 | |
| Total | | | - | - | 0.000 | - | - | 12.083 | - | - | 2.019 | - | - | 2.042 | - | - | 0.000 | - | - | 2.042 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 001 / Core C2 Enterprise Network Infrastructure and Mission Equipment | | | - | - | - | - | - | 1.906 | - | - | 2.152 | - | - | 2.191 | - | - | - | - | - | 6.249 |
| 002 / NORAD Cheyenne Mountain Complex Block 00 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12.083 |
| NCMCB1 / NORAD Cheyenne Mountain Complex Block 01 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.224 |
| NCMCB2 / NORAD Cheyenne Mountain Complex Block 02 | | | - | - | 0.205 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.042 |
| NCMCB3 / NORAD Cheyenne Mountain Complex Block 03 | | | - | - | 1.874 | - | - | 0.210 | - | - | - | - | - | - | - | - | - | - | - | 2.084 |
| Total | | | - | - | 2.079 | - | - | 2.116 | - | - | 2.152 | - | - | 2.191 | - | - | 0.000 | - | - | 24.682 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| 001 / Core C2 Enterprise Network Infrastructure and Mission Equipment | CheyenneMountainComplex | Reliability & Maintainability |

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex | Aggregated Modification Items Title: NCCM - TW/AA System |
|---|--|--|

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|------------------------------|-------------------------------|
| 002 / NORAD Cheyenne Mountain Complex Block 00 | NORADCheyenneMountainComplex | Reliability & Maintainability |
| NCMCB1 / NORAD Cheyenne Mountain Complex Block 01 | NORADCheyenneMountainComplex | Reliability & Maintainability |
| NCMCB2 / NORAD Cheyenne Mountain Complex Block 02 | NORADCheyenneMountainComplex | Reliability & Maintainability |
| NCMCB3 / NORAD Cheyenne Mountain Complex Block 03 | NORADCheyenneMountainComplex | Reliability & Maintainability |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
P-1 Line Item Number / Title: 833170 / Mission Planning Systems
 Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208006F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|-------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 13.330 | 15.486 | 14.263 | - | 14.263 | 16.738 | 16.754 | 16.492 | 16.785 | - | 109.848 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 13.330 | 15.486 | 14.263 | - | 14.263 | 16.738 | 16.754 | 16.492 | 16.785 | - | 109.848 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 13.330 | 15.486 | 14.263 | - | 14.263 | 16.738 | 16.754 | 16.492 | 16.785 | - | 109.848 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Mission Planning Systems (MPS) Hardware program procures commercial-off-the-shelf (COTS) computing systems hardware and hardware-related requirements for Air Force active duty, Guard, and Reserve units worldwide. These computing systems provide a flexible, configurable and cost-effective range of increasing capability to meet the continuum of peacetime, contingency and wartime planning requirements. These electronic systems provide a mission data management system that efficiently interfaces with other planning systems as well as aircraft avionics. These computing systems are procured on a four-year life cycle replacement to effectively address and/or alleviate Diminishing Manufacturing Sources (DMS) issues. Once procured the systems are centrally managed for all applicable AF platforms and their operational users, including Guard and Reserve Forces.

The program continues the procurement of COTS computing hardware and other devices associated with the Mission Planning Systems program. It also continues the procurement of all capital replacement hardware used in conjunction with MPS and other pre-, post-, and in-flight mission planning software. Together this hardware and associated software enables aircrews and other planners to plan the safest, most effective operational missions in a timely manner.

The program procures COTS based Personal Computing (PC) Systems to include (but are not limited to) desktop computers, laptops, personal digital assistants (PDA), tablet PCs, color printers, storage devices, displays, other peripherals, software and software licenses, and other support services, that together, allow the user to produce the necessary charts and other mission-specific products required to effectively perform a variety of military missions.

A variety of information technology, navigation and communications hardware and software packages will also be procured each year to meet the varied needs of mission planning platforms and training units. This PC-based capability, when integrated with corresponding mission planning software releases, provides a portable, tailorable, net-centric system for aircrews to complete the mission planning function. The procured items also enable aircrews to effectively utilize software that has been modified to stay in sync with new capabilities incorporated into select platforms via their Operational Flight Program (OFP) update process. They also provide a mission planning capability for precision/autonomous guided munitions and can also be networked with other Theater Battle Management (TBM) systems to further tailor a platform's mission planning environment.

The MPS procurement strategy leverages the rapid increase in PC-based technology to enable high-end computing on increasingly smaller and more mission-oriented devices. The programs procure UNIX and PC-based systems that provide flexible, configurable, and cost effective solutions that increase tactical and strategic capabilities to meet the continuum of operations ranging from peacetime contingencies to conventional and nuclear wartime mission planning requirements. Each segment of the program has shifted its hardware emphasis from a limited number of large, complex planning systems to more compact and personal planning devices that can be tailored to satisfy user needs. This adjustment is a practical and efficient way to meet technology-driven challenges such as the evolutionary nature of mission planning

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833170 / Mission Planning Systems |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0208006F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(that necessitates recurrent hardware changes to meet overall system requirements) and advances in COTS technology that makes available new capabilities (which may lower component costs or address component obsolescence). It is also a more effective way to address changes in the number, type, and deployment of aircraft/weapons that force changes in the number of UNIX and PC-based mission planning computers and their concept of operations.</p> <p>1. MISSION PLANNING SYSTEMS (MPS) HARDWARE: This acquisition is a continuation of procurement efforts to provide MPS-related hardware for Air Force platforms. The program will provide a suite of COTS-based mission planning hardware and software systems that can be integrated with USAF Command, Control, Communications, Computers, and Intelligence (C4I) systems for the operation of USAF aircraft (e.g. F-22, B-1, F-16, F-15, RC/OC-135, E-3, E-4, E-8, C-130, HC-130, EC-130, HH-60, KC-135, KC-46, C-5, KC-10, C-17, A-10, F-35, Global Hawk, U-2, B-52, B-2, UH-1, T-38) and the support of USAF training requirements. MPS allows aircrews to electronically receive tasking orders, intelligence information, target coordinates, imagery and other information. This information is then used to organize and prepare flight (including equipment and personnel airdrop) and weapons delivery planning data (e.g., maps, charts, imagery, flight logs, radar predications, and navigation databases) that is electronically transferred to aircraft and/or precision-guided weapons. MPS increases the combat effectiveness of Air Force aerial assets (including unmanned air vehicles, conventional and low-observable aircraft, and weapons) and Army guided delivery systems by supporting the use of sophisticated avionics and precision/autonomous guided munitions. It helps to increase wartime sortie rates while improving aircrew and aircraft survivability and aircrew readiness.</p> <p>2. PRECISION AERIAL DELIVERY SYSTEM (PADS): PADS provides the capability for direct delivery of cargo and equipment through high altitude, precision airdrops (principally with C-17 and C-130 aircraft). Currently it consists of the Joint Precision Airdrop System (JPADS) acquisition effort. JPADS is a collaborative effort with the Army, USMC, and other agencies to provide aviators the ability to accurately airdrop payloads (including supplies/equipment and personnel) to units in the field from altitudes beyond the reach of some surface-to-air weaponry. This portion of the program procures COTS-based computing hardware, support services and aerial delivery systems to enable completion of pre and in-flight mission planning functions as well as aerial delivery proficiency training in and with operational units.</p> <p>Market surveys and analysis of COTS products will be used to support procurement decisions. Funding for this exhibit is in Program Element (PE) 0208006F.</p> <p>This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.</p> <p>Funding for this exhibit contained in PE 0208006F.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
833170 / Mission Planning Systems
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208006F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Mission Planning Systems | | | | - / - | - / 13.330 | - / 15.486 | - / 14.263 | - / - | - / 14.263 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 13.330 | - / 15.486 | - / 14.263 | - / - | - / 14.263 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 funding will continue procurement of a variety of computers, software, and electronic equipment to support pre-, post-, and in-flight mission planning tasks for a number of Air Force platforms. Procured hardware and other items will support and enable completion of mission planning efforts using legacy planning tools (e.g. Unix-MPS and the Portable Flight Planning Software (PFPS)) as well as the Joint Mission Planning Systems (JMPS). The hardware will also accommodate planning system updates based upon new capability incorporation via individual platform Operational Flight Programs (OFPs). All items where appropriate are centrally managed and distributed by the MPS System Support Facility. The following kinds of equipment and mission areas will be supported:

1. MPS HARDWARE: FY19 funding will continue procurement of COTS-based hardware, software, and support services to include (but is not limited to) desktop computers, laptops, tablet PCs, data storage devices, PDAs, monitors, software applications, warranties, and other electronic computing components. These assets provide a portable, tailorable, network-capable system that can be integrated with MPS software to provide basic mission planning capability and full interoperability with TBM systems. Components can also be networked with legacy UNIX Systems to further tailor a platform's mission planning environment. The program will procure hardware and software items, warranties, other services, and up to a 15% contingency inventory (based on the overall number of items being procured) for the following mission planning operational users:

Air Combat Command (ACC): F-15, F-15 C, F-16 Block 15/25/30/40/50, F-22,F-35, E-3, E-4, E-8,RC-135, HH-60, HC-130, EC-130, U-2, Global Hawk

Air Mobility Command (AMC): C-5, C-17, C-130, KC-10, KC-135, KC-46

Air Force Global Strike Command (AFGSC): B-2, B-52, B-1, UH-1

Air Education and Training Command (AETC): T-38

Funding for this effort is in program element 0208006F.

2. PRECISION AERIAL DELIVERY SYSTEMS (PADS): FY19 funding will continue the procurement of Joint Precision Airdrop Systems (JPADS) hardware, software, LRU support equipment for functional checkout (i.e. Automatic Test Equipment or ATE) and other related items. Components include, but are not limited to: guided delivery vehicles (e.g. ultralight, 2K, 10K); Pressure Tolerant Disk Drives (PTDD) [including solid state and pressure sealed disk drives]; precision-guided airdrop training systems; portable data storage units, engineering/technical support, equipment storage and associated hardware warranties. Funding for this effort is in program element 0208006F.

3. PROGRAM MANAGEMENT ADMINISTRATION: FY19 funding provides program office, engineering, and other contractor support for the Mission Planning Systems (MPS) and Joint Precision Airdrop Systems (JPADS) procurement program.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833170 / Mission Planning Systems **Aggregated Items Title:** Mission Planning Systems

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| 1. Mission Planning Systems (MPS) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| a. MPS Hardware | A | | - | - | - | - | - | 7.356 | - | - | 8.113 | - | - | 7.153 | - | - | - | - | - | 7.153 |
| b. MPS Program Management Administration (Contractor Services) | A | | - | - | - | - | - | 2.183 | - | - | 1.290 | - | - | 1.309 | - | - | - | - | - | 1.309 |
| 2. Precision Aerial Delivery Systems (PADS) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| a. PADS Dropsondes | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| b. PADS Shipping | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| c. PADS Support Services & Spares | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| d. PADS System Engineering & Logistical Support | A | | - | - | - | - | - | 0.860 | - | - | 1.330 | - | - | 1.357 | - | - | - | - | - | 1.357 |
| e. PADS Testing | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| f. PADS Delivery Systems | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| g. PADS PARANAVSYS Delivery Systems | A | | - | - | - | 29,820.51 | 78 | 2.326 | 31,511.63 | 129 | 4.065 | 33,357.14 | 112 | 3.736 | - | - | - | 33,357.14 | 112 | 3.736 |
| h. PADS Delivery System Riggings & Services | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| i. Program Management Administration (Government Cost) | A | | - | - | - | - | - | 0.147 | - | - | 0.099 | - | - | 0.101 | - | - | - | - | - | 0.101 |
| j. Program Management Administration (Contractor Services) | A | | - | - | - | - | - | 0.458 | - | - | 0.589 | - | - | 0.607 | - | - | - | - | - | 0.607 |
| k. PADS Ultralight | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| l. PADS Drives & Storage Devices | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| m. Depot Equipment | A | | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 13.330 | - | - | 15.486 | - | - | 14.263 | - | - | - | - | - | 14.263 |
| Total | | | - | - | - | - | - | 13.330 | - | - | 15.486 | - | - | 14.263 | - | - | - | - | - | 14.263 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Unit costs vary because different types/configurations of equipment are being procured.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | P-1 Line Item Number / Title: 833170 / Mission Planning Systems | Aggregated Items Title: Mission Planning Systems |
|---|---|--|

Mission Planning Systems (MPS) and Precision Aerial Delivery Systems (PADS) components are procured as commercial-of-the-shelf (COTS) equipment using various contracting methods, vehicles and agencies. Items are procured annually via Delivery Orders (DOs) on a variety of contract vehicles (e.g. Blanket Purchase Agreements (BPAs), Indefinite Delivery Indefinite Quantity (IDIQ) contracts, and GSA and NASA SEWP IV Contract schedules) and through agencies such as AFWAY/NETCENTS II (Gunter AFB).

Mission Planning Systems (MPS) assets are centrally managed by the MPS System Support Facility (SSF) at Hill AFB.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833560 / Integrated Strat Plan & Analy Network (ISPAN)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 10.670 | 9.187 | 7.769 | - | 7.769 | 9.228 | 9.395 | 9.563 | 9.735 | - | 65.547 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 10.670 | 9.187 | 7.769 | - | 7.769 | 9.228 | 9.395 | 9.563 | 9.735 | - | 65.547 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 10.670 | 9.187 | 7.769 | - | 7.769 | 9.228 | 9.395 | 9.563 | 9.735 | - | 65.547 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

INTEGRATED STRATEGIC PLANNING AND ANALYSIS NETWORK (ISPAN): The mission of USSTRATCOM is to conduct global operations in coordination with other Combatant Commands, Services, and appropriate U.S. Government agencies to deter and detect strategic attacks against the U.S. and its allies. It provides full-spectrum global strike, and coordinated space, missile defense, and information operations capabilities to meet both deterrent and decisive national security objectives. USSTRATCOM will also provide operational space support, integrated missile defense, global command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), and specialized planning expertise to the joint warfighter. ISPAN enables USSTRATCOM to carry out these missions. It is one of DoD's most complex classified computer systems and the only national force level planning system.

ISPAN enables an effects-based approach to planning and operations; cross domain information sharing; and serves multiple planning environments. It develops, verifies, and produces Operational Plan (OPLAN) 8010. It also supports the USSTRATCOM family of plans construct and current Concept of Operations. The system performs tasks ranging from creating and running Courses of Action (COAs) on threat scenarios to providing data for developing bomber aircraft crew strike mission data in digital and hard copy formats. It includes automated data processing equipment (ADPE), multiple networks, unique processes and procedures, software, training, associated deployable and distributed data processing nodes, a test/development environment, and subsidiary systems. The system will migrate to the new USSTRATCOM Command and Control Facility.

The ISPAN program is comprised of two independent but complementary planning systems; the Mission Planning and Analysis System (MPAS) and the Global Adaptive Planning Collaborative Information Environment (GAP-CIE).

MPAS is an automated information system to support Global Strike nuclear and conventional target development and weaponeering. MPAS includes Mission Planning, Analysis, and Decision Support tools and an Enterprise Database to sustain and support nuclear and conventional strategic war planning.

GAP-CIE provides web-enabled adaptive planning, rapid distributed Course of Action (COA) development and global situational awareness supporting both contingency and crisis planners. ISPAN uses a four-year life-cycle replacement plan to procure required Commercial Off-The-Shelf (COTS) hardware (e.g. servers, storage devices, workstations, peripherals and other network components).

In some instances the hardware must be combined with commercially available software to form unique planning environments. The program's life cycle replacement plan for hardware follows industry standards and is used to eliminate the peaks and valleys associated with maintaining compatibility with the fast moving COTS hardware technology improvement cycle. It also allows the program to better utilize

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs | | P-1 Line Item Number / Title: 833560 / Integrated Strat Plan & Analy Network (ISPAN) |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>existing manpower to install and configure the hardware systems to provide an incremental and efficient replacement of critical infrastructure components as they become obsolete. Hardware and software procured within the program is used to support all ISPAN program increments.</p> <p>Funding for this exhibit is contained in Program Element 0101313F.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833560 / Integrated Strat Plan & Analy Network (ISPAN)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Integrated Strat Plan & Analy Network (ISPAN) | | | | - / - | - / 10.670 | - / 9.187 | - / 7.769 | - / - | - / 7.769 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 10.670 | - / 9.187 | - / 7.769 | - / - | - / 7.769 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 funding continues the life-cycle procurement of commercial-based hardware and software components for the ISPAN mission system which consists of the Mission Planning and Analysis System (MPAS) and the Global Adaptive Planning Collaborative Information Environment (GAP CIE) efforts. Funding procures mission system infrastructure, architecture, and related support components. This includes COTS-based hardware and software for an operational capability lab environment to certify ISPAN applications for operational use. Funding also provides a secure cross-domain security solution capability to enable automated data transfers between multi-level networks supporting planners worldwide on multiple enclaves. It allows for the procurement of items such as (but are not limited to) application servers, switches, storage area network (SAN), backup and recovery systems, guard solution software and other articles that will provide a secure Cross Domain Security Solution (CDSS) capability, and the life-cycle replacement of Government Furnished Equipment (GFE) at development contractor sites. Funding also provides for procurement of virtualization technology environments and distributed operations capability to support joint warfighters across geographically separated locations. Finally, funding provides for the initial migration of the ISPAN mission system to the new USSTRATCOM Command and Control Facility.

NOTE: Hardware procured primarily as Commercial Off the Shelf (COTS) items in varying quantities, in multiple configurations, from multiple sources, using multiple contract vehicles.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833560 / Integrated Strat Plan & Analy Network (ISPAN) | | | | | | Aggregated Items Title: Integrated Strat Plan & Analy Network (ISPAN) | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| ISPAN Mission Systems Hardware | A | | - | - | - | 1.450 | 1 | 1.450 | - | - | 0.000 | - | - | 1.166 | - | - | - | - | - | 1.166 |
| End-point Computing Devices | A | | - | - | - | 1.652 | 1 | 1.652 | 2.309 | 1 | 2.309 | - | - | - | - | - | - | - | - | - |
| UNIX/SPARC-based servers | A | | - | - | - | 0.200 | 1 | 0.200 | - | - | - | - | - | - | - | - | - | - | - | - |
| MPAS Virtual Servers | A | | - | - | - | 0.816 | 1 | 0.816 | 1.860 | 1 | 1.860 | 0.635 | 1 | 0.635 | - | - | - | 0.635 | 1 | 0.635 |
| GAP CIE Deployment HW/SW | A | | - | - | - | 1.000 | 1 | 1.000 | - | - | - | 1.000 | 1 | 1.000 | - | - | - | 1.000 | 1 | 1.000 |
| PRP | A | | - | - | - | - | - | - | 0.400 | 1 | 0.400 | - | - | - | - | - | - | - | - | - |
| ISPAN B-Network | A | | - | - | - | - | - | - | - | - | - | 1.000 | 1 | 1.000 | - | - | - | 1.000 | 1 | 1.000 |
| ISPAN Security Enclaves (SIPR, TS/ C, & JWICS) | A | | - | - | - | - | - | - | - | - | - | 0.300 | 1 | 0.300 | - | - | - | 0.300 | 1 | 0.300 |
| ISPAN Virtual Data Storage System | A | | - | - | - | 3.468 | 1 | 3.468 | 1.086 | 1 | 1.086 | 0.300 | 2 | 0.600 | - | - | - | 0.300 | 2 | 0.600 |
| ISPAN Analysis Systems -- IWMDT and EADSIM | A | | - | - | - | - | - | - | - | - | - | 0.300 | 1 | 0.300 | - | - | - | 0.300 | 1 | 0.300 |
| ISPAN Systems at Geographically Separated Location(s) | A | | - | - | - | - | - | - | 0.800 | 1 | 0.800 | - | - | - | - | - | - | - | - | - |
| ISPAN Systems reconstitute at GSUs | A | | - | - | - | - | - | - | - | - | - | 0.000 | 1 | 0.000 | - | - | - | 0.000 | 1 | 0.000 |
| Block 1 Major Hardware | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H/W and S/W to Deploy Comman Access Card System | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cross Domain Guard Solution | A | | - | - | - | - | - | - | - | - | - | 0.800 | 1 | 0.800 | - | - | - | 0.800 | 1 | 0.800 |
| System to Ingest External Data into ISPAN | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ISPAN Network Systems | A | | - | - | - | - | - | - | - | - | - | 0.300 | 1 | 0.300 | - | - | - | 0.300 | 1 | 0.300 |
| Testing and Experimentation of ISPAN Mission Systems | A | | - | - | - | - | - | - | 1.087 | 1 | 1.087 | 0.523 | 1 | 0.523 | - | - | - | 0.523 | 1 | 0.523 |
| ISPAN Systems for Off-Site Developers (GFE) | A | | - | - | - | - | - | - | 0.900 | 1 | 0.900 | 0.400 | 1 | 0.400 | - | - | - | 0.400 | 1 | 0.400 |

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|---|--|--|--|--|--|--|--|--|--|--|--|---|----------------------------|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | Date: February 2018 | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 | | | | | | P-1 Line Item Number / Title: 833560 / Integrated Strat Plan & Analy Network (ISPAN) | | | | | | Aggregated Items Title: Integrated Strat Plan & Analy Network (ISPAN) | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Enterprise Licence Agreements ISPAN Mission Systems | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Program Management Administration (Government Cost) | A | | - | - | - | - | - | 0.010 | 0.010 | 1 | 0.010 | 0.010 | 1 | 0.010 | - | - | - | 0.010 | 1 | 0.010 |
| Program Management Administration (Contractor Services) | A | | - | - | - | 0.245 | 3 | 0.735 | 0.245 | 3 | 0.735 | 0.245 | 3 | 0.735 | - | - | - | 0.245 | 3 | 0.735 |
| USSTRATCOM C2 Building Hardware & Networks | A | | - | - | - | - | - | 1.339 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 10.670 | - | - | 9.187 | - | - | 7.769 | - | - | - | - | - | 7.769 |
| Total | | | - | - | - | - | - | 10.670 | - | - | 9.187 | - | - | 7.769 | - | - | - | - | - | 7.769 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834010 / General Information Technology

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F

Line Item MDAP/MAIS Code: CAMI

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|--------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 0.000 | 50.774 | 51.826 | 40.450 | 0.000 | 40.450 | 33.850 | 39.933 | 41.989 | 73.790 | - | 332.612 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 0.000 | 50.774 | 51.826 | 40.450 | 0.000 | 40.450 | 33.850 | 39.933 | 41.989 | 73.790 | - | 332.612 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 0.000 | 50.774 | 51.826 | 40.450 | 0.000 | 40.450 | 33.850 | 39.933 | 41.989 | 73.790 | - | 332.612 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0201110F Service Support to Other Core Missions - NORTHCOM - P-40A

CIVIL RESPONDER COMMUNICATIONS (CRC)INTEROPERABILITY: The Civil Responder Communications capability provisions interoperable communications between a deployed Joint Task Force and federal, state, and local disaster response personnel. USNORTHCOM will use these funds to procure communications technologies that enable direct communications between military and civil command counterparts at all echelons. The collaborative requirements that this task satisfies includes shared common operational picture (COP), desktop collaboration, military and civil radio interoperability that includes encryption, and the extension of public internet and telephone service by military communications systems to the civil responders being supported. (Formerly Emergency Response Communications System (ERCS))

PE 0201130F US NORTHERN COMMAND COMMUNICATIONS - P-40A

a. **NORAD AND USNORTHCOM INTEROPERABLE COMMUNICATIONS:** This includes mission specific communications enhancements to support extension of Public Switched Telephone Network (PSTN) and Public Internet to Civil Authorities from the DOD Satellite Teleports either directly to the Civil Authorities' communications systems or through DOD communications systems. This program combines the Interoperable Communications and Joint Tactical Radio System (JTRS) compliant radio handsets to enable the Defense Support of Civil Authorities mission.

b. **DEPLOYABLE COMMUNICATION CAPABILITY SYSTEM LIFE CYCLE MANAGEMENT:** The USNORTHCOM Deployable Communication Fleet consists of Emergency Response Vehicles (ERVs) Mobile Communications Platforms (MCPs), Rapid Response Kits (RRK)and fly-away communications systems, small enough to be flown on commercial airlines to a nationally declared disaster. (NC J6 DCCS combined the previously approved and funded Cellular System Technical Refresh and Emergency Response Communications System into one consolidated effort)

c. **EARLY WARNING RADAR (EWR) COMMUNICATIONS EQUIPMENT:** The AVTEC NexGen panels are used to support the Hawaii Regional Air Operations Center (HIRAOC). The NORAD EWR Communications Equipment provide equipment to facilitate dual operation cutovers, secure/non-secure communications for a single communications network allowing clear and secure, real-time, line of sight and beyond line of sight NORAD wide command and control of airborne and ground elements.

PE 0207277F ISR Innovations - P-40A

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>Family of systems providing high impact, quick reaction capabilities to warfighters for mission planning, rehearsal, visualization, and intelligence gathering purposes. Program components include: Eagle Vision, DoD's worldwide deployable commercial imagery ground station capability, and ISR innovations, rapid prototyping, operational evaluation and fielding of short notice, high payoff capabilities addressing immediate caps and/or shortfalls identified by warfighting activities. Eagle Vision provides direct downlink commercial imagery to operational commanders for mission support purposes.</p> <p>In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the armed forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>PE 0207448F C2ISR TACTICAL DATA LINK - P-40A Assistant Secretary of Defense, Command, Control, Communications, and Intelligence (ASD/C3I) directed implementation of the DoD Cryptographic Modernization Initiative (CMI) on 23 February 2001. Chairman, Joint Chiefs of Staff (CJCS) Notice 6510/NSA 3-9 directs the modernization of all cryptography in military systems in the US, NATO and Coalition nations. To prevent information compromise, the National Security Agency (NSA) mandate requires Link 16 cryptographic systems be upgraded. The CJCS directed a modernization effort at the recommendation of the NSA to modernize equipment and provide enhanced security for Link 16 tactical networks (Cryptographic Modernization Initiative (CM)). Likewise, a radio frequency spectrum memorandum of agreement between the DoD and the Department of Transportation mandated the internal frequency remapping of our Link 16 family of terminals to avoid conflict with next generation Federal Aviation Administration (FAA) radio aids to navigation. These two mandates, among other operational reliability and capability improvements, will be satisfied with procurement of the Link 16 Multifunctional Information Distribution System (MIDS) Low Volume Terminal (LVT) kits or the Link 16 MIDS Joint Tactical Radio System (JTRS) radios.</p> <p>PE 0207603F Combat Air Forces (CAF) Exercises and Readiness Training - P-40A Procures part task trainers for ACC and other CAF air crews to perform selected ground training tasks in conjunction with other air operations training activities as they train to become combat ready for worldwide air expeditionary force missions.</p> <p>PE 0207605F WARGAMING AND SIMULATION CENTERS - P-40A The Warrior Preparation Center conducts and supports integrated and distributed Live, Virtual, and Constructive (LVC) warfighter training for Joint and Combined partners in the European and African theaters.</p> <p>PE 0207697F Distributed Training and Exercises - P-40A AIR FORCE DISTRICT WASHINGTON: Wargaming and analysis suites, hardware, and software in direct support of the wargaming informational environment, which is distributed across the National Capitol Region, United States Air Force, and Combatant Commands worldwide. Funding for this exhibit contained in PE 0207697F.</p> <p>PE 0208087F AF OFFENSIVE CYBERSPACE OPERATIONS - P-40A Cyber Workforce Training PEC 028087F - P-40A Funds procure student mission training systems (hardware, software, infrastructure, and facility modifications) supporting Information & Cyber Operations training needs of approximately 700 students per year.</p> <p>Cyberspace Force Application PEC 028087F - P-40A Funding procures specialized hardware/software necessary for real time deployment as Cyberspace network attack tools.</p> <p>PE 0303112F Air Force Communications (AIRCOM) - P-40A The Airborne Networking Global Information Grid (GIG) Interface (ANGI) provides a consolidated ground entry point for airborne communications network connectivity between the terrestrial and space layers. It supports Air Force and Joint efforts for integration of airborne, terrestrial and space layer networks. This initiative establishes ANGI sites that support deployed assets by extending the AFNet to the aerial layer.</p> <p>PE 0305128F Security and Investigative Activities - P-40A</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>The Air Force Office of Special Investigation (AFOSI) Directorate of Warfighting Integration is responsible for the delivery of Information Technology (IT) services, both unclassified and classified, to over 250 locations, world-wide. The directorate also has the responsibility for continually identifying and implementing advanced applications, tools and IT technology that improve AFOSI's ability to manage investigative activity for Air Force leaders. It accomplishes this mission through the management and oversight of personnel, products and systems associated with unclassified, Secret, special access, law enforcement sensitive (LES) and Top Secret/SCI computers and information systems, long-haul, communications circuits, official records, Privacy Act, Freedom of Information Act, publication and forms, and official mail to achieve the command's operational objectives in support of the AF and Office of the Secretary of Defense as well as to achieve Executive mandates to improve information sharing within and between the law enforcement and intelligence communities.</p> <p>PE 0305173F SPACE AND MISSILE TEST AND EVAL CENTER - P-40A The Research and Development Space and Missile Operations (RDSMO) program has transferred from PE 0305173F to PE 1203173F starting in FY2018.</p> <p>PE 0305174F SPACE INNOV INTG AND RAPID TECH DEV - P-40A The Space Innovation, Integration and Rapid Technology Development (SIIRTD) program has transferred from PE 0305174F to PE 1203174F starting in FY2018.</p> <p>PE 0305601F Mission Partner Environment - P-40A Mission Partner Environment (MPE) enables secure sharing of operational information for collaboration between and among the U.S. and mission partners to include federal, State, local, and tribal agencies, allies, coalition members, host nations, and other nations, United States and international Non-Governmental Organizations, multinational treaty organizations, and private sector organizations. The MPE program enables the United States (US) Department of Defense (DoD) to execute its assigned missions with mission partners across the complete ranges and phases of military operations to assist combined command and control (C2) of coalition forces while meeting the information sharing requirements within existing bi-lateral and multi-lateral agreements. Also, it promotes effective information exchange and provides applications to enable effective use of the United States and Partner nation military power. MPE provides the warfighter mission with technology to improve mission effectiveness and cyber security.</p> <p>PE 0604281F TACTICAL DATA NETWORKS ENTERPRISE - P-40A Tactical Data Link (TDL) enterprise efforts include equipment, fielding support, and associated contract support for the fielded Family of Gateways, as well as capability enhancements to TDLs, gateways, and AF contributions to the Joint Aerial Layer Network (JALN). These airborne networking systems enable combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks. Tactical Data Network (TDN) Planning, Analysis and Monitoring (PAM) will add capability to modernize CONUS ground-based TDL gateways.</p> <p>PE 0708012F LOGISTICS SUPPORT ACTIVITIES - P-40A GUNTER AIR FORCE BASE NETWORK SERVICES provide unique local area network (LAN) hardware to the population at Maxwell Air Force (MAFB)-Gunter Annex, AL including equipment for web access, file storage backup, information security, and application testing for AF programs worldwide hosted at MAFB-Gunter Annex, AL. LAN equipment enables MAFB-Gunter Annex to manage/support 122 programs and systems worldwide. MAFB-Gunter Annex exceeds the standard Base Information Transport Infrastructure (BITI) environment, therefore no funding is provided by BITI.</p> <p>PE 0708074F JOINT LOG PGM - TOTAL ASSET VISIBILITY - P-40A AUTOMATIC IDENTIFICATION TECHNOLOGY (AIT): A collection of enabling technologies including linear and two-dimensional bar codes, radio frequency identification, smart cards, memory cards, laser cards, touch memory, and voice and biometrics identification. These technologies provide timely and accurate automatic capture, aggregation, and transfer of data to management information systems with minimal human involvement. By capitalizing on advances in technology the Air Force is able to gain efficiencies in the logistical supply chain and asset visibility throughout an item's life cycle. Project funding enables compatibility of Air Force and industry standards in the core areas of supply, transportation, and maintenance, as well as weaving commercial AIT business practices and standards into the Air Force's logistics infrastructure.</p> <p>PE 0801711F Recruiting Activities - P-40A</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>Air Force Recruiting and Information Support System - Legacy (AFRISS-L): AFRISS-L is a web-enabled automated information system, accessible via the Internet, used by recruiters and management personnel world-wide to gather information on prospective recruits and process them into the Air Force. It supports all Active Duty and Air Guard recruiting efforts.</p> <p>PE 0804711F RECRUIT TRAINING UNITS - P-40A BASIC MILITARY TRAINING (BMT) SURVEILLANCE SECURITY SYSTEM: Basic Military Training sustains the combat capability of the Air Force (Active duty, Air National Guard and Air Force Reserve Command) with trained airmen. MTI Misconduct-Restore The Trust /Requirements associated with MTI misconduct issues at BMT. Due to the sexual misconduct by MTIs at BMT, AETC/CC directed a Commander Directed Investigation (CDI) to identify issues that place Airmen at risk in their training environment. SECAF/CSAF support findings and recommended actions to "Eliminate Detection Weakness". This effort continues the purchase, installation, and integration of a surveillance system covering common areas of the BMT facilities at JBSA-Lackland AFB for the deterrence and prosecution of misconduct. It includes hardware, system engineering/test and evaluation, site survey, infrastructure installation and support. Detailed requirements include: network switch, network storage device/upgrade package, computer monitor, site license, channel expansion license, hard drive, uninterruptable power supply, extended battery, digital monitor, cameras, and camera communication cable.</p> <p>PE 0804721F SERVICE ACADEMIES - P-40A AIR FORCE ACADEMY COMPUTER SUPPORT: Air Force Academy uses two separate networks for day-to-day operations. Approximately 75% of the support is provided to USAFAEDU (academic network), providing the Academy's interface for mission elements, the cadet wing, direct reporting unit (DRU) and direct mission support organizations to DoD/AF military sites, commercial internet, other colleges and universities. The remaining support is provided to USAFAMIL, the interface with the AF's military only networks (NIPRNET and SIPRNET).</p> <p>PE 0804731F GENERAL SKILL TRAINING - P-40A GENERAL SKILL TRAINING: General Skills Training supports initial, advanced and supplemental training associated with all Air Force career fields taught or managed under Goodfellow, Keesler, Vandenberg, Sheppard, Lackland, and Fort Sam. This includes classroom and field training operations, management systems for students and faculty, and other requirements directly supporting Technical Training Groups, detachments, and various operating locations.</p> <p>TECHNICAL TRAINING MANAGEMENT SYSTEM (TTMS): TTMS provides AETC personnel and other users a suite of integrated and customized Commercial Off-The-Shelf (COTS)/Government Off-The-Shelf (GOTS) software products implemented in a centralized, enterprise-wide, web-based architecture for the development and administration of basic military and technical training. TTMS supports nine functions: student management, course design and development (for AETC and METC), student evaluation, statistical analysis and reporting, surveys, assessments and testing, Airman Interactive Management System (AIMS) for MTLs, Job Match/Seat Bank, and TTMS BMT for student processing.</p> <p>PE 0804751F PROFESSIONAL MILITARY EDUCATION - P-40A</p> | | |

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>Air University (AU) Education Technology (ET) Program funds the cradle-to-grave lifecycle management of IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force. As AU aggressively pursues the enhancement of processes by which educational products are delivered to students, ET/IT demands will increase in frequency and complexity. Quickly revising software and inserting technology into those processes in a timeframe adequate to realize return on investment dollars or educational benefits requires an appropriately resourced A6 organization.</p> <p>PE 0804752F OTHER PROFESSIONAL EDUCATION - P-40A Accreditation of AFIT's engineering programs is directly related to both the existence of the well-equipped and maintained laboratories and an institutional commitment to fund equipment and maintenance. To serve the research needs of the USAF/DoD, students have up-to-date equipment to make tangible contributions to AF research needs. Existing equipment has reached the age where the cost to maintain it is impractical.</p> <p>PE 0804771F Support of the Training Establishment - P-40A Air University (AU) Education Technology (ET) Program funds the cradle-to-grave lifecycle management of IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force. As AU aggressively pursues the enhancement of processes by which educational products are delivered to students, ET/IT demands will increase in frequency and complexity. Quickly revising software and inserting technology into those processes in a timeframe adequate to realize return on investment dollars or educational benefits requires an appropriately resourced A6 organization.</p> <p>PE 0901279F Facilities Operation - Administrative - P-40A CIVIL ENGINEER'S (CE) IT TRANSFORMATION: CE IT Transformation program's mission is to transform CE's business processes to better serve the CE customers and meet AF Transformational Goals. The plan is to leverage industry best practices, optimize core business processes, and replace existing outdated IT capabilities with a set of commercial off-the-shelf (COTS) software solutions and a service provider to deploy and maintain the system. This COTS solution will provide a robust, enterprise-wide CE capability and will consist of an integrated set of embedded / configurable best business practices and capabilities to support the following CE missions: Real Property Management; Work & Supply Management, Project Management, Energy Management, Housing Management, Financial Management, Environmental Management, Planning, Emergency Services, Fire Operations and EOD.</p> <p>PE 0901299F AF A1 SYSTEMS - P-40A Provides funding for the sustainment and operation of hardware and software supporting Total Force Human Capital IT systems (RegAF, Reserve, ANG, Civilians, Retirees, and Beneficiates), network applications and infrastructure. These systems include items such as client servers, computer hardware and software, LANs, web self service and relational database management technologies and associated equipment to support all phases of the personnel life cycle, including accession, training, assignment, promotion, and retirement/separation. There are two programs:</p> <p>a. MILITARY PERSONNEL DATA SYSTEM: MiIPDS funding supports all AF Military Personnel Operations to include technology refresh for hardware supporting a variety of AF personnel applications such as: Automated Records Management Systems and Virtual Military Personnel Flight among others. Funding also supports MiIPDS Federal Data Center Consolidation Initiative (FDCCI) compliance efforts.</p> <p>b. AIR FORCE PERSONNEL OPERATIONS ACTIVITY (AFPOA) OPERATIONS: Funding provides for the procurement of the AFPOA data center infrastructure, including hardware and some software maintenance. Funding is used to support telephony requirements of the AF Total Force Service Centers at San Antonio and Denver. It also supports the Federal Data Center Consolidation Initiative (FDCCI) compliance efforts directed by Public Law 104-106 and 105-261 and DoDI 1400.25, Vol 1100.</p> <p>PE 0901410F CONTRACTING INFORMATION TECHNOLOGY SYSTEM - P-40A</p> | | |

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| <p>CON-IT provides a single contract writing system for the Air Force contracting community to support all contracting needs including base operations, logistics, contingency and weapons system contracting world-wide. CON-IT will enable strategic sourcing and other acquisition efficiencies by standardizing data, business rules, and milestone tracking. Furthermore, CON-IT will allow for a standardized and integrated method of anticipating, reacting, and responding to the current pace and changes in process, regulation, and technology across the contract domain. CON-IT is the replacement for Standard Procurement System (SPS). When fully implemented, CON-IT will enable process changes necessary to converge on a common contract writing/management capability within the Air Force. In FY17, CON-IT (\$5.9M) was a new start. New Start notification letters were sent to all four committees on 12 Sep 17 with intent to purchase end user licenses for the system. Funding for this exhibit contained in PE 0901410F.</p> <p>PE 0901538F Program Budget Enterprise Service - P-40A PBES is a single solution software development effort that will utilize a Service Oriented Architecture (SOA) to deliver budgeting and programming capability for the United States Air Force. PBES will replace legacy systems such as the Automated Budget Interactive Data Environment System (ABIDES) and Resource Allocation Programming Information Decision System (RAPIDS) and will support the budget formulation and force programming process. Upon full deployment of PBES, the system will be compliant with the Standard Financial Information Structure (SFIS) and Standard Line of Accounting (SLOA) conventions, which will enable standardization of data across the Department of Defense (DoD). Funding for this exhibit contained in PE 0901538F.</p> <p>PE 1203173F SPACE AND MISSILE TEST AND EVAL CENTER - P-40A The Research and Development Space and Missile Operations (RDSMO) program, executed by the Advanced Systems and Development Directorate at Kirtland AFB, NM, conducts space and missile Research and Developmental Test and Evaluation (RDT&E) and Initial Operational Test and Evaluation (IOT&E) in support of experimental, demonstration, and operational satellites. The program develops, acquires, and operates satellite command and control (C2) and fixed/deployable telemetry, tracking, and commanding (TT&C) antenna systems in support of AF and DoD missions. The RDSMO program is responsible for the design, development, integration, testing, sustainment, and operations of the Multi-Mission Satellite Operations Center (MMSOC) C2 systems installed in the RDT&E Support Complex (RSC) at Kirtland AFB, NM and at the Satellite Operations Center 11 (SOC11) located at Schriever AFB, CO and future deployments of Enterprise Ground Services (EGS) in multiple locations. Funds transfer from Other Procurement, Air Force (OPAF) to Space Procurement, Air Force (SPAF) beginning in FY2019.</p> <p>The current and future space domain demands that space systems be responsive to new and changing threats, and can rapidly integrate new capabilities to make our warfighting force more effective. This agility must extend through the entire space warfighting enterprise, to include how we learn about the threat; develop solutions; acquire, test, deploy, train, operate and integrate new systems into the greater system of systems; and ensure our space mission force is ready to defeat a thinking adversary in a complex, multi-domain battlespace. The enterprise will use all of its elements to accelerate decision-making, prototype potential solutions, rapidly integrate decision-making tools and sustain a war-winning capability by delivering multi-domain effects in, from, and through space and cyberspace enabling battle management and resilience options to "fight through."</p> <p>PE 1203174F SPACE INNOV INTG AND RAPID TECH DEV - P-40A Located at Peterson AFB, Colorado, the Space Innovation, Integration and Rapid Technology Development (SIIRTD) program develops and modifies modeling and simulation tools that Air Force Space Command's Space Analysis Center uses for operations research, military utility analyses, tradeoff studies, and other evaluations of space mission areas to guide planning, programming, requirements generation, analyses of alternatives, and other activities. Development activities incorporate changes in fielded and projected space operational capabilities, as well as technical improvements, into the group's software tools to ensure their data and technology remain current. Its innovation, education, and training activities foster solutions to operational deficiencies and enhance the integration of space systems into Air Force operations, thereby enabling service and joint warfighters to realized the full potential of existing and planned space capabilities. Funds transfer from Other Procurement, Air Force (OPAF) to Space Procurement, Air Force (SPAF) beginning in FY2019.</p> <p>DISTRIBUTED COMMUNICATIONS ARCHITECTURE: This system provides a network based communications capability enabling dispersed space personnel to participate in space exercises and wargames and to assist in development, testing, and validation of SIIRTD innovation projects supporting the Combat Air Forces. It can also support limited command and control capabilities for space operations.</p> | | |

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| Line Item MDAP/MAIS Code: CAMI | | |
| <p>SPACE ANALYSIS CENTER: Air Force Space Command's Space Analysis Center uses modeling and simulation tools to conduct operations research, military utility analyses, tradeoff studies, and other evaluations of space mission areas to guide planning, programming, requirements generation, analyses of alternatives, and other activities. Related modeling and simulation tool development is funded in RDT&E, AF, PE 0305174F, Space Innovation, Integration and Rapid Technology Development.</p> | | |

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Line Item MDAP/MAIS Code: CAMI

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | US Northern Command Communications | | | | - / - | - / 3.457 | - / 3.908 | - / 3.694 | - / 0.000 | - / 3.694 |
| P-40a | ISR Innovations | | | | - / - | - / 5.863 | - / 6.599 | - / 6.252 | - / 0.000 | - / 6.252 |
| P-40a | C2ISR Tactical Data Link | | | | - / - | - / 1.580 | - / 2.875 | - / 1.494 | - / 0.000 | - / 1.494 |
| P-40a | Wargaming and Simulation Centers | | | | - / - | - / 1.199 | - / 0.799 | - / 0.755 | - / 0.000 | - / 0.755 |
| P-40a | Distributed Training and Exercises | | | | - / - | - / 0.339 | - / 0.337 | - / 0.318 | - / 0.000 | - / 0.318 |
| P-40a | AF Offensive Cyberspace Operations | | | | - / - | - / 1.554 | - / 8.781 | - / 1.683 | - / 0.000 | - / 1.683 |
| P-40a | Security and Investigative Activities | | | | - / - | - / 1.800 | - / 1.790 | - / 1.692 | - / 0.000 | - / 1.692 |
| P-40a | Space Innovation, Integration and Rapid Technology Development | | | | - / - | - / 1.481 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Mission Partner Environments | | | | - / - | - / 0.000 | - / 0.000 | - / 1.873 | - / 0.000 | - / 1.873 |
| P-40a | Communications and Information Technology | | | | - / - | - / 5.102 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Tactical Data Networks Enterprise | | | | - / - | - / 1.842 | - / 0.312 | - / 0.176 | - / 0.000 | - / 0.176 |
| P-40a | Logistics Support Activities | | | | - / - | - / 1.177 | - / 1.426 | - / 1.436 | - / 0.000 | - / 1.436 |
| P-40a | Joint Logistics Program - Total Asset Visibility | | | | - / - | - / 5.604 | - / 3.539 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Recruit Training Units | | | | - / - | - / 1.624 | - / 0.847 | - / 0.799 | - / 0.000 | - / 0.799 |
| P-40a | Service Academies | | | | - / - | - / 0.169 | - / 1.812 | - / 0.100 | - / 0.000 | - / 0.100 |
| P-3a | 1 / Cadet Administration Management Information System (Capability Improvement) | | | A | - / 0.000 | - / 3.300 | - / 9.103 | - / 2.359 | - / 0.000 | - / 2.359 |
| P-40a | General Skill Training | | | | - / - | - / 9.595 | - / 0.692 | - / 0.660 | - / 0.000 | - / 0.660 |
| P-40a | Professional Military Education | | | | - / - | - / 0.000 | - / 1.017 | - / 0.964 | - / 0.000 | - / 0.964 |
| P-40a | Other Professional Education | | | | - / - | - / 0.494 | - / 0.492 | - / 0.467 | - / 0.000 | - / 0.467 |
| P-40a | Support of the Training Establishment | | | | - / - | - / 1.016 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Facilities Operation - Administrative | | | | - / - | - / 0.000 | - / 0.760 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | AF A1 Systems | | | | - / - | - / 1.601 | - / 3.112 | - / 3.037 | - / 0.000 | - / 3.037 |
| P-40a | Contracting Information Technology System | | | | - / - | - / 0.000 | - / 0.000 | - / 5.443 | - / 0.000 | - / 5.443 |
| P-40a | Financial Management Information Systems Development | | | | - / - | - / 0.000 | - / 0.000 | - / 7.248 | - / 0.000 | - / 7.248 |
| P-40a | Space and Missile Test and Evaluation Center | | | | - / - | - / 1.977 | - / 1.964 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Space Innovation, Integration and Rapid Technology Development | | | | - / - | - / 0.000 | - / 1.661 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 0.000 | - / 50.774 | - / 51.826 | - / 40.450 | - / 0.000 | - / 40.450 |

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Line Item MDAP/MAIS Code: CAMI

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | US Northern Command Communications | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | ISR Innovations | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | C2ISR Tactical Data Link | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Wargaming and Simulation Centers | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Distributed Training and Exercises | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | AF Offensive Cyberspace Operations | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Security and Investigative Activities | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Space Innovation, Integration and Rapid Technology Development | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Mission Partner Environments | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Communications and Information Technology | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Tactical Data Networks Enterprise | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Logistics Support Activities | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Joint Logistics Program - Total Asset Visibility | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Recruit Training Units | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Service Academies | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-3a | 1 / Cadet Administration Management Information System (Capability Improvement) | | | A | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / - | - / 14.762 |
| P-40a | General Skill Training | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Professional Military Education | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Other Professional Education | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Support of the Training Establishment | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Facilities Operation - Administrative | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | AF A1 Systems | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Contracting Information Technology System | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Financial Management Information Systems Development | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Space and Missile Test and Evaluation Center | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Space Innovation, Integration and Rapid Technology Development | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 33.850 | - / 39.933 | - / 41.989 | - / 73.790 | - / - | - / 332.612 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

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| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>Justification: This program, General Information Technology P-40A Item Software Licenses, is a new start.</p> <p>PE 0201110F Service Support to Other Core Missions - NORTHCOM - P-40A No FY18 funding requested.</p> <p>PE 0201130F US NORTHERN COMMAND COMMUNICATIONS - P-40A a. NORAD AND USNORTHCOM INTEROPERABLE COMMUNICATIONS: FY18 funding procures equipment and associated support that provide deployable, interoperable commercial communications capability NORAD - USNORTHCOM Headquarters; USNORTHCOM Domestic Operations (DOMOPS), and Subordinate Commands). The system consists of deployable communications base stations, Infrastructure and Joint Tactical Radio System handsets to enable the Defense Support of Civil Authorities mission.</p> <p>b. DEPLOYABLE COMMUNICATION CAPABILITY SYSTEM LIFE CYCLE MANAGEMENT: FY18 funding ensures system life cycle support of the Deployable Communications Fleet, as well as, the lifecycle maintenance of these USNORTHCOM deployable communication systems. A centralized managed construct to enable the configuration management of deployable communication systems.</p> <p>c. EARLY WARNING RADAR (EWR) COMMUNICATIONS EQUIPMENT: No FY19 funding requested</p> <p>PE 0207277F ISR Innovations - P-40A FY17 funds will provide 1) Procurement of a standardized imagery tasking and management system for handling customer requirements and collection requests; 2) Shelter improvements to include changes to system configuration to reduce physical footprint; and 3) Integration of enhanced synthetic aperture RADAR (SAR) capabilities.</p> <p>PE 0207448F C2ISR TACTICAL DATA LINK - P-40A FY19 procurement of Link 16 Multifunctional Information Distribution System (MIDS) Low Volume Terminal (LVT) kits or Link 16 MIDS Joint Tactical Radio System (JTRS) radios will satisfy two mandates (FAA frequency and NSA crypto), among other operational reliability and capability improvements for Link 16 tactical networks.</p> <p>PE 0207603F Combat Air Forces (CAF) Exercises and Readiness Training - P-40A FY17 funding procures parts for task trainers for ACC and other CAF air crews.</p> <p>PE 0207605F WARGAMING AND SIMULATION CENTERS - P-40A FY19 procurement funding assures capital equipment replacement and network system upgrades for the command and control, warfighting, and support training systems at the tactical and operational levels of warfare. The equipment allows the WPC to lead USAFE-AFAFRICA toward full integration of Live, Virtual, and Constructive (LVC) capabilities and connectivity with our Coalition partners.</p> <p>PE 0207697F Distributed Training and Exercises - P-40A AIR FORCE DISTRICT WASHINGTON: FY19 funding will be used to procure hardware, software and licensing to complete and instantiate the latest version of the Wargame Information Environment in support of CSAF and AFMAJCOMs objective priorities for Air Force Wargaming Enterprise.</p> <p>PE 0208087F AF OFFENSIVE CYBERSPACE OPERATIONS - P-40A Funds procure student mission training systems (hardware, software, network infrastructure and IT related equipment) supporting Information & Cyber Operations training needs of approximately 700 students per year.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>PE 0303112F Air Force Communications (AIRCOM) - P-40A No FY17 funding requested.</p> <p>FY16 funding totals include \$3.953M for Overseas Contingency Operations (OCO).</p> <p>PE 0305128F Security and Investigative Activities - P-40A FY17 funds will provide AFOSI Server Virtualization, which will increase efficiency of limited system administrative staff and reduce future capital investment costs of new hardware. The virtual server environment also delivers new capability not available in a non-virtual server environment, such as rapid Information Assurance patching, automatic error detection, failover and disaster recovery of critical applications, reduce footprint from both a physical space and energy perspective. These funds will enable AFOSI standard IT equipment and specialized investigative equipment to provide the latest capabilities of specialized investigative support to DoD/USAF investigations/operations both in-garrison and in support of wartime operations, for over 3,000 AFOSI personnel in more than 250 worldwide locations.</p> <p>PE 0305173F SPACE AND MISSILE TEST AND EVAL CENTER - P-40A FY19 funding request is now in PE 1203173F.</p> <p>PE 0305174F SPACE INNOV INTG AND RAPID TECH DEV - P-40A FY18 funding supports the AFSPC Space Analysis Center Virtual Analysis Capability (AVAC) system. A stand-alone system that provides a crosscutting capability to conduct, support, and report analysis on a myriad of tools, data, models and simulations. This system allows leadership to make decisions based on quantifiable operational impacts output from AVAC based on various vignettes and studies applied to space and cyber assets. Funding buys system-specific hardware, software, routers, licenses, etc., to maintain the efficiency and compatibility with all current models.</p> <p>PE 0305601F Mission Partner Environment - P-40A In response to program decision memorandum, funding for Mission Partner Environment transferred the capabilities the Combined Enterprise Regional Information Exchange System (CENTRIXS), Pegasus, the Multinational Information Sharing (MNIS) program, the All Partners Access Network (APAN), and the Combined Federal Battle Labs Network (CBFLNet) to the Mission Partner Environment Program (MPE). MPE enables secure sharing of operational information and enhances collaboration between the US forces, and trusted allies and other multinational partners. This effort also increases overall combat effectiveness by leveraging capabilities and information from all partners. FY2019 funding procures hardware and software to support the consolidation of a common mission network capability that supports operations with the Mission Partners environment.</p> <p>PE 0604281F TACTICAL DATA NETWORKS ENTERPRISE - P-40A FY19 funding provides procurement for all Tactical Data Link (TDL) enterprise efforts. This includes equipment, fielding support, and associated contract support for the fielded Family of Gateways, as well as capability enhancements to TDLs, gateways, and AF contributions to the Joint Aerial Layer Network (JALN). These airborne networking systems enable combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks.</p> <p>PE 0708012F LOGISTICS SUPPORT ACTIVITIES - P-40A FY17 funding supports the procurement of Installation Processing Node (IPN) and Local Area Network (LAN) Tech refresh: routers, servers, network storage and switches that provide core network services critical to the sustainment of the Business and Enterprise Systems (BES) portfolio of systems. These systems support the daily business of the Air Force including pay, logistics, Civil Engineering, Medical, and enterprise software license management. Provides end-of-life equipment replacement for a fully operational LAN.</p> <p>PE 0708074F JOINT LOG PGM - TOTAL ASSET VISIBILITY - P-40A AUTOMATIC IDENTIFICATION TECHNOLOGY (AIT): FY 17 funding will be used to implement the use of Item Unique Identification (IUID) for tracking and accounting for CLASS II, VII and IX assets, to meet DoD mandate. FY16 dollars will be used to replace the aging Radio Frequency Identification (RFID) readers across the MAJCOMs that support the visibility of in-transit visibility cargo for contingency operations.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>HHTs that have been field tested among a variety of Major Commands will be purchased for execution use to include accurate asset tracking of munitions in AF inventory. The AF AIT PO will continue to sustain and expand the Enterprise Data Collection Layer Architecture that enables the functional bar code Hand Held Terminals (HHTs) to exchange critical logistics data with AF Automated Information Systems (AISs). Functional AIT tools like Combat Ammunition System AIT, AIT Point of Maintenance and Automated Inventory and Management Tool (AIMT) will continue to be implemented at AF locations worldwide.</p> <p>PE 0801711F Recruiting Activities - P-40A No FY17 funding requested.</p> <p>PE 0804711F RECRUIT TRAINING UNITS - P-40A BASIC MILITARY TRAINING (BMT) SURVEILLANCE SECURITY SYSTEM: Directly supports CSAF memo 14 Nov 12, "Combating Sexual Assault in the Air Force." FY18 funding allows for the continuation to procure/install surveillance systems, eliminating weaknesses in detection measures by improving the security surveillance in the Airman Training Complexes (ATCs), and the Dining and Classroom Facilities (DCF). Mitigates risk and secures the physical safety of ~37K Basic Military Trainees. Achieves capability of an enduring culture that promotes a safe, secure, and productive training environment for all Airmen. Effectively target limited resources to deter, detect, dissuade and hold personnel accountable in all BMT facilities.</p> <p>PE 0804721F SERVICE ACADEMIES - P-40A US AIR FORCE ACADEMY (USAFA): (1) AIR FORCE ACADEMY COMPUTER SUPPORT: FY18 funds procure IT to upgrade performance, security, and availability of USAFA.MIL and USAFA.EDU to comply with AF Enterprise Architecture standards in order to support the AF Academy mission. FY18 funds procure IT integral to the operation of each network in support of the Air Force Academy mission.</p> <p>(2) CADET ADMINISTRATION MANAGEMENT INFORMATION SYSTEM (CAMIS): FY18 funds also continue the modernization of CAMIS, which resides on the USAFAEDU domain. CAMIS is a cradle-to-grave system supporting all facets of student management including recruitment and outreach, admissions, registrar, preparatory, academic, athletic, military training assessments from the candidate's initial application to graduation & commissioning and continuing through the military career of each cadet. FY18 funding increase is due to the modernization effort to transition CAMIS from a custom-coded system to a primarily Commercial Off the Shelf (COTS)-based system, including the integration of the COTS products and interfaces with GOTS systems.</p> <p>PE 0804731F GENERAL SKILL TRAINING - P-40A GENERAL SKILL TRAINING: Funding supports procurement of electronic and telecom equipment supporting the General Skills Training enterprise, and primarily includes video equipment and training management systems equipment (other than TTMS).</p> <p>TECHNICAL TRAINING MANAGEMENT SYSTEM (TTMS): FY17 funding supports the primary requirement objectives currently under development: 1)Integration of Basic Training Management System (BTMS) capabilities and student records into the TTMS.</p> <p>PE 0804751F PROFESSIONAL MILITARY EDUCATION - P-40A</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>Funds procure IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force.</p> <p>PE 0804752F OTHER PROFESSIONAL EDUCATION - P-40A FY17 funding supports AFIT Lab Equipment: Laboratory Equipment procurement funding provides for: Satellite Communication Ground Stations, Cube Sat Flight Hardware, Space Thruster Measurement System, UHF High Frequency Stages, Time Resolved Particle Image Velocimetry System, Digiscan CL3 System for the AFIT clean room, Space Chromotomography Equipment, Space Electronics Laboratory, Laser Steering Mirror System, CTEEx Phantom Camera, Low Temp Flow System for EPR, Microwave Cavity B-field Sensor, Sample Load Lock System, Point Probe with ITO Reference Sample, Micro Thermal Imaging System, Circuit Failure Analysis Digital Microscope System, Pioneer Power-Bot AGV Robot, GPS Receivers, IMU and accessories, Dual-Output Programmable Power Supplies, and Scanning Electron Microscope equipment to support graduate student thesis and dissertations research.</p> <p>PE 0804771F Support of the Training Establishment - P-40A FY17 funds procure IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force.</p> <p>PE 0901279F Facilities Operation - Administrative - P-40A No FY17 funding requested.</p> <p>PE 0901299F AF A1 SYSTEMS - P-40A FY18 Funding supports the MilPDS and AFPOA Operations programs. Effective in FY17, the Regionalization of Civilian Personnel Support, Personnel Service Delivery and Air Force Personnel Center were consolidated for more effective management and oversight into Air Force Personnel Operations Agency (AFPOA) Network Infrastructure.</p> <p>1. MILITARY PERSONNEL DATA SYSTEM: MilPDS funding supports all AF Military Personnel Operations to include technology refresh for hardware supporting a variety of AF personnel applications such as: Automated Records Management Systems and Virtual Military Personnel Flight among others. Funding also supports MilPDS FDCCI compliance efforts.</p> <p>2. AIR FORCE PERSONNEL OPERATIONS ACTIVITY (AFPOA) Operations: AFPOA includes Regionalization of Civilian Personnel Support, Personnel Service Delivery and Air Force Personnel Center. Funding provides for the operation and sustainment of the AFPOA contact center telephony solution. Specifically, funding provides for modular software additions, upgrades, continuing stabilization, and sustainment of the current Genesys telephony solution supporting the Total Force Service Center, Services, A1 Service Desk, and other A1 contact center entities. The individual funding lines for REGIONALIZATION OF CIVILIAN PERSONNEL SUPPORT (RCPS), ERSONNEL SERVICE DELIVERY (PSD),and AIR FORCE PERSONNEL CENTER (AFPC), are now consolidated into the single AFPOA funding line.</p> <p>PE 0901410F CONTRACTING INFORMATION TECHNOLOGY SYSTEM - P-40A FY19 funding is for the purchase of software licenses required for the CON-IT System. Software license counts are estimates and may vary at actual execution based on system needs.</p> <p>PE 0901538F Program Budget Enterprise Service - P-40A FY 19 Funding will be used to purchase end user licenses and production hardware requirements. Software license counts are estimates and may vary at actual execution based on system needs. Utilizing Business Process Re-engineering (BPR), the Air Force has designated PBES as the solution to deliver traceability of financial data in support of the programming and budgeting processes. Through the use of BPR, PBES will address excessive overhead, outdated business practices and other time-consuming support activities. PBES will make the budget formulation process more efficient by incorporating</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834010 / General Information Technology |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207697F, 0208087F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0804771F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F, 1203174F |
| Line Item MDAP/MAIS Code: CAMI | | |
| <p>business best practices, organizing programming and budgeting personnel, as well as utilizing current technology. PBES will also eliminate checks and balances required of older technology, taking advantage of automated reconciliation services. In addition, the solution will allow the use of Authoritative Data Sources (ADS) for data exposure, resulting in more timely and accurate budget submissions to Office of the Secretary of Defense (OSD), Congress, and other internal and external customers.</p> <p>PE 1203173F SPACE AND MISSILE TEST AND EVAL CENTER - P-40A FY2019 funds will be used to purchase hardware and software to support the implementation of the MMSOC C2 product in in support of EGS requirements. As of the FY2019 PB submission, these efforts have been re-categorized from appropriation 3080, Other Procurement Air Force (OPAF) to appropriation 3021, Space Procurement Air Force (SPAF) in FY2019 and beyond. The FY2019 request is described in the SPAF P-1, BP23, GNRLIT, General Information Technology.</p> <p>PE 1203174F SPACE INNOV INTG AND RAPID TECH DEV - P-40A - Distributed Communications Architecture (ACC - OAC 78) - Funds used for replacement/upgrade of existing Local Area Network (LAN) equipment while incorporating new technology into the Distributed Mission Operations Center (DMOC). - Space Analysis Center (AFSPC - OAC 83) - Funds procurement of computing equipment for the AFSPC Virtual Analysis Capability (AVAC) system. As of the FY2019 PB submission, these efforts have been re-categorized from appropriation 3080, Other Procurement Air Force (OPAF) to appropriation 3021, Space Procurement Air Force (SPAF) in FY2019 and beyond. The FY2019 request is described in the SPAF P-1, BP23, GNRLIT, General Information Technology.</p> | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** US Northern Command Communications

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| INTEROPERABLE COMMUNICATION | A | | - | - | - | - | - | 0.581 | - | - | 0.550 | - | - | 0.526 | - | - | 0.000 | - | - | 0.526 |
| DEPLOYABLE COMMUNICATIONS CAPABILITY SYSTEM LIFE CYCLE MANAGEMENT | A | | - | - | - | - | - | 2.876 | - | - | 3.358 | - | - | 3.168 | - | - | 0.000 | - | - | 3.168 |
| EARLY WARNING RADAR (EWR) COMMUNICATIONS EQUIPMENT | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 3.457 | - | - | 3.908 | - | - | 3.694 | - | - | 0.000 | - | - | 3.694 |
| Total | | | - | - | - | - | - | 3.457 | - | - | 3.908 | - | - | 3.694 | - | - | 0.000 | - | - | 3.694 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** ISR Innovations

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| (1). EAGLE VISION DATA ACQUISITION SYSTEM REFRESH/ CAPITAL EQUIPMENT REPLACEMENT PE 0207277F | A | | - | - | - | - | - | 5.700 | - | - | 6.400 | - | - | 6.109 | - | - | 0.000 | - | - | 6.109 |
| (3). EAGLE VISION PROGRAM MANAGEMENT ADMINISTRATION (PMA) | A | | - | - | - | - | - | 0.163 | - | - | 0.199 | - | - | 0.143 | - | - | 0.000 | - | - | 0.143 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 5.863 | - | - | 6.599 | - | - | 6.252 | - | - | 0.000 | - | - | 6.252 |
| Total | | | - | - | - | - | - | 5.863 | - | - | 6.599 | - | - | 6.252 | - | - | 0.000 | - | - | 6.252 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 Due to the lifecycle of commercial satellites, Eagle Vision must update the system to retain the capability of downlinking imagery. As one commercial satellite constellation is decommissioned, Eagle Vision must procure hardware and software of a new satellite to allow for downlinking from the new satellite system. Currently Eagle Vision contains the hardware and software to receive downlinking from SPOT 6/7, TerraSAR-X/TANDEM-X, and Worldview satellites. Eagle Vision Block II will acquire the Pleiades 1A/1B downlinking capability and upgrade the dissemination performance to the Data Integration Segment (DIS) as well as upgrade and minimize the Data Acquisition Segment (DAS).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: C2ISR Tactical Data Link |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| INSTALL KITS (Active) PE 0207488F | | | | | | | | | | | | | | | | | | | | |
| Install Kits (Active) PE 0207488F | A | | - | - | - | 0.082 | 16 | 1.306 | 0.082 | 30 | 2.461 | 0.083 | 14 | 1.162 | - | - | 0.000 | 0.083 | 14 | 1.162 |
| Subtotal: INSTALL KITS (Active) PE 0207488F | | | - | - | - | - | - | 1.306 | - | - | 2.461 | - | - | 1.162 | - | - | 0.000 | - | - | 1.162 |
| Other Government Support | | | | | | | | | | | | | | | | | | | | |
| Other Government Support | A | | - | - | - | 0.274 | 1 | 0.274 | 0.414 | 1 | 0.414 | 0.332 | 1 | 0.332 | - | - | 0.000 | 0.332 | 1 | 0.332 |
| Subtotal: Other Government Support | | | - | - | - | - | - | 0.274 | - | - | 0.414 | - | - | 0.332 | - | - | 0.000 | - | - | 0.332 |
| Total | | | - | - | - | - | - | 1.580 | - | - | 2.875 | - | - | 1.494 | - | - | 0.000 | - | - | 1.494 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Wargaming and Simulation Centers

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| WARRIOR PREPARATION CENTER PE 0207605F | A | | - | - | - | - | - | 1.199 | - | - | 0.799 | - | - | 0.755 | - | - | 0.000 | - | - | 0.755 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.199 | - | - | 0.799 | - | - | 0.755 | - | - | 0.000 | - | - | 0.755 |
| Total | | | - | - | - | - | - | 1.199 | - | - | 0.799 | - | - | 0.755 | - | - | 0.000 | - | - | 0.755 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 FY19 procurement funds serve to refresh general Information Technology systems equipment and upgrade network systems for the command and control, warfighting, and support training systems at the tactical and operational levels of warfare. The equipment allows the WPC to continue leading USAFE toward full integration of live, virtual, and constructive capabilities and connectivity with our coalition partners. This effort is funded in PE 0207605F.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: Distributed Training and Exercises |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| DISTRIBUTED TRAINING AND EXERCISES PE 0207697F | A | | - | - | - | - | - | 0.339 | - | - | 0.337 | - | - | 0.318 | - | - | 0.000 | - | - | 0.318 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.339 | - | - | 0.337 | - | - | 0.318 | - | - | 0.000 | - | - | 0.318 |
| Total | | | - | - | - | - | - | 0.339 | - | - | 0.337 | - | - | 0.318 | - | - | 0.000 | - | - | 0.318 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** AF Offensive Cyberspace Operations

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| CYBER WORKFORCE TRAINING PE 0208087F | A | | - | - | - | 1.554 | 1 | 1.554 | 1.781 | 1 | 1.781 | 1.683 | 1 | 1.683 | - | - | 0.000 | 1.683 | 1 | 1.683 |
| CYBERSPACE NETWORK ATTACK EQUIPMENT 0208087F | A | | - | - | - | - | - | - | 1.750 | 4 | 7.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.554 | - | - | 8.781 | - | - | 1.683 | - | - | 0.000 | - | - | 1.683 |
| Total | | | - | - | - | - | - | 1.554 | - | - | 8.781 | - | - | 1.683 | - | - | 0.000 | - | - | 1.683 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Security and Investigative Activities

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| OSI OPERATIONS PE 0305128F | A | | - | - | - | - | - | 1.800 | - | - | 1.790 | - | - | 1.692 | - | - | 0.000 | - | - | 1.692 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.800 | - | - | 1.790 | - | - | 1.692 | - | - | 0.000 | - | - | 1.692 |
| Total | | | - | - | - | - | - | 1.800 | - | - | 1.790 | - | - | 1.692 | - | - | 0.000 | - | - | 1.692 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | Aggregated Items Title: Space Innovation, Integration and Rapid Technology Development | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Distributed Communications Architecture | | | | | | | | | | | | | | | | | | | | |
| Distributed Communications Architecture | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Distributed Communications Architecture | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Space Analysis Center | | | | | | | | | | | | | | | | | | | | |
| Space Analysis Center PE 0305174F | A | | - | - | - | - | - | 1.481 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Space Analysis Center | | | - | - | - | - | - | 1.481 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 1.481 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Mission Partner Environments

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Mission Partner Enterprise | | | | | | | | | | | | | | | | | | | | |
| Mission Partner Enterprise | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 1.873 | - | - | 0.000 | - | - | 1.873 |
| Subtotal: Mission Partner Enterprise | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 1.873 | - | - | 0.000 | - | - | 1.873 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 1.873 | - | - | 0.000 | - | - | 1.873 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

This program transferred from Defense Information Systems Agency (DISA) to USAF in FY19.

Mission Partner Environment (MPE) enables secure sharing of operational information for collaboration between and among the U.S. and mission partners to include federal, State, local, and tribal agencies, allies, coalition members, host nations, and other nations, United States and international Non-Governmental Organizations, multinational treaty organizations, and private sector organizations. The MPE program enables the United States (US) Department of Defense (DoD) to execute its assigned missions with mission partners across the complete ranges and phases of military operations to assist combined command and control (C2) of coalition forces while meeting the information sharing requirements within existing bi-lateral and multi-lateral agreements. Also, it promotes effective information exchange and provides applications to enable effective use of the United States and Partner nation military power. MPE provides the warfighter mission with technology to improve mission effectiveness and cyber security.

In response to program decision memorandum, funding for Mission Partner Environment transferred the capabilities the Combined Enterprise Regional Information Exchange System (CENTRIXS), Pegasus, the Multinational Information Sharing (MNIS) program, the All Partners Access Network (APAN), and the Combined Federal Battle Labs Network (CBFLNet) to the Mission Partner Environment Program. MPE enables secure sharing of operational information and enhances collaboration between the US forces, and trusted allies and other multinational partners. This effort also increases overall combat effectiveness by leveraging capabilities and information from all partners. FY2019 funding procures hardware and software to support the consolidation of a common mission network capability that supports operations with the Mission Partners environment.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | Aggregated Items Title: Communications and Information Technology | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Communications and Information Technology | | | | | | | | | | | | | | | | | | | | |
| Communications and Information Technology PE 0308611F | A | | - | - | - | - | - | 5.102 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Communications and Information Technology | | | - | - | - | - | - | 5.102 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 5.102 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: Tactical Data Networks Enterprise |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| c. TACTICAL DATA NETWORKS ENTERPRISE (PE 0604281F) | A | | - | - | - | - | - | 1.842 | - | - | 0.312 | - | - | 0.176 | - | - | 0.000 | - | - | 0.176 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.842 | - | - | 0.312 | - | - | 0.176 | - | - | 0.000 | - | - | 0.176 |
| Total | | | - | - | - | - | - | 1.842 | - | - | 0.312 | - | - | 0.176 | - | - | 0.000 | - | - | 0.176 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Logistics Support Activities

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| GUNTER AIR FORCE BASE NETWORK SERVICES PE 0708012F | A | | - | - | - | - | - | 1.177 | - | - | 1.426 | - | - | 1.436 | - | - | 0.000 | - | - | 1.436 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.177 | - | - | 1.426 | - | - | 1.436 | - | - | 0.000 | - | - | 1.436 |
| Total | | | - | - | - | - | - | 1.177 | - | - | 1.426 | - | - | 1.436 | - | - | 0.000 | - | - | 1.436 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: Joint Logistics Program - Total Asset Visibility |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Active Radio Frequency Identification PE 0708074F | A | | - | - | - | - | - | 1.043 | - | - | 0.539 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Passive Radio Frequency Identification | A | | - | - | - | - | - | 1.367 | - | - | 1.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Item Unique Identification | A | | - | - | - | - | - | 1.042 | - | - | 1.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Real Time Locating Systems | A | | - | - | - | - | - | 2.152 | - | - | 1.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 5.604 | - | - | 3.539 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 5.604 | - | - | 3.539 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: Recruit Training Units |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| BMT Surveillance System PE 0804711F | A | | - | - | - | - | - | 1.624 | - | - | 0.847 | - | - | 0.799 | - | - | 0.000 | - | - | 0.799 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.624 | - | - | 0.847 | - | - | 0.799 | - | - | 0.000 | - | - | 0.799 |
| Total | | | - | - | - | - | - | 1.624 | - | - | 0.847 | - | - | 0.799 | - | - | 0.000 | - | - | 0.799 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Service Academies

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| SERVICE ACADEMIES - USAFA PE 0804721F | A | | - | - | - | - | - | 0.169 | - | - | 1.812 | - | - | 0.100 | - | - | 0.000 | - | - | 0.100 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.169 | - | - | 1.812 | - | - | 0.100 | - | - | 0.000 | - | - | 0.100 |
| Total | | | - | - | - | - | - | 0.169 | - | - | 1.812 | - | - | 0.100 | - | - | 0.000 | - | - | 0.100 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
The FY18 funding increase is due to the modernization effort to transition CAMIS from a custom-coded system to a primarily Commercial Off the Shelf (COTS)-based system, including the integration of the COTS products and interfaces with GOTS systems.

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Modification Number / Title: 1 / Cadet Administration Management Information System |

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 3.300 | 9.103 | 2.359 | 0.000 | 2.359 | 0.000 | 0.000 | 0.000 | - | - | 14.762 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 3.300 | 9.103 | 2.359 | 0.000 | 2.359 | 0.000 | 0.000 | 0.000 | - | - | 14.762 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 3.300 | 9.103 | 2.359 | 0.000 | 2.359 | 0.000 | 0.000 | 0.000 | - | - | 14.762 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

CADET ADMINISTRATION MANAGEMENT INFORMATION SYSTEM (CAMIS): CAMIS is a cradle-to-grave system supporting all facets of student management including recruitment and outreach, admissions, registrar, preparatory, academic, athletic, military training assessments from the candidate's initial application to graduation & commissioning and continuing through the military career of each cadet. CAMIS from a custom-coded system to a primarily Commercial Off the Shelf (COTS)-based system, including the integration of the COTS products and interfaces with GOTS systems.

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | | Date: February 2018 | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|---|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | Modification Number / Title: 1 / Cadet Administration Management Information System | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: CAMIS | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0804721F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| Modification Item 1 of 2: Cadet Lifecycle Systems | | | | | | | | | | | | | |
| A Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| Cadet Lifecycle Systems:INSTALL KITS Group A (Active) | - / - | - / - | 1 / 7.105 | 1 / 1.879 | - / - | 1 / 1.879 | - / - | - / - | - / - | - / - | - / - | 2 / 8.984 | |
| Subtotal: Recurring | - / - | - / - | - / 7.105 | - / 1.879 | - / - | - / 1.879 | - / - | - / - | - / - | - / - | - / - | - / 8.984 | |
| Subtotal: Cadet Lifecycle Systems | - / - | - / - | - / 7.105 | - / 1.879 | - / - | - / 1.879 | - / - | - / - | - / - | - / - | - / - | - / 8.984 | |
| Modification Item 2 of 2: Student Information System | | | | | | | | | | | | | |
| A Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| Student Information System:INSTALL KITS Group A (Active) | - / - | 1 / 2.500 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 2.500 | |
| Subtotal: Recurring | - / - | - / 2.500 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 2.500 | |
| Subtotal: Student Information System | - / - | - / 2.500 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 2.500 | |
| Subtotal: Procurement, All Modification Items | - / - | - / 2.500 | - / 7.105 | - / 1.879 | - / - | - / 1.879 | - / - | - / - | - / - | - / - | - / - | - / 11.484 | |
| Installation | | | | | | | | | | | | | |
| Modification Item 1 of 2: Cadet Lifecycle Systems | - / - | - / - | 1 / 1.998 | 1 / 0.480 | - / - | 1 / 0.480 | - / - | - / - | - / - | - / - | - / - | 2 / 2.478 | |
| Modification Item 2 of 2: Student Information System | - / - | 1 / 0.800 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 0.800 | |
| Subtotal: Installation | - / - | 1 / 0.800 | 1 / 1.998 | 1 / 0.480 | - / - | 1 / 0.480 | - / - | - / - | - / - | - / - | - / - | 3 / 3.278 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 0.000 | 3.300 | 9.103 | 2.359 | 0.000 | 2.359 | 0.000 | 0.000 | 0.000 | - | - | 14.762 | |

UNCLASSIFIED

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|---|---|---|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Modification Number / Title: 1 / Cadet Administration Management Information System |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 2: Cadet Lifecycle Systems

Manufacturer Information

| | |
|--|------------------------------------|
| Manufacturer Name: TBD | Manufacturer Location: TBD |
| Administrative Leadtime (in Months): 4 | Production Leadtime (in Months): 6 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Mar 2017 | Mar 2018 | Mar 2019 | | | | |
| Delivery Dates | Sep 2017 | Sep 2018 | Sep 2019 | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | 1 / 1.998 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.998 |
| FY 2019 | - / - | - / - | - / - | 1 / 0.480 | - / - | 1 / 0.480 | - / - | - / - | - / - | - / - | - / - | 1 / 0.480 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | 1 / 1.998 | 1 / 0.480 | - / - | 1 / 0.480 | - / - | - / - | - / - | - / - | - / - | 2 / 2.478 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 2 |
| Out | 0 | - | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 2 |

UNCLASSIFIED

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|---|---|---|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Modification Number / Title: 1 / Cadet Administration Management Information System |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 2 of 2: Student Information System

Manufacturer Information

| | |
|--|------------------------------------|
| Manufacturer Name: TBD | Manufacturer Location: TBD |
| Administrative Leadtime (in Months): 4 | Production Leadtime (in Months): 3 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|---------|---------|---------|---------|---------|---------|
| Contract Dates | Mar 2017 | | | | | | |
| Delivery Dates | Jun 2017 | | | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | 1 / 0.800 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 0.800 |
| FY 2018 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2019 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | 1 / 0.800 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 0.800 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1 |
| Out | 0 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1 |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: General Skill Training |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| GEN SKILL TRAINING PE 0804731F | A | | - | - | - | - | - | 9.267 | - | - | 0.366 | - | - | 0.330 | - | - | 0.000 | - | - | 0.330 |
| TECH TNG MANAGEMENT SYSTEM | A | | - | - | - | - | - | 0.328 | - | - | 0.326 | - | - | 0.330 | - | - | 0.000 | - | - | 0.330 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 9.595 | - | - | 0.692 | - | - | 0.660 | - | - | 0.000 | - | - | 0.660 |
| Total | | | - | - | - | - | - | 9.595 | - | - | 0.692 | - | - | 0.660 | - | - | 0.000 | - | - | 0.660 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
FYDP baseline data for OAC 64 ONLY.

FY18 OCO will not be developed until later in FY17, since it is a budget year only activity.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Professional Military Education

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Professional Military Education | | | | | | | | | | | | | | | | | | | | |
| Professional Military Education PE 0804751F | A | | - | - | - | - | - | 0.000 | - | - | 1.017 | - | - | 0.964 | - | - | 0.000 | - | - | 0.964 |
| Subtotal: Professional Military Education | | | - | - | - | - | - | 0.000 | - | - | 1.017 | - | - | 0.964 | - | - | 0.000 | - | - | 0.964 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 1.017 | - | - | 0.964 | - | - | 0.000 | - | - | 0.964 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Other Professional Education

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Other Professional Education | | | | | | | | | | | | | | | | | | | | |
| OTHER PROFESSIONAL EDUCATION PE 0804752F | A | | - | - | - | - | - | 0.494 | - | - | 0.492 | - | - | 0.467 | - | - | 0.000 | - | - | 0.467 |
| Subtotal: Other Professional Education | | | - | - | - | - | - | 0.494 | - | - | 0.492 | - | - | 0.467 | - | - | 0.000 | - | - | 0.467 |
| Total | | | - | - | - | - | - | 0.494 | - | - | 0.492 | - | - | 0.467 | - | - | 0.000 | - | - | 0.467 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Support of the Training Establishment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| TRAINING SUPPORT PE 0804771F | A | | - | - | - | - | - | 1.016 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.016 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 1.016 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834010 / General Information Technology | Aggregated Items Title: Facilities Operation - Administrative |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| NexGen IT PE 0901279F | A | | - | - | - | - | - | 0.000 | - | - | 0.760 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.000 | - | - | 0.760 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.760 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** AF A1 Systems

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| PERSONNEL SERVICE DELIVERY PE 0901299F | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| MILITARY PERSONNEL DATA SYSTEM (MLPDS) | A | | - | - | - | - | - | 0.536 | - | - | 0.504 | - | - | 0.440 | - | - | 0.000 | - | - | 0.440 |
| REGIONALIZATION OF CIV PERS SUPPORT | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| AIR FORCE PERSONNEL CENTER | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Air Force Personnel Operations Agency (AFPOA) Network Infrastructure | A | | - | - | - | - | - | 1.065 | - | - | 2.608 | - | - | 2.597 | - | - | 0.000 | - | - | 2.597 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.601 | - | - | 3.112 | - | - | 3.037 | - | - | 0.000 | - | - | 3.037 |
| Total | | | - | - | - | - | - | 1.601 | - | - | 3.112 | - | - | 3.037 | - | - | 0.000 | - | - | 3.037 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

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|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | | | | Aggregated Items Title: Contracting Information Technology System | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| CON-IT | | | | | | | | | | | | | | | | | | | | |
| Software Licenses | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | 5.443 | 1 | 5.443 | - | - | 0.000 | 5.443 | 1 | 5.443 |
| Subtotal: CON-IT | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.443 | - | - | 0.000 | - | - | 5.443 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.443 | - | - | 0.000 | - | - | 5.443 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | | | | Aggregated Items Title: Financial Management Information Systems Development | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Program Budget Enterprise System | | | | | | | | | | | | | | | | | | | | |
| Software Licenses | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | 7.248 | 1 | 7.248 | - | - | 0.000 | 7.248 | 1 | 7.248 |
| Subtotal: Program Budget Enterprise System | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 7.248 | - | - | 0.000 | - | - | 7.248 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 7.248 | - | - | 0.000 | - | - | 7.248 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | | Aggregated Items Title: Space and Missile Test and Evaluation Center | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Space and Missile Test and Evaluation Center | | | | | | | | | | | | | | | | | | | | |
| RESEARCH AND DEVELOPMENT SPACE AND MISSILE OPERATIONS (RDSMO) (PE 1203173F) | A | | - | - | - | - | - | 1.977 | - | - | 1.964 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Space and Missile Test and Evaluation Center | | | - | - | - | - | - | 1.977 | - | - | 1.964 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 1.977 | - | - | 1.964 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Due to the creation of a new Major Force Program for Space, funding in this exhibit for this effort from "Prior Years" to FY 2017 was originally budgeted in the PE 0305173F. Funding in this exhibit for this effort for FY 2018 is budgeted in PE 1203173F. As of the FY2019 PB submission, these efforts have been re-categorized from appropriation 3080, Other Procurement Air Force (OPAF) to appropriation 3021, Space Procurement Air Force (SPAF) in FY2019 and beyond. The FY2019 request is described in the SPAF P-1, BP23, GNRLIT, General Information Technology.

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|---|--|--|--|--|--|---|--|--|--|--|--|--|--|----------------------------|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834010 / General Information Technology | | | | | | Aggregated Items Title: Space Innovation, Integration and Rapid Technology Development | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Space Innovation, Integration and Rapid Technology | | | | | | | | | | | | | | | | | | | | |
| Distributed Communications Architecture (ACC - OAC 78) | A | | - | - | - | - | - | 0.000 | - | - | 0.950 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Space Analysis Center (AFSPC - OAC 83) | A | | - | - | - | - | - | 0.000 | - | - | 0.711 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Space Innovation, Integration and Rapid Technology | | | - | - | - | - | - | 0.000 | - | - | 1.661 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 1.661 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Due to the creation of a new Major Force Program for Space, funding in this exhibit for this effort from "Prior Years" to FY 2017 was originally budgeted in the PE 0305174F. Funding in this exhibit for this effort from FY 2018 to "Cost to Completion" is budgeted in PE 1203174F. As of the FY2019 PB submission, these efforts have been re-categorized from appropriation 3080, Other Procurement Air Force (OPAF) to appropriation 3021, Space Procurement Air Force (SPAF) in FY2019 and beyond. The FY2019 request is described in the SPAF P-1, BP23, GNRLIT, General Information Technology.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834040 / Af Global Command & Control Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303150F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 14.729 | 3.634 | 6.619 | 0.000 | 6.619 | 4.611 | 4.813 | 4.884 | 4.972 | - | 44.262 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 14.729 | 3.634 | 6.619 | 0.000 | 6.619 | 4.611 | 4.813 | 4.884 | 4.972 | - | 44.262 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 14.729 | 3.634 | 6.619 | 0.000 | 6.619 | 4.611 | 4.813 | 4.884 | 4.972 | - | 44.262 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

GLOBAL COMMAND AND CONTROL SYSTEM AIR FORCE (GCCS-AF): The GCCS-AF program provides the common AF infrastructure hardware and software necessary to pass AF command and control (C2) data among commands, their components, and the joint GCCS. This program procures GCCS components which include items such as servers, work stations, commercial-off-the-shelf (COTS) software, and associated peripherals to provide users with the full suite of joint baseline capability (including the common operating picture) and AF specific applications such as the Deliberate Crisis Action Planning and Execution Segments (DCAPES) and Logistics Feasibility Analysis Capability (LOGFAC) that feed into the Joint Operations Planning and Execution System (JOPEs). GCCS-AF is integrated at the following locations to establish initial and full joint connectivity and operational capability across the spectrum of intelligence, operations, manpower, and logistics: AF-supported war-fighting commands, AF critical sites, Headquarters United States Air Force, Major Command headquarters (MAJCOM), numbered air forces, wings, Air National Guard (ANG) bases, Air Force Reserve (AFR) bases, and remote sites. Each site will comply with current Air Force and Department of Defense (DoD) network initiatives by employing a standardized interface among AF base-level classified C2 networks, AF base-level network control centers, and the joint Defense Information Systems Agency (DISA) Secret Internet Protocol Router Network (SIPRNET). This program provides a flexible open system and distributed C2 architecture necessary to support the joint GCCS. GCCS supports AF operations by installing and upgrading a site's classified C2 system through extensive use of COTS technology that adheres to AF command and control, communications, and computer architectures and standards.

Funding for the exhibit contained in PE 0303150F: GLOBAL COMMAND AND CONTROL SYSTEM

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834040 / Af Global Command & Control Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303150F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Global Command and Control System | | | | - / - | - / 14.729 | - / 3.634 | - / 6.619 | - / 0.000 | - / 6.619 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 14.729 | - / 3.634 | - / 6.619 | - / 0.000 | - / 6.619 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 GLOBAL COMMAND AND CONTROL SYSTEM AIR FORCE (GCCS-AF): FY19 procurement funding procures various types and quantities of hardware and software in support of installation and unit mission requirements for Air Force personnel. GCCS-AF will procure and install GCCS-Joint (GCCS-J) version 6.0 hardware and software (government-off- the-shelf and commercial-off-the-shelf) at warfighter Combatant Command (CCMD) and MAJCOM locations, providing a full spectrum of command, control, logistics, and intelligence capability from strategic to unit level operations with total joint service connectivity. The GCCS architecture supports functional users on each base and specifically incorporates manpower and logistics functions into GCCS. These fielding activities are consistent with the AF's Air Expeditionary Force (AEF) C2 structure and integration with DoD's emerging next generation joint C2 enabler. GCCS-AF will procure infrastructure hardware and software necessary to failback capabilities for Deliberate and Crisis Action Planning and Execution Segments (DCAPES) and Logistics Feasibility Analysis Capability (LOGFAC) Systems.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834040 / Af Global Command & Control Sys **Aggregated Items Title:** Global Command and Control System

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| GCCS-AF IMPLEMENTATION | A | | - | - | - | - | - | 10.871 | - | - | 0.000 | - | - | 3.830 | - | - | 0.000 | - | - | 3.830 |
| PMA Contractor Services | A | | - | - | - | - | - | 1.760 | - | - | 3.634 | - | - | 2.789 | - | - | 0.000 | - | - | 2.789 |
| GCCS-AF IMPLEMENTATION (INTEGRATION AND INSTALLATION) | A | | - | - | - | - | - | 2.098 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 14.729 | - | - | 3.634 | - | - | 6.619 | - | - | 0.000 | - | - | 6.619 |
| Total | | | - | - | - | - | - | 14.729 | - | - | 3.634 | - | - | 6.619 | - | - | 0.000 | - | - | 6.619 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834070 / Mobility Command And Control

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 9.814 | 10.083 | 10.192 | 0.000 | 10.192 | 21.186 | 10.557 | 10.745 | 10.937 | - | 83.514 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 9.814 | 10.083 | 10.192 | 0.000 | 10.192 | 21.186 | 10.557 | 10.745 | 10.937 | - | 83.514 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 9.814 | 10.083 | 10.192 | 0.000 | 10.192 | 21.186 | 10.557 | 10.745 | 10.937 | - | 83.514 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

AMC Command and Control System PE 0401840F - P-40A
 PE 0401840F MOBILITY COMMAND AND CONTROL:

GLOBAL MOBILITY COMMAND AND CONTROL (C2) ARCHITECTURE AIR MOBILITY COMMAND (AMC): The AMC C2 architecture is an integrated, command-wide program that supports US Air Force airlift/air refueling missions around the globe with centralized control/decentralized execution. To execute America's Global Reach mission, Air Mobility Command's 618th Air Operations Center (AOC) plans, schedules, and directs a fleet of more than 1,100 mobility aircraft. The 618th AOC operates combat delivery, strategic airlift, air refueling, and aeromedical evacuation operations around the world. Funding for this exhibit is contained in program element (PE) 0401840F.

a. MOBILITY AIR FORCE (MAF) COMMAND AND CONTROL (C2) INFRASTRUCTURE: Provides base wired/wireless infrastructure equipment supporting AMC's 618th AOC and AMC's 12 bases to assure connectivity to AMC's command and control (C2) systems and to ensure they remain operational at AMC bases and operating locations. MAF C2 Infrastructure ensures connectivity with critical Air Force systems such as the Information Transport System (ITS), Global Combat Support System (GCSS) and the Global Decision Support System (GDSS); AMC's C2 systems such as the Consolidated Air Mobility Planning System (CAMPS) and Advanced Computer Flight Planning (ACFP) system and the infrastructure for Land Mobile Radio (LMR) systems across AMC providing intra-base command and control for base security, emergency management, flightline operations/maintenance, and crash response.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834070 / Mobility Command And Control

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | AMC Command and Control System | | | | - / - | - / 9.814 | - / 10.083 | - / 10.192 | - / 0.000 | - / 10.192 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 9.814 | - / 10.083 | - / 10.192 | - / 0.000 | - / 10.192 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

AMC Command and Control System PE 0401840F - P-40A
 PE 0401840F MOBILITY COMMAND AND CONTROL

MOBILITY AIR FORCE (MAF) COMMAND AND CONTROL (C2) INFRASTRUCTURE: FY19 funding continues procurement of wired and wireless base network infrastructure equipment to include cabling, routers, bridges, hubs, repeaters and switches to ensure information technology remains current and interoperability with AMC C2 systems is maintained to meet the needs of the warfighter and AMC's worldwide mobility mission.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834070 / Mobility Command And Control **Aggregated Items Title:** AMC Command and Control System

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| WING LOCAL AREA NETWORK (LAN) - Network Infrastructure | A | | - | - | - | 9.814 | 1 | 9.814 | 10.083 | 1 | 10.083 | 10.192 | 1 | 10.192 | - | - | 0.000 | 10.192 | 1 | 10.192 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 9.814 | - | - | 10.083 | - | - | 10.192 | - | - | 0.000 | - | - | 10.192 |
| Total | | | - | - | - | - | - | 9.814 | - | - | 10.083 | - | - | 10.192 | - | - | 0.000 | - | - | 10.192 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System |
|---|---|

| | | |
|--|--|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207589F | Other Related Program Elements: 0207589F, 0603287F, 0604287F |
|--|--|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|----------------|----------------|----------------|----------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 197.093 | 310.212 | 204.866 | 159.313 | 46.236 | 205.549 | 102.961 | 87.134 | 82.610 | 89.329 | - | 1,279.754 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 197.093 | 310.212 | 204.866 | 159.313 | 46.236 | 205.549 | 102.961 | 87.134 | 82.610 | 89.329 | - | 1,279.754 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 197.093 | 310.212 | 204.866 | 159.313 | 46.236 | 205.549 | 102.961 | 87.134 | 82.610 | 89.329 | - | 1,279.754 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0101122F Air-Launched Cruise Missile (ALCM) - P-40A
 PE 0101122F - AIR LAUNCHED CRUISE MISSILE (ALCM) SECURITY SYSTEMS includes commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.

PE 0101213F Minuteman Squadrons - P-40A
 PE 0101213F MINUTEMAN SQUADRONS/Minuteman Security Equipment includes commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.

Air Base Ground Defense (ABGD) will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for] wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, ABGD will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.

PE 0207589F Base Physical Security Systems (BPSS)
 BPSS programs include the Integrated Base Defense Security System programs (IBDSS and various acquisition blocks), and Counter-Small UAS capabilities. These activities do the following: reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. DoD downsizing, reductions in forward basing, and aircraft technology advances evolved AF weapons systems into increasingly valuable national power projection capabilities. However, the security afforded most AF aircraft, weapon systems, other critical resources, and associated personnel and facilities in terms of equipment or manpower has not kept pace with the changing world environment, state-of-the-art technology and potential threats. The emergence of Remotely Piloted Aircraft (RPA) has led to additional command, control and communications nodes that require commensurate protection level security efforts to enable effective Air Force power projection. Force Protection BPSS projects support long-term physical security requirements which allow installation commanders and security forces to adapt to, and counter, enduring and emergent threats to high priority assets in accordance with home station and the Aerospace Expeditionary Force concept. BPSS will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar,

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207589F | Other Related Program Elements: 0207589F, 0603287F, 0604287F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>inter operable tactical communications, [required C3 and protective standoff equipment for]wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, BPSS will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.</p> <p>PE 0208047F Antiterrorism - P-40A PE 0208047F: ANTI-TERRORISM Tactical and Expeditionary Security Systems: FY18 funds antiterrorism activities for the Air Force. Primarily, this line funds the Air Force's only perimeter installation access control system, the Defense Biometrics Identification System (DBIDS). This line also funds mitigation efforts for Air Force vulnerabilities identified in Air Force and Joint higher headquarters inspections and vulnerability assessments, procurement of intrusion detection systems which greatly enhance the effectiveness of AF antiterrorism program efforts to detect, deter, and defend service members, civilian employees, family members, facilities, and other AF resources around the globe against terrorist attacks.</p> <p>PE 0208534F Command Support - Tactical Air Forces - P-40A Funding is required for Command Support for Tactical Air Forces.</p> <p>PE 0502625F IBDSS-ANG - P-40A PE 0502625F IBDSS-ANG is required for Battlefield Airman and includes Security Forces, Guardian Angels, Special Tactics, and Terminal Air Controllers. The items required include communication equipment, situational awareness equipment, personal protective equipment, night vision devices, weapons and weapons accessories, training devices, and explosive detection equipment. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. Funding also supports BPSS programs. These activities do the following: reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. IBDSS-ANG was previously titled Air Base Security Forces (ANG).</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207589F **Other Related Program Elements:** 0207589F, 0603287F, 0604287F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Air-Launched Cruise Missile (ALCM) | | | | - / - | - / 1.710 | - / 1.757 | - / 1.775 | - / 0.000 | - / 1.775 |
| P-40a | Minuteman Squadrons | | | | - / - | - / 0.730 | - / 0.751 | - / 0.758 | - / 0.000 | - / 0.758 |
| P-40a | Air Base Ground Defense | | | | - / - | - / 27.147 | - / 4.774 | - / 4.826 | - / 46.236 | - / 51.062 |
| P-40a | Base Physical Security Systems | | | | - / 185.190 | - / 115.729 | - / 1.767 | - / 1.606 | - / 0.000 | - / 1.606 |
| P-3a | 1 / C-sUAS STRATCOM JEON (Capability Improvement) | | | B | - / 11.903 | - / 70.500 | - / 116.000 | - / 12.100 | - / 0.000 | - / 12.100 |
| P-3a | 2 / C-sUAS (Capability Improvement) | | | A | - / - | - / 0.000 | - / 20.000 | - / 60.000 | - / 0.000 | - / 60.000 |
| P-3a | 3 / IBDSS-1 (Capability Improvement) | | | A | - / - | - / 57.405 | - / 48.670 | - / 78.248 | - / 0.000 | - / 78.248 |
| P-40a | Antiterrorism | | | | - / - | - / 7.891 | - / 8.147 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Command Support - Tactical Air Forces | | | | - / - | - / 0.000 | - / 3.000 | - / 0.000 | - / - | - / 0.000 |
| P-40a | Air Base Security Forces (ANG) | | | | - / - | - / 29.100 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 197.093 | - / 310.212 | - / 204.866 | - / 159.313 | - / 46.236 | - / 205.549 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Air-Launched Cruise Missile (ALCM) | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Minuteman Squadrons | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Air Base Ground Defense | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Base Physical Security Systems | | | | - / 71.292 | - / 49.877 | - / 50.760 | - / 51.662 | - / 0.000 | - / 527.883 |
| P-3a | 1 / C-sUAS STRATCOM JEON (Capability Improvement) | | | B | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / - | - / 210.503 |
| P-3a | 2 / C-sUAS (Capability Improvement) | | | A | - / 20.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 100.000 |
| P-3a | 3 / IBDSS-1 (Capability Improvement) | | | A | - / 4.392 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 188.715 |
| P-40a | Antiterrorism | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Command Support - Tactical Air Forces | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Air Base Security Forces (ANG) | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 102.961 | - / 87.134 | - / 82.610 | - / 89.329 | - / - | - / 1,279.754 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

PE 0101122F Air-Launched Cruise Missile (ALCM) - P-40A
 PE 0101122F - AIR LAUNCHED CRUISE MISSILE (ALCM) SECURITY SYSTEMS: FY18 funding procures commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207589F | Other Related Program Elements: 0207589F, 0603287F, 0604287F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>PE 0101213F Minuteman Squadrons - P-40A PE 0101213F MINUTEMAN SQUADRONS/Minuteman Security Equipment: FY17 funding procures commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.</p> <p>PE 0207588F Air Base Ground Defense - P-40A Air Base Ground Defense, (ABGD): FY19 funds Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for] wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, ABGD will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.</p> <p>PE 0207589F Base Physical Security Systems (BPSS) FY19 funding procures BPSS programs to include the Integrated Base Defense Security System programs (IBDSS and various acquisition blocks), and Counter-Small UAS capabilities. These activities do the following: reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. DoD downsizing, reductions in forward basing, and aircraft technology advances evolved AF weapons systems into increasingly valuable national power projection capabilities. However, the security afforded most AF aircraft, weapon systems, other critical resources, and associated personnel and facilities in terms of equipment or manpower has not kept pace with the changing world environment, state-of-the-art technology and potential threats. The emergence of Remotely Piloted Aircraft (RPA) has led to additional command, control and communications nodes that require commensurate protection level security efforts to enable effective Air Force power projection. Force Protection BPSS projects support long-term physical security requirements which allow installation commanders and security forces to adapt to, and counter, enduring and emergent threats to high priority assets in accordance with home station and the Aerospace Expeditionary Force concept. BPSS will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for]wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, BPSS will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.</p> <p>PE 0208047F Antiterrorism - P-40A PE 0208047F: ANTI-TERRORISM Tactical and Expeditionary Security Systems: FY18 funds antiterrorism activities for the Air Force (AF). Primarily, this line funds the AF's only perimeter installation access control system, the Defense Biometrics Identification System (DBIDS). It also funds mitigation efforts for AF vulnerabilities identified in AF and Joint higher headquarters inspections and Vulnerability Assessments (VAs), procurement of intrusion detection systems which greatly enhance the effectiveness of AF antiterrorism program efforts to detect, deter, and defend service members, civilian employees, family members, facilities, and other AF resources around the globe against terrorist attacks.</p> <p>PE 0208534F Command Support - Tactical Air Forces - P-40A FY18 funding is required to procure items for Command Support for Tactical Air Forces. Requesting \$3m in Overseas Contingency Operations (OCO) funds.</p> <p>PE 0502625F IBDSS-ANG PE 0502625F IBDSS-ANG is required for Battlefield Airman and includes Security Forces, Guardian Angels, Special Tactics, and Terminal Air Controllers. The items required include communication equipment, situational awareness equipment, personal protective equipment, night vision devices, weapons and weapons accessories, training devices, and explosive detection equipment. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. Funding also supports BPSS programs. These activities do the following: reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. IBDSS-ANG was previously titled Air Base Security Forces (ANG). No FY18 funding requested.</p> | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Aggregated Items Title: Air-Launched Cruise Missile (ALCM) |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| AIR LAUNCHED CRUISE MISSILE (ALCM) SECURITY SYSTEMS | A | | - | - | - | - | - | 1.710 | - | - | 1.757 | - | - | 1.775 | - | - | 0.000 | - | - | 1.775 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.710 | - | - | 1.757 | - | - | 1.775 | - | - | 0.000 | - | - | 1.775 |
| Total | | | - | - | - | - | - | 1.710 | - | - | 1.757 | - | - | 1.775 | - | - | 0.000 | - | - | 1.775 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Aggregated Items Title: Minuteman Squadrons |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Minuteman Security Equipment | A | | - | - | - | - | - | 0.730 | - | - | 0.751 | - | - | 0.758 | - | - | 0.000 | - | - | 0.758 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.730 | - | - | 0.751 | - | - | 0.758 | - | - | 0.000 | - | - | 0.758 |
| Total | | | - | - | - | - | - | 0.730 | - | - | 0.751 | - | - | 0.758 | - | - | 0.000 | - | - | 0.758 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Items Title:** Air Base Ground Defense

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Physical Security Systems | | | | | | | | | | | | | | | | | | | | |
| Air Force Tactical Security Equipment | A | | - | - | - | - | - | 4.647 | - | - | 4.774 | - | - | 4.826 | - | - | - | - | - | 4.826 |
| Base Security Zone | A | | - | - | - | - | - | 15.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| Al Dhafra | A | | - | - | - | - | - | 7.500 | - | - | - | - | - | - | - | - | - | - | - | - |
| Requires Clarification from HAF/A4S | A | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 46.236 | - | - | 46.236 |
| Subtotal: Physical Security Systems | | | - | - | - | - | - | 27.147 | - | - | 4.774 | - | - | 4.826 | - | - | 46.236 | - | - | 51.062 |
| Total | | | - | - | - | - | - | 27.147 | - | - | 4.774 | - | - | 4.826 | - | - | 46.236 | - | - | 51.062 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 FY19 PB ABIDES load of FY19 \$46.236M OCO requires further clarification from HAF/A4S.
 FY17 \$15M Request for Additional Appropriations (RAA) Enhanced AB Detection Systems, consisting of advanced TASS, Base Security Zone, indirect fire detection, and base warning systems.
 FY17 \$7.5M OCO originally supporting Al Dhafra BTR'd to BPAC 834130/PE 0207589F supporting CENTCOM JUON CC-0558

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|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | | | | | | | | | | Aggregated Modification Items Title: Base Physical Security Systems | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFPSS4 / Base Physical Security Systems | | | - | - | 69.989 | - | - | 26.987 | - | - | 1.767 | - | - | 1.606 | - | - | - | - | - | 1.606 |
| CENTCOM / C-sUAS CENTCOM JUON | | | - | - | 115.201 | - | - | 12.742 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| EUJUON / C-sUAS EUCOM JUON | | | - | - | - | - | - | 76.000 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| IBDSS-2 / IBDSS-2 | | | - | - | - | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| IBDSS-3 / IBDSS-3 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | | | - | - | 185.190 | - | - | 115.729 | - | - | 1.767 | - | - | 1.606 | - | - | 0.000 | - | - | 1.606 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFPSS4 / Base Physical Security Systems | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.349 |
| CENTCOM / C-sUAS CENTCOM JUON | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 127.943 |
| EUJUON / C-sUAS EUCOM JUON | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 76.000 |
| IBDSS-2 / IBDSS-2 | | | - | - | 71.292 | - | - | 49.877 | - | - | 50.760 | - | - | 4.966 | - | - | - | - | - | 176.895 |
| IBDSS-3 / IBDSS-3 | | | - | - | - | - | - | - | - | - | - | - | 46.696 | - | - | - | - | - | - | 46.696 |
| Total | | | - | - | 71.292 | - | - | 49.877 | - | - | 50.760 | - | - | 51.662 | - | - | 0.000 | - | - | 527.883 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|------------------------|
| AFPSS4 / Base Physical Security Systems | Bases | Capability Improvement |
| CENTCOM / C-sUAS CENTCOM JUON | Bases | Capability Improvement |
| EUJUON / C-sUAS EUCOM JUON | Bases | Capability Improvement |
| IBDSS-2 / IBDSS-2 | Bases | Capability Improvement |
| IBDSS-3 / IBDSS-3 | Bases | Capability Improvement |

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 1 / C-sUAS STRATCOM JEON |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|--------------|---------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 11.903 | 70.500 | 116.000 | 12.100 | 0.000 | 12.100 | 0.000 | 0.000 | 0.000 | - | - | 210.503 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 11.903 | 70.500 | 116.000 | 12.100 | 0.000 | 12.100 | 0.000 | 0.000 | 0.000 | - | - | 210.503 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 11.903 | 70.500 | 116.000 | 12.100 | 0.000 | 12.100 | 0.000 | 0.000 | 0.000 | - | - | 210.503 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Counter Small Unmanned Aerial Systems (CsUAS) Joint Emergent Operational Need (JEON) is a rapid acquisition and deployment capability existing of full kill (detect, track, assess and defeat with various capabilities (fixed, mobile, portable and hand-held) supporting STRATCOM. It is a layered system-of-systems using COTS technologies, integrated via GOTS C2 system.

FY17 funding is OCO funding.

Counter Small Unmanned Aerial Systems (CsUAS): FY18-19 Funding is provided for procurement, integration and installation of Mobile and Fixed Site as well as ICS.

P-3A previously titled "Counter small - UAS"

Milestone/Development Status

Counter Small Unmanned Aerial Systems (CsUAS) JEON: Commercial off the Shelf (COTS) market research, evaluation, testing and integration. The testing applies to all available technologies (detect, track, assessment, defeat and C2 integration) which are considered effective for CsUAS use.

UNCLASSIFIED

| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|---|--------------------------------|--------------------------------|--|--------------------------------|---|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | | | | | Modification Number / Title: 1 / C-sUAS STRATCOM JEON | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: Bases | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0604287F, 0207589F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| RDT&E PE # | | | | | | | | | | | | | |
| 0207589F | - / 1.195 | - / 16.000 | - / 10.500 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 27.695 | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: UAS CSUAS1</i> | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| UAS CSUAS1:EQUIPMENT Group B (Active) | 0 / 8.631 | 4 / 69.831 | 15 / 76.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 19 / 154.462 | |
| <i>Subtotal: Recurring</i> | - / 8.631 | - / 69.831 | - / 76.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 154.462 | |
| <i>Subtotal: UAS CSUAS1</i> | - / 8.631 | - / 69.831 | - / 76.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 154.462 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / 8.631 | - / 69.831 | - / 76.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 154.462 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| A&AS | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.000 | |
| ICS-Labor | - / 0.000 | - / 0.000 | - / 0.000 | - / 12.100 | - / - | - / 12.100 | - / - | - / - | - / - | - / - | - / - | - / 12.100 | |
| PMA - Other Gov't Costs | - / 0.322 | - / 0.060 | - / 0.000 | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.382 | |
| PMA - Contractor Services | - / 2.950 | - / 0.609 | - / 0.020 | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 3.579 | |
| <i>Subtotal: Support</i> | - / 3.272 | - / 0.669 | - / 0.020 | - / 12.100 | - / - | - / 12.100 | - / - | - / - | - / - | - / - | - / - | - / 16.061 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: UAS CSUAS1</i> | - / - | - / - | 4 / 39.980 | 15 / 0.000 | - / - | 15 / 0.000 | - / - | - / - | - / - | - / - | - / - | 19 / 39.980 | |
| <i>Subtotal: Installation</i> | - / - | - / - | 4 / 39.980 | 15 / 0.000 | - / - | 15 / 0.000 | - / - | - / - | - / - | - / - | - / - | 19 / 39.980 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 11.903 | 70.500 | 116.000 | 12.100 | 0.000 | 12.100 | 0.000 | 0.000 | 0.000 | 0.000 | - | 210.503 | |

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 1 / C-sUAS STRATCOM JEON |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 1 of 1: UAS CSUAS1

Manufacturer Information

Manufacturer Name: Commercial Off The Shelf Manufacturer Location: Various

Administrative Leadtime (in Months): 1 Production Leadtime (in Months): 9

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|---------|---------|---------|---------|---------|
| Contract Dates | Jun 2017 | Dec 2017 | | | | | |
| Delivery Dates | Mar 2018 | Sep 2018 | | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | 4 / 0.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 4 / 0.000 |
| FY 2018 | - / - | - / - | 0 / 39.980 | 15 / 0.000 | - / - | 15 / 0.000 | - / - | - / - | - / - | - / - | - / - | 15 / 39.980 |
| FY 2019 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | 4 / 39.980 | 15 / 0.000 | - / - | 15 / 0.000 | - / - | - / - | - / - | - / - | - / - | 19 / 39.980 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | - | - | 4 | - | - | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 19 |
| Out | 0 | - | - | - | - | - | 4 | - | - | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 19 |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 2 / C-sUAS |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|--------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 20.000 | 60.000 | 0.000 | 60.000 | 20.000 | 0.000 | 0.000 | 0.000 | - | 100.000 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 20.000 | 60.000 | 0.000 | 60.000 | 20.000 | 0.000 | 0.000 | 0.000 | - | 100.000 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 20.000 | 60.000 | 0.000 | 60.000 | 20.000 | 0.000 | 0.000 | 0.000 | - | 100.000 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Counter Small Unmanned Aerial System (Cs-UAS) protection capabilities at downward selected high priority sites.

Milestone/Development Status

Procurement of Counter Small Unmanned Aerial System (Cs-UAS) protection capabilities for use at downward selected and high priority sites including SPACECOM.

Previously titled "C-UAS JUON Space"

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Modification Number / Title:** 2 / C-sUAS

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Models of Systems Affected: Bases **Modification Type:** Capability Improvement **Related RDT&E PEs:** 0604287F

| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: Cs-UAS</i> | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | |
| Cs-UAS:EQUIPMENT Group B (Active) | - / - | - / - | 2 / 10.000 | 6 / 30.000 | - / - | 6 / 30.000 | 2 / 10.000 | - / - | - / - | - / - | - / - | 10 / 50.000 |
| <i>Subtotal: Recurring</i> | - / - | - / - | - / 10.000 | - / 30.000 | - / - | - / 30.000 | - / 10.000 | - / - | - / - | - / - | - / - | - / 50.000 |
| <i>Subtotal: Cs-UAS</i> | - / - | - / - | - / 10.000 | - / 30.000 | - / - | - / 30.000 | - / 10.000 | - / - | - / - | - / - | - / - | - / 50.000 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / - | - / 10.000 | - / 30.000 | - / - | - / 30.000 | - / 10.000 | - / - | - / - | - / - | - / - | - / 50.000 |
| Installation | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: Cs-UAS</i> | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | 2 / 10.000 | 6 / 30.000 | - / - | 6 / 30.000 | 2 / 10.000 | - / - | - / - | - / - | - / - | 10 / 50.000 |
| Total | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 0.000 | 20.000 | 60.000 | 0.000 | 60.000 | 20.000 | 0.000 | 0.000 | 0.000 | - | 100.000 |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Modification Number / Title:** 2 / C-sUAS

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Modification Item 1 of 1: Cs-UAS

Manufacturer Information

Manufacturer Name: Various Commercial Off the Shelf Vendors Manufacturer Location: Multiple

Administrative Leadtime (in Months): 1 Production Leadtime (in Months): 2

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|---------|----------|----------|----------|---------|---------|---------|
| Contract Dates | | Jun 2018 | Jun 2019 | Jun 2020 | | | |
| Delivery Dates | | Aug 2018 | Aug 2019 | Aug 2020 | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | 2 / 10.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 2 / 10.000 |
| FY 2019 | - / - | - / - | - / - | 6 / 30.000 | - / - | 6 / 30.000 | - / - | - / - | - / - | - / - | - / - | 6 / 30.000 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | 2 / 10.000 | - / - | - / - | - / - | - / - | 2 / 10.000 |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | 2 / 10.000 | 6 / 30.000 | - / - | 6 / 30.000 | 2 / 10.000 | - / - | - / - | - / - | - / - | 10 / 50.000 |

Installation Schedule

| PYS | FY 2017 | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot | | | | |
|-----|---------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|---|---|---|----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | | | |
| In | 0 | - | - | - | - | - | - | 2 | - | - | - | - | 6 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 10 |
| Out | 0 | - | - | - | - | - | - | - | 2 | - | - | - | 6 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 10 |

UNCLASSIFIED

| | | |
|---|---|--|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 3 / IBDSS-1 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 57.405 | 48.670 | 78.248 | 0.000 | 78.248 | 4.392 | 0.000 | 0.000 | 0.000 | - | 188.715 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 57.405 | 48.670 | 78.248 | 0.000 | 78.248 | 4.392 | 0.000 | 0.000 | 0.000 | - | 188.715 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 57.405 | 48.670 | 78.248 | 0.000 | 78.248 | 4.392 | 0.000 | 0.000 | 0.000 | - | 188.715 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

INTEGRATED BASE DEFENSE SECURITY SYSTEM (IBDSS-1): Reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. DoD downsizing, reductions in forward basing, and aircraft technology advances evolved AF weapons systems into increasingly valuable national power projection capabilities. However, the security afforded most AF aircraft, weapon systems, other critical resources, and associated personnel and facilities in terms of equipment or manpower has not kept pace with the changing world environment, state-of-the-art technology and potential threats. The emergence of Remotely Piloted Aircraft (RPA) has led to additional command, control and communications nodes that require commensurate protection level security efforts to enable effective Air Force power projection. Force Protection BPSS projects support long-term physical security requirements which allow installation commanders and security forces to adapt to, and counter, enduring and emergent threats to high priority assets in accordance with home station and the Aerospace Expeditionary Force concept. This continuing effort was previously named Base Physical Security Systems and is not a New Start.

INTEGRATED BASE DEFENSE SECURITY SYSTEM (IBDSS-1): FY17-FY20 Funding is provided for procurement, design & engineering, modeling & simulation, infrastructure and allied support, installation, integration, training, acceptance testing, Interim Contractor Support (ICS) and interim spares for Base Physical Security Systems (BPSS) Intrusion Detection Systems (IDS). The funding also procures, installs and sustains a variety of electronic security alarms, sensors, and related systems to detect and provide early warning of potential threats against Air Force Protection Level (PL) 1,2,3, and 4 mission critical assets. Funding also supports the Nuclear (PL-1N) Weapon Storage Areas (WSAs) located throughout the CONUS and vault storage areas at main operating bases in Europe to meet long term physical security requirements in the face of enduring and emerging threats. This also includes upgrading existing system to ensure required capability for vault storage areas and associated intrusion detection, access control and assessment systems requirements, In Accordance With (IAW) USAF, EUCOM and NATO/SHAPE requirements. The funds also provide for upgrades, refurbishment, replacement or installation of new fences (required for sensor platforms) and/or lighting systems (to support the surveillance/assessment functions). This funding also supports Counter-Small UAS capabilities. Due to world-wide operational mission events, quantities are subject to change. IBDSS-1 will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for]wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, IBDSS-1 will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.

We are currently restructuring IBDSS into discrete block upgrades.

Milestone/Development Status

UNCLASSIFIED

| | | |
|--|---|--|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 3 / IBDSS-1 |
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: | |
| <p>For Force Protection Commercial Off The Shelf (FP COTS) market research, evaluation and testing. The FP COTS testing applies to all available technologies (delay, denial, detection, assessment, communication display, access control and power) which are considered effective for AF physical security use. This program supports the maintenance and test support at Site C 3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46th Test Wing (TW) as a Major Range and Test facility, conducting developmental and operational testing as the primary mission.</p> <p>Continuing COTS and Modified COTS for system equipment as it becomes obsolete.</p> | | |
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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|---|--------------------------------|--------------------------------|--|--------------------------------|---|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | | | | | Modification Number / Title: 3 / IB DSS-1 | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: Bases | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0603287F, 0604287F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> IB DSS-1 | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| IB DSS-1:EQUIPMENT Group B (Active) | - / - | 11 / 11.377 | 6 / 9.911 | 8 / 17.009 | - / - | 8 / 17.009 | - / - | - / - | - / - | - / - | - / - | 25 / 38.297 | |
| <i>Subtotal: Recurring</i> | - / - | - / 11.377 | - / 9.911 | - / 17.009 | - / - | - / 17.009 | - / - | - / - | - / - | - / - | - / - | - / 38.297 | |
| <i>Subtotal: IB DSS-1</i> | - / - | - / 11.377 | - / 9.911 | - / 17.009 | - / - | - / 17.009 | - / - | - / - | - / - | - / - | - / - | - / 38.297 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 11.377 | - / 9.911 | - / 17.009 | - / - | - / 17.009 | - / - | - / - | - / - | - / - | - / - | - / 38.297 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| A&AS | - / - | - / 1.635 | - / 3.077 | - / 3.446 | - / - | - / 3.446 | - / - | - / - | - / - | - / - | - / - | - / 8.158 | |
| PMA - Contractor Services | - / - | - / 2.839 | - / 5.651 | - / 2.741 | - / - | - / 2.741 | - / - | - / - | - / - | - / - | - / - | - / 11.231 | |
| PMA - Other Gov't Costs | - / - | - / 0.260 | - / 0.639 | - / 1.009 | - / - | - / 1.009 | - / - | - / - | - / - | - / - | - / - | - / 1.908 | |
| ICS-Labor | - / - | - / - | - / - | - / 1.629 | - / - | - / 1.629 | - / 4.392 | - / - | - / - | - / - | - / - | - / 6.021 | |
| <i>Subtotal: Support</i> | - / - | - / 4.734 | - / 9.367 | - / 8.825 | - / - | - / 8.825 | - / 4.392 | - / - | - / - | - / - | - / - | - / 27.318 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> IB DSS-1 | - / - | 3 / 41.294 | 14 / 29.392 | 8 / 52.414 | - / - | 8 / 52.414 | - / - | - / - | - / - | - / - | - / - | 25 / 123.100 | |
| <i>Subtotal: Installation</i> | - / - | 3 / 41.294 | 14 / 29.392 | 8 / 52.414 | - / - | 8 / 52.414 | - / - | - / - | - / - | - / - | - / - | 25 / 123.100 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 57.405 | 48.670 | 78.248 | 0.000 | 78.248 | 4.392 | 0.000 | 0.000 | 0.000 | - | 188.715 | |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Modification Number / Title: 3 / IBDSS-1 |
|---|---|--|

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 1: IBDSS-1

Manufacturer Information

| | |
|---|---------------------------------|
| Manufacturer Name: Commercial Off The Shelf | Manufacturer Location: Varioius |
|---|---------------------------------|

| | |
|--|------------------------------------|
| Administrative Leadtime (in Months): 3 | Production Leadtime (in Months): 8 |
|--|------------------------------------|

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Feb 2017 | Jan 2018 | Jan 2019 | | | | |
| Delivery Dates | Sep 2017 | Sep 2018 | Sep 2019 | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | 3 / 41.294 | 8 / 0.000 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 11 / 41.294 |
| FY 2018 | - / - | - / - | 6 / 29.392 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 6 / 29.392 |
| FY 2019 | - / - | - / - | - / - | 8 / 52.414 | - / - | 8 / 52.414 | - / - | - / - | - / - | - / - | - / - | 8 / 52.414 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | 3 / 41.294 | 14 / 29.392 | 8 / 52.414 | - / - | 8 / 52.414 | - / - | - / - | - / - | - / - | - / - | 25 / 123.100 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | 3 | - | 6 | 5 | 3 | 3 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 25 |
| Out | 0 | - | - | - | 3 | - | 6 | 5 | 3 | 3 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 25 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Items Title:** Antiterrorism

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Tactical and Expeditionary Security Systems | A | | - | - | - | - | - | 7.891 | - | - | 8.147 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 7.891 | - | - | 8.147 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 7.891 | - | - | 8.147 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Aggregated Items Title: Command Support - Tactical Air Forces |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Command Support Tactical Air Forces | | | | | | | | | | | | | | | | | | | | |
| New Item | A | | - | - | - | - | - | 0.000 | 3.000 | 1 | 3.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Subtotal: Command Support Tactical Air Forces | | | - | - | - | - | - | 0.000 | - | - | 3.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 3.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834130 / Air Force Physical Security System | Aggregated Items Title: Air Base Security Forces (ANG) |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| IBDSS-ANG | | | | | | | | | | | | | | | | | | | | |
| Physical Security Systems | A | | - | - | - | 5.820 | 5 | 29.100 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: IBDSS-ANG | | | - | - | - | - | - | 29.100 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 29.100 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | P-1 Line Item Number / Title: 834190 / Combat Training Ranges |
|---|---|

| | | |
|--|--|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207429F | Other Related Program Elements: 0207429F, 0604735F |
|--|--|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|---------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 41.264 | 34.850 | 115.198 | 132.675 | 0.000 | 132.675 | 232.748 | 193.955 | 195.367 | 175.130 | - | 1,121.187 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 41.264 | 34.850 | 115.198 | 132.675 | 0.000 | 132.675 | 232.748 | 193.955 | 195.367 | 175.130 | - | 1,121.187 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 41.264 | 34.850 | 115.198 | 132.675 | 0.000 | 132.675 | 232.748 | 193.955 | 195.367 | 175.130 | - | 1,121.187 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|-------|--------|-------|---|-------|--------|-------|--------|-------|---|--------|
| Initial Spares (<i>\$ in Millions</i>) | - | 5.930 | 16.188 | 6.435 | - | 6.435 | 13.025 | 8.252 | 19.100 | 0.725 | - | 69.655 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Combat Training Range program procures electronic telecommunication and instrumentation equipment and threat systems for training ranges worldwide to satisfy air combat and electronic warfare (EW) training capability requirements. It also procures range scoring systems and replacement equipment for electronics no longer logistically supportable. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

PE 0207429F COMBAT TRAINING RANGE EQUIPMENT

JOINT THREAT EMITTER (JTE): The Joint Threat Emitter is designed to train aircrews to survive in a combat environment against Surface-to-Air Missile (SAM) and Air Defense Artillery (ADA) threats. The JTE simulates a range of threat signals, in multiple emitter kits, which interact with the aircraft radar warning receiver and electronic countermeasure system to provide realistic EW training environments for aircrew. The JTE is intended to reduce range manpower and resource requirements by replacing legacy systems as they face increasing supportability issues. The JTE leverages Commercial-Off-The Shelf (COTS) where possible to provide digital signal generation and feedback across its range of threats. The JTE system uses a Command-and-Control Unit (C2U) to operate a Threat Emitter Unit (TEU) producing a realistic threat environment for 4th and 5th Generation aircraft. Funding will also be used to purchase services applicable to the acquisition, site activation and implementation of the ground system including range site surveys, installation and training. The program procures new systems, retrofits fielded legacy JTE systems, and procures modifications for obsolete components for the fielded JTE fleet to extend their serviceable life.

RANGE EQUIPMENT: This effort delivers range infrastructure and equipment in order to monitor and control an extended, realistic target environment for simulated ordnance delivery and provide scoring, feedback and debriefing to the aircrew. This effort includes, but is not limited to, the Joint Advanced Weapon Scoring System (JAWSS) program, which consists of Navy-developed scoring and feedback systems that provide weapon impact and laser spot scoring on bombing and gunnery ranges, Electronic Warfare (EW) threat subsystems such as noise and spoofing jammers and ground base laser countermeasures and directed lasers as well as radar and detection systems, Data link connectivity, target shells, simulations and concealments, Integrated Air Combat Training instrumentation for range-less and tethered ground systems, and Range Safety Systems.

RANGE COMMUNICATIONS: The Range Infrastructure Modernization Communication (RIMCOMM) program provides communication systems to connect various air defense threat radar simulation systems on Air Force ranges to simulate an integrated air defense system (IADS) and to provide blue force command and control for range operations. Infrastructure modernization includes replacing obsolete equipment, establishing a common infrastructure to support War Rooms and a future Live Mission Operations Capability (LMOC) enabling improved mission debriefs and Live, Virtual, Constructive (LVC) aircrew training,

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207429F **Other Related Program Elements:** 0207429F, 0604735F

Line Item MDAP/MAIS Code: N/A

and standardization of all training range communications systems to support LVC training missions. This program focuses on procurement of range communication infrastructure equipment, including fiber optic cabling, microwave, UHF, and VHF radios and antennas, data links and repeater stations, power subsystems, control systems, Air Combat Training System (ACTS) ground systems, and cryptological equipment for unclassified and secure communications for all Combat Training Ranges, in addition to studies, analysis, and integration efforts for range command and control, LVC training, and enhanced debrief capabilities.

LEGACY SYSTEMS: This program procures modifications for multiple obsolete legacy range threat systems (RTS) to extend their serviceable life. Legacy RTS includes Miniature Multiple Threat Emitter System (Mini-MUTES), Multiple Threat Emitter System (MUTES), Modular Threat Emitter (MTE), Tactical Range Threat Generator (TRTG), Unmanned Threat Emitter (UMTE), and Band Simulator (Band Sim), and their associated mission support equipment/software. The program may procure depot stand-up tools such as software support workstations.

COMMON ELECTRONIC ATTACK RECEIVER: This program procures a common electronic attack receiver (CEAR) to replace the obsolete electronic attack receivers (EAR) on legacy threat systems such as the Unmanned Threat Emitter (UMTE), the Joint Threat Emitter (JTE), and the Miniature-Multiple Unmanned Threat Emitter System (Mini-MUTES). The CEAR provides real-time and recorded electronic warfare feedback to Combat Air Force (CAF) aircrews, improving their survivability in anti-access/area denial combat environments.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|-----------------------------------|---------------|----------------|----------------|-------------|----------------|----------------|----------------|----------------|----------|
| AF | Quantity | 2 | 8 | 12 | - | 12 | - | - | - | - |
| | Total Obligation Authority | 32.652 | 105.354 | 132.675 | - | 132.675 | 232.748 | 193.955 | 195.367 | - |
| AFNG | Quantity | - | 2 | - | - | - | - | - | - | - |
| | Total Obligation Authority | 2.198 | 9.844 | - | - | - | - | - | - | - |
| Total: Secondary Distribution | Quantity | 2 | 10 | 12 | - | 12 | - | - | - | - |
| | Total Obligation Authority | 34.850 | 115.198 | 132.675 | - | 132.675 | 232.748 | 193.955 | 195.367 | - |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207429F **Other Related Program Elements:** 0207429F, 0604735F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | JTE | P-5a | B | | - / 34.264 | 2 / 3.965 | 10 / 54.014 | 12 / 59.231 | - / - | 12 / 59.231 |
| P-5 | Range Equipment | | A | | - / - | - / 1.371 | - / 5.370 | - / 7.200 | - / - | - / 7.200 |
| P-5 | Range Communications | | A | | - / - | - / 25.964 | - / 52.330 | - / 62.886 | - / - | - / 62.886 |
| P-40a | Combat Training Range Equipment | | | | - / 7.000 | - / 3.550 | - / 3.484 | - / 3.358 | - / 0.000 | - / 3.358 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 41.264 | - / 34.850 | - / 115.198 | - / 132.675 | - / 0.000 | - / 132.675 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | JTE | P-5a | B | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-5 | Range Equipment | | A | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-5 | Range Communications | | A | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Combat Training Range Equipment | | | | - / 232.748 | - / 193.955 | - / 195.367 | - / 0.000 | - / 0.000 | - / 639.462 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 232.748 | - / 193.955 | - / 195.367 | - / 175.130 | - / - | - / 1,121.187 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 JOINT THREAT EMITTER (JTE): FY19 funding procures JTE threat emitter units and fixed command and control units, and associated support equipment.
 RANGE INFRASTRUCTURE MODERNIZATION COMMUNICATIONS (RIMCOMM): FY19 funding supports range communications equipment to provide an integrated air defense system (IADS) capability on Air Force ranges. FY19-20 expenditures will focus on continued investment in enabling equipment, studies and analyses to support integration efforts for a future Live Mission Operations Capability (LMOC), enabling improved mission debriefs and Live, Virtual, Constructive (LVC) aircrew training as well as procurement of equipment for all combat training ranges.
 RANGE EQUIPMENT: FY19 supports the replacement and expansion of range infrastructure and equipment that is no longer logistically supportable in order to monitor and control an extended, realistic target environment for simulated ordnance delivery and aircrew training for airborne laser designators.
 COMMON ELECTRONIC ATTACK RECEIVER: FY19 funding procures additional CEARs to modify UMTE threat emitter systems to replace obsolete electronic attack receivers.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Item Number / Title [DODIC]: JTE |
|---|---|--|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|---------------|--------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | 2 | 10 | 12 | - | 12 |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 34.264 | 3.965 | 54.014 | 59.231 | - | 59.231 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 34.264 | 3.965 | 54.014 | 59.231 | - | 59.231 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 34.264 | 3.965 | 54.014 | 59.231 | - | 59.231 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|-------|--------|-------|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | 5.930 | 16.188 | 6.435 | - | 6.435 |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | 1.983 | 5.401 | 4.936 | - | 4.936 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - JTE Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| JTE Threat Emitter Unit (TEU) ^(†) | 5.608 | 4 | 22.432 | - | - | - | 7.689 | 6 | 46.134 | 8.041 | 1 | 8.041 | - | - | - | 8.041 | 1 | 8.041 |
| JTE Fixed Command & Control Unit (FC2U) ^(†) | 1.464 | 1 | 1.464 | 0.920 | 2 | 1.840 | 1.395 | 4 | 5.580 | 1.087 | 4 | 4.350 | - | - | - | 1.088 | 4 | 4.350 |
| JTE Wideband Threat Emitter Unit (WTEU) ^(†) | 5.184 | 2 | 10.368 | - | - | - | - | - | - | 6.381 | 7 | 44.670 | - | - | - | 6.381 | 7 | 44.670 |
| <i>Subtotal: Recurring Cost</i> | - | - | 34.264 | - | - | 1.840 | - | - | 51.714 | - | - | 57.061 | - | - | - | - | - | 57.061 |
| <i>Subtotal: Hardware - JTE Cost</i> | - | - | 34.264 | - | - | 1.840 | - | - | 51.714 | - | - | 57.061 | - | - | - | - | - | 57.061 |
| Support - JTE Cost | | | | | | | | | | | | | | | | | | |
| A&AS (PMA) | - | - | - | - | - | 0.750 | - | - | 0.750 | - | - | 0.900 | - | - | - | - | - | 0.900 |
| A&AS (DMS) | - | - | - | - | - | 1.065 | - | - | 1.087 | - | - | 0.960 | - | - | - | - | - | 0.960 |
| PMA | - | - | - | - | - | 0.100 | - | - | 0.142 | - | - | 0.010 | - | - | - | - | - | 0.010 |
| Support | - | - | - | - | - | 0.210 | - | - | 0.321 | - | - | 0.300 | - | - | - | - | - | 0.300 |
| <i>Subtotal: Support - JTE Cost</i> | - | - | - | - | - | 2.125 | - | - | 2.300 | - | - | 2.170 | - | - | - | - | - | 2.170 |
| Gross/Weapon System Cost | - | - | 34.264 | 1.983 | 2 | 3.965 | 5.401 | 10 | 54.014 | 4.936 | 12 | 59.231 | - | - | - | 4.936 | 12 | 59.231 |

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Item Number / Title [DODIC]: JTE |
|---|---|--|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------------------|-----------------------------------|--------------|---------------|-----------------|----------------|------------------|
| AF | Quantity | 2 | 8 | 12 | - | 12 |
| | Total Obligation Authority | 3.965 | 44.470 | 59.231 | - | 59.231 |
| AFNG | Quantity | - | 2 | - | - | - |
| | Total Obligation Authority | - | 9.544 | - | - | - |
| Total: | Quantity | 2 | 10 | 12 | - | 12 |
| Secondary Distribution | Total Obligation Authority | 3.965 | 54.014 | 59.231 | - | 59.231 |

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Item Number / Title [DODIC]: JTE |
|---|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|-----------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| JTE Threat Emitter Unit (TEU) | | 2015 | Northrup Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2016 | Apr 2018 | 4 | 5.610 | N | Dec 2016 | Jan 2014 |
| JTE Threat Emitter Unit (TEU) | | 2018 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2017 | Apr 2019 | 6 | 7.689 | N | Oct 2016 | |
| JTE Threat Emitter Unit (TEU) | | 2019 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2018 | Sep 2020 | 1 | 8.041 | N | Sep 2018 | |
| JTE Fixed Command & Control Unit (FC2U) | | 2016 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2016 | Apr 2018 | 1 | 1.306 | N | Oct 2016 | Jan 2014 |
| JTE Fixed Command & Control Unit (FC2U) | | 2017 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2017 | Apr 2019 | 2 | 0.920 | N | Oct 2016 | |
| JTE Fixed Command & Control Unit (FC2U) | | 2018 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Dec 2017 | Apr 2020 | 4 | 1.395 | N | Oct 2016 | |
| JTE Fixed Command & Control Unit (FC2U) | | 2019 | TBD / TBD | SS / IDIQ | AFLCMC Hill AFB | Dec 2018 | Dec 2020 | 4 | 1.087 | N | Oct 2016 | |
| JTE Wideband Threat Emitter Unit (WTEU) | | 2015 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Jun 2017 | Apr 2019 | 1 | 5.184 | N | Oct 2016 | Jan 2014 |
| JTE Wideband Threat Emitter Unit (WTEU) | | 2016 | Northrop Grumman Amherst Systems / Buffalo, NY | C / FFP | AFLCMC Hill AFB | Jun 2017 | May 2019 | 1 | 5.184 | N | Oct 2016 | Jan 2014 |
| JTE Wideband Threat Emitter Unit (WTEU) | | 2019 | TBD / TBD | SS / IDIQ | AFLCMC Hill AFB | Dec 2018 | Dec 2020 | 7 | 6.381 | N | Dec 2018 | |

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| | | |
|---|---|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Item Number / Title [DODIC]: Range Equipment |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 1.371 | 5.370 | 7.200 | - | 7.200 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 1.371 | 5.370 | 7.200 | - | 7.200 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 1.371 | 5.370 | 7.200 | - | 7.200 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Range Equipment Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Range Equipment-Target shells | - | - | - | - | - | 1.371 | - | - | 5.370 | 1.200 | 6 | 7.200 | - | - | - | 1.200 | 6 | 7.200 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 1.371 | - | - | 5.370 | - | - | 7.200 | - | - | - | - | - | 7.200 |
| <i>Subtotal: Hardware - Range Equipment Cost</i> | - | - | - | - | - | 1.371 | - | - | 5.370 | - | - | 7.200 | - | - | - | - | - | 7.200 |
| Gross/Weapon System Cost | - | - | - | - | - | 1.371 | - | - | 5.370 | - | - | 7.200 | - | - | - | - | - | 7.200 |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--------------------------------------|-----------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| AF | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 1.371 | 5.370 | 7.200 | - | 7.200 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 1.371 | 5.370 | 7.200 | - | 7.200 |

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Item Number / Title [DODIC]: Range Communications |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 25.964 | 52.330 | 62.886 | - | 62.886 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 25.964 | 52.330 | 62.886 | - | 62.886 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 25.964 | 52.330 | 62.886 | - | 62.886 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - RIMCOM/Range Equipment Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Radios | - | - | - | 0.049 | 132 | 6.473 | 0.033 | 61 | 2.013 | 0.604 | 17 | 10.270 | - | - | - | 0.604 | 17 | 10.270 |
| Datalink | - | - | - | 0.125 | 2 | 0.250 | - | - | - | 0.078 | 290 | 22.534 | - | - | - | 0.078 | 290 | 22.534 |
| IADS Networks | - | - | - | 1.000 | 4 | 4.000 | - | - | - | 2.280 | 1 | 2.280 | - | - | - | 2.280 | 1 | 2.280 |
| Fiber Optics | - | - | - | 0.234 | 7 | 1.637 | 1.200 | 1 | 1.200 | 0.072 | 18 | 1.300 | - | - | - | 0.072 | 18 | 1.300 |
| Datalink/EW Jammers | - | - | - | 1.400 | 5 | 7.000 | 3.750 | 2 | 7.500 | 0.633 | 3 | 1.900 | - | - | - | 0.633 | 3 | 1.900 |
| Test Calibration Equipment | - | - | - | 0.776 | 8 | 6.208 | - | - | - | - | - | - | - | - | - | - | - | - |
| Range/ Mission Control | - | - | - | - | - | - | 2.690 | 10 | 26.900 | 9.500 | 1 | 9.500 | - | - | - | 9.500 | 1 | 9.500 |
| Radars | - | - | - | - | - | - | 3.000 | 2 | 6.000 | 2.200 | 1 | 2.200 | - | - | - | 2.200 | 1 | 2.200 |
| ACTS | - | - | - | - | - | - | - | - | - | 0.013 | 965 | 12.902 | - | - | - | 0.013 | 965 | 12.902 |
| Security Systems | - | - | - | - | - | - | 6.000 | 1 | 6.000 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 25.568 | - | - | 49.613 | - | - | 62.886 | - | - | - | - | - | 62.886 |
| <i>Subtotal: Hardware - RIMCOM/Range Equipment Cost</i> | - | - | - | - | - | 25.568 | - | - | 49.613 | - | - | 62.886 | - | - | - | - | - | 62.886 |
| Support - RIMCOM/Range Equipment Cost | | | | | | | | | | | | | | | | | | |
| A&AS | - | - | - | - | - | 0.300 | - | - | 2.590 | - | - | - | - | - | - | - | - | - |
| PMA | - | - | - | - | - | 0.096 | - | - | 0.127 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - RIMCOM/Range Equipment Cost</i> | - | - | - | - | - | 0.396 | - | - | 2.717 | - | - | - | - | - | - | - | - | - |

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|---|--|--|--|--|--|---|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | | | | | | Item Number / Title [DODIC]: Range Communications | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | - | - | - | 25.964 | - | - | 52.330 | - | - | 62.886 | - | - | - | - | - | 62.886 |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|----------------------------|---------|---------|--------------|-------------|---------------|
| AF | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 25.964 | 52.330 | 62.886 | - | 62.886 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 25.964 | 52.330 | 62.886 | - | 62.886 |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges **Aggregated Modification Items Title:** Combat Training Range Equipment

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| CTR01 / Combat Training Ranges Joint Threat Emitter | | | - | - | - | - | - | 2.198 | - | - | 3.184 | - | - | 3.183 | - | - | - | - | - | 3.183 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | 2.884 | | - | 3.183 | | - | - | | - | 3.183 |
| AFNG | | | | - | - | | - | 2.198 | | - | 0.300 | | - | - | | - | - | | - | - |
| CTR02 / CEAR UMTE Mod | | | - | - | 7.000 | - | - | 1.352 | - | - | 0.150 | - | - | 0.175 | - | - | - | - | - | 0.175 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.352 | | - | 0.150 | | - | 0.175 | | - | - | | - | 0.175 |
| CTR03 / CEAR Mini MUTES Mod | | | - | - | - | - | - | - | - | - | 0.150 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | 0.150 | | - | 0.000 | | - | - | | - | 0.000 |
| Total | | | - | - | 7.000 | - | - | 3.550 | - | - | 3.484 | - | - | 3.358 | - | - | 0.000 | - | - | 3.358 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| CTR01 / Combat Training Ranges Joint Threat Emitter | | | - | - | 232.748 | - | - | 193.955 | - | - | 195.367 | - | - | - | - | - | - | - | - | 630.635 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 232.748 | | - | 193.955 | | - | 195.367 | | - | - | | - | - | | - | - |
| AFNG | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| CTR02 / CEAR UMTE Mod | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.677 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| CTR03 / CEAR Mini MUTES Mod | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.150 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| Total | | | - | - | 232.748 | - | - | 193.955 | - | - | 195.367 | - | - | 0.000 | - | - | 0.000 | - | - | 639.462 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834190 / Combat Training Ranges | Aggregated Modification Items Title: Combat Training Range Equipment |
|---|---|--|

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|------------------------|
| CTR01 / Combat Training Ranges Joint Threat Emitter | JointThreatEmitter | Service Life Extension |
| CTR02 / CEAR UMTE Mod | CombatTrainingRange | Capability Improvement |
| CTR03 / CEAR Mini MUTES Mod | CombatTrainingRange | Capability Improvement |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834210 / Minimum Essential Emergency Comm N

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0303131F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 198.925 | 0.292 | 140.875 | - | 140.875 | 228.155 | 48.127 | 67.424 | 51.006 | - | 734.804 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 198.925 | 0.292 | 140.875 | - | 140.875 | 228.155 | 48.127 | 67.424 | 51.006 | - | 734.804 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 198.925 | 0.292 | 140.875 | - | 140.875 | 228.155 | 48.127 | 67.424 | 51.006 | - | 734.804 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

Global Aircrew Strategic Network Terminal (Global ASNT) replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews.

Global ASNT is being fielded in separate capability increments.

Global ASNT Inc 1 fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical - Terminal (SMART-T) equipment. FY15 was the first year of Increment 1 procurement funding to support pre-production activities. The majority of pre-production support activities will be conducted in FY17 and FY18 in advance of the Milestone C decision in 2QFY19.

Global ASNT Inc 2 delivers an Aircrew Alerting System (AAS) consisting of personal and general alerting equipment, and High Frequency (HF) and Ultra High Frequency (UHF) capabilities. Increment 2 replaces inadequate, unsustainable Electromagnetic Pulse Hardened Dispersal Communication (EHDC) systems and Aircrew Alerting Communications Electromagnetic Pulse (AACE) systems.

Funding for this exhibit is contained in PE 0303131F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834210 / Minimum Essential Emergency Comm N

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0303131F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Minimum Essential Emergency Comm N | P-5a | B | | - / - | - / 198.925 | - / 0.292 | - / 140.875 | - / - | - / 140.875 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 198.925 | - / 0.292 | - / 140.875 | - / - | - / 140.875 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

Global ASNT Increment 1 FY2017 funds were "early to need" and are unavailable to the program. The funds were pulled by the Air Staff for higher priorities.

Global ASNT Increment 1 FY2019 funds will support production activities including preparation and planning for depot standup, engineering start-up, schedule preparation and planning, production configuration control, production roadmap activities, and procurement of 48 production kits.

FY2019 funds also include purchases of Electronic Security Systems (ESS) to provide Physical Security Level 3 (PL-3) protection for Global ASNT antennas. Global ASNT is replacing a PL-4 asset.

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| | | |
|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834210 / Minimum Essential Emergency Comm N | Item Number / Title [DODIC]: Minimum Essential Emergency Comm N |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 198.925 | 0.292 | 140.875 | - | 140.875 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 198.925 | 0.292 | 140.875 | - | 140.875 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 198.925 | 0.292 | 140.875 | - | 140.875 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Minimum Essential Emergency Comm N Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Global ASNT Terminals ^(†) | - | - | - | 4.063 | 48 | 195.027 | - | - | - | 2.713 | 48 | 130.225 | - | - | - | 2.713 | 48 | 130.225 |
| Electronic Security System (ESS) ^(†) | - | - | - | - | - | - | - | - | - | 0.079 | 90 | 7.150 | - | - | - | 0.079 | 90 | 7.150 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 195.027 | - | - | - | - | - | 137.375 | - | - | - | - | - | 137.375 |
| <i>Subtotal: Hardware - Minimum Essential Emergency Comm N Cost</i> | - | - | - | - | - | 195.027 | - | - | - | - | - | 137.375 | - | - | - | - | - | 137.375 |
| Support - Minimum Essential Emergency Communication Network (MEECN) Cost | | | | | | | | | | | | | | | | | | |
| Direct Mission Suppt (DMS) | - | - | - | - | - | 1.569 | - | - | - | - | - | 0.685 | - | - | - | - | - | 0.685 |
| Program Support Cost (PSC) | - | - | - | - | - | 2.329 | - | - | 0.292 | - | - | 2.815 | - | - | - | - | - | 2.815 |
| <i>Subtotal: Support - Minimum Essential Emergency Communication Network (MEECN) Cost</i> | - | - | - | - | - | 3.898 | - | - | 0.292 | - | - | 3.500 | - | - | - | - | - | 3.500 |
| Gross/Weapon System Cost | - | - | - | - | - | 198.925 | - | - | 0.292 | - | - | 140.875 | - | - | - | - | - | 140.875 |

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834210 / Minimum Essential Emergency Comm N | Item Number / Title [DODIC]: Minimum Essential Emergency Comm N |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------------|-------------|------|-------------------------|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Global ASNT Terminals | | 2017 | Raytheon / Largo, FL | C / FFP | AFLCMC Hanscom AFB | Feb 2019 | May 2020 | 48 | 4.063 | N | Feb 2019 | |
| Global ASNT Terminals | | 2019 | Raytheon / Largo, FL | C / FFP | AFLCMC Hanscom AFB | Feb 2019 | May 2020 | 48 | 2.713 | N | Feb 2019 | |
| Electronic Security System (ESS) | | 2019 | Raytheon / Largo, FL | C / FFP | Hanscom AFB | Feb 2019 | May 2020 | 90 | 0.079 | N | Feb 2019 | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834240 / Wide Area Surveillance (WAS)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604445F **Other Related Program Elements:** 0604445F

Line Item MDAP/MAIS Code: 519

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|---------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|----------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 | 106.590 | 24.707 | 25.198 | 25.647 | 818.915 | 1,162.191 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 | 106.590 | 24.707 | 25.198 | 25.647 | 818.915 | 1,162.191 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 | 106.590 | 24.707 | 25.198 | 25.647 | 818.915 | 1,162.191 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|-------|-------|-------|-------|---|--------|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | 3.007 | 3.008 | 3.007 | 3.061 | - | 12.083 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Wide Area Surveillance (WAS) consists of two advanced sensor systems, the Stateside Affordable Radar System (STARS) and Scorpion, incorporated into a single WAS System. Based on existing technological capabilities, WAS will detect/track low, slow and other asymmetrical threats in the airspace and meet the user needs of sensing stressing airborne targets in complex environments with affordable sensors. The sensor outputs will be incorporated into the Battle Control Systems-Fixed (BCS-F) air picture and utilized as the North American Aerospace Defense Command/ Northern Command (NORAD/ NORTHCOM) Command and Control (C2) air surveillance system of record.

The WAS strategy is a single step acquisition approach for full capability to develop, produce, and field highly capable and sustainable advanced sensors in the National Capitol Region. In FY19, the WAS program management office plans to exercise Production and Interim Contractor Support (ICS) Contract options for both STARS and Scorpion systems.

Funding for this exhibit contained in PE 0604445F, Wide Area Surveillance.

Funding may be used to address potential Diminishing Manufacturing Sources (DMS) and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

Some aspects of the WAS program are classified and will be provided on a need-to-know basis.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834240 / Wide Area Surveillance (WAS)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604445F **Other Related Program Elements:** 0604445F

Line Item MDAP/MAIS Code: 519

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Wide Area Surveillance | P-5a, P-21 | B | | - / 0.000 | - / 6.943 | - / 62.087 | - / 92.104 | - / 0.000 | - / 92.104 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 0.000 | - / 6.943 | - / 62.087 | - / 92.104 | - / 0.000 | - / 92.104 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 Will include but are not limited to:
 - FY19 funds will procure, produce and field operational four Stateside Affordable Radar System (STARS) and six Scorpion sensors, provide Interim Contractor Support (ICS) for fielded sensors, and procure additional system monitoring capabilities in accordance with North American Aerospace Defense Command (NORAD) and U.S. Northern Command (NORTHCOM) Homeland Defense Design.
 - FY19 Program Management Administration (PMA) funds will provide management, engineering and technical support for the program office.
 - FY19 funding request will support potential Diminishing Manufacturing Sources (DMS) and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.
 - FY19 key test event: FOT&E, June 2019.
 - Some key components of each Wide Area Surveillance (WAS) site require long lead time items.

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS) | Item Number / Title [DODIC]: Wide Area Surveillance |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | | | |
|---|--|--|--|------------------------|--------------|---------------|---------------|--------------|---------------|
| Resource Summary | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 0.000 | 6.943 | 62.087 | 92.104 | 0.000 | 92.104 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Gross/Weapon System Unit Cost (\$ in Millions) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Wide Area Surveillance Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Prime ^(t) (1) | - | - | 0.000 | - | - | - | 5.596 | 9 | 50.366 | 5.624 | 10 | 56.240 | - | - | 0.000 | 5.624 | 10 | 56.240 |
| <i>Subtotal: Recurring Cost</i> | - | - | 0.000 | - | - | - | - | - | 50.366 | - | - | 56.240 | - | - | 0.000 | - | - | 56.240 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Prime ICS (2) | - | - | 0.000 | - | - | 5.643 | - | - | 9.145 | - | - | 22.996 | - | - | 0.000 | - | - | 22.996 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | 0.000 | - | - | 5.643 | - | - | 9.145 | - | - | 22.996 | - | - | 0.000 | - | - | 22.996 |
| <i>Subtotal: Hardware - Wide Area Surveillance Cost</i> | - | - | 0.000 | - | - | 5.643 | - | - | 59.511 | - | - | 79.236 | - | - | 0.000 | - | - | 79.236 |
| Support - Wide Area Surveillance Cost | | | | | | | | | | | | | | | | | | |
| DMS Support | - | - | 0.000 | - | - | - | - | - | 0.000 | - | - | 3.728 | - | - | 0.000 | - | - | 3.728 |
| PMA Contractor Services | - | - | 0.000 | - | - | 1.300 | - | - | 2.576 | - | - | 9.140 | - | - | 0.000 | - | - | 9.140 |
| <i>Subtotal: Support - Wide Area Surveillance Cost</i> | - | - | 0.000 | - | - | 1.300 | - | - | 2.576 | - | - | 12.868 | - | - | 0.000 | - | - | 12.868 |
| Gross/Weapon System Cost | - | - | 0.000 | - | - | 6.943 | - | - | 62.087 | - | - | 92.104 | - | - | 0.000 | - | - | 92.104 |

(t) indicates the presence of a P-5a

Footnotes:

(1) Hardware Recurring Prime: FY18/ FY19 total WAS quantities/costs will be broken out between Stateside Affordable Radar System (STARS) and Scorpion systems.

(2) Hardware Non-Recurring Prime: FY18/ FY19 total WAS quantities/costs will be broken out between Stateside Affordable Radar System (STARS) and Scorpion systems.

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS) | Item Number / Title [DODIC]: Wide Area Surveillance |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------|-------------|------|----------------------------|--------------------------------------|--------------------|-------------------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Prime ^(†) | | 2018 | Multiple/Various / Various | Various | AFLCMC Hanscom AFB | May 2018 ⁽³⁾ | Aug 2019 | 9 | 5.596 | N | Jun 2018 | |
| Prime ^(†) | | 2019 | Multiple/Various / Various | TBD | AFLCMC Hanscom AFB | Sep 2018 ⁽⁴⁾ | Aug 2020 | 10 | 5.624 | N | Jun 2018 | |

^(†) indicates the presence of a P-21

Footnotes:

⁽³⁾ Hardware Recurring Prime: FY18 quantities/costs includes STARS and Scorpion systems.; STARS Prime Contract: May 2018 contractor will generate purchase orders for hardware that requires longer lead time. Aug 2018 contractor will begin to procure hardware. ; Scorpion Prime Contract: Aug 2018 contractor will begin to procure hardware.

⁽⁴⁾ Hardware Recurring Prime: FY19 quantities/costs includes STARS and Scorpion systems (Basic Prime Contract Award Aug 2018). ; FY19 funding will exercise production contract options for STARS and Scorpion systems (Exercise Contract Option Aug 2019).

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834240 / Wide Area Surveillance (WAS) **Item Number / Title [DODIC]:** Wide Area Surveillance

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | BALANCE | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| Prime ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2018 | AF | 9 | 1 | 8 | 1 | - | 1 | - | 1 | - | 1 | - | 2 | 1 | 1 | | | | | | | | | | | | | 0 | |
| 1 | | 2019 | AF | 10 | 0 | 10 | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | 1 | - | 2 | - | 1 | 1 | | 0 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2019 Air Force | Date: February 2018 |
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|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS) | Item Number / Title [DODIC]: Wide Area Surveillance |
|---|---|---|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | Multiple/Various - Various | 1 | 1 | 10 | 0 | 0 | 23 | 23 | 0 | 0 | 0 | 0 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834320 / C3 Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208087F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 15.200 | 37.764 | 45.152 | 0.000 | 45.152 | 30.972 | 31.181 | 29.082 | 29.598 | - | 218.949 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 15.200 | 37.764 | 45.152 | 0.000 | 45.152 | 30.972 | 31.181 | 29.082 | 29.598 | - | 218.949 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 15.200 | 37.764 | 45.152 | 0.000 | 45.152 | 30.972 | 31.181 | 29.082 | 29.598 | - | 218.949 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

National Technical Nuclear Forensics PE 0207573F - P-40A
 Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrially-based sensors and communications for prompt output signal detection and nuclear debris collection analysis and evaluation to support nuclear event attribution. Funding also includes procurement of technical data and any required follow on system support.

Electronic Warfare Integrated Reprogramming (EWIR) PE 0207439F - P-40A
 DISTRIBUTED MISSION OPERATIONS AND THREAT CHANGE ANALYSIS: Conducted by the 453rd Electronic Warfare Squadron (453 EWS), EWIR provides analytical capabilities and reachback support for DoD acquisition, planning and mission execution activities. These capabilities ensure electronic warfare (EW) systems and integrated combat platforms correctly recognize and respond to enemy, friendly and noncombatant systems operating within the electromagnetic environment. The effort includes funds used to procure specialized information technology systems used to identify electromagnetic spectrum emitter changes that impact combat defensive and electronic warfare systems and to conduct detailed analyses in support of operational mission planning, tactics, techniques and procedures (TTP) development, acquisition and test & evaluation. These analyses provide the means to understand the performance of their systems in hostile environments, directly impacting the survivability of combat-coded USAF aircraft and aircrews. Funding for this exhibit contained in PE0207439F.

AF Offensive Cyberspace Operations PE 0208087F - P-40A
 Provides for the innovation, test, support and deployment of Cyberspace solutions in the form of material and non-material Cyberspace network attack tools and exploits for USAF Offensive Cyberspace Operations (OCO) to include but not limited to USAF OCO units, the Cyber Mission Forces, COCOMs, and other authorized agencies. Funding procures specialized hardware/software necessary for real time deployment, exploit identification, tool development, and testing in an environment simulating real-world operational infrastructures and enclaves. Funding also is used for the upgrade and modification of the USAF operated cyber test and training range, operated by the 346th Test Squadron under the 688th Cyber Wing.

Funding for this exhibit contained in PE 0208087F

Detailed information on AF Offensive Cyber Operations remains classified and will be provided on a need-to-know basis. For further information, please contact AF/A2. This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

AF Defensive Cyberspace Operations PE 0208088F - P-40A

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834320 / C3 Countermeasures |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0208087F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Defensive Cyber Operations provides focused, agile cyber defense forces to provide mission assurance by maneuvering within high-value, mission OEF networks and systems to assure unobstructed successful operations.</p> <p>Intel Data Applications PE 0208288F - P-40A Includes several subprograms: CONSTANT WEB, SENSOR SHADOW, Technical Electronic Intelligence (ELINT) Analytics/Tool Development and Operational Reconnaissance (Ops Recce) Capability, Analytics/Tool Development.</p> <p>*CONSTANT WEB is a database developed by the US Air Force's Intelligence Surveillance and Reconnaissance Agency (AFISRA) that contains information on both hostile and friendly C3 networks, units, and installations. It also provides limited criticality assessments of C3 elements.</p> <p>*SENSOR SHADOW is a Command and Control Warfare (C2W) and information tool designed to support strategic and operational planners. Funding provides upgrades of critical computers, processing systems, and infrastructure to support holistic Information Operations (IO) and nodal analysis in support of unique aspects of targeting that enables the shift from conventional to IW/C2W targeting.</p> <p>*Technical Electronic Intelligence (TechELINT) Analytics/Tool Development provides for the acquisition of new analytical software tools, storage and communications capability to allow the judicious processing, exploitation and dissemination of intercepted ELINT from US and allied systems.</p> <p>*Operational Reconnaissance (Ops Recce) Capability, Analytics/Tool Development provides for increased battlespace awareness through the use of sensors/platforms to achieve effects beyond what those sensors/platforms were originally designed.</p> <p>Air Base Ground Defense PE 0205788F - P-40A Ground based air defense capability designed to counter current and emerging threats to forward operation locations. Contact AF A3XY 703-614-0402 or A5RE 703-697-9393.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 834320 / C3 Countermeasures
Equip / BSA 4: Spcl Comm-Electronics Projects

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208087F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Electronic Warfare Integrated Reprogramming (EWIR) | | | | - / - | - / 1.581 | - / 1.570 | - / 1.420 | - / 0.000 | - / 1.420 |
| P-40a | National Technical Nuclear Forensics | | | | - / - | - / 5.852 | - / 5.711 | - / 6.070 | - / 0.000 | - / 6.070 |
| P-40a | Air Base Ground Defense | | | | - / - | - / - | - / 13.124 | - / - | - / - | - / - |
| P-5 | AF Offensive Cyberspace Operations | P-5a | B | | - / - | - / 6.774 | 3 / 16.990 | 3 / 37.329 | - / 0.000 | 3 / 37.329 |
| P-40a | AF Defensive Cyberspace Operations | | | | - / - | - / 0.620 | - / - | - / - | - / - | - / - |
| P-40a | Intel Data Applications | | | | - / - | - / 0.373 | - / 0.369 | - / 0.335 | - / - | - / 0.335 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 15.200 | - / 37.764 | - / 45.152 | - / 0.000 | - / 45.152 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
National Technical Nuclear Forensics PE 0207573F - P-40A
FY17 funding procures terrestrially-based sensors and communications for prompt output signal detection and nuclear debris collection analysis and evaluation to support nuclear event attribution. Funding also includes procurement of technical data and any required follow on system support.

Electronic Warfare Integrated Reprogramming (EWIR) PE 0207439F - P-40A
FY17 funding will replace capital equipment for the electronic warfare (EW) Threat Change Analysis and Distributed Mission Operations infrastructure and databases. Specific equipment items and quantities may change due to mission needs.

AF Offensive Cyberspace Operations PE 0208087F - P-40A
FY19 funding will procure additional instances of Cyber Mission Platform systems; and will procure Ronin systems. For further information, please contact AF/A2.

AF Defensive Cyberspace Operations PE 0208088F - P-40A
No Budget Year FY19 funding requested.

Intel Data Applications PE 0208288F - P-40A
FY17 funding procures equipment to support ground processing functions associated with airborne operations, provide threat simulator validation and intel database development, and provide tactical network indications/warning, intrusion analysis and threat signature development.

Air Base Ground Defense PE 0205788F - P-40A
Ground based air defense capability designed to counter current and emerging threats to forward operation locations. Contact AF A3XY 703-614-0402 or A5RE 703-697-9393.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | | | | | | | Aggregated Items Title: Electronic Warfare Integrated Reprogramming (EWIR) | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Client PCs | A | | - | - | - | 0.200 | 1 | 0.200 | 0.200 | 1 | 0.200 | 0.200 | 1 | 0.200 | - | - | 0.000 | 0.200 | 1 | 0.200 |
| Computer Server | A | | - | - | - | 1.121 | 1 | 1.121 | 0.660 | 1 | 0.660 | 0.480 | 1 | 0.480 | - | - | 0.000 | 0.480 | 1 | 0.480 |
| Data Storage System | A | | - | - | - | 0.150 | 1 | 0.150 | 0.505 | 1 | 0.505 | 0.560 | 1 | 0.560 | - | - | 0.000 | 0.560 | 1 | 0.560 |
| Network Infrastructure | A | | - | - | - | 0.060 | 1 | 0.060 | 0.205 | 1 | 0.205 | 0.180 | 1 | 0.180 | - | - | 0.000 | 0.180 | 1 | 0.180 |
| Tape Backup System | A | | - | - | - | 0.050 | 1 | 0.050 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 1.581 | - | - | 1.570 | - | - | 1.420 | - | - | 0.000 | - | - | 1.420 |
| Total | | | - | - | - | - | - | 1.581 | - | - | 1.570 | - | - | 1.420 | - | - | 0.000 | - | - | 1.420 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Aggregated Items Title: National Technical Nuclear Forensics |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| National Technical Nuclear Forensics | | | | | | | | | | | | | | | | | | | | |
| Nuclear Forensics - Prompt Diagnostics | A | | - | - | - | - | - | 5.852 | - | - | 5.711 | - | - | 6.070 | - | - | 0.000 | - | - | 6.070 |
| Subtotal: National Technical Nuclear Forensics | | | - | - | - | - | - | 5.852 | - | - | 5.711 | - | - | 6.070 | - | - | 0.000 | - | - | 6.070 |
| Total | | | - | - | - | - | - | 5.852 | - | - | 5.711 | - | - | 6.070 | - | - | 0.000 | - | - | 6.070 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrially-based sensors and communications for prompt diagnostics, collection, and analysis and evaluation of a nuclear detonation. Funding also includes procurement of technical data and any required initial system support.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Aggregated Items Title: Air Base Ground Defense |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ABGD1 | | | | | | | | | | | | | | | | | | | | |
| Program 1 | A | | - | - | - | - | - | - | 9.086 | 1 | 9.086 | - | - | - | - | - | - | - | - | |
| Subtotal: ABGD1 | | | - | - | - | - | - | - | - | - | 9.086 | - | - | - | - | - | - | - | - | |
| ABGD2 | | | | | | | | | | | | | | | | | | | | |
| Program 2 | A | | - | - | - | - | - | - | 4.038 | 1 | 4.038 | - | - | - | - | - | - | - | - | |
| Subtotal: ABGD2 | | | - | - | - | - | - | - | - | - | 4.038 | - | - | - | - | - | - | - | - | |
| Total | | | - | - | - | - | - | - | - | - | 13.124 | - | - | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Ground based air defense capability designed to counter current and emerging threats to forward operation locations. Contact AF A3XY 703-614-0402 or A5RE 703-697-9393.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Item Number / Title [DODIC]: AF Offensive Cyberspace Operations |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|-------------|--------------|---------------|---------------|--------------|---------------|
| Procurement Quantity <i>(Units in Each)</i> | - | - | 3 | 3 | - | 3 |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | - | 6.774 | 16.990 | 37.329 | 0.000 | 37.329 |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | - | 6.774 | 16.990 | 37.329 | 0.000 | 37.329 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | - | 6.774 | 16.990 | 37.329 | 0.000 | 37.329 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|-------|--------|---|--------|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Millions)</i> | - | - | 5.663 | 12.443 | - | 12.443 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - AF Offensive Cyberspace Operations Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Cyber Mission Platform (CMP) System ^(†) | - | - | - | - | - | - | 1.582 | 3 | 4.746 | 1.481 | 3 | 4.442 | - | - | - | 1.481 | 3 | 4.442 |
| Ronin System ^(††) | - | - | - | - | - | - | - | - | - | 2.252 | 5 | 11.258 | - | - | - | 2.252 | 5 | 11.258 |
| A&AS Contractor Support - CMP | - | - | - | - | - | - | 0.187 | 1 | 0.187 | 0.581 | 1 | 0.581 | - | - | - | 0.581 | 1 | 0.581 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 4.933 | - | - | 16.281 | - | - | - | - | - | 16.281 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Cyber Unique Equipment | - | - | - | - | - | - | - | - | - | 10.470 | 1 | 10.470 | - | - | - | 10.470 | 1 | 10.470 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 10.470 | - | - | - | - | - | 10.470 |
| <i>Subtotal: Hardware - AF Offensive Cyberspace Operations Cost</i> | - | - | - | - | - | - | - | - | 4.933 | - | - | 26.751 | - | - | - | - | - | 26.751 |
| Support - AF Offensive Cyberspace Operations Cost | | | | | | | | | | | | | | | | | | |
| Offensive Cyber Operations Support | - | - | - | - | - | 6.774 | - | - | 12.057 | - | - | 10.578 | - | - | - | - | - | 10.578 |
| <i>Subtotal: Support - AF Offensive Cyberspace Operations Cost</i> | - | - | - | - | - | 6.774 | - | - | 12.057 | - | - | 10.578 | - | - | - | - | - | 10.578 |
| Gross/Weapon System Cost | - | - | - | - | - | 6.774 | 5.663 | 3 | 16.990 | 12.443 | 3 | 37.329 | - | - | 0.000 | 12.443 | 3 | 37.329 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Item Number / Title [DODIC]: AF Offensive Cyberspace Operations |
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: | |
| ^(†) indicates the presence of a P-5a | | |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Item Number / Title [DODIC]: AF Offensive Cyberspace Operations |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------------|-------------|------|------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Cyber Mission Platform (CMP) System | | 2018 | Northrup Grumman / San Antonio, TX | PO | CPSG | Jun 2018 | Aug 2018 | 3 | 1.582 | N | Apr 2018 | |
| Cyber Mission Platform (CMP) System | | 2019 | Northrup Grumman / San Antonio, TX | PO | CPSG | Jun 2019 | Aug 2019 | 3 | 1.481 | N | Apr 2019 | |
| Ronin System | | 2019 | TBD / TBD | TBD | CPSG | May 2019 | Aug 2019 | 5 | 2.252 | N | Feb 2019 | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834320 / C3 Countermeasures | Aggregated Items Title: AF Defensive Cyberspace Operations |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Defensive Cyber Operations Support | A | | - | - | - | - | - | 0.620 | - | - | - | - | - | - | - | - | - | - | - | |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.620 | - | - | - | - | - | - | - | - | - | - | - | |
| Total | | | - | - | - | - | - | 0.620 | - | - | - | - | - | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834320 / C3 Countermeasures **Aggregated Items Title:** Intel Data Applications

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| PE 0208288F INTEL DATA APPLICATIONS | A | | - | - | - | - | - | 0.373 | - | - | 0.369 | - | - | 0.335 | - | - | - | - | - | 0.335 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.373 | - | - | 0.369 | - | - | 0.335 | - | - | - | - | - | 0.335 |
| Total | | | - | - | - | - | - | 0.373 | - | - | 0.369 | - | - | 0.335 | - | - | - | - | - | 0.335 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834430 / GCSS-AF Fos

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0708012F, 0708610F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 1.743 | 2.826 | 0.483 | 0.000 | 0.483 | 2.974 | 5.005 | 8.076 | 8.362 | - | 29.469 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 1.743 | 2.826 | 0.483 | 0.000 | 0.483 | 2.974 | 5.005 | 8.076 | 8.362 | - | 29.469 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 1.743 | 2.826 | 0.483 | 0.000 | 0.483 | 2.974 | 5.005 | 8.076 | 8.362 | - | 29.469 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0708610F LOGISTICS INFORMATION TECHNOLOGY (LOGIT)

The Air Force logistics enterprise is comprised of multiple overarching functional areas, end-to-end supply chain support, base supply inventories, and predictive analysis and forecasting. Enterprise Logistics Systems deliver integrated logistics information driving war winning decisions by shaping, acquiring, and sustaining warfighting IT capabilities and mission support. OPAF funding will be used for capital equipment replacement to include servers and will also be used to purchase multi-year software licenses.

Systems contained in these business areas include, but are not limited to, the Air Force Equipment Management System (AFEMS), Integrated Maintenance Data System (IMDS), Reliability and Maintainability Information System (REMIS), Combat Ammunitions System (CAS), Integrated Logistics System-Supply (ILS-S), Stock Control System (SCS), Enhanced Technical Information Management System (ETIMS), Product Lifecycle Management (PLM), Supply Capability Management Supply (SCM Supply), Supply Capability Management Item Master (SCM IM).

Funding for this exhibit contained in PE 0708610F.

Justification:

PE 0708610F LOGISTICS INFORMATION TECHNOLOGY (LOGIT)

The FY19 procurement dollars procure various types/amounts of software in support of unit mission requirements for Air Force personnel. Acquisition of 25 licenses in support of PLM for \$.483M.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834470 / Defense Enterprise Accounting & Mgt Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0901538F

Line Item MDAP/MAIS Code: N87

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 | 1.905 | 0.000 | 3.107 | 3.162 | 0.000 | 23.534 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 | 1.905 | 0.000 | 3.107 | 3.162 | 0.000 | 23.534 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 | 1.905 | 0.000 | 3.107 | 3.162 | 0.000 | 23.534 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Defense Enterprise Accounting and Management System (DEAMS) is a commercial-off-the-shelf (COTS), Oracle-based software implementation effort that will provide an auditable, modern accounting and finance system. DEAMS is a Joint United States Air Force (USAF) and United States Transportation Command (USTRANSCOM) Enterprise Resource Planning (ERP) Program that will provide core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting. DEAMS is compliant with the Clinger-Cohen Act, Business Enterprise Architecture (BEA), and integrates into Global Combat Support System-Air Force (GCSS-AF). When fully deployed, DEAMS will be key to Air Force compliance with the Financial Improvement and Audit Readiness (FIAR) requirement in the 2010 NDAA.

DEAMS deployments include:

- Air Mobility Command (AMC) without Transportation Working Capital Funds (TWCF)
- AMC with TWCF, in conjunction with Defense Finance and Accounting Service (DFAS) Rome
- Air Combat Command (ACC) and Air Force Global Strike Command (AFGSC)
- Air Force Reserve Command (AFRC), and Air National Guard (ANG) and other Geographically Separated Units (GSUs) to include DFAS Limestone, Air Force District of Washington (AFDW), Air Force Special Operations Command (AFSOC), U.S. Air Force Academy (USAF), Pacific Air Forces (PACAF), and DFAS Japan
- U. S. Air Forces in Europe (USAFE), DFAS Europe, and Air Education and Training Command (AETC), Joint Base San Antonio
- Air Force Material Command (AFMC), and Air Force Space Command (AFSPC)
- Remaining DFAS locations and all other GSUs

On 23 January 2017, the senior official provided the Critical Change Report (CCR) with certifications to Congress. The report recommended a restructure of DEAMS from one increment to multiple increments. The Milestone Decision Authority (MDA) approved the restructured program for DEAMS Increment (Inc) 1, to include deferring certain requirements to future increments, a limited deployment to an additional 700 users for Inc 1 to United States Air Forces in Europe (USAFE), and the updated FDD criteria via an Acquisition Decision Memorandum (ADM) dated 2 June 2017. Full Deployment Decision (FDD) threshold date is August 2020 and Full Deployment (FD) threshold date is February 2021.

The remaining DEAMS Inc 1 schedule includes Oracle R12 upgrade transition to a new production environment, hardware upgrade, reporting, auditing, and disbursing initiatives.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834470 / Defense Enterprise Accounting & Mgt Sys |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0901538F |
| Line Item MDAP/MAIS Code: N87 | | |
| <p>DEAMS Inc 1 funding through FY 2020 is to support Inc 1 deployments. DEAMS Inc 2 funding begins in FY2022 and will support Inc 2 deployments. DEAMS Inc 1 and Inc 2 will require software user licenses to support system deployments as well as potential software and hardware requirements needed to manage, execute, and deliver DEAMS system capability including necessary system upgrades.</p> <p>Procurement funding for DEAMS is in PE 0901538F, Financial Management Information Systems Development (FMISD).</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834470 / Defense Enterprise Accounting & Mgt Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0901538F

Line Item MDAP/MAIS Code: N87

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Financial Management Information Systems Development | | A | | - / 13.044 | - / 0.000 | - / 1.514 | - / 0.802 | - / 0.000 | - / 0.802 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 13.044 | - / 0.000 | - / 1.514 | - / 0.802 | - / 0.000 | - / 0.802 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 Funds are used to procure software licenses and other potential hardware using multiple contracts and various vendors. Software license counts are estimates and may vary at actual execution based on system needs.

This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. This program element may include necessary civilian pay expenses required to manage, execute, and deliver DEAMS system capability.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834470 / Defense Enterprise Accounting & Mgt Sys | Item Number / Title [DODIC]: Financial Management Information Systems Development |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 13.044 | 0.000 | 1.514 | 0.802 | 0.000 | 0.802 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Software - DEAMS Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Hardware/Software | - | - | 13.044 | - | - | 0.000 | - | - | 1.514 | - | - | 0.802 | - | - | 0.000 | - | - | 0.802 |
| <i>Subtotal: Recurring Cost</i> | - | - | 13.044 | - | - | 0.000 | - | - | 1.514 | - | - | 0.802 | - | - | 0.000 | - | - | 0.802 |
| <i>Subtotal: Software - DEAMS Cost</i> | - | - | 13.044 | - | - | 0.000 | - | - | 1.514 | - | - | 0.802 | - | - | 0.000 | - | - | 0.802 |
| Gross/Weapon System Cost | - | - | 13.044 | - | - | 0.000 | - | - | 1.514 | - | - | 0.802 | - | - | 0.000 | - | - | 0.802 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | P-1 Line Item Number / Title: 834480 / Maintenance Repair & Overhaul Initiative |
|--|---|

| | | |
|---|---|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): B | Program Elements for Code B Items: 0708055F | Other Related Program Elements: N/A |
|---|---|-------------------------------------|

Line Item MDAP/MAIS Code: 523

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 | 1.912 | 0.000 | 0.000 | 0.000 | - | 14.119 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 | 1.912 | 0.000 | 0.000 | 0.000 | - | 14.119 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 | 1.912 | 0.000 | 0.000 | 0.000 | - | 14.119 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

MAINTENANCE REPAIR AND OVERHAUL INITIATIVE (MROI):

MROI creates an integrated capability that plans, schedules, and executes organic depot maintenance support function critical to agile planning, optimized workload assignment, resource allocation and throughput, thereby increasing depot maintenance support to the war-fighter. The items being procured are commercial software licenses to allow limited/full deployment. The software is known to work in commercial environments. MROI DT&E and OT&E will test the Air Force configuration of the software in DISA environments with added Reports, Interfaces, Conversions and Extensions (RICE). Testing will be performed as part of the System Implementer activities via a contract to be awarded 2nd quarter FY 2018.

Maintenance Repair and Overhaul Initiative will be using, for the first time in FY 2019, 3080 funding to support CY2 022 delivery of the MROI capability currently under development (RDT&E).

Funding for this exhibit contained in PE 0708055F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834480 / Maintenance Repair & Overhaul Initiative

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0708055F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 523

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Maintenance Repair & Overhaul Initiative | P-5a, P-21 | B | | - / 0.000 | - / 0.000 | - / 0.000 | - / 12.207 | - / 0.000 | - / 12.207 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 12.207 | - / 0.000 | - / 12.207 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

This program is a new start.

The FY 2019 procurement dollars in the amount of \$12.207M procure various types/amounts of software in support of unit mission requirements for Air Force personnel. The budget reflects funding to procure production software licenses in quantities sufficient to support the MROI user community based on multiple release strategy.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834480 / Maintenance Repair & Overhaul Initiative | Item Number / Title [DODIC]: Maintenance Repair & Overhaul Initiative |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 0.000 | 0.000 | 12.207 | 0.000 | 12.207 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|-------|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | 0.000 | - | 0.000 |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Software - Maintenance Repair Cost | | | | | | | | | | | | | | | | | | |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Oracle eBS Licenses ^(†) | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | 0.005 | 1,715 ⁽¹⁾ | 8.575 | - | - | 0.000 | 0.005 | 1,715 | 8.575 |
| Tech Stack Licenses ^(†) | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | 0.008 | 454 | 3.632 | - | - | 0.000 | 0.008 | 454 | 3.632 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | <i>0.000</i> | - | - | <i>0.000</i> | - | - | <i>0.000</i> | - | - | <i>12.207</i> | - | - | <i>0.000</i> | - | - | <i>12.207</i> |
| <i>Subtotal: Software - Maintenance Repair Cost</i> | - | - | <i>0.000</i> | - | - | <i>0.000</i> | - | - | <i>0.000</i> | - | - | <i>12.207</i> | - | - | <i>0.000</i> | - | - | <i>12.207</i> |
| Gross/Weapon System Cost | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 12.207 | - | - | 0.000 | - | - | 12.207 |

(†) indicates the presence of a P-5a

Footnotes:

(1) AF Quantity FY 2019 Base MROI License quantities based on per user, per processor and enterprise level requirements.

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834480 / Maintenance Repair & Overhaul Initiative | Item Number / Title [DODIC]: Maintenance Repair & Overhaul Initiative |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|------------------------------------|-------------|------|-------------------------------------|--------------------------------------|---|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Oracle eBS Licenses ^(†) | | 2019 | To Be Determined / To Be Determined | TBD | AFLCMC/HI - Business & Enterprise Systems | May 2019 | Jun 2019 | 1,715 ⁽²⁾ | 0.005 | N | Jan 2019 | |
| Tech Stack Licenses ^(†) | | 2019 | To Be Determined / To Be Determined | TBD | AFLCMC/HI - Business & Enterprise Systems | Nov 2018 | Dec 2018 | 454 | 0.008 | N | Oct 2018 | |

^(†) indicates the presence of a P-21

Footnotes:

⁽²⁾ AF Quantity FY 2019 Base MROI License quantities based on per user, per processor and enterprise level requirements.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834480 / Maintenance Repair & Overhaul Initiative | Item Number / Title [DODIC]: Maintenance Repair & Overhaul Initiative |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2019 | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | B A L A N C E | | | | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|--|--|---|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | |
| Oracle eBS Licenses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2019 | AF | | 1,715 | 0 | 1,715 | | | | | | | | | | | | A - | 1,715 | | | | | | | | | | | | | | | 0 |
| Tech Stack Licenses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2019 | AF | | 454 | 0 | 454 | | | | A - | 454 | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834480 / Maintenance Repair & Overhaul Initiative | Item Number / Title [DODIC]: Maintenance Repair & Overhaul Initiative |
|---|---|---|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|-------------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | To Be Determined - To Be Determined | 1,715 ⁽³⁾ | 1,715 | 1,715 | 0 | 8 | 1 | 9 | 0 | 0 | 0 | 0 |
| 2 | To Be Determined - To Be Determined | 454 | 454 | 454 | 0 | 2 | 1 | 3 | 0 | 0 | 0 | 0 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Footnotes:

⁽³⁾ AF Quantity FY 2019 Base MROI License quantities based on per user, per processor and enterprise level requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834520 / Theater Battle Mgt C2 System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207410F, 0305015F, 0305984F **Other Related Program Elements:** 0207410F, 0207588F, 0305015F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 10.219 | 9.646 | 7.644 | 2.500 | 10.144 | 10.318 | 10.175 | 9.719 | 9.890 | - | 70.111 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 10.219 | 9.646 | 7.644 | 2.500 | 10.144 | 10.318 | 10.175 | 9.719 | 9.890 | - | 70.111 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 10.219 | 9.646 | 7.644 | 2.500 | 10.144 | 10.318 | 10.175 | 9.719 | 9.890 | - | 70.111 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Theater Battle Management Core Systems - Force Level (TBMCS FL): An integrated battle management system used to plan, execute, and assess an air campaign. It provides automated planning tools enabling consistent, coordinated battle management at both Air and Space Operations Centers (AOC) and non-AOC entities for operations and intelligence functions. TBMCS FL is a United States Air Force lead system with joint interest responsible for generation and dissemination of the Air Tasking Order and interoperates with allied units.

Unit Command and Control (UC2): Provides the wing and base commanders, and their battle staffs, with timely and accurate information for effective decision making. UC2 also provides a secure, automated, deployable, and distributed wing-level command and control system with connectivity to TBMCS systems.

Personnel Recovery Command and Control (PRC2): Provides PRC2 services supporting all Combatant Commands, Joint Services and other government agencies. Capabilities include web-based access to isolated personnel reports for all Department of Defense (DoD) personnel, C2 tools for performing command and control of recovery efforts for downed airmen/isolated ground troops, and rapid identification of personnel in distress. PRC2 is used within AOC/Areas Of Responsibility (AOR), Joint Personnel Recovery Centers, and Rescue Coordination Centers to provide the capabilities and services for planning and executing recovery of isolated personnel, and rapidly collaborate, disseminate, and store time-sensitive personnel recovery information.

Ground Base Air Defense: Deployable Command and Control (C2) joint defense provides forces with rapidly mobile, turn-key operability to support wartime taskings and enhances wartime capabilities.

In FY 2019, Theater Battle Management Core Systems - Force Level (TBMCS FL) and Unit Command and Control (UC2) efforts were transferred from PE 0207410F, Air & Space Operations Center (AOC) to PE 0305015F, C2 Air Operations Suite - C2 Information Services (C2AOS-C2IS), in order to improve transparency of programs.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PE 0207410F, PE 0207588F, PE 0305015F, and PE 305984F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834520 / Theater Battle Mgt C2 System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207410F, 0305015F, 0305984F **Other Related Program Elements:** 0207410F, 0207588F, 0305015F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Air & Space Operations Center (AOC) | | | | - / - | - / 10.219 | - / 8.360 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Air Base Ground Defense | | | | - / - | - / 0.000 | - / 0.000 | - / 0.000 | - / 2.500 | - / 2.500 |
| P-40a | C2 Air Operations Suite - C2 Info Services | | | | - / - | - / - | - / - | - / 2.120 | - / - | - / 2.120 |
| P-40a | C2 Air Operations Suite - C2 Info Services | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 4.223 | - / 0.000 | - / 4.223 |
| P-40a | Personnel Recovery Command & Ctrl (PRC2) | | | | - / 0.000 | - / 0.000 | - / 1.286 | - / 1.301 | - / 0.000 | - / 1.301 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 0.000 | - / 10.219 | - / 9.646 | - / 7.644 | - / 2.500 | - / 10.144 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Air & Space Operations Center (AOC) | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Air Base Ground Defense | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | C2 Air Operations Suite - C2 Info Services | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | C2 Air Operations Suite - C2 Info Services | | | | - / 8.995 | - / 8.828 | - / 8.347 | - / 8.494 | - / 0.000 | - / 38.887 |
| P-40a | Personnel Recovery Command & Ctrl (PRC2) | | | | - / 1.323 | - / 1.347 | - / 1.372 | - / 1.396 | - / 0.000 | - / 8.025 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 10.318 | - / 10.175 | - / 9.719 | - / 9.890 | - / - | - / 70.111 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

This program, Theater Battle Mgt C2 System P-40A Item Deployable C2 (OCO), is a new start.

1. TBMCS FL: Provides the Joint and Combined Air Component Commander with the automated tools necessary to effectively and efficiently plan, monitor, and execute the air campaign. This includes planning and issuing the Air Tasking and Airspace Control Orders that ensure the theater commander's intent is supported through the application of airpower using the latest intelligence. FY19 funding will continue fielding TBMCS FL to include security patches, vendor update patches, operating system upgrades, and DoD mandated policy updates. FY19 funding will also continue Capital Equipment Replacement (CER) to the systems to maintain security posture and field updates to more than 40 locations.

a. TBMCS FL PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY19 funding includes provisions for government contract oversight, technical expertise, and program office support associated with the fielding of TBMCS FL.

b. TBMCS FL TRAINING & FIELDING: FY19 funding will continue to support fielding of the TBMCS FL upgrades and specialized training at each location.

c. TBMCS FL: FY19 funds will continue to be used to procure hardware and associated software licenses for fielding to various sites.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0207410F, 0305015F, 0305984F | Other Related Program Elements: 0207410F, 0207588F, 0305015F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>2. UNIT COMMAND AND CONTROL (UC2): Provides the wing and base commanders and their battle staffs with timely and accurate information for effective decision making. UC2 also provides secure, automated, deployable, and distributed wing-level command and control system with connectivity to TBMCS FL systems. Enhanced unit-level operations capabilities will be provided through the UC2 project. FY19 funding will continue to support fielding of modernized equipment at more than 10 active duty locations.</p> <p>a. UC2 HARDWARE AND COMMERCIAL-OFF-THE-SHELF (COTS) SOFTWARE: FY19 funds will continue to replace clients, servers, miscellaneous hardware, and associated software licenses for UC2 sites.</p> <p>b. UC2 PMA: FY19 funding includes provisions for government contract oversight, technical expertise, and program office support associated with the fielding of UC2.</p> <p>3. PERSONNEL RECOVERY COMMAND AND CONTROL (PRC2): Provides PRC2 services supporting all Combatant Commands, Joint Services and other government agencies. Capabilities include web-based access to isolated personnel reports for all DoD personnel, C2 tools for performing command and control of recovery efforts for downed airmen/isolated ground troops, and rapid identification of personnel in distress. PRC2 is used within AOC/AOR, Joint Personnel Recovery Centers, and Rescue Coordination Centers to provide the capabilities and services for planning and executing recovery of isolated personnel, and rapidly collaborate, disseminate, and store time-sensitive personnel recovery information. FY19 funding will continue to support PRC2 operations.</p> <p>a. PRC2 HARDWARE AND COTS SOFTWARE: FY19 funding will continue procure various hardware pieces and associated software licenses for fielding to various sites.</p> <p>b. PRC2 PMA: FY19 funding will provide for government program oversight, technical expertise, and program office support associated with the fielding of PRC2.</p> <p>OCO: FY19 funding totals include \$2.5M appropriated for Overseas Contingency Operations. Ground Base Air Defense: Deployable Command and Control (C2) joint defense provides forces with rapidly mobile, turn-key operability to support wartime taskings and enhances wartime capabilities.</p> | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834520 / Theater Battle Mgt C2 System **Aggregated Items Title:** Air & Space Operations Center (AOC)

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-----------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| TBMCS FL | | | | | | | | | | | | | | | | | | | | |
| PMA Contractor Services | A | | - | - | - | - | - | 0.818 | - | - | 1.989 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| DMS Capital Equipment Replacement | A | | - | - | - | 4.701 | 2 | 9.401 | 3.186 | 2 | 6.371 | - | - | - | - | - | - | - | - | - |
| Subtotal: TBMCS FL | | | - | - | - | - | - | 10.219 | - | - | 8.360 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 10.219 | - | - | 8.360 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System | Aggregated Items Title: Air Base Ground Defense |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Air Base Ground Defense | | | | | | | | | | | | | | | | | | | | |
| Deployable C2 (OCO) | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 2.500 | - | - | 2.500 |
| Subtotal: Air Base Ground Defense | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 2.500 | - | - | 2.500 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 2.500 | - | - | 2.500 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System | | | | | | Aggregated Items Title: C2 Air Operations Suite - C2 Info Services | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| TBMCS FL | | | | | | | | | | | | | | | | | | | | |
| PMA Contractor Services | A | | - | - | - | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| TBMCS FL Capital Equipment Replacement | A | | - | - | - | - | - | - | - | - | 0.000 | 1,000,000 | 2.120 | - | - | - | 0.000 | 1,000,000 | 2.120 | |
| Subtotal: TBMCS FL | | | - | - | - | - | - | - | - | - | - | - | 2.120 | - | - | - | - | - | 2.120 | |
| Total | | | - | - | - | - | - | - | - | - | - | - | 2.120 | - | - | - | - | - | 2.120 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|--|--|--|--|--|--|---|--|--|--|--|--|---|--|----------------------------|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System | | | | | | Aggregated Modification Items Title: C2 Air Operations Suite - C2 Info Services | | | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 1TBMC2 / UC2 | | | - | - | - | - | - | - | - | - | 0.000 | - | - | 4.223 | - | - | 0.000 | - | - | 4.223 |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 4.223 | - | - | 0.000 | - | - | 4.223 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 1TBMC2 / UC2 | | | - | - | 8.995 | - | - | 8.828 | - | - | 8.347 | - | - | 8.494 | - | - | - | - | - | 38.887 |
| Total | | | - | - | 8.995 | - | - | 8.828 | - | - | 8.347 | - | - | 8.494 | - | - | 0.000 | - | - | 38.887 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---------------------|----------------------------|------------------------|
| 1TBMC2 / UC2 | UC2 | Capability Improvement |

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|--|--|--|--|--|--|--|---|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | | P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System | | | | | | | Aggregated Modification Items Title: Personnel Recovery Command & Ctrl (PRC2) | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 2TBMC2 / PRC2 | | | - | - | - | - | - | - | - | - | 1.286 | - | - | 1.301 | - | - | - | - | - | 1.301 |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 1.286 | - | - | 1.301 | - | - | 0.000 | - | - | 1.301 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 2TBMC2 / PRC2 | | | - | - | 1.323 | - | - | 1.347 | - | - | 1.372 | - | - | 1.396 | - | - | - | - | - | 8.025 |
| Total | | | - | - | 1.323 | - | - | 1.347 | - | - | 1.372 | - | - | 1.396 | - | - | 0.000 | - | - | 8.025 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---------------------|------------------------------------|------------------------|
| 2TBMC2 / PRC2 | PersonnelRecoveryCommandandControl | Capability Improvement |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834530 / Air & Space Operations Center (AOC)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|-------------|---------------|---------------|--------------|--------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 15.325 | 25.533 | 40.066 | - | 40.066 | 40.583 | 5.190 | 5.228 | 5.247 | - | 137.172 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 15.325 | 25.533 | 40.066 | - | 40.066 | 40.583 | 5.190 | 5.228 | 5.247 | - | 137.172 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 15.325 | 25.533 | 40.066 | - | 40.066 | 40.583 | 5.190 | 5.228 | 5.247 | - | 137.172 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Air Operations Center Weapon System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System, is the weapon system that the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for monitoring, planning, executing and assessing theater-wide air and space operations in support of the air battle campaign to meet the Combined/Joint Force Commander's (C/JFC) objectives.

The AOC WS contains over 40 Command and Control (C2) systems/applications (3rd Party Commercial Off the Shelf (COTS)/Government Off the Shelf (GOTS)) that are continually being updated under semi-annual/annual/bi-annual efforts (i.e., Baseline Releases [BR]). The AOC WS 10.1 integrates these changes as well as provides periodic Capital Equipment Replacement (CER) to keep the AOC WS interoperable, supportable, and compliant (e.g., certification and accreditation). Fielding will provide Joint C2 interoperability, and respond to the highest priority Combatant Command (CCMD) interoperability problems including: (a) incorporating fixes to shortfalls in interactions with CCMD targeting support systems, (b) enhancing the effectiveness of the operational picture to respond to the proliferation of sensors, and (c) handling data interface changes being experienced with older 3rd Party program deliveries. Major subsystems have enhanced their security profile and this fielding will serve as a re-accreditation of the overall AOC WS baseline. Primary efforts in fielding include CER and baseline updates via variously sized BRs. BRs are regularly scheduled 3rd Party COTS/GOTS application updates. They are normally comprised of hardware/software changes/updates/modernized improvements/modifications and security patches. Each BR is based on warfighter-validated needs that require updates to the AOC WS 10.1. The AOC program's agile modification of the baseline 10.1 brought forward a hybrid cloud environment employment including on premise installation. In FY 2019, the purchase of hardware supporting the hybrid cloud environment was realigned from FY 2018 OPAF to FY 2019 RDT&E.

The AOC WS funding provides system hardware, software, technical documents, CER (e.g., replacing end-of-life/end of support Direct Mission Support (DMS) and 3rd Party components), core radio and initial training to standardize and sustain the AOC WS. This includes the integration, test and fielding of cyber security improvements and existing 3rd Party modernized improvements/modifications (e.g., replace paper copy with electronic requests). The fielding and CER consist of AOCs and their associated support sites (e.g., Help Desk, Formal Training Unit (FTU), experimental sites, and Air Reserve Component sites). In FY 2019, funding increased to support moving the AOC baseline toward a cloud-based commercially managed Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform/environment.

There are three distinct categories of AOCs: Geographic, Global (formally known as Functional), and assorted AOC Support Functions (Help Desk, Field Training Unit (FTU), Operational Support Facility (OSF) and Air Reserve Component sites). While all sites start with the standardized 10.1 baseline, each is specifically tailored to the needs of the associated Geographic CCMD or Global (formally known as Functional) Command. Thus, as no two AOCs are alike, when a CER or BR is accomplished, each site is unique and requires its own specifically designed site-engineered fielding plan and associated hardware, which drives differences in site specific (i.e., unit) costs.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | | P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC) |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. | | |
| Funding for this exhibit contained in PE 0207410F. | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834530 / Air & Space Operations Center (AOC)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Air & Space Operations Center (AOC) | | A | | - / - | - / 15.325 | - / 25.533 | - / 40.066 | - / - | - / 40.066 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 15.325 | - / 25.533 | - / 40.066 | - / - | - / 40.066 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

1. FIELDING: Primary efforts include integration and fielding of improvements/upgrades of existing 3rd Party applications as well as newly developed replacement applications, CER (replacing end-of-life/end of support components) and baseline updates via variously sized BRs.

a. CAPITAL EQUIPMENT REPLACEMENT (CER): FY19 funds will be used to support moving the AOC baseline toward a cloud-based commercially managed Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform/environment and address numerous commercial end-of-life and DMS components including components associated with C2 applications (3rd Party COTS/GOTS) that must be resolved.

b. BASELINE RELEASES (BR): FY19 will fund BRs, periodic maintenance upgrades, emergency fixes, cyber security improvements and other activities (e.g., testing activities).

c. FIELDING SYSTEM PROGRAM OFFICE (SPO) SUPPORT: FY19 funds will be used to provide government oversight, technical expertise, and program office support associated with the fielding of AOC.

d. TEST SUPPORT (46 Test Squadron [46TS]): FY19 funds will be used to provide government oversight and technical expertise associated with the testing of AOC.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC) | Item Number / Title [DODIC]: Air & Space Operations Center (AOC) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 15.325 | 25.533 | 40.066 | - | 40.066 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 15.325 | 25.533 | 40.066 | - | 40.066 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 15.325 | 25.533 | 40.066 | - | 40.066 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| 1.a.2. CAPITAL EQUIPMENT REPLACEMENT: AOC SUPPORT SITES - AD | - | - | - | - | - | 0.591 | - | - | - | - | - | - | - | - | - | - | - | - |
| 1.a.3. CAPITAL EQUIPMENT REPLACEMENT: AOC EXPERIMENTAL SITES - AD | - | - | - | - | - | 2.055 | - | - | 2.112 | - | - | 2.136 | - | - | - | - | - | 2.136 |
| 1.b.1. BASELINE RELEASE: AOC SITES - AD | - | - | - | - | - | 3.807 | - | - | 5.316 | - | - | 13.732 | - | - | - | - | - | 13.732 |
| 1.b.2. BASELINE RELEASE: SUPPORT SITES - AD | - | - | - | - | - | 0.935 | - | - | 7.307 | - | - | 2.900 | - | - | - | - | - | 2.900 |
| 1.c. FIELDING SPO SUPPORT | - | - | - | - | - | 3.428 | - | - | 5.505 | - | - | 15.268 | - | - | - | - | - | 15.268 |
| 1.d. TEST SUPPORT (46TS) | - | - | - | - | - | 0.595 | - | - | 2.400 | - | - | 2.565 | - | - | - | - | - | 2.565 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | <i>11.411</i> | - | - | <i>22.640</i> | - | - | <i>36.601</i> | - | - | - | - | - | <i>36.601</i> |
| <i>Subtotal: Hardware - Hardware End Item Cost</i> | - | - | - | - | - | <i>11.411</i> | - | - | <i>22.640</i> | - | - | <i>36.601</i> | - | - | - | - | - | <i>36.601</i> |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC) | | | | | | Item Number / Title [DODIC]: Air & Space Operations Center (AOC) | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 2.a. PROGRAM MANAGEMENT ADMINISTRATION: PROGRAM SUPPORT | - | - | - | - | - | 3.914 | - | - | 2.893 | - | - | 3.465 | - | - | - | - | - | 3.465 |
| <i>Subtotal: Support - Support End Item Cost</i> | - | - | - | - | - | 3.914 | - | - | 2.893 | - | - | 3.465 | - | - | - | - | - | 3.465 |
| Gross/Weapon System Cost | - | - | - | - | - | 15.325 | - | - | 25.533 | - | - | 40.066 | - | - | - | - | - | 40.066 |

Remarks:

- 1). Due to different levels of complexity, differences in equipment to be updated, and length of required time necessary for modification, the total cost will fluctuate between fiscal years.
- 2). Differences in site specific setup (due to variations between mission specific needs and differences in site type i.e., Geographic vs. Global (formally known as Functional) vs. Associated Support Site vs. Air Reserve Component Sites) will drive differences in site specific requirements (e.g., time required, hardware required and software required). This makes quantification impossible, as there is no single baseline to produce a quantity against. Per DoD Financial Regulation 7000.14-R, Volume 2B, Chapter 4, Exhibit P-5 Instruction, the quantities in the P-5 are left blank as there is no way to report applicable quantities.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects | P-1 Line Item Number / Title: 834560 / Air Operations Center (AOC) 10.2 |
|---|---|

| | | |
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| ID Code (A=Service Ready, B=Not Service Ready): B | Program Elements for Code B Items: 0605458F | Other Related Program Elements: N/A |
|--|--|--|

Line Item MDAP/MAIS Code: N42

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 23.026 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 23.026 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 23.026 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

NOTE: PE 0605458F, Air & Space Ops Center 10.2 RDT&E, Project Number 654945, AOC 10.2 Development, terminated 16 Jan 18. As a result, no FY 2019 OPAF funding is requested and no funding is required due to AOC WS Inc. 10.2 Program of Record cancellation.

The Air Operations Center Weapon System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System (TACS), is the weapon system the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for planning, executing, and assessing theater-wide air and space operations. The C/JFACC provides air, space and cyber support to the Combined/Joint Forces Commander (C/JFC) by coordinating, deconflicting and assessing the progress of various weapon systems to advance the C/JFC's campaign. The AOC WS develops operations strategy and planning documents. The AOC WS also disseminates tasking orders; executes day-to-day peacetime and combat air, space and cyber operations; and provides rapid reaction to immediate situations by exercising positive control of friendly forces.

With the termination of the AOC 10.2 Prime Contract on 13 Jul 17 and official cancellation on 16 Jan 18, the Air Force is undergoing the orderly shutdown to cancel the AOC 10.2 Program of Record. Future procurement to update existent AOC 10.1 baseline as well as modifications to that baseline in pursuit of a modernized AOC will be accomplished in Line Item 834530, AOC WS. The AOC 10.2 program has been officially cancelled/terminated as of 16 Jan 18.

Funding for this exhibit is contained in PE 0207410F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834560 / Air Operations Center (AOC) 10.2

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0605458F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N42

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Air Operations Center (AOC) 10.2 | | B | | - / 14.846 | - / 8.180 | - / 0.000 | - / 0.000 | - / - | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 14.846 | - / 8.180 | - / 0.000 | - / 0.000 | - / - | - / 0.000 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
No FY 2019 funding requested.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | P-1 Line Item Number / Title: 834560 / Air Operations Center (AOC) 10.2 | Item Number / Title [DODIC]: Air Operations Center (AOC) 10.2 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 14.846 | 8.180 | 0.000 | 0.000 | - | 0.000 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Package Fielding - PackageFielding End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Initial Fielding | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Site Installation Testing | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Package Fielding - PackageFielding End Item Cost</i> | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |
| Program Management Administration (PMA) | - | - | 2.629 | - | - | 4.960 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Fielding Technical Support | - | - | 0.340 | - | - | 0.680 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Type I Training | - | - | - | - | - | 2.540 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Support - Support End Item Cost</i> | - | - | 2.969 | - | - | 8.180 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Support - Counter small Unmanned Aerial System JEON (ST-0008) Cost | | | | | | | | | | | | | | | | | | |
| Counter small Unmanned Aerial System JEON (ST-0008) | - | - | 11.877 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Subtotal: Support - Counter small Unmanned Aerial System JEON (ST-0008) Cost</i> | - | - | 11.877 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |

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|---|--|--|--|--|--|---|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 | | | | | | P-1 Line Item Number / Title: 834560 / Air Operations Center (AOC) 10.2 | | | | | | Item Number / Title [DODIC]: Air Operations Center (AOC) 10.2 | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 14.846 | - | - | 8.180 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |

Remarks:

NOTE: PE 0605458F, Air & Space Ops Center 10.2 RDT&E, Project Number 654945, AOC 10.2 Development, terminated 16 Jan 18. As a result, no FY 2019 OPAF funding is requested and no funding is required due to AOC WS Inc. 10.2 Program of Record cancellation.

Differences in site specific setup (due to variations between mission specific needs and differences in site type) will drive differences in site specific requirements (e.g., time required, hardware required and software required). The calculated unit costs are representative but not actual and the total cost will fluctuate between fiscal years.

This makes quantification impossible, as there is no single baseline to produce a quantity against. Per DoD Financial Regulation 7000.14-R, Volume 2B, Chapter 4, Exhibit P-5 Instruction, the quantities in the P-5 are left blank as there is no way to report applicable quantities.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834880 / Spectrum Relocation Fund

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|--------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 1.393 | - | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - | - | 1.393 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 1.393 | - | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - | - | 1.393 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 1.393 | - | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - | - | 1.393 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Funding supports spectrum relocation.

Funding for this exhibit contained in PE 0303267F.

Justification:

No funding requested for FY18.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired |
|---|--|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0303112F |
|--|---|---|

Line Item MDAP/MAIS Code: N78

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 296.046 | 39.611 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 63.210 | 254.586 | 952.440 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 296.046 | 39.611 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 63.210 | 254.586 | 952.440 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 296.046 | 39.611 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 63.210 | 254.586 | 952.440 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

BASE INFORMATION TRANSPORT INFRASTRUCTURE (BITI), formerly known as INFORMATION TRANSPORT SYSTEM (ITS): BITI delivers the Air Force cyberspace network and integrated infrastructure for 175 fixed Air Force installations (active duty, reserve, and Air National Guard (ANG)) and Geographically Separated Units (GSU) at approved locations. Integrated BITI will have a consolidated cyber capability addressing emerging cyber threats to infrastructure. BITI capabilities encompass all optical systems, digital voice/data/video systems, commercial devices, unified capabilities and wireless capabilities. The end result of a Turnkey project is a high-speed packet switching and circuit transport of critical information among core buildings and mission areas on a base. Additionally, BITI provides a robust and secure wireless infrastructure that incorporates high-availability and multi-tiered network connections at approved facilities requiring remote access. The efforts in this program budget line through its various increments and major projects, coupled with the efforts from the Air Force Network budget line enable the fielding, support and sustainment of standard, enterprise solutions for the entire Air Force Intranet from the individual base communications closets to the Air Force gateways and all the components and systems in-between in cyberspace. As Unified Capabilities (UC) evolves, BITI will respond with expanded bandwidth to provide the necessary throughput.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

BITI will ensure that Air Force operating locations have sufficient infrastructure, bandwidth, and overall network capability to support the current and future communication needs of the Air Force and Joint-Command warfighter via reliable and survivable information transport with sufficient capacity and capability to meet the classified and unclassified data, voice, video, imagery, and telemetry requirements at each installed location.

BITI Turnkey: Deploys complete BITI system/sub-system infrastructure/equipment for 175 fixed Air Force installations (active duty, reserve, and ANG) and GSU at approved locations. The last of the BITI Turnkey projects were completed on 29 Sep 2017 which enabled the BITI Program to declare completion of the Full Deployment (FD) milestone.

BITI Turnkey Modification: Follow on full base internal network modifications for system/sub-system infrastructure. Turnkey Modifications are completed on bases that have already received a Turnkey. As requirements have evolved, base missions have changed and some bases that have already received an earlier Turnkey may not have the fiber needed for the current Base Area Network spec. The Turnkey Modifications expands on the existing outside and inside plant, but not to the extent of an initial Turnkey. The last six (6) Turnkey Modifications started in FY15 and will finish in FY18. After completion of these last Turnkey Modifications, all BITI base work will be Recapitalizations.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications **P-1 Line Item Number / Title:** 835060 / Base Information Transpt Infrast (BITI) Wired

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303112F

Line Item MDAP/MAIS Code: N78

BITI Recapitalization: Replaces critical "backbone" infrastructure of network equipment installed as part of Turnkeys on a routine basis for fielded systems for over 175 fixed Air Force installations (active duty, reserve, and Air National Guard (ANG)) and Geographically Separated Units (GSUs) at approved locations.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the armed forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PE 0303112F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|---------------|---------------|---------------|-------------|---------------|---------------|---------------|---------------|---------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 39.611 | 21.679 | 20.682 | - | 20.682 | 86.163 | 55.906 | 80.736 | 61.492 |
| AFNG | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | 6.480 | 1.270 | - | 1.270 | 5.889 | 3.237 | 12.632 | 1.718 |
| AFR | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | - | 0.405 | - | 0.405 | 2.078 | 1.830 | - | - |
| Total: | Quantity | - | - | - | - | - | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 39.611 | 28.159 | 22.357 | - | 22.357 | 94.130 | 60.973 | 93.368 | 63.210 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 835060 / Base Information Transpt Infrast (BITI) Wired
Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303112F

Line Item MDAP/MAIS Code: N78

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | 0303112F ITS | P-5a, P-21 | A | | - / 296.046 | - / 39.611 | - / - | - / - | - / - | - / - |
| P-3a | 1 / BITI Mod/Recaps (Capability Improvement) | | A | | - / 0.000 | - / 0.000 | - / 28.159 | - / 22.357 | - / 0.000 | - / 22.357 |
| P-3a | 2 / BITI Mod/Recaps BITI Modification 2 (Capability Improvement) | | A | | - / - | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 296.046 | - / 39.611 | - / 28.159 | - / 22.357 | - / 0.000 | - / 22.357 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | 0303112F ITS | P-5a, P-21 | A | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-3a | 1 / BITI Mod/Recaps (Capability Improvement) | | A | | - / 94.130 | - / 60.973 | - / 93.368 | - / 0.000 | - / - | - / 298.987 |
| P-3a | 2 / BITI Mod/Recaps BITI Modification 2 (Capability Improvement) | | A | | - / 0.000 | - / 0.000 | - / 0.000 | - / 63.210 | - / 254.586 | - / 317.796 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 94.130 | - / 60.973 | - / 93.368 | - / 63.210 | - / 254.586 | - / 952.440 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 BITI: FY19 funding includes, but is not limited to, implementation and upgrades to broadband, fiber-optic digital information transport networks to provide mission-critical information transfer capabilities at fixed Air Force bases (Active Duty, Air Force Reserve, and Air National Guard) and selected geographically separated unit locations. Procurement efforts include, but are not limited, site surveys, installations, and interim contractor support (ICS).
 BITI Turnkey Modification: FY18 deliveries will modify the complete system infrastructure/equipment on bases that have already received a Turnkey. The last six (6) installations started taking place in FY15 and will finish in FY18.
 BITI Recapitalization: FY19 replaces BITI Turnkey fielded systems for 175 fixed Air Force installations.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|--|---|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|----------------|---------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 296.046 | 39.611 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 296.046 | 39.611 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 296.046 | 39.611 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| BITI Turnkey Projects - AD Site Survey | 0.687 | 21 | 14.435 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Turnkey Projects - AD Installation ^(†) | 4.464 | 16 | 71.429 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Turnkey Projects - Reserve Site Survey | 0.381 | 5 | 1.903 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Turnkey Projects - Reserve Installation ^(†) | 2.217 | 4 | 8.867 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Turnkey Modernization AD Site Survey | 2.698 | 1 | 2.698 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Turnkey Modernization AD Installation ^(†) | 6.380 | 5 | 31.901 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Recapitalization AD ^(†) | 0.681 | 44 | 29.976 | 0.961 | 2 | 1.922 | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Recapitalization Reserve | - | - | 0.255 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Enterprise Recapitalization | - | - | 62.275 | - | - | 8.391 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFGSC Telephone Requirement | - | - | 10.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | | | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | | | | | | Item Number / Title [DODIC]: 0303112F ITS | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| BITI Recapitalization ANG ^(†) | - | - | - | 0.355 | 30 | 10.657 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 233.739 | - | - | 20.970 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware - Hardware End Item Cost Cost</i> | - | - | 233.739 | - | - | 20.970 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Support End Item Cost Cost | | | | | | | | | | | | | | | | | | |
| BITI Direct Mission Support (DMS) | - | - | 36.120 | - | - | 10.319 | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Program Support Costs (PSC) Contractor Services | - | - | 23.987 | - | - | 7.979 | - | - | - | - | - | - | - | - | - | - | - | - |
| BITI Other PSC Government Costs | - | - | 2.200 | - | - | 0.343 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Support End Item Cost Cost</i> | - | - | 62.307 | - | - | 18.641 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 296.046 | - | - | 39.611 | - | - | - | - | - | - | - | - | - | - | - | - |

Remarks:

Unit cost has significant variability due to size and complexity of bases/projects. A quantity is defined as a base location site survey or install and is projected based on mission requirements and funding availability.

Manpower (consisting of DMS & PSC) is combined Operations & Support and Acquisition cost.

PROGRAM SUPPORT COSTS (PSC) formally known as PROGRAM MANAGEMENT ADMINISTRATION (PMA): PSC BITI program supports the operation of the program office in its management and oversight role. PSC supports the BITI and the Base Information Infrastructure (BII) Program with engineering and technical support, as well as, support activities for the program.

DIRECT MISSION SUPPORT (DMS): DMS for BITI includes all support associated with equipment installation, engineering technical orders, sustainment engineering, and implementation. This includes the initial bed down and operability testing, technical interchange meetings, interim contractor support and events associated with fielding both hardware and software products, and maintaining configuration control of fielded products.

Funding for Turnkey projects end in 2015, all other funding line items continue through 2027. 2016 and beyond are solely recapitalizations.

NOTE: See P-3a exhibit for the FY18 effort and beyond.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|------------------------|----------------------------|---------|---------|--------------|-------------|---------------|
| AF | Quantity | - | - | - | - | - |
| | Total Obligation Authority | 39.611 | - | - | - | - |

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| | | | | | | |
|---|-----------------------------------|--|------------------------|---|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | Date: February 2018 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | | Item Number / Title [DODIC]: 0303112F ITS | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | MDAP/MAIS Code: | | | |
| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Total: | Quantity | - | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 39,611 | - | - | - | - |

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|--|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------------------|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| BITI Turnkey Projects - AD Installation ^(†) | | 2015 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Aug 2015 | Dec 2016 | 4 | 5.345 | Y | | Jan 2015 |
| BITI Turnkey Projects - Reserve Installation ^(†) | | 2015 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Jul 2015 | Aug 2017 | 2 | 2.254 | Y | | Oct 2014 |
| BITI Turnkey Modernization AD Installation ^(†) | | 2015 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Feb 2016 | Feb 2017 | 2 | 3.068 | Y | | Feb 2015 |
| BITI Recapitalization AD ^(†) | | 2016 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Dec 2016 | Apr 2018 | 40 | 0.585 | Y | | Oct 2016 |
| BITI Recapitalization AD ^(†) | | 2017 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Jan 2018 | Nov 2018 | 2 | 0.961 | Y | | Sep 2017 |
| BITI Recapitalization ANG ^(†) | | 2017 | VARIOUS/MULTIPLE / VARIOUS/MULTIPLE | C / FFP | AFLCMC Hanscom AFB | Jan 2018 | Nov 2018 | 30 | 0.355 | Y | | Sep 2017 |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpnt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2015 | | | | | | | | | | | | Fiscal Year 2016 | | | | | | | | | | | | B A L A N C E | | | | | | | | | | | | | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2014 | BAL DUE AS OF 1 OCT | Calendar Year 2015 | | | | | | | | | | | | Calendar Year 2016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | | | | | | | | | | | | | |
| BITI Turnkey Projects - AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2015 | AF | 4 | 0 | 4 | | | | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| BITI Turnkey Projects - Reserve Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 2015 | AF | 2 | 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| BITI Turnkey Modernization AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 2015 | AF | 2 | 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| BITI Recapitalization AD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 2016 | AF | 40 | 0 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 |
| 4 | | 2017 | AF | 2 | 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| BITI Recapitalization ANG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 2017 | AF | 30 | 0 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | | | | | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpnt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2017 | | | | | | | | | | | | Fiscal Year 2018 | | | | | | | | | | | | BALANCE | | | |
|--|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|---|---|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2016 | BAL DUE AS OF 1 OCT | Calendar Year 2017 | | | | | | | | | | | | Calendar Year 2018 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | |
| BITI Turnkey Projects - AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2015 | AF | | 4 | 0 | 4 | - | - | 1 | 1 | 1 | - | - | - | - | - | - | 1 | | | | | | | | | | 0 | | | | |
| BITI Turnkey Projects - Reserve Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2015 | AF | | 2 | 0 | 2 | - | - | - | - | - | - | - | - | - | - | 1 | 1 | | | | | | | | | | 0 | | | | |
| BITI Turnkey Modernization AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2015 | AF | | 2 | 0 | 2 | - | - | - | - | 1 | 1 | | | | | | | | | | | | | | | | 0 | | | | |
| BITI Recapitalization AD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2016 | AF | | 40 | 0 | 40 | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 4 | 7 | 7 | 7 | 7 | 7 | |
| | 4 | 2017 | AF | | 2 | 0 | 2 | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | 2 | | |
| BITI Recapitalization ANG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 2017 | AF | | 30 | 0 | 30 | | | | | | | | | | | | | | | | | | | | | | | 30 | | | |
| | | | | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S |
| | | | | | | | | | | C | O | E | A | E | A | A | U | U | U | E | C | T | O | V | E | A | B | A | A | U | U | U | E |
| | | | | | | | | | | T | V | C | N | B | R | R | Y | N | L | G | P | T | V | C | N | B | R | R | Y | N | L | G | P |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpnt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|---|---|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2019 | | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | BALANCE | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|---------|---|---|---|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 | | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| BITI Turnkey Projects - AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2015 | AF | 4 | 4 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| BITI Turnkey Projects - Reserve Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 2015 | AF | 2 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| BITI Turnkey Modernization AD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 2015 | AF | 2 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| BITI Recapitalization AD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 2016 | AF | 40 | 33 | 7 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| 4 | | 2017 | AF | 2 | 0 | 2 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 0 | |
| BITI Recapitalization ANG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 2017 | AF | 30 | 0 | 30 | - | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Item Number / Title [DODIC]: 0303112F ITS |
|---|--|---|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|-------------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | VARIOUS/MULTIPLE - VARIOUS/MULTIPLE | 4 | 4 | 4 | 4 | 11 | 16 | 27 | 0 | 0 | 0 | 0 |
| 2 | VARIOUS/MULTIPLE - VARIOUS/MULTIPLE | 2 | 2 | 2 | 2 | 10 | 25 | 35 | 0 | 0 | 0 | 0 |
| 3 | VARIOUS/MULTIPLE - VARIOUS/MULTIPLE | 2 | 2 | 2 | 0 | 17 | 12 | 29 | 0 | 0 | 0 | 0 |
| 4 | VARIOUS/MULTIPLE - VARIOUS/MULTIPLE | 2 | 2 | 2 | 0 | 16 | 10 | 26 | 0 | 0 | 0 | 0 |
| 5 | VARIOUS/MULTIPLE - VARIOUS/MULTIPLE | 30 | 30 | 30 | 0 | 16 | 10 | 26 | 0 | 0 | 0 | 0 |

Remarks:
FY15 Recapitalization Equipment contract were awarded April 2015. The four contracts were terminated for convenience in April 2016.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Modification Number / Title: 1 / BITI Mod/Recaps |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 | - | 298.987 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 | - | 298.987 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 | - | 298.987 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

BITI Turnkey Modification: FY18 deliveries will modify the complete system infrastructure/equipment on bases that have already received a Turnkey. Modernizations are responding to Commercial-Off-The-Shelf (COTS) obsolescence, address changes in bandwidth requirements, and re-scaling of the Base Area Network backbone equipment to support the base until the next mod/recapitalization (5 year cycle). The last 6 installations started taking place in FY15 and will finish in FY18.

BITI Recapitalization: FY19 replaces BITI Turnkey fielded systems for 175 fixed Air Force installations.

NOTE: See P-3a exhibit for the FY18 effort and beyond.

Milestone/Development Status

Sustainment

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|-----------------------------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | 21.679 | 20.682 | 0.000 | 20.682 | 86.163 | 55.906 | 80.736 | - |
| AFNG | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | 6.480 | 1.270 | 0.000 | 1.270 | 5.889 | 3.237 | 12.632 | - |
| AFR | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | - | - | 0.405 | - | 0.405 | 2.078 | 1.830 | - | - |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | | | | | | Modification Number / Title: 1 / BITI Mod/Recaps | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: BITI | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0303112F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BITI Recapitalization | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| BITI Recapitalization:EQUIPMENT Group B (Active) | - / - | - / - | 0 / 2.479 | 15 / 7.639 | - / - | 15 / 7.639 | 15 / 9.624 | 10 / 12.483 | 50 / 32.011 | - / - | - / - | 90 / 64.236 | |
| BITI Recapitalization:EQUIPMENT Group B (Guard) | - / - | - / - | 20 / 5.259 | - / 1.270 | - / - | - / 1.270 | 16 / 4.892 | 10 / 2.602 | 30 / 10.649 | - / - | - / - | 76 / 24.672 | |
| BITI Recapitalization:EQUIPMENT Group B (Reserve) | - / - | - / - | - / - | - / 0.405 | - / - | - / 0.405 | 4 / 1.760 | 5 / 1.471 | - / - | - / - | - / - | 9 / 3.636 | |
| <i>Subtotal: Recurring</i> | - / - | - / - | - / 7.738 | - / 9.314 | - / - | - / 9.314 | - / 16.276 | - / 16.556 | - / 42.660 | - / - | - / - | - / 92.544 | |
| <i>Subtotal: BITI Recapitalization</i> | - / - | - / - | - / 7.738 | - / 9.314 | - / - | - / 9.314 | - / 16.276 | - / 16.556 | - / 42.660 | - / - | - / - | - / 92.544 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / - | - / 7.738 | - / 9.314 | - / - | - / 9.314 | - / 16.276 | - / 16.556 | - / 42.660 | - / - | - / - | - / 92.544 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| GROUP B: TOTAL NONRECURRING | - / - | - / - | - / 6.974 | - / 2.971 | - / - | - / 2.971 | - / 61.452 | - / 28.023 | - / 30.790 | - / - | - / - | - / 130.210 | |
| PMA - Other Gov't Costs | - / - | - / - | - / 0.341 | - / 0.400 | - / - | - / 0.400 | - / 0.408 | - / 0.416 | - / 0.425 | - / - | - / - | - / 1.990 | |
| A&AS | - / - | - / - | - / 7.436 | - / 6.886 | - / - | - / 6.886 | - / 8.607 | - / 9.197 | - / 9.349 | - / - | - / - | - / 41.475 | |
| PMA - Contractor Services | - / - | - / - | - / 4.449 | - / 1.506 | - / - | - / 1.506 | - / 4.192 | - / 4.276 | - / 1.027 | - / - | - / - | - / 15.450 | |
| <i>Subtotal: Support</i> | - / - | - / - | - / 19.200 | - / 11.763 | - / - | - / 11.763 | - / 74.659 | - / 41.912 | - / 41.591 | - / - | - / - | - / 189.125 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BITI Recapitalization | - / - | - / - | 20 / 1.221 | 15 / 1.280 | 0 / 0.000 | 15 / 1.280 | 35 / 3.195 | 25 / 2.505 | 80 / 9.117 | - / - | - / - | 175 / 17.318 | |
| <i>Subtotal: Installation</i> | - / - | - / - | 20 / 1.221 | 15 / 1.280 | 0 / - | 15 / 1.280 | 35 / 3.195 | 25 / 2.505 | 80 / 9.117 | - / - | - / - | 175 / 17.318 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 0.000 | 0.000 | 28.159 | 22.357 | 0.000 | 22.357 | 94.130 | 60.973 | 93.368 | 0.000 | - | 298.987 | |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Modification Number / Title: 1 / BITI Mod/Recaps |
|---|--|--|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Modification Item 1 of 1: BITI Recapitalization

Manufacturer Information

Manufacturer Name: TBD/Multiple Manufacturer Location: TBD

Administrative Leadtime (in Months): 1 Production Leadtime (in Months): 0

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|---------|----------|----------|----------|----------|----------|---------|
| Contract Dates | | May 2019 | May 2019 | May 2020 | Dec 2020 | Dec 2021 | |
| Delivery Dates | | May 2019 | May 2019 | May 2020 | Dec 2020 | Dec 2021 | |

Installation Information

Method of Implementation: Contractor Facility

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | 20 / 1.221 | 0 / 0.000 | 0 / 0.000 | 0 / 0.000 | - / - | - / - | - / - | - / - | - / - | 20 / 1.221 |
| FY 2019 | - / - | - / - | - / - | 15 / 1.280 | 0 / 0.000 | 15 / 1.280 | - / - | - / - | - / - | - / - | - / - | 15 / 1.280 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | 35 / 3.195 | - / - | - / - | - / - | - / - | 35 / 3.195 |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 25 / 2.505 | - / - | - / - | - / - | 25 / 2.505 |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 80 / 9.117 | - / - | - / - | 80 / 9.117 |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | - / - | 20 / 1.221 | 15 / 1.280 | 0 / 0.000 | 15 / 1.280 | 35 / 3.195 | 25 / 2.505 | 80 / 9.117 | - / - | - / - | 175 / 17.318 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | - | - | - | - | - | - | - | 35 | - | - | 35 | - | - | 25 | - | - | - | 80 | - | - | - | - | - | - | - | 0 | 175 |
| Out | 0 | - | - | - | - | - | - | - | - | - | - | 3 | 11 | 14 | 7 | 3 | 12 | 13 | 14 | 8 | 10 | - | 12 | 12 | 21 | 17 | 14 | 4 | - | 0 | 175 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpnt Infrast (BITI) Wired | Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2 |

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|---------------|----------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 63.210 | 254.586 | 317.796 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 63.210 | 254.586 | 317.796 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 63.210 | 254.586 | 317.796 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

BITI Recapitalization: FY23 - FY27 continues the five year recapitalization cycle that is addressed on Recaps BITI Modification 1. The five year recapitalization cycle affects 175 fixed Air Force Installations.

NOTE: Direction in January 2016 was to begin reporting the modification effort for BITI on a P-3a exhibit starting for the FY18 and beyond. Modification 2 covers the second five year recapitalization from FY23 - FY27.

Milestone/Development Status

Sustainment

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|
| AF | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | - | - | - | - | - | - | - | - | 61.492 |
| AFNG | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | - | - | - | - | - | - | - | - | 1.718 |
| Total: | | | | | | | | | |
| Secondary Distribution | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | | | | | | Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2 | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: BITI | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0303112F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BITI Recapitalization (2) | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| BITI Recapitalization:EQUIPMENT Group B (Active) | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 15 / 10.724 | 75 / 61.139 | 90 / 71.863 |
| BITI Recapitalization:EQUIPMENT Group B (Guard) | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 4 / 1.430 | 72 / 26.993 | 76 / 28.423 |
| BITI Recapitalization:EQUIPMENT Group B (Reserve) | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 9 / 3.965 | 9 / 3.965 |
| <i>Subtotal: Recurring</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 12.154 | - / 92.097 | - / 104.251 |
| <i>Subtotal: BITI Recapitalization (2)</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 12.154 | - / 92.097 | - / 104.251 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 12.154 | - / 92.097 | - / 104.251 |
| Support (All Modification Items) | | | | | | | | | | | | | |
| GROUP B: TOTAL NONRECURRING | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 33.953 | - / 83.307 | - / 117.260 |
| PMA - Other Gov't Costs | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 0.433 | - / 1.822 | - / 2.255 |
| A&AS | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 9.536 | - / 40.091 | - / 49.627 |
| PMA - Contractor Services | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 4.712 | - / 18.702 | - / 23.414 |
| <i>Subtotal: Support</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / 48.634 | - / 143.922 | - / 192.556 |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BITI Recapitalization (2) | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 19 / 2.422 | 156 / 18.567 | 175 / 20.989 |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 19 / 2.422 | 156 / 18.567 | 175 / 20.989 |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 63.210 | 254.586 | 317.796 |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired | Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2 |
|---|--|--|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Modification Item 1 of 1: BITI Recapitalization (2)

Manufacturer Information

| | |
|--|------------------------------------|
| Manufacturer Name: TBD/Multiple | Manufacturer Location: TBD |
| Administrative Leadtime (in Months): 1 | Production Leadtime (in Months): 0 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|---------|---------|---------|---------|---------|---------|----------|
| Contract Dates | | | | | | | Jul 2023 |
| Delivery Dates | | | | | | | Jul 2023 |

Installation Information

Method of Implementation: Contractor Facility

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2018 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2019 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 19 / 2.422 | - / - | 19 / 2.422 |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 156 / 18.567 | 156 / 18.567 |
| Total | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 19 / 2.422 | 156 / 18.567 | 175 / 20.989 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot | |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | |
| In | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 | 156 | 175 |
| Out | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 172 | 175 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
 835080 / AFNET
 Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208088F, 0303089F, 0303112F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 127.574 | 160.820 | 102.836 | 0.000 | 102.836 | 155.562 | 142.754 | 128.875 | 131.082 | - | 949.503 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 127.574 | 160.820 | 102.836 | 0.000 | 102.836 | 155.562 | 142.754 | 128.875 | 131.082 | - | 949.503 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 127.574 | 160.820 | 102.836 | 0.000 | 102.836 | 155.562 | 142.754 | 128.875 | 131.082 | - | 949.503 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

AFNet provides Commercial Off-The-Shelf (COTS) solutions to implement, deliver and upgrade installation processing nodes and boundaries, AF NIPRNet Gateways, Information Management Suite, enterprise network security, network situational awareness and C2 capabilities, and allows for the interface with and assured movement of information from terrestrial, air and space-based networks, thus enabling Air Force Information Operations (AFINOps). All funds used for AFNet Systems support the continued establishment and transformation of the AFINOps construct toward the standards and specifications of the DoD Joint Information Environment (JIE). The procurement efforts in this program budget line includes, but are not limited to, equipment purchase, engineering/integration, certification and accreditation, deployment, testing, training equipment/systems, associated training and interim contractor support. Procurements implement technology and capabilities within the AFNet in accordance with the DoD IT Roadmap, AF Information Dominance Flight Plan, AF Cyber Blueprint and the AF Network Action Plan. All activities may incorporate support to other program elements across the Air Force Information Enterprise in accordance with SAF/A6 CIO direction, the Federal Data Center Consolidation Initiative (FDCCI) and the Joint Information Environment (JIE) strategy.

PE 0208088F, AIR FORCE CYBERSPACE DEFENCE(ACD) Weapon System

AIR FORCE CYBERSPACE DEFENSE WEAPON SYSTEM (ACD): Procures and installs active defensive counter cyberspace operations and situational awareness capabilities in a Defensive Cyberspace Operations role to achieve cyberspace superiority for assigned missions. ACD procurements allow for 24/7/365 monitoring and defense of US Air Force and US Central Command, and Third Party SIPR/NIPR computer networks against hostile attacks as well as intrusion detection, network traffic analysis, network forensics analysis, countermeasure development and execution, and incident response. ACD provides indication and warning, correlation, logging, vulnerability remediation, assessment, process management, blocking, vulnerability identification, investigation and containment. In addition, the ACD provides CSSP (Cyber Security Service Provider) service system upgrades to the AFNet and several third party entities including Joint Strike Fighter, USTRANSCOM, and others. Efforts include, but are not limited to: Host Based Security System upgrades, Next Generation Firewall and Full Packet Capture and Data Analytics Enterprise.

FY19 funds will procure updates via 1067s requests for ACD which includes, but is not limited to, Host Based Security System upgrades, Data Analytics, and hardware/software upgrades to move towards the Joint Information Environment (JIE).

PE 0303089F, CYBERSPACE OPERATIONS SYSTEMS

This PE executes requirements for both AFINC and CSCS weapon systems. Funds may be used for other AFNet requirements if required.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications | | P-1 Line Item Number / Title: 835080 / AFNET |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0208088F, 0303089F, 0303112F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(1) AIR FORCE INTRANET CONTROL (AFINC): Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways (GW), the Information Management Suite (IMS) and the base Service Delivery Point Routers as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS). Efforts include, but are not limited to: AFNet NIPR GW (MAC-1 system) and SIPR GW, which deliver critical network defense capabilities for the AF enterprise with over 800k users directly supporting flying, maintenance, space and cyber operations across the full range of military operations. GWs prevent and detect unauthorized network infiltration attempts, automatically initiating network defense countermeasures eliminating adversary ability to gain access to the enterprise which would diminish the AF information defense posture. With the migration of all Air Force installations to JRSS the Air Force will decommission the GWs. The IMS provides the Air Force with secure, real time out of band network management for the weapon system infrastructure and unifies the management/defense of AF networks and assets. Funding includes recapitalization of the IMS as well as procures equipment upgrades that directly relate to the migration of AF traffic and technology transition from the AFNet NIPR Gateways to the Joint Regional Security Stacks (JRSS).</p> <p>(2) CYBERSPACE SECURITY AND CONTROL SYSTEM (CSCS): Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force and the Air Force-provisioned portions of the DoD Information Network (DoDIN) and the Air Force Information Network (AFIN). CSCS modifications support the following activities: fault resolution activities to maintain operational capabilities; lead-in coordinating activities at base-level Network Control Centers for necessary network security actions; monitoring of AF network services; managing of boundary protection devices and the Air Force network infrastructure; and continuous network situational awareness. Efforts include, but are not limited to: Data Center Consolidation and migration to the Joint Information Environment (JIE); upgrade to the Core Services and the Air Force Vulnerability Management (AFVM) and Network Management.</p> <p>FY19 will procure upgrades for CSCS and AFINC based on 1067 requests. CSCS includes, but is not limited to, Vulnerability Management, Area Processing Center and Regional Data Center Consolidations, ISN and Installation Processing Nodes ACAS upgrades. AFINC includes, but is not limited to, Gateway e-mail security/DNS upgrades and SDP Router tech refresh.</p> <p>PE 0301400F, SPACE SUPERIORITY INTELLIGENCE (SSI)</p> <p>This PE executes requirements for SSI and the CSAWS effort. Funds may be used for other AFNet requirements if required.</p> <p>No FY19 funds are requested.</p> <p>CYBER SITUATIONAL AWARENESS WEAPON SYSTEM (CSAWS): Procures and installs equipment to connect 24th AF unfiltered traffic flow to 25th AF for PAD (Processing, Analysis and Distribution) enabling the first AF Cyber ISR collection and processing capability. Provides ISR based adversary cyber activity Indications and Warnings (I&W) for Situational Awareness (SA). The effort procures a dedicated AF Cyber ISR platform (Remote Data Collector and Remote Data Processor) array that connects to the highest level at the network gateway locations to obtain unfiltered net-flow and packet capture (PCAP). This data is moved via long-haul to the 25th AF El Dorado PAD systems for analysis. The fusion of all source intelligence and net flow analysis provides actionable CTA (Cyber Threat Advisories) reports to cyber operators for the appropriate and proactive actions.</p> | | |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
835080 / AFNET
Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208088F, 0303089F, 0303112F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a | 1 / ACD WS 0208088F (Reliability & Maintainability) | | A | | - / - | - / 14.383 | - / 37.947 | - / 50.490 | - / 0.000 | - / 50.490 |
| P-5 | Space Superiority Intelligence | | A | | - / - | 1 / 2.980 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-3a | 1 / AFINC/CSCS WS 0303089 (Reliability & Maintainability) | | A | | - / - | - / 110.211 | - / 122.873 | - / 52.346 | - / 0.000 | - / 52.346 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 127.574 | - / 160.820 | - / 102.836 | - / 0.000 | - / 102.836 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a | 1 / ACD WS 0208088F (Reliability & Maintainability) | | A | | - / 18.161 | - / 14.008 | - / 14.288 | - / 35.965 | - / - | - / 185.242 |
| P-5 | Space Superiority Intelligence | | A | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-3a | 1 / AFINC/CSCS WS 0303089 (Reliability & Maintainability) | | A | | - / 121.297 | - / 114.362 | - / 100.037 | - / 80.397 | - / - | - / 701.523 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 155.562 | - / 142.754 | - / 128.875 | - / 131.082 | - / - | - / 949.503 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY19 AFNET (835080) funding provides for, but is not limited to, procurement & transformation of the installed and supported critical classified and unclassified information equipment capabilities for the Air Force Network (AFNet) Systems and modification efforts within all three major weapon system components (ACD, AFINC & CSCS).

PE 0208088F, AF DEFENSIVE CYBERSPACE OPERATIONS

(1) ACD: Procures and installs active defensive counter cyberspace systems, situational awareness capabilities, and comprehensive malware forensics analysis.

PE 0303089F, CYBERSPACE OPERATIONS SYSTEMS

(1) AFINC: Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS).

(2) CSCS: Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force and the Air Force-provisioned portions of the DoD Information Network (DoDIN) and the Air Force Information Network (AFIN).

PE 0301400F, SPACE SUPERIORITY INTELLIGENCE

(1) CSAWS: Procures and installs equipment to connect 24th AF unfiltered traffic flow to 25th AF for PAD (Processing, Analysis and Distribution) enabling the first AF Cyber ISR collection and processing capability. Provides ISR based adversary cyber activity Indications and Warnings (I&W) for Situational Awareness (SA).

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835080 / AFNET | Modification Number / Title: 1 / ACD WS 0208088F |
|---|--|--|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity <i>(Units in Each)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | - | 14.383 | 37.947 | 50.490 | 0.000 | 50.490 | 18.161 | 14.008 | 14.288 | 35.965 | - | 185.242 |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | - | 14.383 | 37.947 | 50.490 | 0.000 | 50.490 | 18.161 | 14.008 | 14.288 | 35.965 | - | 185.242 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | - | 14.383 | 37.947 | 50.490 | 0.000 | 50.490 | 18.161 | 14.008 | 14.288 | 35.965 | - | 185.242 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0208088F, AF DEFENSIVE CYBERSPACE OPERATIONS (ACD) WEAPON SYSTEM

Requirements for ACD have been funded previously in 0303112F and 0207425F as part of the AFNet 835080 procurement exhibit. Funds may be used for other AFNet requirements if required.

Procures and installs active defensive counter cyberspace operations and situational awareness capabilities in a NetD role to achieve cyberspace superiority for assigned missions. ACD procurements allow for 24/7/365 monitoring and defense of US Air Force and US Central Command, and Third Party SIPR/NIPR computer networks against hostile attacks as well as intrusion detection, network traffic analysis, network forensics analysis, countermeasure development and execution, and incident response. ACD provides indication and warning, correlation, logging, vulnerability remediation, assessment, process management, blocking, vulnerability identification, investigation and containment. In addition, the ACD provides CNDSP (Computer Network Defense Service Provider) service systems upgrades to the AFNet and several third party entities including Joint Strike Fighter, USTRANSCOM, and others. Efforts include, but are not limited to: Host Based Security System upgrades, Next Generation Firewall and Full Packet Capture and Data Analytics Enterprise.

FY19 funds will procure updates via 1067s requests for ACD which includes, but is not limited to, Host Based Security System upgrades, Data Analytics, and hardware/software upgrades to move towards the Joint Information Environment (JIE).

Milestone/Development Status

Sustainment

UNCLASSIFIED

| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | | P-1 Line Item Number / Title: 835080 / AFNET | | | | | Modification Number / Title: 1 / ACD WS 0208088F | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: ACD | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: 0303112F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: ACD MODs</i> | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| ACD MODs:EQUIPMENT Group B (Active) | - / - | 1 / 10.382 | 1 / 29.805 | 1 / 41.127 | - / - | 1 / 41.127 | 1 / 8.611 | 1 / 4.267 | 1 / 4.352 | 1 / 25.831 | - / - | 7 / 124.375 | |
| <i>Subtotal: Recurring</i> | - / - | - / 10.382 | - / 29.805 | - / 41.127 | - / - | - / 41.127 | - / 8.611 | - / 4.267 | - / 4.352 | - / 25.831 | - / - | - / 124.375 | |
| <i>Subtotal: ACD MODs</i> | - / - | - / 10.382 | - / 29.805 | - / 41.127 | - / - | - / 41.127 | - / 8.611 | - / 4.267 | - / 4.352 | - / 25.831 | - / - | - / 124.375 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 10.382 | - / 29.805 | - / 41.127 | - / - | - / 41.127 | - / 8.611 | - / 4.267 | - / 4.352 | - / 25.831 | - / - | - / 124.375 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| PMA - Contractor Services | - / - | - / 3.803 | - / 6.674 | - / 7.510 | - / - | - / 7.510 | - / 7.660 | - / 7.814 | - / 7.970 | - / 8.129 | - / - | - / 49.560 | |
| PMA - Other Gov't Costs | - / - | - / 0.198 | - / 1.468 | - / 1.853 | - / - | - / 1.853 | - / 1.890 | - / 1.927 | - / 1.966 | - / 2.005 | - / - | - / 11.307 | |
| <i>Subtotal: Support</i> | - / - | - / 4.001 | - / 8.142 | - / 9.363 | - / - | - / 9.363 | - / 9.550 | - / 9.741 | - / 9.936 | - / 10.134 | - / - | - / 60.867 | |
| Installation | | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 14.383 | 37.947 | 50.490 | 0.000 | 50.490 | 18.161 | 14.008 | 14.288 | 35.965 | - | 185.242 | |

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|---|----------------|----------------|--|-------------------------------------|---------------------------------|--|----------------|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | P-1 Line Item Number / Title: 835080 / AFNET | | | Modification Number / Title: 1 / ACD WS 0208088F | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: ACD MODs | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Multiple | | | | Manufacturer Location: Various | | | |
| Administrative Leadtime (in Months): 7 | | | | Production Leadtime (in Months): 12 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | May 2017 | May 2018 | May 2019 | May 2020 | May 2021 | May 2022 | May 2023 |
| Delivery Dates | May 2018 | May 2019 | May 2020 | May 2021 | May 2022 | May 2023 | May 2024 |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 7 | | |
| | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835080 / AFNET | Item Number / Title [DODIC]: Space Superiority Intelligence |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|
| Procurement Quantity <i>(Units in Each)</i> | - | 1 | - | - | - | - |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | - | 2.980 | 0.000 | 0.000 | 0.000 | 0.000 |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | - | 2.980 | 0.000 | 0.000 | 0.000 | 0.000 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | - | 2.980 | 0.000 | 0.000 | 0.000 | 0.000 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|-------|---|---|---|---|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Millions)</i> | - | 2.980 | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - AF Cyber ISR Platform Cost | | | | | | | | | | | | | | | | | | |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Prime Contractor | - | - | - | 2.105 | 1 | 2.105 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 2.105 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Hardware - AF Cyber ISR Platform Cost</i> | - | - | - | - | - | 2.105 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Support - AF Cyber ISR Platform Cost | | | | | | | | | | | | | | | | | | |
| PMA Contractor Support | - | - | - | - | - | 0.875 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - AF Cyber ISR Platform Cost</i> | - | - | - | - | - | 0.875 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | 2.980 | 1 | 2.980 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

UNCLASSIFIED

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|---|--|--|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835080 / AFNET | Modification Number / Title: 1 / AFINC/CSCS WS 0303089 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 110.211 | 122.873 | 52.346 | 0.000 | 52.346 | 121.297 | 114.362 | 100.037 | 80.397 | - | 701.523 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 110.211 | 122.873 | 52.346 | 0.000 | 52.346 | 121.297 | 114.362 | 100.037 | 80.397 | - | 701.523 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 110.211 | 122.873 | 52.346 | 0.000 | 52.346 | 121.297 | 114.362 | 100.037 | 80.397 | - | 701.523 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0303089F executes requirements for both Cyberspace Security and Control System (CSCS) and Air Force Intranet Control (AFINC) weapon systems. Funds may be used for other AFNet requirements if required.

(1) AFINC: Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways, the Information Management Suite and the base Service Delivery Point Routers as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS). Efforts include, but are not limited to:

AFNet NIPR Gateways (MAC-1 system) and SIPR Gateways (GW), which deliver critical network defense capabilities for the AF enterprise with over 800k users directly supporting flying, maintenance, space and cyber operations across the full range of military operations. GWs prevent and detect unauthorized network infiltration attempts, automatically initiating network defense countermeasures eliminating adversary ability to gain access to the enterprise which would diminish the AF information defense posture. GWs directly support cyber operations worldwide enabling war-fighting missions. With the migration of all Air Force installations to JRSS the GWs will sunset but the AFINC mission continues. Funding enables the removal of systems dependent on the GWs and subsequent decommissioning of the GWs. The Information Management Suite (IMS) provides the Air force with a secure, real-time centralized Out of Band Management of the network management infrastructure for the AFINC, ACD, and CSCS Weapon systems and unifies the management/defense of AF networks and assets. Funding includes recapitalization of the IMS as well as growth of its capability as it assumes more responsibility for additional systems. Funding also procures equipment upgrades that directly relate to the migration of AF traffic and technology transition from the AFNet NIPR Gateways to the Joint Regional Security Stacks (JRSS).

(2) CSCS: Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force and the Air Force-provisioned portions of the DoD Information Network (DoDIN) and the Air Force Information Network (AFIN). CSCS modifications support the following activities: fault resolution activities to maintain operational capabilities; lead-in coordinating activities at base-level Network Control Centers for necessary network security actions; monitoring of AF network services; managing of boundary protection devices and the Air Force network infrastructure; and continuous network situational awareness. Efforts include, but are not limited to:

Data Center Consolidation and migration to the Joint Information Environment (JIE); upgrades to Core Services and Air Force Vulnerability Management (AFVM) and Network Management.

FY19 will procure upgrades for CSCS and AFINC based on 1067 requests. CSCS includes, but is not limited to Vulnerability Management, Area Processing Center and Regional Data Center Consolidations, and Installation Processing Nodes ACAS upgrades. AFINC includes, but is not limited to, Gateway e-mail security/DNS upgrades.

Milestone/Development Status

Sustainment

UNCLASSIFIED

| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | | P-1 Line Item Number / Title: 835080 / AFNET | | | | | Modification Number / Title: 1 / AFINC/CSCS WS 0303089 | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: AFINC-CSCS-WS | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: 0303112F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> AFINC/CSCS WS MODs | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| AFINC/CSCS WS MODs:EQUIPMENT Group B (Active) | - / - | 1 / 86.643 | 1 / 109.911 | 1 / 37.451 | - / - | 1 / 37.451 | 1 / 106.205 | 1 / 98.968 | 1 / 84.314 | 1 / 64.360 | - / - | 7 / 587.852 | |
| <i>Subtotal: Recurring</i> | - / - | - / 86.643 | - / 109.911 | - / 37.451 | - / - | - / 37.451 | - / 106.205 | - / 98.968 | - / 84.314 | - / 64.360 | - / - | - / 587.852 | |
| <i>Subtotal: AFINC/CSCS WS MODs</i> | - / - | - / 86.643 | - / 109.911 | - / 37.451 | - / - | - / 37.451 | - / 106.205 | - / 98.968 | - / 84.314 | - / 64.360 | - / - | - / 587.852 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 86.643 | - / 109.911 | - / 37.451 | - / - | - / 37.451 | - / 106.205 | - / 98.968 | - / 84.314 | - / 64.360 | - / - | - / 587.852 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| PMA - Contractor Services | - / - | - / 13.953 | - / 11.828 | - / 13.501 | - / - | - / 13.501 | - / 13.772 | - / 14.048 | - / 14.350 | - / 14.637 | - / - | - / 96.089 | |
| PMA - Other Gov't Costs | - / - | - / 9.615 | - / 11.134 | - / 1.394 | - / - | - / 1.394 | - / 1.320 | - / 1.346 | - / 1.373 | - / 1.400 | - / - | - / 17.582 | |
| <i>Subtotal: Support</i> | - / - | - / 23.568 | - / 12.962 | - / 14.895 | - / - | - / 14.895 | - / 15.092 | - / 15.394 | - / 15.723 | - / 16.037 | - / - | - / 113.671 | |
| Installation | | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 110.211 | 122.873 | 52.346 | 0.000 | 52.346 | 121.297 | 114.362 | 100.037 | 80.397 | - | 701.523 | |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | P-1 Line Item Number / Title: 835080 / AFNET | | | Modification Number / Title: 1 / AFINC/CSCS WS 0303089 | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: AFINC/CSCS WS MODs | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Multiple | | | | Manufacturer Location: Various | | | |
| Administrative Leadtime (in Months): 7 | | | | Production Leadtime (in Months): 12 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | May 2017 | May 2018 | May 2019 | May 2020 | May 2021 | May 2022 | May 2023 |
| Delivery Dates | May 2018 | May 2019 | May 2020 | May 2021 | May 2022 | May 2023 | May 2024 |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 7 | | |
| | | | | | | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
P-1 Line Item Number / Title: 835110 / Joint Communications Support Element (JCSE)
 Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 5.182 | 5.135 | 3.145 | - | 3.145 | 5.319 | 5.415 | 5.514 | 5.613 | - | 35.323 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 5.182 | 5.135 | 3.145 | - | 3.145 | 5.319 | 5.415 | 5.514 | 5.613 | - | 35.323 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 5.182 | 5.135 | 3.145 | - | 3.145 | 5.319 | 5.415 | 5.514 | 5.613 | - | 35.323 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

JOINT COMMUNICATIONS SUPPORT ELEMENT (JCSE): JCSE, assigned under Joint Enabling Capabilities Command, US Transportation Command, is the only joint Department of Defense (DoD) unit specifically formed to provide command, control, communications, and computers (C4) systems support for Joint Chiefs of Staff (JCS) contingency operations worldwide. The Joint Communications Support Element (JCSE) mission is to provide, on short notice, those critical communications required to support Joint Task Force support (JTF) and Joint Special Operations Task Force (JSOTF) headquarters. These assets support the warfighter's ability to deploy rapidly and immediately provide the positive command and control required. This support includes contingency and crisis communications for the Joint Chiefs of Staff, Combatant Commands, Services, Defense agencies, non-Defense agencies, and foreign governments. Program goals include meeting emerging real-world operational requirements with the maximum capabilities, smallest footprint, lowest operations and maintenance costs, and seamless integration with the global information grid. Per Defense Planning Guidance (DPG) and Director, Joint Staff Memorandum (DJSJSM)0291-14, the Air Force is mandated to fund 1/3rd fair share of JCSE's validated Modernization Program.

Funding for this exhibit is contained in PE 0207422F, Deployable Command, Control, and Communications (C3) Systems.

Justification:

JCSE: FY19 base funding procures communications equipment based on Strategic Planning Guidance. This includes the maximum capabilities for narrowband, wideband and protected satellite communications (SATCOM) terminals and systems, tactical radios, terrestrial communications systems, satellite hubs, networking elements, virtual appliances, Video Teleconferencing (VTC) capabilities, alternative power solutions, Airborne /En-Route, Forced Entry, Cyber Security, and Mobile Joint C2 equipment. Advancements in technology have provided opportunities to modernize current equipment sets with enhanced capabilities to meet the program goals which include meeting emerging real-world operational and cyber defense requirements with maximum capabilities, the smallest possible footprint, lowest operations and maintenance costs, and seamless integration with the global information grid. This equipment is a critical part of Command, Control and Communications packages that provide direct operational support to joint forces and HQ elements deployed to austere locations around the globe. Per the Planning Guidance, the Air Force is mandated to fund one-third of the fair share of JCSE's validated equipment modernization plan. JCSE's Program is built/restructured based on Combatant Command (CCMD) and Service Components' requirements and emerging technologies. The Services influence JCSE's spending plan through recommendations in concert with Major Defense Acquisition Program (MDAP) schedules, ensuring that Service dollars meet Joint Service requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 835140 / USCENTCOM
 Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 13.418 | 18.719 | 13.194 | 0.000 | 13.194 | 20.190 | 19.676 | 18.320 | 18.647 | - | 122.164 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 13.418 | 18.719 | 13.194 | 0.000 | 13.194 | 20.190 | 19.676 | 18.320 | 18.647 | - | 122.164 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 13.418 | 18.719 | 13.194 | 0.000 | 13.194 | 20.190 | 19.676 | 18.320 | 18.647 | - | 122.164 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 0201122F USCENTCOM COMMUNICATIONS

HQ USCENTCOM's mission is to work with its national and international partners in promoting development and cooperation among nations, responding to crises, and deterring or defeating state and transnational aggression in order to establish regional security and stability across its entire Area of Responsibility (AOR). Since USCENTCOM's AOR, covering the Middle East, includes the challenges of regional stability and violent extremists, this Combatant Command's mission is critical in regards to the Overseas Contingency Operations (OCO). To meet its mission responsibilities across this geographical expanse, HQ USCENTCOM must rely heavily on Command, Control, Communications, and Computer (C4) systems capable of achieving full spectrum information superiority.

Funding for this effort is contained in PE 0201122F USCENTCOM Communications.

USCENTCOM COMMAND AND CONTROL SYSTEMS: Effort will provide end of life replacement for, but not limited to, Command and Control (C2) systems (thin client, server, etc), Joint Information Environment (JIE), classified and unclassified voice, data and video dissemination, storage area network (SAN) infrastructure, establishment of mission partner networks (CPN, CPN-X, MPE-IS, and other coalition partner networks) which provide secure networks for bilateral / multilateral information sharing up to the SECRET RELEASABLE level. Support maximum data storage capacity requirements for HQ war records collection, Modeling & Simulation Systems (J8MS), and uninterrupted power supply (UPS) required for the command's collateral classified and unclassified data networks. This equipment provides HQ USCENTCOM with effective C4 systems to effectively conduct current and future operations throughout the AOR.

PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS

Air Forces United States Central Command (AFCENT) is the ACC component designated to support USCENTCOM operations in deployed theaters for the AF. Funds C4 systems throughout the area of responsibility (AOR). Procurement efforts include: communications infrastructure requirements, satellite terminal equipment, data network servers and associated information assurance tools, information transfer nodes and routers, joint radio relays, as well as deployed air traffic control and landing systems and navigational aid systems.

Funding for this effort is contained in PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 835140 / USCENTCOM Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | USCENTCOM Communications | | | | - / - | - / 4.736 | - / 4.576 | - / 3.084 | - / 0.000 | - / 3.084 |
| P-40a | Service Support to USCENTCOM - Communications | | | | - / - | - / 8.682 | - / 14.143 | - / 10.110 | - / 0.000 | - / 10.110 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 13.418 | - / 18.719 | - / 13.194 | - / 0.000 | - / 13.194 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 PE 0201122F USCENTCOM COMMUNICATIONS

USCENTCOM COMMAND AND CONTROL SYSTEMS: FY19 funding will procure C4 equipment items required for HQ USCENTCOM, MacDill AFB, FL, Disaster Recovery Site (Site X), and CENTCOM Forward HQ at Al Udeid, Qatar, to effectively conduct communications support missions impacting Command and Control (C2) and operational missions conducted by the Commander and staff. The C4/Information Technology (IT) supporting the command must be replaced to meet the ever increasing demands of current, ongoing contingency operations, and the growth of data storage requirements.

STORAGE CAPABILITIES: HQ CENTCOM and CENTCOM Forward HQ require maximum storage capabilities to maintain a level of readiness, reduce server footprint, and continue capabilities as they are implemented.

PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS FY19 funds will provide:

BASE COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C4I) INFRASTRUCTURE. This FY19 effort will support communications CENTCOM Theater Posture Plan (TPP) locations identified for post OEF support. This effort is required at several AFCENT locations in the AOR and will provide critical infrastructure to support the transition to the Joint Information Environment, as required by DoD CIO mandate.

Southwest Asia - THEATER ENTERPRISE REQUIREMENTS - AFCENT must procure new system to support contingency operations and base opening/closure requirements, which average 2 base openings and closing per year regardless of new or ongoing contingencies. A new Jordanian Base (MSAB) has been added to the enduring base list and commercialization projects are underway to completed transition from tactical support to enduring infrastructure.

JOINT INFORMATION ENVIRONMENT: Implementation of JIE at MacDill AFB with HQ USCENTCOM establishing regional node.

FY19 effort will continue to support infrastructure and services essential secure networks for bilateral and multilateral information up to the secret releasable level. Support the networks and cross domain solution necessary to securely and safely integrate coalition sensors and C2 capabilities with C2 efforts. Includes integration of Coalition operations into our Combined Air Operations Center at Al Uedied AB

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | P-1 Line Item Number / Title: 835140 / USCENTCOM | Aggregated Items Title: USCENTCOM Communications |
|---|--|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| USCENTCOM COMMAND AND CONTROL SYSTEM | A | | - | - | - | 4.736 | 1 | 4.736 | 4.576 | 1 | 4.576 | 3.084 | 1 | 3.084 | - | - | 0.000 | 3.084 | 1 | 3.084 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 4.736 | - | - | 4.576 | - | - | 3.084 | - | - | 0.000 | - | - | 3.084 |
| Total | | | - | - | - | - | - | 4.736 | - | - | 4.576 | - | - | 3.084 | - | - | 0.000 | - | - | 3.084 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 USCENTCOM: FY19 procurement funds in the amount of \$3.084M will procure C4 equipment items required for HQ USCENTCOM, MacDill AFB, FL and CENTCOM Forward HQ at Al Udeid, Qatar. Funding is vital to effectively conduct communications support missions impacting Command and Control (C2) and operational missions conducted by the Commander and staff supporting the Command's CONPLAN/OPLANS. The C4/Information Technology (IT) supporting the command must be replaced to meet the ever increasing demands of enduring operations and the growth of data storage requirements, as well as emergent cyber threats.

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 | | | | | | | P-1 Line Item Number / Title: 835140 / USCENTCOM | | | | | | | Aggregated Items Title: Service Support to USCENTCOM - Communications | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Deployable Tactical Air Navigation (DTACAN) | A | | - | - | - | 3.800 | 1 | 3.800 | 5.000 | 1 | 5.000 | 2.000 | 1 | 2.000 | - | - | 0.000 | 2.000 | 1 | 2.000 |
| BASE C4I SUPPORT | A | | - | - | - | 0.300 | 5 | 1.500 | - | - | 0.000 | 0.490 | 4 | 1.960 | - | - | - | 0.490 | 4 | 1.960 |
| SWA-THEATER ENTERPRISE REQUIREMENTS | A | | - | - | - | 0.417 | 3 | 1.250 | 1.502 | 6 | 9.009 | 1.230 | 5 | 6.150 | - | - | - | 1.230 | 5 | 6.150 |
| JOINT INFORMATION ENVIRONMENT CAPABILITIES | A | | - | - | - | 0.233 | 6 | 1.400 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| AFCENT PMA Other Government Costs | A | | - | - | - | - | - | 0.490 | - | - | 0.134 | - | - | - | - | - | - | - | - | - |
| AFCENT PMA Contract Service | A | | - | - | - | - | - | 0.242 | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 8.682 | - | - | 14.143 | - | - | 10.110 | - | - | 0.000 | - | - | 10.110 |
| Total | | | - | - | - | - | - | 8.682 | - | - | 14.143 | - | - | 10.110 | - | - | 0.000 | - | - | 10.110 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207422F, 0207444F, 0503133F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.000 | 152.136 | 123.206 | 161.231 | 27.911 | 189.142 | 145.751 | 141.179 | 156.808 | 106.264 | - | 1,014.486 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.000 | 152.136 | 123.206 | 161.231 | 27.911 | 189.142 | 145.751 | 141.179 | 156.808 | 106.264 | - | 1,014.486 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.000 | 152.136 | 123.206 | 161.231 | 27.911 | 189.142 | 145.751 | 141.179 | 156.808 | 106.264 | - | 1,014.486 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Tactical Airborne Control Systems PE 0207418F - P-5
PE 0207418F TACTICAL AIRBORNE CONTROL SYSTEM EQUIPMENT

Tactical airborne control system equipment encompass three types of simulators that provide scenario based training for Joint Terminal Attack Controllers (JTACs), Combat Control Teams (CCTs), Tactical Air Control Party (TACPs), Air Support Operations Centers (ASOCs) and various Close Air Support (CAS) Platforms.

Joint Terminal Control Training and Rehearsal System (JTC TRS): TACP Fixed and Portable Simulators comprise JTC TRS. This simulator project trains personnel controlling air support for combat operations by providing both a stand-alone and Distributed Mission Operations (DMO)-capable high-fidelity JTAC, and Combat Control Team (CCT) simulation system. The JTC TRS will be able to connect to DMO networks to allow geographically separated high-fidelity close air support platforms, JTACs and CCTs to train together in a risk-free environment. The Fixed simulator enables operators to conduct Joint Close Air Support (JCAS) training/mission rehearsal using tailored, dynamic scenarios that are relevant to mission tasking. Furthermore, the simulator will be capable of providing tactical air traffic control training for CCT using tactical application of austere airbase operations. The JTAC simulators provide DMO capability to network with aircrew full mission trainers, mission training centers, and Air Support Operations Centers (ASOC). Its primary focus is to provide an air-ground virtual training environment for networked air ground training and mission rehearsal capability that will develop both JTAC and CCT skills and train aircrew to accomplish complex JCAS missions in close proximity to friendly ground forces. JTAC simulators will be fully interoperable with joint/sister Service air ground simulation using industry standards. Training with simulators has the potential to reduce civilian casualties, collateral damage and fratricide by improving coordination skills between air and ground personnel, and increasing JTAC and aircrew proficiency. The acquisition strategy for production of the fixed configuration of the JTC TRS will be executed as an evolutionary acquisition approach using incremental development. Until the production system is ready for fielding, interim simulators will be fielded to support JTAC qualification training and readiness for deployable JTACs. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

TACP C2 Simulator: The Joint Theater Air-Ground Simulation System (JTAGSS) is the TACP C2 Simulator. The simulator is for training ASOC and Special Operations Forces (SOF) personnel to perform command and control (C2) battlestaff operations. The C2 simulator will operate in either a stand-alone mode, or connected to other DMO-capable high-fidelity simulation facilities to allow geographically-separated Theater Air Control System C2 elements, CAS platforms, and JTAC and CCT personnel to train in an integrated virtual environment. The simulator will enable operators to conduct C2 training and mission rehearsal of JCAS assets using tailored, dynamic scenarios that are relevant to current real-world mission taskings. Scenarios will cover the full range of military operations. Training with the simulator

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>will improve mission effectiveness by reducing the risk of civilian casualties, collateral damage, and fratricide by improving C2 skills in rapidly changing and uncertain combat environments. The JTAGSS program will enable procurement of an estimated three JTAGSS for air support operations training. The acquisition strategy for the TACP C2 simulator will be to field advance technology demonstration units in two increments. Increment 1 will field initial capability to perform proof of concept and technology validation of mission simulations for all ASOC crew positions including detailed communications planning, asset deconfliction, integration of joint fires, and other critical mission areas required for integrated TACP/ASOC C2 mission success. At the completion of the technology validation, a contract will be competitively awarded to complete simulator development, deployment and integration.</p> <p>Funding for this exhibit is contained in PE 0207418F.</p> <p>Security Forces (SF)Tactical Communication Radios - 0207588F - P40A</p> <p>Deployable C3 Systems PE 0207422F - P-40A PE 0207422F DEPLOYABLE COMMAND, CONTROL, and COMMUNICATIONS (C3) SYSTEMS</p> <p>THEATER-DEPLOYABLE COMMUNICATIONS (TDC) PROGRAM: TDC is used to extend network data, voice and video services to expeditionary and battlefield forces. The TDC system provides stand-alone communications support for the full range of military operations and communications capability for Command and Control (C2) reach back at and above the tactical level for a variety of Air Force missions. TDC provides a rapidly deployable communication infrastructure package, which provides deployed users with secure and non-secure voice service, internet access, local area network, network management, information assurance, e-mail services (NIPR/SIPRNET), and intra/inter-base connectivity services similar to those established on a fixed base. The TDC package uses commercial-off-the-shelf (COTS) components to support a wide scope of expeditionary missions ranging from a small C2 and airfield mission, supporting 1 to 150 users, and up to the stand-up of an Air Expeditionary Wing supporting 3,000 users. The TDC package also supports Special Missions, to include noncombatant evacuation and disaster relief efforts, US Secret Service support, and Homeland Defense Operations. TDC as directed in Headquarters United States Air Force (HQ USAF) Program Action Directive (PAD) 12-07, and as identified from the Secretary of the Air Force (SAF) directed RAND Study is employed to provide and support 22 Large Communications Package (LCP) missions at Combat Communications squadrons, 27 Medium Communications Package (MCP) missions at Combat Communications and Global Mobility Readiness squadrons and 55 Small Communications Package (SCP) missions at Air Mobility Command units and Air Control squadrons. The LCP and MCP mission packages are being restructured into a more scalable package the Flexible Communications Package (FCP) which will provide a range of support for most all missions.</p> <p>The TDC program reached full operational capability in 2008 and is currently providing sustainment and procuring and installing end of life/end of support and new requirement efforts to maintain full operational capability. Replacement efforts focus on addressing Diminishing Manufacturing Sources (DMS) issues associated with COTS components. Funding of the TDC program will procure hardware and software targeted to alleviate interoperability and software issues that arise from the constant evolution of technology. Controlled items will be funded with investment funds to purchase military communications equipment classified as critical protection items. Funding will also ensure TDC equipment maintains compliance with security mandates/directives and cryptographic standards. The program has three components:</p> <p>a. HUB AND SPOKE SATELLITE TERMINALS: Satellite terminals provide two-way communications connectivity between expeditionary bases and reach back, through Defense Information System Agency (DISA) teleports, to the global information grid. These terminals augment limited DOD X-Band (Super High Frequency) resources by providing access to commercial satellite services. By augmenting the X- Band terminals, TDC's Spoke Small and Medium Satellite terminals transparently improve the expeditionary workforce's bandwidth throughput for high-speed voice, data, video, and imagery transmissions. Small aperture SATCOM terminals supporting direct internet protocol connection capable of supporting multi-commercial and military transmission bands significantly reduce airlift requirements and provide flexibility during expeditionary operations.</p> <p>b. INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP): ICAP provides the distributed base backbone which includes: hubs/routers, switches, multiplexers, secure/non-secure telephones, secure conferencing, cryptographic and timing equipment, and intra-base connectivity using fiber and/or point-to-point radios. ICAP packages include accessories and configuration kits to tailor the capability of voice and data modules (i.e. cards to interface to the host nation postal telegraph and telephone). ICAP packages are modular which allows assets to be deployed incrementally and provides the capability to expand the network as the base population increases.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>c. NETWORK CONTROL CENTER-DEPLOYED (NCC-D): NCC-D provides deployed network management, information protection, and network planning capabilities similar to those at fixed bases. Specific functions include data management, intrusion detection, and firewall capabilities for both the classified and unclassified networks. The services provided through NCC-D are the core services to the communication hub and these Flexible Core Services will be the focus of the Flexible Communications Package (FCP).</p> <p>d. DEPLOYABLE AIR FORCE LEAD Joint Task Force (JTF) Communications EQUIPMENT: AF capable HQ aligned against the Global Response Force to further Air Force Future Operating Concept, which is a more adaptive, agile, scale-able, and responsive force. The USAF's ability to operate with a relatively small footprint to provide globally-oriented C2 capabilities, to flexibly aggregate and disaggregate forces in time and space, and to integrate multi-domain effects across the spectrum of conflict and afford the service an opportunity to develop solutions that are informed from a unique perspective.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>THEATER-DEPLOYABLE COMMUNICATIONS (TDC) consists of (104) Integrated Communications Access Packages (ICAP), (51) Medium Satellite Terminals and (61) Network Control Center-Deployed (NCCD) components which equate to the 216 fielded systems. Changes in cost are due to the quantity of equipment, number of users they support, and the configurations of the three components. Size of packages vary from year to year.</p> <p>HUB AND SPOKE SATELLITE TERMINALS: FY19 funds will procure the technical solution based on user functional requirements for Medium SATCOM terminal replacements for end of life/end of support terminals.</p> <p>INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP): FY19 funds will procure a deployed wireless network capability based on user functional requirements, procure an enhanced land mobile radiointegrated ROIP capability and replace any required components that have reached end of life and are no longer supportable. End of life components may be part of kits and modules such as laptop kits, switches, IP phones and routers. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.</p> <p>NETWORK CONTROL CENTER-DEPLOYED (NCC-D): FY19 funds will procure the technical solution for the Flexible Core Services for the Flexible Communications Package (FCP). Procure mandated upgrades as required. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.</p> <p>DEPLOYABLE AIR FORCE LEAD JTF EQUIPMENT: FY19 funds will procure the technical solution for the JTF capable deployable unit based on the functional requirements as established in program action directive (PAD) 18-01.</p> <p>FY19 funding includes \$2.911M for Overseas Contingency Operations.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit contained in PE 0207422F.</p> <p>Advanced Communications Systems PE 0207423F - P-5 PE 0207423F Mobile User Objective System (MUOS) and TACTICAL RADIO SYSTEMS (TRS)</p> <p>Tactical Radio System (TRS) are commercial off the shelf software programmable tactical radios that provide voice, data, and video communications for military users in the air, on the ground, and at sea. Common radio architecture and programmable software waveforms will provide joint interoperability between the services. The TRS program is built around an open system software communications architecture (SCA), a critical set of rules that make software programmable radios function properly and ensure interoperability. Funding for this exhibit is contained in PE 0207423F.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Tactical Air Control Party-Mod PE 0207444F - P-5 TACTICAL AIR CONTROL PARTY-MODERNIZATION (TACP-M): TACPs are Air Force units manned by airmen who advise Army Ground Commanders and plan, request and control air power in support of army ground maneuver operations.</p> <p>The purpose of the TACP-Modernization program is to provide TACP voice, data and video communications, targeting and battlefield awareness capabilities. These capabilities are employed at all echelons of Army organizations by: Air Support Operation Centers (ASOCs), Division TACPs, Brigade TACPs, Battalion TACPs, and dismounted Joint Terminal Attack Controllers (JTACs) deployed with Army companies or scout teams on the front lines. Improved targeting and data communications capabilities provide more accurate target coordinates, reduce close air support (CAS) response times, and reduce the probability of fratricide or collateral damage through the use of networked data communications.</p> <p>TACPs also coordinate, request, and control airlift support and intelligence, surveillance, and reconnaissance (ISR) support for Army combat operations, and they provide ground communications support for federal disaster response and Homeland Defense operations. TACPs deploy with their aligned Army units and operate in a variety of environments including fixed operations from tactical operations centers (TOCs), mobile operations in tactical vehicles, and dismounted (on foot) operations with Army infantry patrols.</p> <p>The TACP-M program provides and modernizes capabilities in the following major areas: (1) Tactical Operations Center (TOC) Systems (used in fixed operations centers), (2) Vehicle Mounted Systems (used in TACP tactical vehicles), (3) Dismounted Systems (used by JTACs during dismounted infantry operations), and (4) Close Air Support System (CASS) software. The TACP-M program also works closely with the Battlefield Airmen Office program to procure dismounted JTAC equipment. This teaming arrangement helps standardize battlefield airmen equipment, improve efficiency by consolidating acquisition efforts, and often reduces unit costs by increasing procurement quantities. Frequent TACP combat deployments sometimes lead users to change equipment procurement priorities to support urgent operational needs and respond to evolving threat environments.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit contained in PE 0207444F.</p> <p>Special Tactics / Combat Control PE 0408011F - P-5 PE 0408011F SPECIAL TACTICS / COMBAT CONTROL</p> <p>BATTLEFIELD AIRMEN OPERATIONS KIT (BAO Kit): BAO Kit will deliver a Family of Systems (FoS) that provides a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) and also provides a family of systems for all Air Force Specialty Codes supporting the Special Tactics (ST) community within the Air Force Special Operations Command's (AFSOC's) Battlefield Airmen Program. This program will procure and enhance technologies for battlefield airmen ST operators that are inter-operable with US and coalition special operations dismounted forces. BAO Kit allows the ability to recognize, identify, range, nominate, and designate targets during both day and night. BAO Kit will also significantly reduce the time required to find, fix, track, target, and engage the enemy by providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre- and post-strike, and transmitting target data to command and control centers. BAO Kit systems are light, compact, and portable for use by dismounted Battlefield Airmen. Modernization efforts focus on reducing the weight of the equipment carried by the dismounted operator. The core capabilities include but are not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line of Sight (LOS) targeting device, Non Line of Sight (XLOS) targeting device, and Machine-to-Machine C4ISR System. BAO also supports AFSOC Tactical Command and Control (TAC C2) program purchases enhanced communication systems and equipment essential for ST combat controllers, pararescue, combat weather operators, and tactical air control parties to perform their mission and communicate Beyond Line of Site (BLOS) with rear echelon C2, in order to provide a joint operating picture. The ST operators use this equipment to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing/drop zone operations. Items include but not limited to training, initial spares, repairs and returns, and other equipment.</p> <p>Funding for this exhibit contained in PE 0408011F. Special Tactics / Combat Control FY19 funding totals include \$25M for Overseas Contingency Operations.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207422F, 0207444F, 0503133F

Line Item MDAP/MAIS Code: N/A

Combat Rescue - Pararescue (AFR) PE 0503133F - P-40A
 PE 0503133F: COMBAT RESCUE - PARARESCUE (AFR)

Tactical communications and electrical equipment in support of special operations forces. FY16 funding includes \$4.065M for Overseas Contingency Operations.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|
| AF | Quantity | 3,006 | 1,683 | 2,065 | 1,195 | 3,260 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 138.335 | 88.908 | 142.229 | 27.911 | 170.140 | 101.366 | 98.371 | 122.782 | 79.469 |
| AFNG | Quantity | 91 | 257 | 74 | 0 | 74 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 11.808 | 28.643 | 16.787 | 0.000 | 16.787 | 24.000 | 23.200 | 24.900 | 22.300 |
| AFR | Quantity | 17 | 18 | 12 | 0 | 12 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 1.993 | 5.655 | 2.215 | 0.000 | 2.215 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 3,114 | 1,958 | 2,151 | 1,195 | 3,346 | 0 | 0 | 0 | 0 |
| Secondary Distribution | Total Obligation Authority | 152.136 | 123.206 | 161.231 | 27.911 | 189.142 | 125.366 | 121.571 | 147.682 | 101.769 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207422F, 0207444F, 0503133F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Tactical Airborne Control Systems | P-5a | A | | - / - | 4 / 15.599 | - / 1.192 | - / 12.959 | - / 0.000 | - / 12.959 |
| P-40a | Deployable C3 Systems | | | | - / - | - / 30.484 | - / 56.921 | - / 57.718 | - / 2.911 | - / 60.629 |
| P-5 | Advanced Communications Systems | P-5a, P-21 | A | | - / 0.000 | 619 / 10.397 | 392 / 6.485 | 348 / 5.913 | - / 0.000 | 348 / 5.913 |
| P-5 | Tactical Air Control Party-Mod | P-5a | A | | - / - | 128 / 41.823 | 693 / 43.084 | - / 48.252 | - / 0.000 | - / 48.252 |
| P-40a | Air Base Ground Defense | | | | - / - | - / 4.500 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-5 | Special Tactics / Combat Control | P-5a | A | | - / - | 2,158 / 49.333 | 657 / 15.524 | 1,624 / 36.389 | 1,195 / 25.000 | 2,819 / 61.389 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 0.000 | - / 152.136 | - / 123.206 | - / 161.231 | - / 27.911 | - / 189.142 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 Tactical Airborne Control Systems PE 0207418F - P-5
 TACTICAL AIRBORNE CONTROL SYSTEM EQUIPMENT: FY19 funding provides for JTC TRS program management activities to include cyber security, facilities and integration, and subject matter expertise. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Deployable C3 Systems PE 0207422F - P-40A
 PE 0207422F DEPLOYABLE COMMAND, CONTROL, and COMMUNICATIONS (C3) SYSTEMS

THEATER-DEPLOYABLE COMMUNICATIONS (TDC) consists of (104) Integrated Communications Access Packages (ICAP), (51) Medium Satellite Terminals and (61) Network Control Center-Deployed (NCCD) components which equate to the 216 fielded systems. Changes in cost are due to the quantity of equipment, number of users they support, and the configurations of the three components. Size of packages vary from year to year.

HUB AND SPOKE SATELLITE TERMINALS: FY19 funds will procure the technical solution based on user functional requirements for Medium SATCOM terminal replacements for end of life/end of support terminals.

INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP): FY19 funds will procure a deployed wireless network capability based on user functional requirements, procure an enhanced land mobile radiointegrated ROIP capability and replace any required components that have reached end of life and are no longer supportable. End of life components may be part of kits and modules such as laptop kits, switches, IP phones and routers. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.

NETWORK CONTROL CENTER-DEPLOYED (NCC-D): FY19 funds will procure the technical solution for the Flexible Core Services for the Flexible Communications Package (FCP). Procure mandated upgrades as required. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.

DEPLOYABLE AIR FORCE LEAD JTF EQUIPMENT: FY19 funds will procure Joint Task Force (JTF) Deployable Communications packages to support the deployable joint-capable AF-led JTF

FY19 funding includes \$2.911M for Overseas Contingency Operations.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>PE 020588F: Security Forces (SF) Tactical Communication Radios - P40A</p> <p>No FY19 funds requested</p> <p>Advanced Communications Systems PE 0207423F - P-5 PE 02027423F Mobile User Objective System (MUOS) and TACTICAL RADIO SYSTEM (TRS):</p> <p>FY19 Funds will be used to purchase but not limited to, Mobile User Objective System (MUOS) satellite waveform licenses and associated antennas, cables, diplexers, and training, as well RF-7800M V255 2-channel base stations and AN/PRC-117G manpack radios. Other items to be purchased are AN/PRC-152A, 1-Channel Handheld Radio, 1-Channel Base Station, Single Vehicle Adapter, Dual Vehicle Adapter, Repeater, and RF-310M Single Channel Non-COMSEC Controlled Item (CCI) Radios. FY19 funds will also be used to procure any components to these ancillary items and training.</p> <p>Tactical Air Control Party-Mod PE 0207444F - P-5 PE 0207444F TACTICAL AIR CONTROL PARTY-MOD TACTICAL AIR CONTROL PARTY-MODERNIZATION (TACP-M) ACQUISITION CATEGORIES: (1) Tactical Operation Center (TOC) Systems (used in fixed operations centers), (2) Vehicle Mounted Systems (used in TACP tactical vehicles), (3) Dismounted Systems (used by JTACs during dismounted infantry operations), and (4) Close Air Support System (CASS) software. TACP-Mod procurements will also include any peripheral equipment required to conduct operations, and generally include training, documentation, initial spares, Interim Contractor support, and other fielding and sustainment activities as required. TACP-M efforts focus on modernizing technologically obsolete and end of life cycle systems with COTS components. FY19 funding will procure the following:</p> <ol style="list-style-type: none"> 1. TACTICAL OPERATIONS CENTER (TOC) SYSTEMS: TACP TOC systems include the fielded ASOC Gateway and Gateway Light systems, the transit case mounted, transportable Dismounted Communication Package (DCP), Tactical Transportable Gateway (TTG), and TOC computer systems. TTG will replace the currently fielded ASOC Gateway and Gateway Lites. The TTG will provide the capability to receive and transmit digital messages on data link networks at the ASOC and Brigade TOCs. This will provide TACPs with battlespace awareness capabilities and line-of-sight, near real time data communications with aircraft for digitally-aided close air support operations. The TTG will include a multi-band radio for Beyond-Line-Of-Sight (BLOS) or Line-Of-Sight (LOS) networked TACP data communications, and include a Link 16 radio for data communications with strike aircraft. TTG will use generator and commercial power, include a computer to host data link control software, and include all necessary masts, antennas, cables and ancillary equipment. TTG was awarded in 2QFY17 with production fielding in FY19. 2. VEHICLE-MOUNTED SYSTEMS: TACP vehicle systems include the GRC-259 system mounted in Stryker armored vehicles, interim 2-channel mobile Voice Communications Packages (VCPs) mounted in M1165 High Mobility Multi-Wheeled Vehicles (HMMWVs), and the AN/GRC-263 Mobile Communications Systems (MCS) for TACP M1145 HMMWVs. In FY16, the TACP program awarded a contract to procure the MCS Block 1, a modular, Internet Protocol (IP)-based system which provides robust 4-channel, voice, data, and video communications capabilities mounted in TACP M1145 armored HMMWVs to support battlefield communications on emerging networking waveforms. These systems use software-defined multi-band radios, tactical video receivers, computers, and ancillary equipment required to conduct CAS voice, video, and data communications. In FY18, the TACP program is competing and awarding a contract for integration (First Article Acceptance Test) of an MCS Block 2 capability for M1165 HMMWVs and complete the purchase of Block 1 M1145 MCS. Procurement for the MCS Block 2 capability includes early procurement of long lead items to include the Full Motion Video Receivers (FMVRs) and potential components with a long lead timeframe of 6 months or more. MCS Block 2 will execute initial production quantities as required and based on funding availability. Future MCS efforts will upgrade or procure capabilities for M113 armored personnel carriers (used by TACPs supporting Army armored or mechanized Brigades), Armored Multi-Purpose Vehicles (AMPV) including early integration of a limited TACP C2 capability into Army AMPV's in support of the European Deterrence initiative, and Joint Light Tactical Vehicles (JLTV). The AMPV and JLTV are new armored vehicles in development by the Army to replace the aging M113 and HMMWV vehicles and will also be adopted by Air Force TACPs. 3. DISMOUNTED EQUIPMENT (used by JTACs during dismounted operations): Consists of a suite of equipment which provides communications, targeting and situational awareness capabilities for JTACs during dismounted infantry operations. Dismounted acquisition efforts include, but are not limited to: Operational Control System (OCS) - lightweight, ruggedized, dismounted JTAC Computer Kits (including a man-portable computer, smart hub, integrated battery, cabling, etc) which in conjunction with ancillary equipment, support LOS and BLOS data communications with C2 nodes, other TACPs, and support aircraft. Full Motion Video devices and accessories - small light weight ruggedized off-the-shelf units that provide TACP's Type 1 encrypted transmit and receive capabilities to communicate with multiple ISR platforms; Short Wave Infrared (SWIR) Laser Spot Detector / Tracker - TACPs require a small, light laser spot detector/tracker to detect and track laser spots from ground laser designators and airborne laser targeting pods | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>and Multi--Spectral Thermal Marking Device / Beacon which is a small, lightweight, covert, and positive identification capability that can be seen or detected with CAS aircraft targeting pods or other sensors. Dismounted TACPs also require ancillary equipment which includes, but is not limited to, handheld & man pack radios, headsets, batteries, cables, antennas, GPS receivers, storage devices, protective/storage/transit cases & covers, laser range finders, laser target designators, miscellaneous hardware remedies, and other components that facilitate the operation and/or human factor impacts of the dismounted TACP. In addition, ICS may be required to sustain some Dismounted equipment until a long-term sustainment strategy is in place. The TACP-M program will use FY19 funding to support any Interim Contractor Support (ICS) for Dismounted equipment prior to transitioning to long-term sustainment.</p> <p>4. TACP CLOSE AIR SUPPORT SYSTEM (CASS) SOFTWARE INTEGRATION: TACP CASS software enables digital data communications with joint C2 nodes, other TACPs, attack aircraft, and Army C2 and Fire Support systems. It includes interfaces with ASOC, TACP and JTAC radios, and targeting devices. It also provides battlespace awareness capabilities needed to plan, request, coordinate, and control CAS in support of ground maneuver forces. FY19 funding will be used to provide software maintenance updates for fielded versions, provide new Human Machine Interface (HMI) interfaces for a dismounted version of the software, incorporate new joint Digitally-aided CAS standards, and provide contract technical and help desk support to operators employing the software. FY19 will provide ICS for fielded CASS software to include training, technical, helpdesk and cyber security support.</p> <p>This funding request supports potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.</p> <p>Special Tactics / Combat Control PE 0408011F - P-5 PE 0408011F BATTLEFIELD AIRMEN OPERATIONS (BAO) Kit</p> <p>BATTLEFIELD AIRMEN OPERATIONS KIT (BAO Kit): BAO Kit will deliver a Family of Systems (FoS) that provides a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) and also provides a family of systems for all Air Force Specialty Codes supporting the Special Tactics (ST) community within the Air Force Special Operations Command's (AFSOC's) Battlefield Airmen Program. This program will procure and enhance technologies for battlefield airmen ST operators that are inter-operable with US and coalition special operations dismounted forces. BAO Kit allows the ability to recognize, identify, range, nominate, and designate targets during both day and night. BAO Kit will also significantly reduce the time required to find, fix, track, target, and engage the enemy by providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre- and post-strike, and transmitting target data to command and control centers. BAO Kit systems are light, compact, and portable for use by dismounted Battlefield Airmen. Modernization efforts focus on reducing the weight of the equipment carried by the dismounted operator. The core capabilities include but are not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line of Sight (LOS) targeting device, Non Line of Sight (XLOS) targeting device, and Machine-to-Machine C4ISR System. BAO also supports AFSOC TAC C2 program purchases enhanced communication systems and equipment essential for ST combat controllers, pararescue, combat weather operators, and tactical air control parties to perform their mission and communicate Beyond Line of Site (BLOS) with rear echelon C2, in order to provide a joint operating picture. The ST operators use this equipment to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing/drop zone operations. Items include but not limited to training, initial spares, repairs and returns, and other equipment.</p> <p>PE 0408011F BATTLEFIELD AIRMEN OPERATIONS (BAO) Kit</p> <p>BATTLEFIELD AIRMEN OPERATIONS (BAO) Kit: FY19 funding will procure, test, support, and repair BAO Kit system of system components to optimize user information intake. Funding will be used to ensure interoperability to reduce the risk of fratricide, reduce the weight carried by individual airmen, and reduce the time required to find, fix, track, target, and engage the enemy. The core capabilities included are but not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line-of-Sight (LOS) targeting device, Non-Line of-Sight (XLOS) targeting device, and Machine-to-Machine C4ISR system. Also, items included but not limited to training, initial spares, repairs and returns, and other equipment.</p> <p>a. HUMAN MACHINE INTERFACE (HMI): This FY19 funding will procure HMI components that will provide integrated operator interface between all the machine components by using unified visual and auditory displays and controls, such as head-mounted displays and tactical earplug connectivity with communications. This system provides optimized user information portrayal and control of peripheral devices, to include modernization of communications, computing devices, portable electrical power generation and management, targeting and situational awareness software (machine-to-machine) designed to reduce risk of fratricide and reduce the time required to employ precision effects on the battlefield to single-digit minutes.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207422F, 0207444F, 0503133F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>b. OPERATIONAL CONTROL SYSTEM (BAO KIT): FY19 funding will procure OCS units which is an integrated communication/display system comprised of a small wearable end user device, power and data management system, including integrated cabling and wireless data transmission that can readily connect and integrate all Battlefield Airmen Operations (BAO) Kit peripherals and portable power sources. The OCS system is a light weight, modular, plate carrier adaptable, integrated, easily configurable system that provides precise situational awareness, moving maps, and the ability to perform digitally-aided Close Air Support (CAS) targeting for all Battlefield Airmen and Special Operations Forces. The OCS is consumable with a lifespan of approximately two years. OCS is refreshed approximately every two years providing more durable hardware, reduced size and weight, and additional capability to the operator.</p> <p>c. LINE OF SIGHT (LOS): FY19 funding will procure LOS systems. LOS integrates target designators and sensors to enhance targeting effectiveness at ranges less than 3km. The equipment provides battlefield airmen with the ability to geo-locate targets in both eye-safe and non-eye safe spectrums. The modernization of this equipment will significantly reduce the weight carried by the operator. Funding will also support AFSOC TAC C2 program purchases of XLOS targeting devices that are essential for combat weather operators. Such equipment will allow operators to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing drop zone operations.</p> <p>Items requested in FY19 as identified on the P-5 Exhibit are representative but not limited to the items to be procured. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements.</p> <p>Combat Rescue - Pararescue (AFR) PE 0503133F - P-40A PE 0503133F: COMBAT RESCUE - PARARESCUE (AFR)</p> <p>No FY19 funding requested.</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Airborne Control Systems |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|--------------|---------------|--------------|---------------|
| Procurement Quantity (Units in Each) | - | 4 | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 15.599 | 1.192 | 12.959 | 0.000 | 12.959 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 15.599 | 1.192 | 12.959 | 0.000 | 12.959 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 15.599 | 1.192 | 12.959 | 0.000 | 12.959 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 3.900 | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - TACP Fixed Simulator - JTC TRS Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| TACP Fixed Simulators - JTC TRS ^(f) | - | - | - | 1.962 | 4 | 7.846 | - | - | - | - | - | - | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 7.846 | - | - | - | - | - | - | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Hardware - TACP Fixed Simulator - JTC TRS Cost</i> | - | - | - | - | - | 7.846 | - | - | - | - | - | - | - | - | 0.000 | - | - | 0.000 |
| Software - Tactical Airborne Control Systems Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Digitally Aided CAS | - | - | - | - | - | - | - | - | - | 0.458 | 20 | 9.167 | - | - | - | 0.458 | 20 | 9.167 |
| Small Diameter Bomb II | - | - | - | - | - | - | - | - | - | 0.168 | 20 | 3.359 | - | - | - | 0.168 | 20 | 3.359 |
| Air Traffic Control | - | - | - | - | - | - | - | - | - | 0.054 | 8 | 0.433 | - | - | - | 0.054 | 8 | 0.433 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 12.959 | - | - | - | - | - | 12.959 |
| <i>Subtotal: Software - Tactical Airborne Control Systems Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 12.959 | - | - | - | - | - | 12.959 |
| Support - TACP SIM Support Cost | | | | | | | | | | | | | | | | | | |
| PMA - Contractor Services and other Government Costs | - | - | - | - | - | 1.160 | - | - | 1.192 | - | - | - | - | - | - | - | - | - |
| Relocatable Shelters | - | - | - | - | - | 5.629 | - | - | - | - | - | - | - | - | - | - | - | - |

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|---|--|--|--|--|--|---|--|--|------------------------|--|--|--|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | | | | | | Item Number / Title [DODIC]: Tactical Airborne Control Systems | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | MDAP/MAIS Code: | | | | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Contractor PM & Cyber Support | - | - | - | - | - | 0.964 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - TACP SIM Support Cost</i> | - | - | - | - | - | 7.753 | - | - | 1.192 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | 3.900 | 4 | 15.599 | - | - | 1.192 | - | - | 12.959 | - | - | 0.000 | - | - | 12.959 |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------------------|-----------------------------------|---------------|--------------|---------------|--------------|---------------|
| AF | Quantity | 4 | - | - | - | - |
| | Total Obligation Authority | 15.599 | 1.192 | 12.959 | 0.000 | 12.959 |
| Total: | Quantity | 4 | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 15.599 | 1.192 | 12.959 | 0.000 | 12.959 |

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Airborne Control Systems |
|---|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---------------------------------|-------------|------|------------------------------|--------------------------------------|-------------------------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| TACP Fixed Simulators - JTC TRS | | 2017 | QuantaDyn Corp / Sterling VA | C / FFP | AFLCMC/WN - Agile Combat Systems | Jan 2018 | Apr 2018 | 4 | 1.962 | Y | | Aug 2015 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment **Aggregated Items Title:** Deployable C3 Systems

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware, Recurring | | | | | | | | | | | | | | | | | | | | |
| TDC - Integrated Communications Access Package | A | | - | - | - | 0.233 | 93 | 21.661 | 0.280 | 104 | 29.129 | 0.060 | 104 | 6.227 | - | - | 2.911 | 0.088 | 104 | 9.138 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 49 | 11.413 | | 55 | 15.405 | | 55 | 3.293 | | - | 2.911 | | 55 | 6.204 |
| AFNG | | | - | - | - | | 37 | 8.618 | | 41 | 11.483 | | 41 | 2.455 | | - | - | | 41 | 2.455 |
| AFR | | | - | - | - | | 7 | 1.630 | | 8 | 2.241 | | 8 | 0.479 | | - | - | | 8 | 0.479 |
| TDC - Network Control Center - Deployed | A | | - | - | - | 0.116 | 61 | 7.076 | 0.017 | 61 | 1.058 | 0.435 | 61 | 26.523 | - | - | - | 0.435 | 61 | 26.523 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 31 | 3.596 | | 31 | 0.538 | | 31 | 13.479 | | - | - | | 31 | 13.479 |
| AFNG | | | - | - | - | | 27 | 3.132 | | 27 | 0.468 | | 27 | 11.740 | | - | - | | 27 | 11.740 |
| AFR | | | - | - | - | | 3 | 0.348 | | 3 | 0.052 | | 3 | 1.304 | | - | - | | 3 | 1.304 |
| TDC - Hub and Spoke Satellite Terminals | A | | - | - | - | 0.002 | 51 | 0.109 | 0.480 | 51 | 24.492 | 0.432 | 13 | 5.616 | - | - | - | 0.432 | 13 | 5.616 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 17 | 0.036 | | 17 | 8.164 | | 6 | 2.592 | | - | - | | 6 | 2.592 |
| AFNG | | | - | - | - | | 27 | 0.058 | | 27 | 12.966 | | 6 | 2.592 | | - | - | | 6 | 2.592 |
| AFR | | | - | - | - | | 7 | 0.015 | | 7 | 3.362 | | 1 | 0.432 | | - | - | | 1 | 0.432 |
| Deployable Air Force Lead JTF Equipment | A | | - | - | - | - | - | - | - | - | - | 17.000 | 1 | 17.000 | - | - | - | 17.000 | 1 | 17.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | 1 | 17.000 | - | - | - | - | 1 | 17.000 |
| Subtotal: Hardware, Recurring | | | - | - | - | - | - | 28.846 | - | - | 54.679 | - | - | 55.366 | - | - | 2.911 | - | - | 58.277 |
| Services | | | | | | | | | | | | | | | | | | | | |
| TDC - PSC Contractor Services | A | | - | - | - | - | - | 1.410 | - | - | 1.480 | - | - | 2.130 | - | - | - | - | - | 2.130 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 1.410 | - | - | 1.480 | - | - | 2.130 | - | - | - | - | - | 2.130 |
| TDC - PSC Other Government Costs | A | | - | - | - | - | - | 0.228 | - | - | 0.762 | - | - | 0.222 | - | - | - | - | - | 0.222 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.228 | - | - | 0.762 | - | - | 0.222 | - | - | - | - | - | 0.222 |
| Subtotal: Services | | | - | - | - | - | - | 1.638 | - | - | 2.242 | - | - | 2.352 | - | - | - | - | - | 2.352 |
| Total | | | - | - | - | - | - | 30.484 | - | - | 56.921 | - | - | 57.718 | - | - | 2.911 | - | - | 60.629 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
a. FY18 INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP):

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | Date: February 2018 |
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| | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Aggregated Items Title: Deployable C3 Systems |
|---|---|---|

Unit cost increased resulting in quantity reduction by 1.

b. CONTROLLED ITEM will be funded with investment funds to purchase military communications equipment classified as critical protection items.

c. PROGRAM SUPPORT COSTS (PSC):

PSC for Theater Deployable Communications supports the operation of the program office in its management and oversight role, to include engineering and technical support, as well as support activities for the program.

d. DIRECT MISSION SUPPORT (DMS):

DMS for TDC includes all support associated with equipment installation, engineering, technical support orders, sustainment engineering, and implementation. This includes the initial bed down and operability testing, technical interchange meetings, and events associated with fielding both hardware and software products, and maintaining configuration control of fielded products.

e. FY19 INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP):

Overseas Contingency Operations (OCO) funding for 4 PACAF Small Communication Packages(SCPs), funding is under incorrect WSC (837300) but the correct PE(27422F)

f. FY19 DEPLOYABLE AIR FORCE LEAD JTF EQUIPMENT: Technical solution for the JTF capable deployable unit based on the functional requirements in PAD 18-01

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Advanced Communications Systems |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|--------------|---------------|--------------|--------------|--------------|---------------|
| Procurement Quantity (Units in Each) | - | 619 | 392 | 348 | - | 348 |
| Gross/Weapon System Cost (\$ in Millions) | 0.000 | 10.397 | 6.485 | 5.913 | 0.000 | 5.913 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 0.000 | 10.397 | 6.485 | 5.913 | 0.000 | 5.913 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 0.000 | 10.397 | 6.485 | 5.913 | 0.000 | 5.913 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|-------|-------|---|-------|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 0.017 | 0.017 | 0.017 | - | 0.017 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Software - 0207423F Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| MUOS ^(†) | - | - | 0.000 | 0.016 | 619 | 9.915 | 0.016 | 392 | 6.274 | 0.017 | 348 | 5.755 | - | - | 0.000 | 0.017 | 348 | 5.755 |
| <i>Subtotal: Recurring Cost</i> | - | - | 0.000 | - | - | 9.915 | - | - | 6.274 | - | - | 5.755 | - | - | 0.000 | - | - | 5.755 |
| <i>Subtotal: Software - 0207423F Cost</i> | - | - | 0.000 | - | - | 9.915 | - | - | 6.274 | - | - | 5.755 | - | - | 0.000 | - | - | 5.755 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |
| PMA Contractor Services | - | - | 0.000 | - | - | 0.200 | - | - | 0.054 | - | - | 0.158 | - | - | 0.000 | - | - | 0.158 |
| PMA Other Government Costs | - | - | 0.000 | - | - | 0.282 | - | - | 0.157 | - | - | - | - | - | 0.000 | - | - | 0.000 |
| <i>Subtotal: Support - Support End Item Cost</i> | - | - | 0.000 | - | - | 0.482 | - | - | 0.211 | - | - | 0.158 | - | - | 0.000 | - | - | 0.158 |
| Gross/Weapon System Cost | - | - | 0.000 | 0.017 | 619 | 10.397 | 0.017 | 392 | 6.485 | 0.017 | 348 | 5.913 | - | - | 0.000 | 0.017 | 348 | 5.913 |

- Remarks:**
- a. Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items
 - b. Program Support Costs: Program Support Costs supports AF JTRS program with Engineering and technical support, as well as, support activities for the program.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|----------------------------|---------|---------|--------------|-------------|---------------|
| AF | 619 | 392 | 348 | - | 348 |
| Total Obligation Authority | 10.397 | 6.485 | 5.913 | 0.000 | 5.913 |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | | | Date: February 2018 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | | Item Number / Title [DODIC]: Advanced Communications Systems | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | MDAP/MAIS Code: | | | |
| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Total: | Quantity | 619 | 392 | 348 | - | 348 |
| Secondary Distribution | Total Obligation Authority | 10.397 | 6.485 | 5.913 | 0.000 | 5.913 |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Advanced Communications Systems |
|---|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---------------------|-------------|------|------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| MUOS ^(†) | | 2017 | Harris Corporation / Rochester, NY | Various | N/A | Jun 2017 | Sep 2017 | 619 | 0.016 | Y | Feb 2017 | |
| MUOS ^(†) | | 2018 | Harris Corporation / Rochester, NY | Various | N/A | Jun 2018 | Sep 2018 | 392 | 0.016 | Y | | |
| MUOS ^(†) | | 2019 | Harris Corporation / Rochester, NY | Various | N/A | Jun 2019 | Sep 2019 | 348 | 0.017 | Y | | |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Advanced Communications Systems |
|---|---|--|

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2017 | | | | | | | | | | | | | Fiscal Year 2018 | | | | | | | | | | | | | BALANCE | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|---------|--|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2016 | BAL DUE AS OF 1 OCT | Calendar Year 2017 | | | | | | | | | | | | | Calendar Year 2018 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| MUOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2017 | AF | 619 | 0 | 619 | | | | | | | | | | | | | | | | | | | | | | | A - - - 619 | | 0 | | |
| 1 | | 2018 | AF | 392 | 0 | 392 | | | | | | | | | | | | | | | | | | | | | | | | A - - - 392 | | 0 | |
| 1 | | 2019 | AF | 348 | 0 | 348 | | | | | | | | | | | | | | | | | | | | | | | | | 348 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment **Item Number / Title [DODIC]:** Advanced Communications Systems

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2019 | | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | BALANCE | |
|---|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 | | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| MUOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2017 | AF | | 619 | 619 | 0 | | | | | | | | | | | | | | | | | | | | | | 0 | | | | |
| | 1 | 2018 | AF | | 392 | 392 | 0 | | | | | | | | | | | | | | | | | | | | | | 0 | | | | |
| | 1 | 2019 | AF | | 348 | 0 | 348 | | | | | | | | A - | - | - | 348 | | | | | | | | | | | 0 | | | | |
| | | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | |

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|---|----------------------------|
| Exhibit P-21, Production Schedule: PB 2019 Air Force | Date: February 2018 |
|---|----------------------------|

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Advanced Communications Systems |
|---|---|--|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | | |
|-----------|------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|----|
| | | MSR For 2019 | 1-8-5 For 2019 | MAX For 2019 | Initial | | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | |
| 1 | Harris Corporation - Rochester, NY | 340 | 350 | 425 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 3 | 12 |

Remarks:
MUOS Waveform is off the shelf software license. Anticipate 1 delivery

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Air Control Party-Mod |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|--------------|---------------|
| Procurement Quantity (Units in Each) | - | 128 | 693 | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 41.823 | 43.084 | 48.252 | 0.000 | 48.252 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 41.823 | 43.084 | 48.252 | 0.000 | 48.252 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 41.823 | 43.084 | 48.252 | 0.000 | 48.252 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|-------|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 0.327 | 0.062 | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| CASS 145 (Service Packs) ^(f) | - | - | - | 1.242 | 1 | 1.242 | 1.465 | 1 | 1.465 | 1.558 | 1 | 1.558 | - | - | 0.000 | 1.558 | 1 | 1.558 |
| TACP TRANSPORTABLE GATEWAY (TTG) ^(f) | - | - | - | 0.302 | 1 | 0.302 | 0.153 | 27 | 4.123 | - | - | - | - | - | 0.000 | - | - | 0.000 |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 1 ^(f) | - | - | - | 0.253 | 133 | 33.616 | - | - | - | - | - | - | - | - | - | - | - | - |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 2 ^(f) | - | - | - | - | - | - | 0.255 | 10 | 2.547 | 0.271 | 20 | 5.416 | - | - | - | 0.271 | 20 | 5.416 |
| ARMORED MULTI-PURPOSE VEHICLE (AMPV) ^(f) | - | - | - | - | - | - | 0.147 | 2 | 0.294 | 0.147 | 3 | 0.441 | - | - | - | 0.147 | 3 | 0.441 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 35.160 | - | - | 8.429 | - | - | 7.415 | - | - | 0.000 | - | - | 7.415 |
| <i>Subtotal: Hardware - Hardware End Item Cost</i> | - | - | - | - | - | 35.160 | - | - | 8.429 | - | - | 7.415 | - | - | 0.000 | - | - | 7.415 |

| | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Hardware - 0207444F Cost | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

| | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|-------|---|-------|-------|---|-------|-------|---|-------|---|---|---|-------|---|-------|
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| MOBILE COMMUNICATIONS | - | - | - | 0.503 | 1 | 0.503 | 0.864 | 1 | 0.864 | 0.459 | 1 | 0.459 | - | - | - | 0.459 | 1 | 0.459 |

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Air Control Party-Mod |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| SYSTEMS (MCS) Block 1 | | | | | | | | | | | | | | | | | | |
| TACTICAL TRANSPORTABLE GATEWAY (TTG) | - | - | - | 0.359 | 1 | 0.359 | 3.015 | 1 | 3.015 | 0.262 | 1 | 0.262 | - | - | - | 0.262 | 1 | 0.262 |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 2 | - | - | - | - | - | - | 16.816 | 1 | 16.816 | 29.187 | 1 | 29.187 | - | - | - | 29.187 | 1 | 29.187 |
| ARMORED MULTI-PURPOSE VEHICLE (AMPV) | - | - | - | - | - | - | 5.406 | 1 | 5.406 | 1.201 | 1 | 1.201 | - | - | - | 1.201 | 1 | 1.201 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 0.862 | - | - | 26.101 | - | - | 31.109 | - | - | - | - | - | 31.109 |
| <i>Subtotal: Hardware - 0207444F Cost</i> | - | - | - | - | - | 0.862 | - | - | 26.101 | - | - | 31.109 | - | - | - | - | - | 31.109 |
| Support - 0207444F Cost | | | | | | | | | | | | | | | | | | |
| CRANE SUPPORT ^(†) | - | - | - | 2.257 | 1 | 2.257 | 4.088 | 1 | 4.088 | 4.719 | 1 | 4.719 | - | - | - | 4.719 | 1 | 4.719 |
| PMA CONTRACTOR SERVICES ^(†) | - | - | - | 2.106 | 1 | 2.106 | 3.206 | 1 | 3.206 | 3.534 | 1 | 3.534 | - | - | - | 3.534 | 1 | 3.534 |
| PMA OTHER GOV'T COSTS | - | - | - | 0.377 | 1 | 0.377 | 0.324 | 1 | 0.324 | 0.356 | 1 | 0.356 | - | - | - | 0.356 | 1 | 0.356 |
| TARGETING DEVICES ICS | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| TEST SUPPORT | - | - | - | 1.061 | 1 | 1.061 | 0.936 | 1 | 0.936 | 1.119 | 1 | 1.119 | - | - | - | 1.119 | 1 | 1.119 |
| <i>Subtotal: Support - 0207444F Cost</i> | - | - | - | - | - | 5.801 | - | - | 8.554 | - | - | 9.728 | - | - | - | - | - | 9.728 |
| Gross/Weapon System Cost | - | - | - | 0.327 | 128 | 41.823 | 0.062 | 693 | 43.084 | - | - | 48.252 | - | - | 0.000 | - | - | 48.252 |

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--------------------------------------|-----------------------------------|---------------|---------------|---------------|--------------|---------------|
| AF | Quantity | 128 | 531 | - | - | - |
| | Total Obligation Authority | 41.823 | 39.358 | 48.252 | 0.000 | 48.252 |
| AFNG | Quantity | - | 162 | - | - | - |
| | Total Obligation Authority | 0.000 | 3.726 | - | - | - |
| Total: Secondary Distribution | Quantity | 128 | 693 | - | - | - |
| | Total Obligation Authority | 41.823 | 43.084 | 48.252 | 0.000 | 48.252 |

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Air Control Party-Mod |
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: | |
| ^(†) indicates the presence of a P-5a | | |

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Tactical Air Control Party-Mod |
|---|---|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|---|--------------------------------------|--------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| CASS 145 (Service Packs) | | 2017 | Rockwell Collins / Richardson, Texas | MIPR | AFLCMC Hanscom AFB | Aug 2017 | Aug 2017 | 1 | 1.242 | Y | | |
| CASS 145 (Service Packs) | | 2018 | Rockwell Collins / Richardson, Texas | MIPR | AFLCMC Hanscom AFB | Aug 2018 | Aug 2018 | 1 | 1.465 | Y | | |
| CASS 145 (Service Packs) | | 2019 | Rockwell Collins / Richardson, Texas | MIPR | AFLCMC Hanscom AFB | Aug 2019 | Aug 2019 | 1 | 1.558 | Y | | |
| TACP TRANSPORTABLE GATEWAY (TTG) | | 2017 | Pelatron Inc. / Honolulu, Hawaii | Various | AFLCMC Hanscom AFB | Mar 2017 | Mar 2018 | 1 | 0.302 | Y | | |
| TACP TRANSPORTABLE GATEWAY (TTG) | | 2018 | Pelatron Inc. / Honolulu, Hawaii | Various | AFLCMC Hanscom AFB | Feb 2018 | Jun 2019 | 27 | 0.153 | Y | | |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 1 | | 2017 | iGov / Tampa, Florida | Various | AFLCMC Hanscom AFB | Sep 2017 | May 2018 | 133 | 0.253 | Y | | |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 2 | | 2018 | TBD / TBD | TBD | AFLCMC Hanscom AFB | Jun 2018 | Jun 2019 | 10 | 0.255 | Y | | |
| MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 2 | | 2019 | TBD / TBD | TBD | AFLCMC Hanscom AFB | Sep 2019 | Sep 2020 | 20 | 0.271 | Y | | |
| ARMORED MULTI-PURPOSE VEHICLE (AMPV) | | 2018 | Defense Logistics Agency (DLA) / Philadelphia, Pennsylvania | MIPR | N/A | Feb 2018 | Nov 2018 | 2 | 0.147 | Y | | |
| ARMORED MULTI-PURPOSE VEHICLE (AMPV) | | 2019 | Defense Logistics Agency (DLA) / Philadelphia, Pennsylvania | MIPR | N/A | Feb 2019 | Dec 2019 | 3 | 0.147 | Y | | |
| CRANE SUPPORT | | 2017 | NAVSURFWARCENDIV / Crane, Indiana | MIPR | N/A | Jan 2017 | Jan 2017 | 1 | 2.257 | Y | | |
| CRANE SUPPORT | | 2018 | NAVSURFWARCENDIV / Crane, Indiana | MIPR | N/A | Jan 2018 | Jan 2018 | 1 | 4.088 | Y | | |
| CRANE SUPPORT | | 2019 | NAVSURFWARCENDIV / Crane, Indiana | MIPR | N/A | Jan 2019 | Jan 2019 | 1 | 4.719 | Y | | |
| PMA CONTRACTOR SERVICES | | 2017 | Various / AFLCMC Hanscom AFB | Various | AFLCMC Hanscom AFB | Oct 2016 | Oct 2016 | 1 | 2.106 | Y | | |
| PMA CONTRACTOR SERVICES | | 2018 | Various / AFLCMC Hanscom AFB | Various | AFLCMC Hanscom AFB | Oct 2017 | Oct 2017 | 1 | 3.206 | Y | | |
| PMA CONTRACTOR SERVICES | | 2019 | Various / AFLCMC Hanscom AFB | Various | AFLCMC Hanscom AFB | Oct 2018 | Oct 2018 | 1 | 3.534 | Y | | |

Remarks:
 TTG Contract awarded 2nd Qtr FY17 and MCS Contract awarded 2nd Qtr FY16.
 Dismounted unit costs fluctuate based on equipment types purchased.
 Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Aggregated Items Title: Air Base Ground Defense |
|---|---|---|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| Tactical Communications Radios | A | | - | - | - | - | - | 4.500 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 4.500 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 4.500 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 4.500 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Special Tactics / Combat Control |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|---------------|---------------|---------------|---------------|---------------|
| Procurement Quantity (Units in Each) | - | 2,158 | 657 | 1,624 | 1,195 | 2,819 |
| Gross/Weapon System Cost (\$ in Millions) | - | 49.333 | 15.524 | 36.389 | 25.000 | 61.389 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 49.333 | 15.524 | 36.389 | 25.000 | 61.389 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 49.333 | 15.524 | 36.389 | 25.000 | 61.389 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|-------|-------|-------|-------|-------|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | 0.023 | 0.024 | 0.022 | 0.021 | 0.022 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|--------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Hardware End Item Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| HUMAN MACHINE INTERFACE ^(†) | - | - | - | 0.007 | 536 | 3.750 | 0.021 | 351 | 7.379 | 0.021 | 1,190 | 24.990 | 0.021 | 780 | 16.380 | 0.021 | 1,970 | 41.370 |
| OPERATIONAL CONTROL SYSTEM (BAO KIT) ^(†) | - | - | - | 0.015 | 402 | 6.030 | 0.020 | 294 | 5.880 | 0.020 | 401 | 8.020 | 0.020 | 399 | 7.980 | 0.020 | 800 | 16.000 |
| LINE OF SIGHT ^(†) | - | - | - | 0.029 | 128 | 3.704 | 0.040 | 10 | 0.395 | 0.040 | 31 | 1.240 | 0.040 | 16 | 0.640 | 0.040 | 47 | 1.880 |
| BAO KIT/VEHICLE COMMS/MOBILE GATEWAY | - | - | - | 34.200 | 1 | 34.200 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 47.684 | - | - | 13.654 | - | - | 34.250 | - | - | 25.000 | - | - | 59.250 |
| <i>Subtotal: Hardware - Hardware End Item Cost</i> | - | - | - | - | - | 47.684 | - | - | 13.654 | - | - | 34.250 | - | - | 25.000 | - | - | 59.250 |
| Support - Support End Item Cost | | | | | | | | | | | | | | | | | | |
| PMA CONTRACTOR SERVICES ^(†) | - | - | - | 1.050 | 1 | 1.050 | 1.100 | 1 | 1.100 | 1.149 | 1 | 1.149 | - | - | - | 1.149 | 1 | 1.149 |
| PMA OTHER GOVERNMENT COSTS ^(†) | - | - | - | 0.599 | 1 | 0.599 | 0.770 | 1 | 0.770 | 0.990 | 1 | 0.990 | - | - | - | 0.990 | 1 | 0.990 |
| <i>Subtotal: Support - Support End Item Cost</i> | - | - | - | - | - | 1.649 | - | - | 1.870 | - | - | 2.139 | - | - | - | - | - | 2.139 |
| Gross/Weapon System Cost | - | - | - | 0.023 | 2,158 | 49.333 | 0.024 | 657 | 15.524 | 0.022 | 1,624 | 36.389 | 0.021 | 1,195 | 25.000 | 0.022 | 2,819 | 61.389 |

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|---|---|---|
| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | Item Number / Title [DODIC]: Special Tactics / Combat Control |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Remarks:
a. Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items.
b. Program Management Administration (PMA): Cost support management with engineering and technical implementation. PMA supports Program TDC with Engineering, and technical support activities.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| AF | Quantity | 2,158 | 657 | 1,624 | 1,195 | 2,819 |
| | Total Obligation Authority | 49.333 | 15.524 | 36.389 | 25.000 | 61.389 |
| Total: | Quantity | 2,158 | 657 | 1,624 | 1,195 | 2,819 |
| Secondary Distribution | Total Obligation Authority | 49.333 | 15.524 | 36.389 | 25.000 | 61.389 |

(t) indicates the presence of a P-5a

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|---|--|--|--|---|--|--|--|---|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force | | | | | | | | Date: February 2018 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment | | | | Item Number / Title [DODIC]: Special Tactics / Combat Control | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ M)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--------------------------|--------------------------------------|--------------------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| HUMAN MACHINE INTERFACE | | 2017 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Dec 2016 | Mar 2017 | 536 | 0.007 | Y | | |
| HUMAN MACHINE INTERFACE | | 2018 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2017 | Jan 2018 | 351 | 0.021 | Y | | |
| HUMAN MACHINE INTERFACE | | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2018 | Jan 2019 | 1,190 | 0.021 | Y | | |
| HUMAN MACHINE INTERFACE | ✓ | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2018 | Jan 2019 | 780 | 0.021 | Y | | |
| OPERATIONAL CONTROL SYSTEM (BAO KIT) | | 2017 | Black Diamond, LLC. / AZ | SS / FFP | AFLCMC Wright Patterson AFB | Feb 2017 | Mar 2017 | 402 | 0.015 | Y | | |
| OPERATIONAL CONTROL SYSTEM (BAO KIT) | | 2018 | Black Diamond, LLC. / AZ | SS / FFP | AFLCMC Wright Patterson AFB | Feb 2018 | Mar 2018 | 294 | 0.020 | Y | | |
| OPERATIONAL CONTROL SYSTEM (BAO KIT) | | 2019 | Black Diamond, LLC. / AZ | SS / FFP | AFLCMC Wright Patterson AFB | Feb 2019 | Mar 2019 | 401 | 0.020 | Y | | |
| OPERATIONAL CONTROL SYSTEM (BAO KIT) | ✓ | 2019 | Black Diamond, LLC. / AZ | SS / FFP | AFLCMC Wright Patterson AFB | Feb 2019 | Mar 2019 | 399 | 0.020 | Y | | |
| LINE OF SIGHT | | 2017 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Nov 2016 | Feb 2017 | 128 | 0.029 | Y | | |
| LINE OF SIGHT | | 2018 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2017 | Jan 2018 | 10 | 0.040 | Y | | |
| LINE OF SIGHT | | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2018 | Jan 2019 | 31 | 0.040 | Y | | |
| LINE OF SIGHT | ✓ | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2018 | Jan 2019 | 16 | 0.040 | Y | | |
| PMA CONTRACTOR SERVICES | | 2017 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2016 | Mar 2017 | 1 | 1.050 | Y | | |
| PMA CONTRACTOR SERVICES | | 2018 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2017 | Mar 2018 | 1 | 1.100 | Y | | |
| PMA CONTRACTOR SERVICES | | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Oct 2018 | Mar 2019 | 1 | 1.149 | Y | | |
| PMA OTHER GOVERNMENT COSTS | | 2017 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Sep 2016 | Feb 2017 | 1 | 0.599 | Y | | |
| PMA OTHER GOVERNMENT COSTS | | 2018 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Sep 2017 | Feb 2018 | 1 | 0.770 | Y | | |
| PMA OTHER GOVERNMENT COSTS | | 2019 | Multiple / Multiple | Various | AFLCMC Wright Patterson AFB | Sep 2018 | Feb 2019 | 1 | 0.990 | Y | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837170 / Combat Survivor Evader Locator

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 1203176F **Other Related Program Elements:** 0305176F

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|--------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 0.000 | 3.004 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 3.004 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 0.000 | 3.004 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 3.004 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 0.000 | 3.004 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 3.004 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Combat Survivor Evader Locator (CSEL) System provides aircrews with end-to-end global satellite secure emergency communication capability during combat and peace-time flying operations. A hand held rescue radio is required as part of the mandatory aircrew survival gear. CSEL is the Joint Program of Record with the US Air Force as lead service. CSEL supports four of five Personnel Recovery Mission Phases; Report, Locate, Support, and Recover. Funding for this exhibit contained in PE 1203176F.

Justification:

No FY2019 funding is requested.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837190 / Radio Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|-------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 16.266 | 15.736 | 12.142 | - | 12.142 | 15.402 | 15.285 | 14.790 | 15.052 | - | 104.673 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 16.266 | 15.736 | 12.142 | - | 12.142 | 15.402 | 15.285 | 14.790 | 15.052 | - | 104.673 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 16.266 | 15.736 | 12.142 | - | 12.142 | 15.402 | 15.285 | 14.790 | 15.052 | - | 104.673 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This capital equipment replacement program procures, integrates, and fields High Frequency Global Communications System (HFGCS) high frequency (HF) radio equipment, network infrastructure, and transmit /receive antennas for 13 strategically located ground stations worldwide. All hardware and software, including radios and antennas, is commercial-off-the-shelf (COTS) with the exception of the integrating software. The integrating software is a COTS-based product that has been configured for the Department of Defense (DOD) to provide the unique capabilities required to function as a strategic HF system. The need for modern, robust, and dependable radio stations with beyond line of sight radio coverage has been identified to ensure HF radio communications is available in areas of interest to the United States.

HFGCS is the DoD's single global, strategic, high-power HF Nuclear Command, Control and Communication (NC3) and non-nuclear Command and Control (C2) network serving the DOD. HFGCS consists of the two major components: the radio /network infrastructure (Scope Command) and the antenna infrastructure (Antenna Program Support) which communicate with mobile assets (aircraft, ships, and land-based platforms). HFGCS is USSTRATCOM's primary strategic HF pre-attack NC3 dependency system providing broadcasts to the US Air Force bomber and US Navy TACAMO fleets. HFGCS supports aircrews, ground forces, naval operations (USN and USCG), and control stations, and is the primary C2 resource for Air Mobility Command cargo and tanker aircraft. Additional customers include White House Communications Agency (WHCA), Defense Communications System HF Entry, and other US government agencies. HFGCS supports war plan dissemination and daily operational requirements for USSTRATCOM, WHCA, Joint Chiefs of Staff (JCS), National Military Command Center's Emergency Action Message distribution, Special Air Mission communications, Major Air Force Commands and Combatant Commanders. HFGCS provides radio connectivity to other governmental organizations such as the Department of Homeland Security, Federal Emergency Management Agency, Transportation Security Administration, State Department and Civil Air Patrol. The HFGCS network supports Overseas Contingency Operations with secure, robust, physically diverse terrestrial and airborne transmission paths providing information services between fixed and deployed operating locations. HFGCS has also been identified as a key communications component in supporting operations in an anti-access area-denial (A2AD) environment.

The HFGCS program recently updated system consoles and routers to replace unsupportable end-of-life components and to provide increased mandated information assurance system security compliance requirements. FY19 continues to fund Voice over Internet Protocol (VoIP) external Defense Information System Agency interfaces to obsolete time division multiplexing (TDM) protocols. This requires replacement of the obsolete switches and communications infrastructure supporting NC3 /C2 operations. Included is also Direct Mission Support /Program Management Administration (DMS /PMA), System Engineering, Joint Interoperability Test Center (JITC) installation testing and shipping costs for these procurement efforts.

Funding for this exhibit contained in PE 0303133F.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837190 / Radio Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| Military Necessity: Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items. | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837190 / Radio Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Radio Equipment | | | | - / - | - / 16.266 | - / 15.736 | - / 12.142 | - / - | - / 12.142 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 16.266 | - / 15.736 | - / 12.142 | - / - | - / 12.142 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

- SCOPE COMMAND RADIO/NETWORK INFRASTRUCTURE:** The Scope Command Radio/Network Infrastructure projects continue the implementation of replacement COTS radio and console capabilities into the HFGCS network. The FY19 HFGCS Network Infrastructure program includes, but is not limited to, the Unified Capabilities/Audio Communications Functionality (UC/ACF), Receive Matrix Replacement Fielding, and Scope Command Server Replacement/Integration. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Funds will be utilized for hardware updates and spares that do not qualify for Centralized Asset Management (CAM) funding to include, but not limited to updating existing site configurations to support modified network baselines and mandated cyber security compliance requirements.
 - FY19 funding merges the UC/ACF programs to remove duplication of effort in fielding updated audio functionality at HFGCS radio stations by replacing the obsolete Digital Electronic Switch (DES), as neither the DES nor Liberty Star-3 (LS-3) switch is on the Approved Product List and have become logistically unsupportable.
 - FY19 continues to fund replacement of the new 15 Receive Matrices at the 13 radio stations, system integration lab, and spares. Funding updates existing interfacing software to control the new Receive Matrix. The existing receive matrices have become obsolete with no spare parts being manufactured to maintain the capability to interface between the radios and antennas. Installation purchase and fielding is estimated to finish in FY21.
 - FY19 funds Scope Command server replacement and installation. The HFGCS system control servers and hosted software are becoming unsupportable and obsolete, requiring replacement. These non-datacenter, dedicated servers control and manage all Scope Command system machine resources, control and forward messages through the HF Email capability, resource status and control services databases, and manage information assurance protection monitoring capability.
- HIGH FREQUENCY GLOBAL ANTENNA REPLACEMENT:** A majority of the HFGCS system antennas have been in operation for up to 45 years and have been subjected to degradation due to exposure to severe environmental conditions such as salt water and hurricane force winds. FY19 funds continue the replacement of critical antennas at HFGCS sites; actual locations and antenna selections will be based on technical assessment of the antenna condition and the operational requirements of the weapon system during execution. FY19 efforts include, but not limited to, replacements at Puerto Rico and West Coast. Site surveys will be conducted at, but not limited to, Yokota, Hawaii, Lajes, Sigonella and Elmendorf. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Funds will be utilized for hardware updates and spares that do not qualify for Centralized Asset Management (CAM) funding to include, but not limited to updating existing site configurations, compliance with local site installation restrictions, and mitigation of potential local environmental considerations.
- FY19 funds for program management administration costs will provide travel, financial management, engineering and technical support for the program office. FY19 also funds Direct Mission Support, including support associated with engineering, sustainment engineering, shipping, and implementation. This includes operational acceptance testing and technical interchange meetings.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837190 / Radio Equipment **Aggregated Items Title:** Radio Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Scope Command Radio/Network Infrastructure | | | | | | | | | | | | | | | | | | | | |
| Unified Capabilities/Audio Communications Functionality (UC/ACF) | A | | - | - | - | 1.759 | 2 | 3.518 | 6.753 | 1 | 6.753 | 2.500 | 1 | 2.500 | - | - | - | 2.500 | 1 | 2.500 |
| Receive Matrix Replacement | A | | - | - | - | - | - | - | - | - | - | 1.515 | 1 | 1.515 | - | - | - | 1.515 | 1 | 1.515 |
| Next Generation Console/Unified Capabilities | A | | - | - | - | 2.161 | 4 | 8.644 | - | - | - | - | - | - | - | - | - | - | - | - |
| Server Replacement | A | | - | - | - | - | - | - | - | - | - | 3.500 | 1 | 3.500 | - | - | - | 3.500 | 1 | 3.500 |
| Subtotal: Scope Command Radio/Network Infrastructure | | | - | - | - | - | - | 12.162 | - | - | 6.753 | - | - | 7.515 | - | - | - | - | - | 7.515 |
| Antenna Replacement | | | | | | | | | | | | | | | | | | | | |
| HFGCS Station Antenna Replacements | A | | - | - | - | 1.200 | 3 | 3.600 | 0.900 | 8 | 7.200 | 0.744 | 4 | 2.977 | - | - | - | 0.744 | 4 | 2.977 |
| Antenna Site Support | A | | - | - | - | - | - | - | 0.733 | 1 | 0.733 | 0.900 | 1 | 0.900 | - | - | - | 0.900 | 1 | 0.900 |
| Subtotal: Antenna Replacement | | | - | - | - | - | - | 3.600 | - | - | 7.933 | - | - | 3.877 | - | - | - | - | - | 3.877 |
| DMS/PMA | | | | | | | | | | | | | | | | | | | | |
| Direct Mission Support (DMS) [Systems Engineering, Testing, Shipping] | A | | - | - | - | - | - | 0.269 | - | - | 0.300 | - | - | 0.250 | - | - | - | - | - | 0.250 |
| PMA Contractor Services | A | | - | - | - | - | - | 0.175 | - | - | 0.350 | - | - | 0.350 | - | - | - | - | - | 0.350 |
| PMA Other Government Costs | A | | - | - | - | - | - | 0.060 | - | - | 0.400 | - | - | 0.150 | - | - | - | - | - | 0.150 |
| Subtotal: DMS/PMA | | | - | - | - | - | - | 0.504 | - | - | 1.050 | - | - | 0.750 | - | - | - | - | - | 0.750 |
| Total | | | - | - | - | - | - | 16.266 | - | - | 15.736 | - | - | 12.142 | - | - | - | - | - | 12.142 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

- 1). Due to different levels of complexity, differences in equipment to be updated and length of required time necessary for modification total cost will fluctuate between fiscal years.
- 2). Differences in site specific setup (due to variations between mission specific needs and differences in site type will drive differences in site specific requirements (e.g., time required, hardware required and software required). This makes quantification impossible, as there is no single baseline to produce a quantity against.
- 3). UC/ACF contracts combined into single effort for technical and fielding efficiencies

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837240 / CCTV/Audiovisual Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 7.794 | 5.480 | 6.505 | 0.000 | 6.505 | 6.572 | 6.170 | 5.261 | 5.357 | - | 43.139 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 7.794 | 5.480 | 6.505 | 0.000 | 6.505 | 6.572 | 6.170 | 5.261 | 5.357 | - | 43.139 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 7.794 | 5.480 | 6.505 | 0.000 | 6.505 | 6.572 | 6.170 | 5.261 | 5.357 | - | 43.139 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Visual Information Activities - Strategic PE 0102890F - P-40A

Imagery Acquisition and Audiovisual (AV) systems and their products are used throughout the Air Force to inform and train warfighters and to document combat operations and other events of historical significance. Combat video documentation is used for operational reporting and analysis, situational awareness, battle damage assessment, intelligence and operational analysis, casualty identification, and the historical record. In addition, video and multimedia based products are developed for warfighter operations, readiness training, medical videography, public and internal information, testing and evaluation, and corporate communications. Commanders recognize that imagery quickly conveys very accurate and unbiased information, and are requiring greater amounts of video imagery to help meet the challenges of a very active warfighting force. The Air Force is meeting this challenge by dedicating funding to procure and sustain this important capability by replacing older video studio systems with newer and more capable equipment and systems for both Air Force video production and combat/contingency documentation teams. Imagery acquisition systems are centrally managed to establish and maintain standardization of systems, as well as to ensure full interoperability with all other electronic image acquisition, transmission system formats, and presentation systems used in the Air Force.

WESTERN TEST RANGE DIGITAL IMAGING SYSTEMS: FY19 funding continues the multiyear replacement of engineering film cameras with high-speed digital imaging and infrared (IR) systems along with mobile tracking mounts to support digital cameras. Funding provides life cycle replacement of obsolete equipment with high speed definition cameras for recording optical data for launch requirements, mid-wave IR sensors and recorders for engine performance and accident investigation details to aid evaluation teams, and near IR cameras that operate below the range of visible sensors.

PRESIDENTIAL AIRCRAFT RECAPITALIZATION (PAR) - One-time upgrade to PAR audio visual equipment.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 837240 / CCTV/Audiovisual Equipment
Equip / BSA 7: Organization and Base

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Visual Information Activities - Strategic | | | | - / - | - / 7.794 | - / 5.480 | - / 6.505 | - / 0.000 | - / 6.505 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 7.794 | - / 5.480 | - / 6.505 | - / 0.000 | - / 6.505 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 Visual Information Activities - Strategic PE 0102890F - P-40A
 FY19 Funds procure items to meet AF mandates from CJCSI 3205.01C, DODI 5040.02, and AFI 35-109. These policy documents exist to ensure DoD and AF compliance with public laws: 36 CFR 1237/1220 and Title 44 Chapters 3301/3101. These funds are used for equipment funding at the 1st Combat Camera Squadron, the only active duty AF COMCAM unit, which provides global/deployable rapid response during wartime operations, worldwide crises, contingencies, joint exercises, and humanitarian operations. Additionally, these funds procure audio/visual equipment supporting two audiovisual squadrons supporting communication priorities for the CSAF and MAJCOM commanders worldwide. Finally, these funds provide equipment supporting AF-wide (garrison and deployed) needs for photo, graphics and video products that aid public diplomacy, internal/external communication, information operations, operational/planning efforts, and effective/efficient training.

WESTERN TEST RANGE DIGITAL IMAGING SYSTEMS: This program replaces obsolete, 35 year-old high-speed engineering film cameras with high-speed digital imaging systems and also upgrades Optical Tracking Mounts to accommodate the new digital imaging systems. This capital equipment replacement procures items to maintain current capability. These cameras are mounted on mobile optical tracking systems and on camera towers next to the launch pad to provide detailed slow motion photography of the launch events. The cameras support satellite, ballistic, missile defense, and aeronautical missions on the Western Test Range and at Kodiak Island, Alaska. The optical data acquired by these engineering camera systems is a vital part of post flight performance analysis of all space and ballistic launch operations and is critical for Test and Evaluation programs now being conducted by the Missile Defense Agency (MDA) at Vandenberg AFB. Optical tracking provides detailed engineering sequential photography for anomaly resolution and accident reconstruction at distances up to 60 kilometers, and is required for all current and future MDA tests and Delta IV, Atlas IV, Delta II, Peacekeeper, Minuteman, Airborne Laser, Kinetic Kill Vehicle, and commercial space launches. These digital systems replace film camera systems that are no longer logistically supportable.

PRESIDENTIAL AIRCRAFT RECAPITALIZATION (PAR) - Upgrade PAR audio visual equipment.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837240 / CCTV/Audiovisual Equipment **Aggregated Items Title:** Visual Information Activities - Strategic

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| CCTV/AUDIO VISUAL EQUIPMENT - AB1000 COMCAM | A | | - | - | - | - | - | 0.720 | - | - | 0.605 | - | - | 0.749 | - | - | 0.000 | - | - | 0.749 |
| CCTV/AUDIO VISUAL EQUIPMENT - AB2000 | A | | - | - | - | - | - | 3.345 | - | - | 2.196 | - | - | 1.625 | - | - | - | - | - | 1.625 |
| CCTV/AUDIO VISUAL EQUIPMENT - AB2000 WESTERN TEST RANGE | A | | - | - | - | - | - | 3.729 | - | - | 2.679 | - | - | 1.625 | - | - | - | - | - | 1.625 |
| CCTV/AUDIO VISUAL EQUIPMENT - PRESIDENTIAL AIRCRAFT RECAPITILIZATION (PAR) | A | | - | - | - | - | - | - | - | - | - | - | - | 2.506 | - | - | - | - | - | 2.506 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 7.794 | - | - | 5.480 | - | - | 6.505 | - | - | 0.000 | - | - | 6.505 |
| Total | | | - | - | - | - | - | 7.794 | - | - | 5.480 | - | - | 6.505 | - | - | 0.000 | - | - | 6.505 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|----------------|----------------|--------------|----------------|----------------|----------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 88.215 | 185.539 | 169.404 | 0.000 | 169.404 | 171.521 | 128.926 | 75.295 | 76.632 | - | 895.532 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 88.215 | 185.539 | 169.404 | 0.000 | 169.404 | 171.521 | 128.926 | 75.295 | 76.632 | - | 895.532 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 88.215 | 185.539 | 169.404 | 0.000 | 169.404 | 171.521 | 128.926 | 75.295 | 76.632 | - | 895.532 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

AF Installation and Msn Spt Ctr - IT Tech Svcs- PE 0207500F - P-40A

Air Force communication infrastructure is aging and in need of modernization. Degraded infrastructure has caused communication outages at various bases, temporarily stopped flying operations and severely impacted installation ability to perform base activities. Funds will procure information technology infrastructure to meet industry standards and reduce future year maintenance cost and improved reliability to deliver enterprise IT services. Modernize Air Force Telephone Voice Switching Systems and infrastructure is required to avoid further mission delays and stoppage. (New Start)

AF Offensive Cyberspace Operations - PE 0208087F - P-40A

Air Education and Training Command (AETC) Cyber Workforce Training: Procure equipment to support emergency warfighting readiness requirements and increase scalability and capacity. Establishes network protection and replaces vulnerability intrusion detection system. This program will procure Cisco switches and routers, servers, network traffic generators, fiber optic cabling, software, simulators, and required network components to support the Cyberspace mission requirements.

MQ-9 Unmanned Aerial Vehicle (UAV) PE 0205219F - P-40A

MQ-9 Reaper Squadron Operations Center (SOC) Communications Infrastructure Equipment: This equipment supports MQ-9 SOCs which provide critical mission data and tasking information to the aircrew and disseminate and/or exchange mission data with decision-makers and the intelligence community.

MINUTEMAN Communications PE 0101323F - P-40A

This equipment supports the Minuteman Minimum Essential Communication Network (MEECN) Program (MMP) with Very Low Frequency (VLF) cable infrastructure. The underground cables at Intercontinental Ballistic Missile (ICBM) Launch Control Centers (LCCs) are aging and require replacement. All cables available for salvage have been harvested and the stockpile has been depleted. This program supports the nuclear mission by providing an adequate bench stock to ensure a survivable nuclear communications path from the POTUS/SECDEF to ICBM forces in the field.

F-22A Squadrons PE 0207138F - P-40A

F-22 Communications Infrastructure Equipment: This equipment provides communications equipment in support of F-22 Raptor wing headquarters, operational, and maintenance squadrons. Base communications infrastructure is essential to meet evolving Warfighter mission requirements.

Engineering and Installation (E&I) - Air Force PE 0207436F - P-40A

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Air Force Space Command (AFSPC) Lead Command Base Communications Infrastructure: E&I supports cyberspace enterprise network capability and life cycle replacement of common user communications systems, AF Network Defensive capabilities, as well as Installation Emergency Management (IEM) infrastructure. E&I funds support communications availability and reliability, providing consistent, compatible, and interoperable capability through advanced technology and architecture. Installations include network communications infrastructure, fiber optic and copper cabling, and associated manhole duct systems for cable projects.</p> <p>Contingency Operations PE 0208028F - P-40A U.S. Air Forces in Europe and Air Forces Africa (USAFE-AFAFRICA) Contingency Operations Infrastructure Equipment: Contingency Operations equipment provides the integrated capability needed to establish and maintain air base readiness during contingencies. Infrastructure equipment will enable integration and coordination of those unit operations that interact during a contingency to establish, maintain or restore the installation's capability to execute its assigned mission.</p> <p>Cyber Command (CYBERCOM) Activities PE 0208059F - P-40A USCYBERCOM Communications Infrastructure: USCYBERCOM responsibilities include planning and coordinating Computer Network Operations (CNO) capabilities; operational and tactical level planning and day-to-day employment of assigned and attached Offensive Cyber Operations forces; planning and coordination of cyber capabilities that have trans-regional effects or that directly support national objectives; and providing Offensive and Defensive Cyber Operations support for assigned missions. Base communications infrastructure (e.g., servers, routers, Local Area Networks (LANs), End Building Node (EBN) hardware) supports ongoing USCYBERCOM activities.</p> <p>Information Technology Services Management - Tactical Air Forces PE 0208550F - P-40A a. Air Force Special Operations Command (AFSOC) Base Communications Infrastructure Equipment: This equipment supports more than 18,000 AFSOC active-duty, Air Force Reserve, Air National Guard and civilian personnel and allow AFSOC to meet the mission of presenting combat ready forces to conduct and support global special operations missions. Funds end of life IT connect infrastructure to provide dial tone and Internet access across the AFSOC enterprise. This is a continuing requirement, where aging legacy components are no longer funded through other cyber portfolios and each MAJCOM must replace these critical components. b. Pacific Air Forces (PACAF) Base Communications Infrastructure Equipment: PACAF network equipment and life cycle replacement of base information technology systems supports base operations, command-wide connectivity, and transformation efforts. The large geographic separation between PACAF units significantly raises the importance of a robust communications infrastructure to ensure war fighter access to secure voice, data, and video systems. c. Air Combat Command (ACC) Base Communications Infrastructure Equipment: ACC base communications funds support life cycle management of network servers, routers, ductwork, cables, LANs, voice and data switches, Land Mobile Radio (LMR) systems, and end building node hardware. This infrastructure meets the requirements of ACC's 143,000 active-duty, Air Force Reserve, Air National Guard and civilian personnel at 11 major bases and 7 associated units throughout the United States. d. USAFE-AFAFRICA Base Communications Infrastructure Equipment: USAFE-AFAFRICA base communications funding supports the acquisition, and installation of base network infrastructures, especially C2 communications, located at USAFE-AFAFRICA Main Operating Bases (MOBs) and Geographically Separated Units (GSUs) consisting of a HQ, one numbered Air Force, six MOBs and 83 GSUs. Specific critical base communications infrastructure provide support for Headquarters, Warfighting Numbered Air Force and Operational wings, flight support, emergency actions, and the operational planning, delivering, sustaining, integrating, and managing of USAF communications capabilities, networks, and applications in the USEUCOM and USAFRICOM theaters based on geographical combatant command orders and plans. Base communications infrastructure is required to support the European Infrastructure Consolidation (EIC) which is an OSD-directed process to restructure basing of forces within the European Command (EUCOM) Area of Responsibility (AOR).</p> <p>Long-Haul Communications - DCS PE 0303126F - P-40A USAFE Long Haul Communications Infrastructure Equipment: The Technical Control Facility Program replaces circuit distribution systems in technical control facilities and throughout base communications infrastructure. This capability addresses USAFE distribution of circuits from the long haul point of presence to the on-base circuit termination point. Distribution equipment using copper cable is being replaced by fiber optic equipment. Additionally, the Joint Intelligence Analysis Center (JIAC) is being moved as part of the EIC program from RAF Molesworth to RAF Croughton. This relocation requires extensive long haul infrastructure upgrades at RAF Croughton and communications equipment to support dual operations at RAF Croughton and RAF Molesworth.</p> <p>Theater Nuclear Weapon Storage & Security System PE 0305155F - P-40A</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Theater Nuclear Weapon Storage and Security System (WS3) Communications Infrastructure Equipment: Funds support the procurement, integration, and installation of commercial off-the-shelf (COTS) communications equipment and alarm processing equipment and software associated with the Alarm Communications and Display (AC&D) system, security assessment enhancements, and fiber optic cable purchase and installation at multiple OCONUS nuclear capable WS3 locations. These efforts directly impact sustainment efforts for the aging WS3 system and NATO's nuclear deterrence mission.</p> <p>Information Technology Services Management - Other PE 0305550F - P-40A</p> <p>a. Air Force District of Washington (AFDW) Base Communications Network Equipment: Funds support the procurement of communications infrastructure replacements for AFDW's classified and unclassified networks. These efforts directly impact accomplishment of the AF mission at all levels such as strategic decision making, execution of operations, and support to US senior leadership including the POTUS, SECDEF, CJCS, and the CSAF. This is a continuing requirement.</p> <p>b. AFSPC Base Communications Infrastructure Equipment: Procurements ensure base-level network access for more than 40,000 AFSPC professionals including military, civilians and contractors. Funding supports base operations by providing required AFSPC-wide hardware and software purchases, ensuring the deployment of consistent, compatible, and interoperable communications technology. This is a continuing requirement.</p> <p>Communications and Information Technology PE 0308611F - P-40A</p> <p>AFSPC Communications Infrastructure Equipment: Funds enable timely and assured delivery of data and voice communications supporting a wide range Air Force organizations and decision makers. This program provides AFSPC with effective C2 of information systems by procuring robust enterprise communications infrastructure that every worker, office, and organization depends on to perform their mission. This funding supports life cycle management of network servers, routers, ductwork, cables, LANs, voice and data switches, Land Mobile Radio (LMR) systems, and end building node hardware in order to maintain consistent, compatible, and interoperable infrastructure and architecture. Funds are also needed to provide communications infrastructure to meet evolving mission requirements, support military construction projects and handle the multitude of smaller, individual communications, computer, air traffic control and weather instrumentation connectivity needs. This funding will be executed by one or all of the following: Air Force Network Integration Center, Air Force Spectrum Management Office, AFSPC Cyber Support Squadron or HQ AFSPC</p> <p>Information Technology Services Management - Mobility Air Forces PE 0408550F - P-40A</p> <p>Air Force District Washington (AFDW) Base Communications Infrastructure Equipment: Funds support network infrastructure replacements and AFDW's classified and unclassified networks. These efforts directly support strategic decision making, execution of operations, and support to US senior leadership including the POTUS, SECDEF, CJCS, and the CSAF. This is a continuing requirement.</p> <p>Information Technology Services Management - AFR PE 0505550F - P-40A</p> <p>Air Force Reserve Command (AFRC) Base Communications Infrastructure Equipment: Funds provide for recapitalization, and support of AFRC base communications infrastructure. AFRC is an AF MAJCOM consisting of a HQ, three Numbered Air Forces (NAFs), 45 flying wings/groups and more than 40 GSUs; Air Reserve Personnel Center (ARPC) and the Major Command Coordinating Center (MCCC). Funding supports AFR-wide programs providing base communications infrastructure consistency. Funding provides AFR-wide hardware and software purchases, thus ensuring the deployment of consistent, compatible, and interoperable technology and architecture. This is a continuing requirement.</p> <p>In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the armed forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Information Technology Services Management - ANG PE 0508550F - P-40A</p> <p>Air National Guard (ANG) Base Communications Infrastructure Equipment: Funding supports the operations, maintenance, and sustainment of IT components, infrastructure, and processes enabling effective operations and defense of the ANG enterprise portion of the Air Force Network (AFNet). Funds provide for IT life cycle support for 90 ANG Main Operating Bases (MOB), 153 GSUs, and the 299th Cyber Security Control (CSCS) weapon system. Funds support ANG-wide base communications infrastructure projects consistent with AF IT standards and for compatibility of the ANG enterprise with the AF and Department of Defense (DoD) centralized networks. A major component of this funding is to support the procurement and implementation of a robust Installation Notification and Warning System (INWS) that provides Giant Voice, Indoor Alerts, Telephone call/text alerts, software for computer alerts, and other alerting methods to meet DOD and Federal warning requirements for all ANG bases. This is a continuing requirement.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the armed forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Information Technology Services Management - Logistics PE 0708550F - P-40A

Air Force Materiel Command (AFMC) Base Communications infrastructure Equipment: Funding allows AFMC to support AF operations by sustaining critical cyber systems that provide timely and assured delivery of data and voice communications for organizations at nine AFMC installations with 100,000 personnel. Funding directly supports the warfighter on a 24/7 operational basis by providing AFMC the ability to deliver cyber capabilities to sustain aircraft sortie generation rates, weapon systems availability, system operational testing, and timely acquisition of equipment parts. This program is vital for AFMC's life cycle management of network servers, service desk, repair of critical communications infrastructure, routers, ductwork, cables, Land Area Networks (LANs), voice and data switches, and Mass Notifications and Land Mobile Radio (LMR) systems. Funding allows for end-of-life replacement of end building node network, data and voice hardware that complies with AF cyber architecture enterprise standards.

Information Technology Services Management - Training PE 0808550F - P-40A

Air Education and Training Command (AETC) Base Communications Infrastructure Equipment: Funding supports the replacement of the legacy telephone switches running on '80s technology and are in desperate need of upgrades. The Time Domain Multiplex (TDM)is no longer supported by the commercial industry. Voice over Internet Protocol (VOIP) is the telephone industry's technology of choice and is the future of telephony. VoIP systems include servers, software, routers, handsets, data switches and UPS, etc., as well as, the network infrastructure upgrades (allied support, network switches, etc.) needed to increase bandwidth to support voice over the network. AETC must continue implement VoIP command-wide to ensure to meet the Air Force's strategy of One Air Force one Network with internet protocol (IP) being the standard network protocol as of 2018.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|---------------|----------------|----------------|--------------|----------------|--------------|--------------|--------------|--------------|
| AF | Quantity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 85.468 | 169.554 | 161.108 | 0.000 | 161.108 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 2.420 | 10.648 | 7.956 | 0.000 | 7.956 | 9.724 | 9.689 | 9.449 | 9.617 |
| AFR | Quantity | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.327 | 5.337 | 0.340 | 0.000 | 0.340 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Secondary Distribution | Total Obligation Authority | 88.215 | 185.539 | 169.404 | 0.000 | 169.404 | 9.724 | 9.689 | 9.449 | 9.617 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | IT Services- AFIMSC- Operating Forces Spt | | | | - / - | - / 0.000 | - / 0.000 | - / 5.958 | - / 0.000 | - / 5.958 |
| P-40a | Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) | | | | - / - | - / 33.680 | - / 0.000 | - / 0.000 | - / - | - / 0.000 |
| P-40a | Communications and Information Technology | | | | - / - | - / 5.812 | - / 5.956 | - / 4.450 | - / 0.000 | - / 4.450 |
| P-40a | MQ-9 UAV | | | | - / - | - / 0.000 | - / 7.529 | - / 87.558 | - / 0.000 | - / 87.558 |
| P-40a | F-22A Squadrons | | | | - / - | - / 0.971 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Engineering and Installation - Air Force | | | | - / - | - / 0.000 | - / 17.568 | - / 37.195 | - / 0.000 | - / 37.195 |
| P-40a | Information Technology Services Management - Tactical Air Forces | | | | - / - | - / 32.076 | - / 106.651 | - / 19.422 | - / 0.000 | - / 19.422 |
| P-40a | Theater Nuclear Weapon Storage & Security System | | | | - / - | - / 6.159 | - / 24.957 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Information Technology Services Management - Other | | | | - / - | - / 3.082 | - / 3.166 | - / 3.200 | - / 0.000 | - / 3.200 |
| P-40a | Information Technology Services Management - Mobility Air Forces | | | | - / - | - / 0.738 | - / 0.758 | - / 0.768 | - / 0.000 | - / 0.768 |
| P-40a | Information Technology Services Management - AFR | | | | - / - | - / 0.327 | - / 5.337 | - / 0.340 | - / 0.000 | - / 0.340 |
| P-40a | Information Technology Services Management - ANG | | | | - / - | - / 2.420 | - / 10.648 | - / 7.956 | - / 0.000 | - / 7.956 |
| P-40a | Information Technology Services Management - Logistics | | | | - / - | - / 1.785 | - / 1.835 | - / 1.647 | - / 0.000 | - / 1.647 |
| P-40a | Information Technology Services Management - Training | | | | - / - | - / 1.165 | - / 1.134 | - / 0.910 | - / 0.000 | - / 0.910 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 88.215 | - / 185.539 | - / 169.404 | - / 0.000 | - / 169.404 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

This program, Base Comm Infrastructure P-40A Item Info Tech Svcs Mgt (ITSM), is a new start.

AF Installation and Msn Spt Ctr - Info Tech Svcs Mgt(ITSM) PE 0207500F P-40A

FY19 funds will procure IP based switches and telecommunications equipment to implement an IP based infrastructure for Air Force MAJCOMs (ACC, AFSPC, AETC, etc.) Current TDM switches are past life expectancy and parts are no longer manufactured or supported by commercial vendors. Industry is cannibalizing old systems for possible repairs. Voice telecommunication industry is rapidly moving to Internet Protocol (IP) based switches. (New Start)

AF Offensive Cyberspace Operations PE 0208087F - P-40A

AETC Cyberspace Workforce Training is required to address emergency warfighting readiness requirements. Funding is required for AETC to adjust the Cyber Initial Skills Training (IST) course content and length to meet operational unit training needs to include increasing Cyberspace Mission Force student throughput. Enables the 24 AF to meet USCYBERCOM directed IOC/FOC timelines by FY18. No FY19 Funding requested.

MQ-9 Unmanned Aerial Vehicle (UAV) PE 0205219F - P-40A

MQ-9 Reaper Squadron Operations Center (SOC) Communications Infrastructure Equipment: FY19 funds are required for the procurement and installation of hardware and software at MQ-9 SOCs to enable mission communications and exchange of mission data necessary for the employment of Remote Split Operations for MQ-9 Reaper missions.

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|---|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>MINUTEMAN Communications PE 0101323F - P-40A No FY19 funding requested.</p> <p>F-22A Squadrons PE 0207138F - P-40A F-22 Communications Infrastructure Equipment: No FY19 funding requested.</p> <p>Engineering and Installation - Air Force PE 0207436F - P-40A Air Force Space Command (AFSPC) Lead Command Base Communications Infrastructure: FY19 E&I funds ensure life cycle support to keep base communications infrastructure on pace with current technological developments.</p> <p>Contingency Operations PE 0208028F - P-40A U.S. Air Forces in Europe and Air Forces Africa (USAFE-AFAFRICA) Contingency Operations Infrastructure Equipment: No FY19 funding requested.</p> <p>Cyber Command (CYBERCOM) Activities PE 0208059F - P-40A USCYBERCOM Communications Infrastructure: FY19 funding requested.</p> <p>Information Technology Services Management - Tactical Air Forces PE 0208550F - P-40A a. Air Force Special Operations Command (AFSOC) Base Communications Infrastructure Equipment: FY19 funds will be used by AFSOC to recapitalize data, voice, and video equipment supporting AFSOC forces organized under three active-duty wings, one reserve wing, one National Guard wing, two overseas groups, and several direct reporting units. b. Pacific Air Forces (PACAF) Base Communications Infrastructure Equipment: FY19 funding supports PACAF's acquisition and installation of Unified Capabilities (UC) and communications infrastructure at remote and Geographically Separated Unit (GSU) locations. Procurements include VoIP solutions to replace the obsolete telephone switches and communications infrastructure supporting C2 for deploying squadrons at these (flex base) locations. This capability directly supports COMPACAF's adaptive combat employment strategy for the Pacific theater. c. Air Combat Command (ACC) Base Communications Infrastructure Equipment: FY19 funds continue life cycle support of base communications infrastructure at ACC bases and replaces outdated network voice and data equipment hardware to meet mission requirements of ACC's C2 and mission support users. d. USAFE-AFAFRICA Base Communications Infrastructure Equipment: FY19 funding updates USAFE's outdated communications infrastructure: funds ensure continual life cycle support of base communications infrastructure at 6 USAFE-AFAFRICA Main Operating Bases (MOBs) and 83 Geographically Separated Unit (GSU) locations. As well as acquisition and installation of Unified Capabilities (UC) to include VDI and VoIP solutions that will replace/update obsolete communications infrastructure and end user support equipment.</p> <p>Long-Haul Communications - DCS PE 0303126F - P-40A USAFE Long Haul Communications Infrastructure Equipment: No FY19 funding is requested.</p> <p>Theater Nuclear Weapon Storage & Security System PE 0305155F - P-40A Theater Nuclear Weapon Storage and Security System (WS3): No FY19 funding requested.</p> <p>Information Technology Services Management (ITSM) - Other PE 0305550F - P-40A a. Air Force District Washington (AFDW) Base Communications/ITSM Network Equipment: FY19 funds procure wide and local area network hardware (i.e., servers, routers, hubs and network systems) at Joint Base Anacostia-Bolling, Joint Base Andrews, and Headquarters Air Force. This program invests in office automation systems and computer networks in order to procure high-quality, high-speed connections to both public and classified networks, and equipment required to react to emerging and emergency mission requirements in the National Capital Region (NCR). b. AFSPC Base Communications Infrastructure Equipment: No FY19 funding requested.</p> <p>Communications and Information Technology PE 0308611F - P-40A</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>AFSPC Communications Infrastructure Equipment: FY19 funds ensure AF enterprise and base-level network access for more than 615,000 Total Force professionals including military, civilians and contractors. Funding supports enterprise and base operations by providing required AF and AFSPC-wide hardware and software purchases, ensuring the deployment of consistent, compatible, and interoperable communications technology to support Joint Information Enterprise efforts across the AF. Hardware and software purchases may include routers, switches, and other network systems to support UC capabilities and the joint enterprise.</p> <p>Information Technology Services Management - Mobility Air Forces PE 0408550F - P-40A Air Force District Washington (AFDW) Base Communications/ITSM Infrastructure Equipment: FY19 funds procure wide and local area network at Joint Base Anacostia-Bolling, Joint Base Andrews, and Headquarters Air Force. This program invests in office automation systems and computer networks to support high-quality, high-speed connections to public and classified networks in support of National Capitol Region (NCR) mission requirements.</p> <p>Information Technology Services Management - AFR PE 0505550F - P-40A Air Force Reserve Command (AFRC) Base Communications Infrastructure Equipment: FY19 funds support data, voice, and video projects to promote compatibility with the AF "Active" component architectures. In addition to funding AFR-wide programs. Funds also acquire equipment for life cycle support of critical base-level communications infrastructure requirements.</p> <p>Information Technology Services Management - ANG PE 0508550F - P-40A Air National Guard (ANG) Base Communications Infrastructure Equipment: FY19 funds continue to support installation of command purchased information technology and software to maintain a consistent, compatible, and interoperable infrastructure and architecture. This functionality ensures compatibility of ANG networks with the AF Enterprise.</p> <p>Information Technology Services Management - Logistics PE 0708550F - P-40A Air Force Materiel Command (AFMC) Communications Infrastructure Equipment: FY19 funds support command wide and base approved, MAJCOM validated communications requirements. These provide base life cycle management of AFMC's classified and unclassified network server consolidation, Land Mobile Radio (LMR) systems, routers, voice and data switches, ductwork, cabling, and end building node hardware that support UC and communications infrastructure. Procurements include VoIP solutions to replace the obsolete telephone switches and communications infrastructure.</p> <p>Information Technology Services Management - Training PE 0808550F - P-40A Air Education and Training Command (AETC) Base Communications Infrastructure Equipment: FY19 funds will be used to continue the process of replacing AETC legacy base LAN infrastructure originally designed to carry data only in order to comply with the increased reliability required under Assured Service LAN (ASLAN) as other services (e.g., voice, enterprise LMR) are transitioned to the LAN. VoIP systems include servers, software, routers, handsets, data switches and UPS, etc., as well as, the network infrastructure upgrades (allied support, network switches, etc.) needed to increase bandwidth to support voice over the network.</p> | | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | | Aggregated Items Title: IT Services- AFIMSC- Operating Forces Spt | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF Installation & Msn Spt Ctr | | | | | | | | | | | | | | | | | | | | |
| Info Tech Svcs Mgt (ITSM) | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.958 | - | - | 0.000 | - | - | 5.958 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.958 | - | - | 0.000 | - | - | 5.958 |
| Subtotal: AF Installation & Msn Spt Ctr | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.958 | - | - | 0.000 | - | - | 5.958 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 5.958 | - | - | 0.000 | - | - | 5.958 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | Aggregated Items Title: Service Support to Other Core Missions - STRATCOM (CYBERCOM Activities) | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| USCYBER COMMAND | | | | | | | | | | | | | | | | | | | | |
| USCYBERCOM Communications Infrastructure | A | | - | | - | | | 33.680 | | | 0.000 | | | 0.000 | | | - | | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | | 33.680 | | | 0.000 | | | 0.000 | | | | - | - | 0.000 |
| Subtotal: USCYBER COMMAND | | | - | | - | | 33.680 | | | 0.000 | | | 0.000 | | | - | | - | 0.000 | |
| Total | | | - | | - | | 33.680 | | | 0.000 | | | 0.000 | | | - | | - | 0.000 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | Aggregated Items Title: Communications and Information Technology | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFSPC | | | | | | | | | | | | | | | | | | | | |
| AFSPC Communications Infrastructure Equipment | A | | - | - | - | - | - | 5.812 | - | - | 5.956 | - | - | 4.450 | - | - | 0.000 | - | - | 4.450 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 5.812 | - | - | 5.956 | - | - | 4.450 | - | - | 0.000 | - | - | 4.450 |
| Subtotal: AFSPC | | | - | - | - | - | - | 5.812 | - | - | 5.956 | - | - | 4.450 | - | - | 0.000 | - | - | 4.450 |
| Total | | | - | - | - | - | - | 5.812 | - | - | 5.956 | - | - | 4.450 | - | - | 0.000 | - | - | 4.450 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure **Aggregated Items Title:** MQ-9 UAV

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| PMA Other Government Costs | A | | - | - | - | - | - | - | - | 2.232 | - | - | 3.032 | - | - | 0.000 | - | - | 3.032 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 2.232 | - | - | 3.032 | - | - | 0.000 | - | - | 3.032 | |
| Equipment | A | | - | - | - | - | - | 0.000 | - | - | 5.297 | - | - | 42.428 | - | - | 0.000 | - | - | 42.428 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.000 | - | - | 5.297 | - | - | 42.428 | - | - | 0.000 | - | - | 42.428 |
| ACC Equipment | A | | - | - | - | - | - | - | - | - | - | - | - | 42.098 | - | - | 0.000 | - | - | 42.098 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | 42.098 | - | - | 0.000 | - | - | 42.098 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.000 | - | - | 7.529 | - | - | 87.558 | - | - | 0.000 | - | - | 87.558 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 7.529 | - | - | 87.558 | - | - | 0.000 | - | - | 87.558 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure **Aggregated Items Title:** F-22A Squadrons

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| F-22A Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.971 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.971 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 0.971 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Total | | | - | - | - | - | - | 0.971 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure **Aggregated Items Title:** Engineering and Installation - Air Force

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFSPC E&I | | | | | | | | | | | | | | | | | | | | |
| AFSPC Lead Command Base Communications Infrastructure | A | | - | - | - | - | - | 0.000 | - | - | 17.568 | - | - | 37.195 | - | - | 0.000 | - | - | 37.195 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.000 | - | - | 17.568 | - | - | 37.195 | - | - | 0.000 | - | - | 37.195 |
| Subtotal: AFSPC E&I | | | - | - | - | - | - | 0.000 | - | - | 17.568 | - | - | 37.195 | - | - | 0.000 | - | - | 37.195 |
| Total | | | - | - | - | - | - | 0.000 | - | - | 17.568 | - | - | 37.195 | - | - | 0.000 | - | - | 37.195 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | Aggregated Items Title: Information Technology Services Management - Tactical Air Forces |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - Tactical AF's | | | | | | | | | | | | | | | | | | | | |
| AFSOC Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.665 | - | - | 2.435 | - | - | 0.692 | - | - | 0.000 | - | - | 0.692 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.665 | - | - | 2.435 | - | - | 0.692 | - | - | 0.000 | - | - | 0.692 |
| PACAF Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.634 | - | - | 0.652 | - | - | 0.659 | - | - | 0.000 | - | - | 0.659 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.634 | - | - | 0.652 | - | - | 0.659 | - | - | 0.000 | - | - | 0.659 |
| ACC Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.479 | - | - | 0.490 | - | - | 0.496 | - | - | 0.000 | - | - | 0.496 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.479 | - | - | 0.490 | - | - | 0.496 | - | - | 0.000 | - | - | 0.496 |
| USAFE-AFAFRICA Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 30.298 | - | - | 103.074 | - | - | 17.575 | - | - | 0.000 | - | - | 17.575 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 30.298 | - | - | 103.074 | - | - | 17.575 | - | - | 0.000 | - | - | 17.575 |
| Subtotal: ITSM - Tactical AF's | | | - | - | - | - | - | 32.076 | - | - | 106.651 | - | - | 19.422 | - | - | 0.000 | - | - | 19.422 |
| Total | | | - | - | - | - | - | 32.076 | - | - | 106.651 | - | - | 19.422 | - | - | 0.000 | - | - | 19.422 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | | Aggregated Items Title: Theater Nuclear Weapon Storage & Security System | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | | | | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|--------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|---|--|---|--|--------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | | | | | |
| Theater Nuclear WS3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Theater Nuclear Weapon Storage and Security System (WS3) Communications Infrastructure Equipment | A | | - | | - | - | | 6.159 | | - | | 24.957 | | - | | 0.000 | | - | | 0.000 | - | | - | | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | | - | | 6.159 | | - | | 24.957 | | - | | 0.000 | | - | | 0.000 | | - | | - | | 0.000 |
| Subtotal: Theater Nuclear WS3 | | | - | | - | | 6.159 | | - | | 24.957 | | - | | 0.000 | | - | | 0.000 | | - | | - | | 0.000 |
| Total | | | - | | - | | 6.159 | | - | | 24.957 | | - | | 0.000 | | - | | 0.000 | | - | | - | | 0.000 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | Aggregated Items Title: Information Technology Services Management - Other |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - Other | | | | | | | | | | | | | | | | | | | | |
| AFDW Base Communications Network Equipment | A | | - | - | - | - | - | 3.082 | - | - | 3.166 | - | - | 3.200 | - | - | 0.000 | - | - | 3.200 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 3.082 | - | - | 3.166 | - | - | 3.200 | - | - | 0.000 | - | - | 3.200 |
| AFSPC Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: ITSM - Other | | | - | - | - | - | - | 3.082 | - | - | 3.166 | - | - | 3.200 | - | - | 0.000 | - | - | 3.200 |
| Total | | | - | - | - | - | - | 3.082 | - | - | 3.166 | - | - | 3.200 | - | - | 0.000 | - | - | 3.200 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | | Aggregated Items Title: Information Technology Services Management - Mobility Air Forces | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - Mobility AF's | | | | | | | | | | | | | | | | | | | | |
| AFDW Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 0.738 | - | - | 0.758 | - | - | 0.768 | - | - | 0.000 | - | - | 0.768 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.738 | - | - | 0.758 | - | - | 0.768 | - | - | 0.000 | - | - | 0.768 |
| Subtotal: ITSM - Mobility AF's | | | - | - | - | - | - | 0.738 | - | - | 0.758 | - | - | 0.768 | - | - | 0.000 | - | - | 0.768 |
| Total | | | - | - | - | - | - | 0.738 | - | - | 0.758 | - | - | 0.768 | - | - | 0.000 | - | - | 0.768 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | Aggregated Items Title: Information Technology Services Management - AFR | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - AFR | | | | | | | | | | | | | | | | | | | | |
| AFRC Base Communications Infrastructure Equipment | A | | - | - | - | 0.327 | 1 | 0.327 | - | - | 5.337 | - | - | 0.340 | - | - | 0.000 | - | - | 0.340 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFR | | | - | - | - | - | 1 | 0.327 | - | - | 5.337 | - | - | 0.340 | - | - | 0.000 | - | - | 0.340 |
| Subtotal: ITSM - AFR | | | - | - | - | - | - | 0.327 | - | - | 5.337 | - | - | 0.340 | - | - | 0.000 | - | - | 0.340 |
| Total | | | - | - | - | - | - | 0.327 | - | - | 5.337 | - | - | 0.340 | - | - | 0.000 | - | - | 0.340 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | Aggregated Items Title: Information Technology Services Management - ANG | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - ANG | | | | | | | | | | | | | | | | | | | | |
| ANG Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 2.420 | - | - | 10.648 | - | - | 7.956 | - | - | 0.000 | - | - | 7.956 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFNG | | | - | - | - | - | - | 2.420 | - | - | 10.648 | - | - | 7.956 | - | - | 0.000 | - | - | 7.956 |
| Subtotal: ITSM - ANG | | | - | - | - | - | - | 2.420 | - | - | 10.648 | - | - | 7.956 | - | - | 0.000 | - | - | 7.956 |
| Total | | | - | - | - | - | - | 2.420 | - | - | 10.648 | - | - | 7.956 | - | - | 0.000 | - | - | 7.956 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
ANG FY17 Emergency Supplemental Rescission -- \$48M.

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|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | Aggregated Items Title: Information Technology Services Management - Logistics | | | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - Logistics | | | | | | | | | | | | | | | | | | | | |
| AFMC Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 1.785 | - | - | 1.835 | - | - | 1.647 | - | - | 0.000 | - | - | 1.647 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 1.785 | - | - | 1.835 | - | - | 1.647 | - | - | 0.000 | - | - | 1.647 |
| Subtotal: ITSM - Logistics | | | - | - | - | - | - | 1.785 | - | - | 1.835 | - | - | 1.647 | - | - | 0.000 | - | - | 1.647 |
| Total | | | - | - | - | - | - | 1.785 | - | - | 1.835 | - | - | 1.647 | - | - | 0.000 | - | - | 1.647 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|---|--|--|--|--|--|--|---|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 | | | | | | | P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure | | | | | | | Aggregated Items Title: Information Technology Services Management - Training | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| ITSM - Training | | | | | | | | | | | | | | | | | | | | |
| AETC Base Communications Infrastructure Equipment | A | | - | - | - | - | - | 1.165 | - | - | 1.134 | - | - | 0.910 | - | - | 0.000 | - | - | 0.910 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 1.165 | - | - | 1.134 | - | - | 0.910 | - | - | 0.000 | - | - | 0.910 |
| Subtotal: ITSM - Training | | | - | - | - | - | - | 1.165 | - | - | 1.134 | - | - | 0.910 | - | - | 0.000 | - | - | 0.910 |
| Total | | | - | - | - | - | - | 1.165 | - | - | 1.134 | - | - | 0.910 | - | - | 0.000 | - | - | 0.910 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 8: Modifications **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0305111F, 0305909F, 0305912F, 1203699F **Other Related Program Elements:** 0305111F, 0305114F, 0305137F, 0305909F

Line Item MDAP/MAIS Code: None

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 74.226 | 69.500 | 70.798 | 10.654 | 0.000 | 10.654 | 14.500 | 13.500 | 12.329 | 4.468 | - | 269.975 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 74.226 | 69.500 | 70.798 | 10.654 | 0.000 | 10.654 | 14.500 | 13.500 | 12.329 | 4.468 | - | 269.975 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 74.226 | 69.500 | 70.798 | 10.654 | 0.000 | 10.654 | 14.500 | 13.500 | 12.329 | 4.468 | - | 269.975 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|-------|-------|---|---|---|---|---|---|---|---|-------|
| Initial Spares (<i>\$ in Millions</i>) | - | 1.558 | 1.602 | - | - | - | - | - | - | - | - | 3.160 |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

PE 1203873F BALLISTIC MISSILE DEFENSE RADARS - Cobra Dane Radar

Due to obsolescence of unsupportable mission and capital equipment and Initial spares, coupled with the lack of vendors, COBRA DANE faces a critical parts shortage. Procurement of these parts are critical to maintain operational access and sustainment of the COBRA DANE radar residing on Shemya Island,AK.

PE 1203909F BALLISTIC MSL EARLY WARNING SYSTEM (BMEWS) - P-40A

PE 1203909F The Ballistic Missile Early Warning System (BMEWS) is a ground based radar system with missions to support the Missile Correlation, Space Surveillance, and Missile Defense Centers. The BMEWS radars provide United States Strategic Command (USSTRATCOM) with credible Integrated Tactical Warning/Attack Assessment (ITW/AA) data on all Inter-Continental Ballistic Missiles (ICBMs) and Sea-Launched Ballistic Missiles (SLBMs) penetrating the coverage area including Launch and predicted impact (L&PI) data for attack assessment and response determination. BMEWS also supports the Space Situational Awareness (SSA) network providing near-earth satellite surveillance and tracking, reporting observational (metric), SOI on man-made satellites and maintenance of the space catalog as required by the Joint Space Operations Center, Alternate Space Operations Center, and the National Air and Space Intelligence Center mitigating the significantly increasing potential for collisions with national assets, including manned space platforms. The BMEWS shares a common baseline and mission with the PAVE Phased Array Warning System (PAVE PAWS) while deploying more array elements on its faces. The Upgraded Early Warning Radar (UEWR) sites at Thule and Fylingdales also have a Missile Defense (MD) mission supporting the Missile Defense Agency. These radars are located at Thule Air Base, Greenland; Clear Air Force Station, AK; and Royal Air Force (RAF) Fylingdales, UK. Additionally there is a site for testing (System Program Agency) located in the Centralized Integration Support Facility (CISF) at Peterson AFB, CO.

PE 1203912F SLBM RADAR WARNING SYSTEM - P-40A

PE 1203912F The PAVE PHASED ARRAY WARNING SYSTEM (PAVE PAWS) is a ground based radar system with missions to support the Missile Correlation, Space Surveillance, and Missile Defense Centers. The PAVE PAWS radars provide United States Strategic Command (USSTRATCOM) with credible Integrated Tactical Warning/Attack Assessment (ITW/AA) data on all Sea-Launched Ballistic Missiles (SLBMs) and Inter-Continental Ballistic Missiles (ICBMs) penetrating the coverage area including Launch and predicted impact (L&PI) data for attack assessment and response determination. PAVE PAWS also supports the Space Situational Awareness (SSA) network providing near-earth satellite surveillance and tracking, reporting observational (metric), SOI on man-made satellites and maintenance of the space catalog as required by the Joint Space Operations Center, Alternate Space Operations Center, and the National Air and Space Intelligence Center mitigating the significantly increasing potential for collisions with national assets, including manned space platforms. The Upgraded Early Warning Radar (UEWR) site at Beale AFB also has a Missile Defense (MD) mission supporting the Missile Defense Agency. The PAVE PAWS shares a

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0305111F, 0305909F, 0305912F, 1203699F **Other Related Program Elements:** 0305111F, 0305114F, 0305137F, 0305909F

Line Item MDAP/MAIS Code: None

common baseline and mission with the Ballistic Missile Early Warning System (BMEWS) while deploying fewer array elements on its faces. These radars are located at Beale AFB, CA and Cape Cod AFS, MA. Additionally there is a site for testing (System Program Agency) located in the Centralized Integration Support Facility (CISF) at Peterson AFB, CO.

PE 0305114F - Air Traffic Control and Landing Systems (ATCALS). ATCALS procures and supports fixed-base and tactical radar, navigation aids, voice communications, and data processing/automation capabilities which enable Air Force (AF) air traffic controllers to provide advisory, sequencing, separation, and landing guidance services to all aircraft in AF-assigned airspace. In support of Global Mobility, Agile Combat Support, Global Strike, Homeland Security, and Global Response concepts of operation, ATCALS centrally manages the Air Force's air traffic control capability to ensure air traffic control facilities/equipment can safely and expeditiously support en route an terminal operations in benign and combat areas of responsibility. ATCALS modification efforts maintain system reliability and supportability of legacy until replaced by new technology or next generation of equipment.

PE 0305137F - National Airspace System (NAS). NAS is a program which entered full rate production in 2005 and is now in the operations and support phase. NAS modernizes the Department of Defense (DoD) air traffic control (ATC) system in concert with the Federal Aviation Administration (FAA) Modernization effort. The FAA is the overall NAS program lead and the Air Force is the DoD lead. Equipment procured includes ATC automation systems, surveillance radars, voice switches, voice recorders, and other ancillary equipment. As the program is now in the sustainment phase, main focus in on reliability and maintainability upgrades, ensuring compliance with the FAA maintained standard system configuration, and incorporation of low cost modifications as required.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|---------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|
| AF | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 69.498 | 70.798 | 10.654 | 0.000 | 10.654 | 7.552 | 5.558 | 4.389 | 4.468 |
| AFNG | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - |
| AFR | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - |
| Total: | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 69.498 | 70.798 | 10.654 | 0.000 | 10.654 | 7.552 | 5.558 | 4.389 | 4.468 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0305111F, 0305909F, 0305912F, 1203699F **Other Related Program Elements:** 0305111F, 0305114F, 0305137F, 0305909F

Line Item MDAP/MAIS Code: None

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Weather Service | | | | - / 9.860 | - / 6.972 | - / 9.155 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-5 | Weather Service | | B | | - / - | - / 1.672 | - / 1.000 | - / - | - / - | - / - |
| P-40a | Air Traffic Control, Approach, and Landing System (ATCALs) | | | | - / 41.883 | - / 12.323 | - / 2.646 | - / 1.850 | - / 0.000 | - / 1.850 |
| P-40a | National Airspace System (NAS) Plan | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-3a | 1 / NAS Gen4 MOD (Capability Improvement) | | A | | - / - | - / 1.519 | - / 12.718 | - / 8.804 | - / 0.000 | - / 8.804 |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 0305909F | | | | - / 22.263 | - / 36.629 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | SLBM Radar Warning System 0305912F | | | | - / 0.000 | - / 9.980 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Shared Early Warning (SEW) | | | | - / 0.220 | - / 0.403 | - / 0.392 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | - / - | - / - | - / 13.127 | - / - | - / - | - / - |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | - / 0.000 | - / 0.000 | - / 12.552 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40a | SLBM Radar Warning System 1203912F | | | | - / - | - / - | - / 6.873 | - / - | - / - | - / - |
| P-40a | SLBM Radar Warning System 1203912F | | | | - / 0.000 | - / 0.000 | - / 12.335 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 74.226 | - / 69.500 | - / 70.798 | - / 10.654 | - / 0.000 | - / 10.654 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Weather Service | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 25.987 |
| P-5 | Weather Service | | B | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Air Traffic Control, Approach, and Landing System (ATCALs) | | | | - / 1.858 | - / 1.884 | - / 1.912 | - / 1.947 | - / 0.000 | - / 66.303 |
| P-40a | National Airspace System (NAS) Plan | | | | - / 5.694 | - / 3.674 | - / 2.477 | - / 2.521 | - / 0.000 | - / 14.366 |
| P-3a | 1 / NAS Gen4 MOD (Capability Improvement) | | A | | - / 0.000 | - / 0.000 | - / - | - / - | - / - | - / 23.041 |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 0305909F | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 58.892 |
| P-40a | SLBM Radar Warning System 0305912F | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 9.980 |
| P-40a | Shared Early Warning (SEW) | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 1.015 |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 12.552 |
| P-40a | SLBM Radar Warning System 1203912F | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40a | SLBM Radar Warning System 1203912F | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 12.335 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 14.500 | - / 13.500 | - / 12.329 | - / 4.468 | - / - | - / 269.975 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: 0305111F, 0305909F, 0305912F, 1203699F | Other Related Program Elements: 0305111F, 0305114F, 0305137F, 0305909F |
| Line Item MDAP/MAIS Code: None | | |
| Justification: PE 0305114F Air Traffic Control and Landing Systems (ATCALs). FY19 funding continues ATCALs low cost modifications (reliability and maintainability upgrades) as prioritized by the ATCALs Product Improvement Working Group. PE 0305137F Gen4 Mod (Capability Improvement) FY19 funding procure two surveillance radar upgrade kits (2 AD/0 ANG/0 AFR) | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

| | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Aggregated Modification Items Title: Weather Service |
|---|--|--|

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 08-001 / AN/FMQ-7 Solar Optical Observing Network (SOON) | | | - | - | - | - | - | 1.000 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.000 | | - | - | | - | - | | - | - | | - | |
| 09-001 / AN/UMQ-13 MARK IV-B | | | - | - | 4.500 | - | - | 1.000 | - | - | 1.500 | - | - | 0.000 | - | - | - | - | 0.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.000 | | - | 1.500 | | - | 0.000 | | - | - | | 0.000 | |
| 14-001 / Next Generation Radar (NEXRAD) WSR-88D IT Refresh | | | - | - | 2.260 | - | - | 3.508 | - | - | 5.800 | - | - | 0.000 | - | - | - | - | 0.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 3.508 | | - | 5.800 | | - | 0.000 | | - | - | | 0.000 | |
| 14-007 / Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | | | - | - | 3.100 | - | - | - | - | 0.800 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 0.800 | | - | - | - | | - | - | | - | |
| 16-001 / Joint Environmental Toolkit (JET) Refresh | | | - | - | - | - | - | 1.464 | - | - | 1.055 | - | - | 0.000 | - | - | - | - | 0.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.464 | | - | 1.055 | | - | 0.000 | | - | - | | 0.000 | |
| Total | | | - | - | 9.860 | - | - | 6.972 | - | - | 9.155 | - | - | 0.000 | - | - | 0.000 | - | 0.000 | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 08-001 / AN/FMQ-7 Solar Optical Observing Network (SOON) | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | |
| 09-001 / AN/UMQ-13 MARK IV-B | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - | - | 7.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - | | - | |
| 14-001 / Next Generation Radar (NEXRAD) WSR-88D IT Refresh | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - | - | 11.568 | |

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | | Aggregated Modification Items Title: Weather Service | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - | | - | - |
| 14-007 / Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.900 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| 16-001 / Joint Environmental Toolkit (JET) Refresh | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - | - | - | 2.519 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - | | - | - |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 25.987 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|------------------------|
| 08-001 / AN/FMQ-7 Solar Optical Observing Network (SOON) | ANFMQ7 | Capability Improvement |
| 09-001 / AN/UMQ-13 MARK IV-B | ANUMQ13 | Capability Improvement |
| 14-001 / Next Generation Radar (NEXRAD) WSR-88D IT Refresh | WSR-88D | Capability Improvement |
| 14-007 / Radio Solar Telescope Network Service Life Extension Program (RSTN SLEP) | ANFRR95, AF24U1 | Capability Improvement |
| 16-001 / Joint Environmental Toolkit (JET) Refresh | JET | Capability Improvement |

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Item Number / Title [DODIC]: Weather Service |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|-------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 1.672 | 1.000 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 1.672 | 1.000 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 1.672 | 1.000 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Weather Service Cost | | | | | | | | | | | | | | | | | | |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Weather Data Analysis | - | - | - | - | - | 1.486 | - | - | 0.810 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 1.486 | - | - | 0.810 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware - Weather Service Cost</i> | - | - | - | - | - | 1.486 | - | - | 0.810 | - | - | - | - | - | - | - | - | - |
| Support - Weather Service Cost | | | | | | | | | | | | | | | | | | |
| PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES | - | - | - | - | - | 0.186 | - | - | 0.190 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Weather Service Cost</i> | - | - | - | - | - | 0.186 | - | - | 0.190 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | - | - | 1.672 | - | - | 1.000 | - | - | - | - | - | - | - | - | - |

Remarks:

In FY 2019, PE 0305111F, (WEATHER SERVICE), BPAC 838010 (COMM ELECTRIC MODS) efforts were transferred to PE 0305111F, (WEATHER SERVICE), BPAC 833070 (WEATHER OBSERVATION FORECAST), in order to enhance transparency of Weather Service programs execution.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|------------------------|---------|---------|--------------|-------------|---------------|
| AF Quantity | - | - | - | - | - |

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Item Number / Title [DODIC]: Weather Service |
|---|--|--|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------------------|-----------------------------------|---------|---------|-----------------|----------------|------------------|
| Secondary Distribution | | | | | | |
| | Total Obligation Authority | 1.672 | 1.000 | - | - | - |
| Total: | Quantity | - | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 1.672 | 1.000 | - | - | - |

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | | | | | Aggregated Modification Items Title: Air Traffic Control, Approach, and Landing System (ATCALs) | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F) | | | - | | 41.122 | - | | 7.121 | - | | 1.006 | - | | 0.000 | - | | - | | 0.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | 7.121 | | | 1.006 | | | 0.000 | | | - | | - | 0.000 | |
| ATCALs / Deployable TACAN Retrofit/ Refurbishment | | | | | - | | 3.800 | - | | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | 3.800 | | | - | | | - | | | - | | - | - | |
| P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F) | | | | | 0.761 | | 1.402 | - | | 1.640 | - | | 1.850 | - | | - | | - | 1.850 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | 1.402 | | | 1.640 | | | 1.850 | | | - | | - | 1.850 | |
| Total | | | | | - | | 41.883 | - | | 12.323 | - | | 2.646 | - | | - | | 0.000 | 1.850 | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F) | | | | | - | | | | | | | | | | | | | | 49.249 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | - | | | - | | | - | | | - | | - | - | |
| ATCALs / Deployable TACAN Retrofit/ Refurbishment | | | | | - | | - | | | - | | | - | | | - | | - | 3.800 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | - | | | - | | | - | | | - | | - | - | |
| P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F) | | | | | 1.858 | | 1.884 | - | | 1.912 | - | | 1.947 | - | | - | | - | 13.254 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | | - | | 1.858 | | | 1.884 | | | 1.947 | | | - | | - | - | |
| Total | | | | | - | | 1.858 | - | | 1.884 | - | | 1.947 | - | | - | | 0.000 | 66.303 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Aggregated Modification Items Title: Air Traffic Control, Approach, and Landing System (ATCALs) |

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|--|----------------------------|-------------------------------|
| AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F) | GRN-29 | Capability Improvement |
| ATCALs / Deployable TACAN Retrofit/ Refurbishment | TRN-48 | Reliability & Maintainability |
| P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F) | ATCALs | Reliability & Maintainability |

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Modification Items Title:** National Airspace System (NAS) Plan

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| NAS Mod 2 / NAS Low Cost Mods | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NAS Mod 3 / DASR Site Control Data Interface (SCDI) | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| AFNG | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| AFR | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| NAS Mod 2 / NAS Low Cost Mods | | | - | - | 1.854 | - | - | 1.895 | - | - | 1.872 | - | - | 1.905 | - | - | - | - | - | 7.526 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | 1.854 | - | - | 1.895 | - | - | 1.872 | - | - | 1.905 | - | - | - | - | - | - |
| NAS Mod 3 / DASR Site Control Data Interface (SCDI) | | | - | - | 3.840 | - | - | 1.779 | - | - | 0.605 | - | - | 0.616 | - | - | - | - | - | 6.840 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | 3.840 | - | - | 1.779 | - | - | 0.605 | - | - | 0.616 | - | - | - | - | - | - |
| AFNG | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - |
| AFR | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | - |
| Total | | | - | - | 5.694 | - | - | 3.674 | - | - | 2.477 | - | - | 2.521 | - | - | 0.000 | - | - | 14.366 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| NAS Mod 2 / NAS Low Cost Mods | NAS | Reliability & Maintainability |
| NAS Mod 3 / DASR Site Control Data Interface (SCDI) | NAS | Reliability & Maintainability |

UNCLASSIFIED

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Modification Number / Title: 1 / NAS Gen4 MOD |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|-------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|---------|---------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - | - | 23.041 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - | - | 23.041 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - | - | 23.041 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Gen 4 equipment and ATC Surveillance Radar upgrades are being procured as a centrally managed commodity as part of the National Airspace System (NAS). NAS Gen4 (software/hardware) and surveillance radar system configurations are centrally maintained and certified by the Federal Aviation Administration which has system engineering responsibility for the NAS. The (NAS) Gen 4 Modification continues mitigation of diminishing manufacturing source issues for the NAS program which has transitioned to the Operational Support Phase. Over its 15 year production/implementation phase, NAS was fielded in multiple hardware configurations and software builds. Current NAS processors and associated network equipment have gone end of life. The NAS Gen4 equipment and Standard Terminal Automation Replacement Systems (STARS) interface to Digital Airport Surveillance Radar (DASR) modification establishes standard radar hardware and software configurations and ensures continued system supportability and availability. Configuration consolidation also reduces multiple, simultaneous efforts associated with system hardware and software upgrades and test while reducing cost outlays.

JUSTIFICATION:

FY19 funds will procure 2 upgrade kits (2 AD/0 ANG/0 AFR).

Milestone/Development Status

Modification kits have already been kit proofed by FAA and are available off FAA contract.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|-----------------------------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|---------|---------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 1.519 | 12.718 | 8.804 | - | 8.804 | - | - | - | - |
| AFNG | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | - | 0.000 | - | 0.000 | - | - | - | - |
| AFR | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 0.000 | - | 0.000 | - | 0.000 | - | - | - | - |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - |

UNCLASSIFIED

| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | | Date: February 2018 | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | Modification Number / Title: 1 / NAS Gen4 MOD | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: NASMod-1 | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0305137F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: DAAS G4 Retrofit</i> | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| DAAS G4 Retrofit:EQUIPMENT Group B (Active) | - / - | 4 / 1.319 ⁽¹⁾ | 4 / 12.398 | 2 / 8.618 | - / - | 2 / 8.618 | - / - | - / - | - / - | - / - | - / - | 10 / 22.335 | |
| DAAS G4 Retrofit:EQUIPMENT Group B (Guard) | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.000 | |
| DAAS G4 Retrofit:EQUIPMENT Group B (Reserve) | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.000 | |
| <i>Subtotal: Recurring</i> | - / - | - / 1.319 | - / 12.398 | - / 8.618 | - / - | - / 8.618 | - / - | - / - | - / - | - / - | - / - | - / 22.335 | |
| <i>Subtotal: DAAS G4 Retrofit</i> | - / - | - / 1.319 | - / 12.398 | - / 8.618 | - / - | - / 8.618 | - / - | - / - | - / - | - / - | - / - | - / 22.335 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 1.319 | - / 12.398 | - / 8.618 | - / - | - / 8.618 | - / - | - / - | - / - | - / - | - / - | - / 22.335 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| GROUP B: TOTAL NONRECURRING | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.000 | |
| <i>Subtotal: Support</i> | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / 0.000 | - / - | - / - | - / - | - / - | - / - | - / 0.000 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: DAAS G4 Retrofit</i> | - / - | 4 / 0.200 | 4 / 0.320 | 2 / 0.186 | - / - | 2 / 0.186 | - / - | - / - | - / - | - / - | - / - | 10 / 0.706 | |
| <i>Subtotal: Installation</i> | - / - | 4 / 0.200 | 4 / 0.320 | 2 / 0.186 | - / - | 2 / 0.186 | - / - | - / - | - / - | - / - | - / - | 10 / 0.706 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 1.519 | 12.718 | 8.804 | 0.000 | 8.804 | 0.000 | 0.000 | - | - | - | 23.041 | |

UNCLASSIFIED

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Modification Number / Title: 1 / NAS Gen4 MOD |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 1: DAAS G4 Retrofit

Manufacturer Information

| | |
|--|--|
| Manufacturer Name: Raytheon | Manufacturer Location: Marlborough, MA |
| Administrative Leadtime (in Months): 4 | Production Leadtime (in Months): 5 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Feb 2017 | Feb 2018 | Feb 2019 | | | | |
| Delivery Dates | Jul 2017 | Jul 2018 | Jul 2019 | | | | |

Installation Information

Method of Implementation: Contract Field Team

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2017 | - / - | 4 / 0.200 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 4 / 0.200 |
| FY 2018 | - / - | - / - | 4 / 0.320 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 4 / 0.320 |
| FY 2019 | - / - | - / - | - / - | 2 / 0.186 | - / - | 2 / 0.186 | - / - | - / - | - / - | - / - | - / - | 2 / 0.186 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | - / - | 4 / 0.200 | 4 / 0.320 | 2 / 0.186 | - / - | 2 / 0.186 | - / - | - / - | - / - | - / - | - / - | 10 / 0.706 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 0 | - | - | - | 4 | - | - | - | 4 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 10 |
| Out | 0 | - | - | - | 4 | - | - | - | 4 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 10 |

Footnotes:
 (1) Unit cost in FY17 is lower than unit cost in FY18 through FY19 as FY17 kits are for 4 Enhanced Local Integrated Tower Equipment (ELITE) mod kits which is a smaller system than the Gen 4 system kits being procured in FY18/19 for the much larger radar approach control facilities.

UNCLASSIFIED

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | | | | | Aggregated Modification Items Title: Ballistic Missile Early Warning System (BMEWS) 0305909F | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| P-3A BMEWS DP/SP Suite Replacement / BMEWS DP/SP Suite Replacement | | | - | - | 22.263 | - | - | 36.629 | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 36.629 | - | - | - | - | - | 0.000 | - | - | - | - | - | 0.000 |
| Total | | | - | - | 22.263 | - | - | 36.629 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| P-3A BMEWS DP/SP Suite Replacement / BMEWS DP/SP Suite Replacement | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 58.892 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 58.892 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|--|----------------------------|-------------------------------|
| P-3A BMEWS DP/SP Suite Replacement / BMEWS DP/SP Suite Replacement | Raytheon | Reliability & Maintainability |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Modification Items Title:** SLBM Radar Warning System 0305912F

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| P-3A PARCS Modifications / P-3A PARCS Modification (formerly PARCS PARSS) | | | - | - | - | - | - | 0.750 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | 0.750 | | | | | | | | | | | | |
| P-3A PAVE PAWS Modifications / P-3A PAVE PAWS Modification (formerly PAVE PAWS Front End) | | | - | - | - | - | - | 1.553 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | 1.553 | | | | | | | | | | | | |
| PARCS Block 00 Update / PARCS Block 00 Update | | | - | - | - | - | - | 3.240 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | 3.240 | | | | | | | | | | | | |
| PAVE PAWS Block 00 Update / BPP Block 00 SAPS ES | | | - | - | - | - | - | 4.437 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | 4.437 | | | | | | | | | | | | |
| Total | | | - | - | 0.000 | - | - | 9.980 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | 0.000 | |
| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| P-3A PARCS Modifications / P-3A PARCS Modification (formerly PARCS PARSS) | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.750 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| P-3A PAVE PAWS Modifications / P-3A PAVE PAWS Modification (formerly PAVE PAWS Front End) | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.553 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| PARCS Block 00 Update / PARCS Block 00 Update | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.240 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|---|----------------------------|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | Date: February 2018 | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | Aggregated Modification Items Title: SLBM Radar Warning System 0305912F | | | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| PAVE PAWS Block 00 Update / BPP Block 00 SAPS ES | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.437 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 9.980 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| P-3A PARCS Modifications / P-3A PARCS Modification (formerly PARCS PARSS) | Exelis | Reliability & Maintainability |
| P-3A PAVE PAWS Modifications / P-3A PAVE PAWS Modification (formerly PAVE PAWS Front End) | NA | Reliability & Maintainability |
| PARCS Block 00 Update / PARCS Block 00 Update | Exelis | Reliability & Maintainability |
| PAVE PAWS Block 00 Update / BPP Block 00 SAPS ES | NA | Reliability & Maintainability |

UNCLASSIFIED

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|----------------------------|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | Aggregated Modification Items Title: Shared Early Warning (SEW) | | | | | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| SEWS1 / Shared Early Warning System (SEWS) Low Cost Mods | | | - | - | 0.220 | - | - | 0.403 | - | - | 0.392 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.403 | | - | 0.392 | | - | - | | - | - | | - | |
| Total | | | - | - | 0.220 | - | - | 0.403 | - | - | 0.392 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| SEWS1 / Shared Early Warning System (SEWS) Low Cost Mods | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.015 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 1.015 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|--|----------------------------|-------------------------------|
| SEWS1 / Shared Early Warning System (SEWS) Low Cost Mods | SEWS | Reliability & Maintainability |

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | | Aggregated Items Title: Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| BMEWS BLOCK 00 | | | | | | | | | | | | | | | | | | | | |
| BMEWS BLOCK 00 | A | | - | - | - | - | - | - | - | 5.927 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 5.927 | - | - | - | - | - | - | - | - | - | |
| Subtotal: BMEWS BLOCK 00 | | | - | - | - | - | - | - | - | 5.927 | - | - | - | - | - | - | - | - | - | |
| BMEWS BLOCK 01 | | | | | | | | | | | | | | | | | | | | |
| BMEWS BLOCK 01 | A | | - | - | - | - | - | - | - | 7.200 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 7.200 | - | - | - | - | - | - | - | - | - | |
| Subtotal: BMEWS BLOCK 01 | | | - | - | - | - | - | - | - | 7.200 | - | - | - | - | - | - | - | - | - | |
| Total | | | - | - | - | - | - | - | - | 13.127 | - | - | - | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|--|--|--|--|--|--|--|--|--|--|--|--|---|--|----------------------------|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | | | | | | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | | | | | | Aggregated Modification Items Title: Ballistic Missile Early Warning System (BMEWS) 1203909F | | | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| BMEWS / BMEWS DP SP | | | - | - | - | - | - | - | - | - | 0.500 | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | - | - | - | 0.500 | | | - | | | - | | | - |
| BMEWS2 / BMEWS Block 02 | | | - | - | - | - | - | - | - | - | 12.052 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | - | - | - | - | - | 12.052 | | | - | | | - | | | - |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 12.552 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|-------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| BMEWS / BMEWS DP SP | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.500 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| BMEWS2 / BMEWS Block 02 | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 12.052 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 12.552 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|-------------------------|----------------------------|-------------------------------|
| BMEWS / BMEWS DP SP | NA | Reliability & Maintainability |
| BMEWS2 / BMEWS Block 02 | NA | Reliability & Maintainability |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Items Title:** SLBM Radar Warning System 1203912F

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|--------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| PAVE PAWS BLOCK 00 | | | | | | | | | | | | | | | | | | | | |
| PAVE PAWS BLOCK 00 | A | | - | - | - | - | - | - | - | 2.073 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 2.073 | - | - | - | - | - | - | - | - | - | |
| Subtotal: PAVE PAWS BLOCK 00 | | | - | - | - | - | - | - | - | 2.073 | - | - | - | - | - | - | - | - | - | |
| PAVE PAWS BLOCK 01 | | | | | | | | | | | | | | | | | | | | |
| PAVE PAWS BLOCK 01 | A | | - | - | - | - | - | - | - | 4.800 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 4.800 | - | - | - | - | - | - | - | - | - | |
| Subtotal: PAVE PAWS BLOCK 01 | | | - | - | - | - | - | - | - | 4.800 | - | - | - | - | - | - | - | - | - | |
| Total | | | - | - | - | - | - | - | - | 6.873 | - | - | - | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Modification Items Title:** SLBM Radar Warning System 1203912F

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|-------------------------------|-------|----------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|---------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| PARCSB0 / PARCS Block 00 | | | - | - | - | - | - | - | - | 9.104 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 9.104 | - | - | - | - | - | - | - | - | - | |
| PARCSB1 / PARCS Block 01 | | | - | - | - | - | - | - | - | 0.500 | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 0.500 | - | - | - | - | - | - | - | - | - | |
| PPB02 / Pave Paws Block 02 | | | - | - | - | - | - | - | - | 2.731 | - | - | 0.000 | - | - | - | - | - | 0.000 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 2.731 | - | - | - | - | - | - | - | - | - | |
| Total | | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 12.335 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|-------------------------------|-------|----------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|--------------|-------------------|------------------|---------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| PARCSB0 / PARCS Block 00 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9.104 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| PARCSB1 / PARCS Block 01 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.500 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| PPB02 / Pave Paws Block 02 | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | 2.731 | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Total | | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 12.335 | |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|----------------------------|----------------------------|-------------------------------|
| PARCSB0 / PARCS Block 00 | NA | Reliability & Maintainability |
| PARCSB1 / PARCS Block 01 | NA | Reliability & Maintainability |
| PPB02 / Pave Paws Block 02 | NA | Reliability & Maintainability |

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 | P-1 Line Item Number / Title: 838010 / Comm Elect Mods | Aggregated Modification Items Title: SLBM Radar Warning System 1203912F |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip | P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment |
|--|---|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207227F, 0604706F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 63.016 | 61.433 | 51.906 | 13.600 | 65.506 | 61.383 | 124.714 | 227.563 | 188.141 | - | 791.756 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 63.016 | 61.433 | 51.906 | 13.600 | 65.506 | 61.383 | 124.714 | 227.563 | 188.141 | - | 791.756 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 63.016 | 61.433 | 51.906 | 13.600 | 65.506 | 61.383 | 124.714 | 227.563 | 188.141 | - | 791.756 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This program provides a wide variety of base support and safety of flight items for warfighters with worldwide application.

This program saves Airmen's lives and improves aircrew performance through better aircrew flight equipment and airman combat systems. Procures safety and rescue equipment for increased protection of aircrew personnel operating manned, non-space aircraft to optimize weapon system effectiveness and capability throughout the full spectrum of military operations. In general, the purpose of the PE is to expand the combat capabilities of a weapon system an airman supports while balancing functionality, comfort, and safety. Representative items include flight helmets, oxygen breathing equipment, flame resistant/retardant and blast/ballistic protective gear, laser eye protection, personnel locator beacons, nuclear flash blindness devices, personnel parachutes, ejection seats/equipment, night vision goggles, survival radios, associated test sets, life rafts, life preservers, anti-exposure coveralls, aircrew flight ensembles, and other air/ground crew equipment. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

Guardian Angel Family of Systems (GA FoS):

Guardian Angel is an Air Force non-aircraft weapon system within the overarching Battlefield Airman Modernization Program. Guardian Angel is a family of systems based on human and equipment capabilities formulated to execute Air Force Combat Search and Rescue and personnel recovery across a full spectrum of military operations. GA FoS is employed by three distinct Air Force Specialties: Pararescuemen (PJ), Survival, Evasion, Resistance, and Escape (SERE) and Combat Rescue Officer (CRO). GA FoS is comprised of nine critical mission areas: Precision Aerial Insertion, Information Management, Force Application, Visual Augmentation, Maritime Recovery, Ground Mobility, Technical Rescue, Medical and SERE. Representative items include but are not limited to parachute equipment, technical recovery equipment, information management systems (including Preservation of the Force and Family), enhanced night vision systems, support equipment vehicles, rescue watercraft and a Live Virtual Constructive (LVC) Training Simulator (simulator, maintenance & mobile shelter costs) to supplement, augment, and optimize current training events, independent of aircraft availability to align with strategic plans of the Next Generation LVC for training within the DoD. The enhanced night vision systems will include continued Procurement of Night Vision solutions that improve personnel recovery night visions systems with wider field of view, lower SWAP, and/or enhanced vision in at least one spectral band other than Near-IR. Procurement is required to meet mission needs until the next generation of multi-spectral NVGs are developed and available for ground crew operators. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. This includes applicable training, spares, and repairs. Starting FY17 and thereafter, all funding and tasks for BPAC 842140 Night Vision Goggles have been moved to BPAC 842990 Personal Safety and Rescue Equipment. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Due to rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. Funding for GA FoS is in Program Element 0207227F.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip | | P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207227F, 0604706F |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Special Tactics/Combat Control Battlefield Airmen program funds Air Force standardized equipment within the overarching Battlefield Airmen Modernization program for Special Tactics combat controllers, pararescue personnel, combat weather operators, and tactical air control parties to perform their Air Force Special Operations Command Mission. Funding for this effort is in program element 0408011F. Representative items include but are not limited to training and simulators, assault zone, airfield marking tools, approach landing capability, weather data collection and analysis, personnel and technical recovery equipment, visual augmentation, unmanned capabilities, aerial insertion, ground transportation, and maritime. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. This includes applicable training, spares, and repairs to manage, execute, and deliver Special Tactics weapon system capability. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. FY19 funding totals include \$4.000M appropriated for Overseas Contingency Operations.</p> <p>Modern warfare resulted in an increase in airborne combat under the cover of darkness. Night missions include ground operations, preparation of the aircraft for take-off and landings in complete darkness, lights-off air refueling, and visual identification of enemy targets hidden under the night sky. Consequently, ground personnel and aircrew require the capability to see in very low visibility conditions at night and high ambient light conditions such as full moon or heavily lighted residential areas. The use of Night Vision Goggles (NVG) is critical for combat rescue, special operations, and homeland security missions.</p> <p>A lack of night vision capability would significantly decrease combat effectiveness in night operations, risk flight safety, and increase the probability of fratricide. Aircraft such as HH-60 helicopters, HC-130s, F-16s, and special mission C-130s primarily operate in low altitude environments during covert night operations. Hence, NVGs are vital to the success of these missions, providing a dramatic increase in safety, situational awareness, and survivability during the execution of near daytime tactics, including visual formation criteria. Furthermore, the proliferation of NVG-equipped adversaries underscores the urgent need to supply ground and air forces with night vision equipment.</p> <p>Ground crew Goggles:</p> <p>AN/PVS-14 Ground crew Goggle: This monocular night vision device is a hand-held, head-mounted, helmet-mounted, or weapon-mounted night vision system, which enables walking, weapon firing, short-range surveillance, map reading, vehicle maintenance, and first-aid administration during moonlight and starlight conditions. The AN/PVS-14 supports a vast spectrum of ground and air operations to include aircraft maintenance, civil engineering, emergency response, security, and other missions.</p> <p>AN/PVS-15 Ground crew Goggle: This binocular NVG is a helmet-mounted or hand-held night vision system, which is primarily used by Special Forces during night drop operations. The AN/PVS-15 can be used for all nighttime ground operations. An added benefit of this particular binocular goggle is the back-up capability in the event one of the two tubes fails.</p> <p>AN/PVS-31A Ground Crew Goggle: This binocular night vision device (BNVD) is a helmet-mounted or handheld, battery operated night vision goggle that allows for observation and target identification under adverse conditions including light rain, light snow, and low light. The system amplifies ambient light so that the viewed scene becomes clearly visible to the operator. The BNVD is a follow-on to our legacy, battle proven AN/PVS-15, but offers more features for increased survivability. Rotating binocular design allows low profile against helmet when in stowed position and ability to use as a single monocular.</p> <p>Aircrew Goggles:</p> <p>AN/AVS-9 (F4949G-TG) Aircrew Goggle: This night vision goggle provides aircraft and ground personnel with the capability to see the horizon, terrain features and enemy ground fire, thereby reducing the potential for air-to-ground fratricide and mid-air collisions during night operations. The AN/AVS-9 (F4949-TG) is a light-weight, helmet-mounted goggle equipped with pinnacle tube technology that mitigates effects of sudden bright light exposure.</p> <p>Test Sets:</p> <p>ANV-20/20 Test Set, Infinity Focus: The ANV-20/20 is a portable instrument, which allows quick and accurate evaluation and adjustment of all goggle parameters. All NVGs require operational checkout.</p> <p>ANV-126A Test Set, Infrared Viewer: The ANV-126A is a commercial upgrade to the ANV-126, which is suitable for field operational checks and depot level NVG maintenance. This test set provides accurate checks for NVG resolution, gain, power drain, binocular goggle collimation, image quality, and image distortion. The ANV-126A uses state of the art technology and provides enhanced capabilities to the user.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip | | P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0207227F, 0604706F |
| Line Item MDAP/MAIS Code: N/A | | |

ANV-126A-UGF Test Set, Time Compliance Technical Order (TCTO) Kit: The ANV-126A-UGF is a commercial TCTO kit that converts the ANV-126 to the ANV-126A Test Set.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), capabilities under this line item are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and military support to civil authorities. Projected allocations for reserve component requirements are subject to total force demand priorities.

Funding for this exhibit contained in PEs 0207227F, 0207433F, 0408011F, 0503113F and 0702833F.

Projected allocations for component requirements are subject to total force demands and priorities. Funds may be used to address associated program management activities, emerging requirements, and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|-----------------------------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|
| AF | Quantity | 734 | 1,431 | 1,063 | 0 | 1,063 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 62.389 | 60.990 | 51.455 | 13.600 | 65.055 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 71 | 31 | 31 | 0 | 31 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.499 | 0.329 | 0.335 | 0.000 | 0.335 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 21 | 11 | 11 | 0 | 11 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.128 | 0.114 | 0.116 | 0.000 | 0.116 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: Secondary Distribution | Quantity | 826 | 1,473 | 1,105 | 0 | 1,105 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 63.016 | 61.433 | 51.906 | 13.600 | 65.506 | 0.000 | 0.000 | 0.000 | 0.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equipment **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207227F, 0604706F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | Guardian Angel | P-5a | A | | - / - | - / 28.317 | - / 25.880 | - / 21.915 | - / - | - / 21.915 |
| P-40a | Items Less Than \$5 Million | | | | - / - | - / 34.699 | - / 35.553 | - / 29.991 | - / 13.600 | - / 43.591 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 63.016 | - / 61.433 | - / 51.906 | - / 13.600 | - / 65.506 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars procure Aircrew Flight Equipment, Life Support Systems, Ground Crew Equipment, and Guardian Angel equipment.

The FY2019 OCO funding total of \$13.600M includes \$9.200M for Night Vision Goggle Upgrade in support of Air Forces Central Command Urgent Operational Need (UON) and subsequent Capability Transition Decision (CTD) and \$4.000M for training and simulators, assault zone, airfield marking tools, approach landing capability, weather data collection and analysis, personnel, and technical recovery equipment, visual augmentation, unmanned capabilities, aerial insertion, ground transportation, and maritime in support of Special Tactics/Combat Control Battlefield Airmen. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

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| Exhibit P-5, Cost Analysis: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 | P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment | Item Number / Title [DODIC]: Guardian Angel |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 28.317 | 25.880 | 21.915 | - | 21.915 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 28.317 | 25.880 | 21.915 | - | 21.915 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 28.317 | 25.880 | 21.915 | - | 21.915 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|--|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|-------------------------|-------------------|--------------------------|
| | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Hardware - Guardian Angel Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Aerial Insertion Equipment ^(f) | - | - | - | 0.007 | 2,258 | 15.340 | 0.005 | 1,936 | 10.360 | 0.011 | 679 | 7.790 | - | - | - | 0.011 | 679 | 7.790 |
| Technical Recovery Equipment ^(f) | - | - | - | 0.088 | 39 | 3.420 | 0.101 | 37 | 3.720 | 0.092 | 17 | 1.560 | - | - | - | 0.092 | 17 | 1.560 |
| Medical Equipment ^(f) | - | - | - | 0.025 | 1 | 0.025 | 0.025 | 1 | 0.025 | 0.025 | 1 | 0.025 | - | - | - | 0.025 | 1 | 0.025 |
| Maritime Rescue Equipment ^(f) | - | - | - | 0.001 | 180 | 0.135 | 0.002 | 180 | 0.410 | 0.005 | 256 | 1.280 | - | - | - | 0.005 | 256 | 1.280 |
| Information Management Equipment ^(f) | - | - | - | 0.025 | 1 | 0.025 | 0.023 | 367 | 8.410 | 0.021 | 416 | 8.640 | - | - | - | 0.021 | 416 | 8.640 |
| SERE ^(f) | - | - | - | 0.021 | 37 | 0.780 | 0.015 | 161 | 2.420 | 0.025 | 1 | 0.025 | - | - | - | 0.025 | 1 | 0.025 |
| Guardian Angel Enhanced Night Vision Systems ^(f) | - | - | - | 0.009 | 685 | 6.470 | 0.030 | 1 | 0.030 | 0.025 | 1 | 0.025 | - | - | - | 0.025 | 1 | 0.025 |
| PMA Contractor Services ^(f) | - | - | - | 2.122 | 1 | 2.122 | 0.505 | 1 | 0.505 | 2.570 | 1 | 2.570 | - | - | - | 2.570 | 1 | 2.570 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 28.317 | - | - | 25.880 | - | - | 21.915 | - | - | - | - | - | 21.915 |
| <i>Subtotal: Hardware - Guardian Angel Cost</i> | - | - | - | - | - | 28.317 | - | - | 25.880 | - | - | 21.915 | - | - | - | - | - | 21.915 |
| Gross/Weapon System Cost | - | - | - | - | - | 28.317 | - | - | 25.880 | - | - | 21.915 | - | - | - | - | - | 21.915 |

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 | P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment | Item Number / Title [DODIC]: Guardian Angel |
|---|---|---|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|
| AF | | | | | |
| Quantity | - | - | - | - | - |
| Total Obligation Authority | 28.317 | 25.880 | 21.915 | - | 21.915 |
| Total: Secondary Distribution | | | | | |
| Quantity | - | - | - | - | - |
| Total Obligation Authority | 28.317 | 25.880 | 21.915 | - | 21.915 |

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment **Item Number / Title [DODIC]:** Guardian Angel

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$ M) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------|--------------------------------------|--------------------------------|---------------|------------------------------|---------------|---------------------|------------------------|-------------------------------|-------------------|
| Aerial Insertion Equipment | | 2017 | Multiple / Multiple | Various | TBD | Jan 2017 | Mar 2017 | 2,258 | 0.007 | Y | | |
| Aerial Insertion Equipment | | 2018 | Multiple / Multiple | Various | TBD | Mar 2018 | Jun 2018 | 1,936 | 0.005 | Y | | |
| Aerial Insertion Equipment | | 2019 | Multiple / Multiple | Various | TBD | Jan 2019 | Mar 2019 | 679 | 0.011 | Y | | |
| Technical Recovery Equipment | | 2017 | TBD / TBD | C / FFP | AFLCMC Wright Patterson AFB | Nov 2016 | Dec 2016 | 39 | 0.088 | Y | | |
| Technical Recovery Equipment | | 2018 | TBD / TBD | C / FFP | AFLCMC Wright Patterson AFB | Jun 2018 | Aug 2018 | 37 | 0.101 | Y | | |
| Technical Recovery Equipment | | 2019 | TBD / TBD | C / FFP | AFLCMC Wright Patterson AFB | Dec 2018 | Feb 2019 | 17 | 0.092 | Y | | |
| Medical Equipment | | 2017 | TBD / TBD | TBD | TBD | Jan 2017 | May 2017 | 1 | 0.025 | Y | | |
| Medical Equipment | | 2018 | TBD / TBD | TBD | TBD | Jan 2018 | May 2018 | 1 | 0.025 | Y | | |
| Medical Equipment | | 2019 | TBD / TBD | TBD | TBD | Jan 2019 | May 2019 | 1 | 0.025 | Y | | |
| Maritime Rescue Equipment | | 2017 | TBD / TBD | MIPR | TBD | Jan 2017 | May 2017 | 180 | 0.001 | Y | | |
| Maritime Rescue Equipment | | 2018 | TBD / TBD | MIPR | TBD | Jan 2018 | May 2018 | 180 | 0.002 | Y | | |
| Maritime Rescue Equipment | | 2019 | TBD / TBD | MIPR | TBD | Jan 2019 | May 2019 | 256 | 0.005 | Y | | |
| Information Management Equipment | | 2017 | Various / Various | C / FFP | AFLCMC Wright Patterson AFB | Jan 2017 | May 2017 | 1 | 0.025 | Y | | |
| Information Management Equipment | | 2018 | Various / Various | C / FFP | AFLCMC Wright Patterson AFB | Jan 2018 | Mar 2018 | 367 | 0.023 | Y | | |
| Information Management Equipment | | 2019 | Various / Various | C / FFP | AFLCMC Wright Patterson AFB | Jan 2019 | Apr 2019 | 416 | 0.021 | Y | | |
| SERE | | 2017 | TBD / TBD | TBD | TBD | Apr 2017 | Aug 2017 | 37 | 0.021 | Y | | |
| SERE | | 2018 | TBD / TBD | TBD | TBD | Jan 2018 | May 2018 | 161 | 0.015 | Y | | |
| SERE | | 2019 | TBD / TBD | TBD | TBD | Mar 2019 | Aug 2019 | 1 | 0.025 | Y | | |
| Guardian Angel Enhanced Night Vision Systems | | 2017 | TBD / TBD | MIPR | TBD | Mar 2017 | Jul 2017 | 685 | 0.009 | Y | | |
| Guardian Angel Enhanced Night Vision Systems | | 2018 | TBD / TBD | MIPR | TBD | Mar 2018 | Jul 2018 | 1 | 0.030 | Y | | |
| Guardian Angel Enhanced Night Vision Systems | | 2019 | TBD / TBD | MIPR | TBD | Apr 2019 | Sep 2019 | 1 | 0.025 | Y | | |
| PMA Contractor Services | | 2017 | TBD / TBD | Various | TBD | Dec 2016 | Feb 2017 | 1 | 2.122 | Y | | |
| PMA Contractor Services | | 2018 | TBD / TBD | Various | TBD | Dec 2017 | Feb 2018 | 1 | 0.505 | Y | | |
| PMA Contractor Services | | 2019 | TBD / TBD | Various | TBD | Dec 2018 | Feb 2019 | 1 | 2.570 | Y | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment **Aggregated Items Title:** Items Less Than \$5 Million

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Safety, Rescue Equipment | | | | | | | | | | | | | | | | | | | | |
| PMA (Life Support) Other Government Cost/A&AS Support | A | | - | - | - | - | - | 0.531 | - | - | 0.564 | - | - | 0.905 | - | - | - | - | - | 0.905 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.531 | | - | 0.564 | | - | 0.905 | | - | - | | - | 0.905 |
| Life Support Equipment | A | | - | - | - | - | - | 0.366 | - | - | 2.818 | - | - | 2.879 | - | - | - | - | - | 2.879 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.366 | | - | 2.818 | | - | 2.879 | | - | - | | - | 2.879 |
| Aircrew Flight Equipment | A | | - | - | - | - | - | 0.615 | - | - | 6.213 | - | - | 2.000 | - | - | 9.600 | - | - | 11.600 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.615 | | - | 6.213 | | - | 2.000 | | - | 9.600 | | - | 11.600 |
| Aircrew Laser Eye Protection (ALEP) Block 2: Day Variant | A | | - | - | - | 0.002 | 350 | 0.697 | 0.002 | 535 | 1.109 | 0.002 | 561 | 1.134 | - | - | - | 0.002 | 561 | 1.134 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 350 | 0.697 | | 535 | 1.109 | | 561 | 1.134 | | - | - | | 561 | 1.134 |
| Aircrew Laser Eye Protection (ALEP) Block 2: Night Variant | A | | - | - | - | 0.003 | 245 | 0.707 | 0.003 | 375 | 1.117 | 0.003 | 412 | 1.247 | - | - | - | 0.003 | 412 | 1.247 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 245 | 0.707 | | 375 | 1.117 | | 412 | 1.247 | | - | - | | 412 | 1.247 |
| Personnel Locator Beacon | A | | - | - | - | - | - | 1.050 | - | - | 1.197 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.050 | | - | 1.197 | | - | - | | - | - | | - | - |
| Integrated Aircrew Ensemble | A | | - | - | - | - | - | 0.650 | - | - | 7.052 | - | - | 14.243 | - | - | - | - | - | 14.243 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.650 | | - | 7.052 | | - | 14.243 | | - | - | | - | 14.243 |
| Ejection Seat Safety/ Sustainability Improvement Program for Qualification of B-2 Seat Mod | A | | - | - | - | 0.245 | 13 | 3.188 | 0.245 | 14 | 3.433 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | 13 | 3.188 | | 14 | 3.433 | | - | - | | - | - | | - | - |
| Next Generation Ejection Seat | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment **Aggregated Items Title:** Items Less Than \$5 Million

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Air Force Reserve Equipment | A | | - | - | - | - | - | 16.600 | - | - | - | - | - | - | - | - | - | - | - | |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 16.600 | - | - | - | - | - | - | - | - | - | - | - | |
| Special Tactics/ Combat Control Equipment | A | | - | - | - | - | - | 4.285 | - | - | 6.584 | - | - | 6.118 | - | - | 4.000 | - | - | 10.118 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 4.285 | - | - | 6.584 | - | - | 6.118 | - | - | 4.000 | - | - | 10.118 |
| Groundcrew Goggle (AN/PVS-14) | A | | - | - | - | 0.003 | 163 | 0.489 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 98 | 0.294 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFNG | | | - | - | - | - | 49 | 0.147 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | 16 | 0.048 | - | - | - | - | - | - | - | - | - | - | - | - |
| Groundcrew Goggle (AN/PVS-15) | A | | - | - | - | - | - | - | 0.011 | 82 | 0.904 | 0.011 | 82 | 0.921 | - | - | - | 0.011 | 82 | 0.921 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 55 | 0.606 | - | 55 | 0.618 | - | - | - | - | 55 | 0.618 |
| AFNG | | | - | - | - | - | - | - | - | 21 | 0.232 | - | 21 | 0.236 | - | - | - | - | 21 | 0.236 |
| AFR | | | - | - | - | - | - | - | - | 6 | 0.066 | - | 6 | 0.067 | - | - | - | - | 6 | 0.067 |
| Fusion Goggle Enhanced | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Aircrew Goggle (AN/AVS-9 (F4949G-TG)) | A | | - | - | - | - | - | - | 0.010 | 50 | 0.483 | 0.010 | 50 | 0.493 | - | - | - | 0.010 | 50 | 0.493 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 35 | 0.338 | - | 35 | 0.345 | - | - | - | - | 35 | 0.345 |
| AFNG | | | - | - | - | - | - | - | - | 10 | 0.097 | - | 10 | 0.099 | - | - | - | - | 10 | 0.099 |
| AFR | | | - | - | - | - | - | - | - | 5 | 0.048 | - | 5 | 0.049 | - | - | - | - | 5 | 0.049 |
| Test Set, TCTO Kit (ANV-126A-UGF) | A | | - | - | - | 0.016 | 55 | 0.880 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 28 | 0.448 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFNG | | | - | - | - | - | 22 | 0.352 | - | - | - | - | - | - | - | - | - | - | - | - |
| AFR | | | - | - | - | - | 5 | 0.080 | - | - | - | - | - | - | - | - | - | - | - | - |
| Groundcrew Goggle (AN/PVS 31A) | A | | - | - | - | - | - | 4.630 | 0.010 | 417 | 4.059 | - | - | 0.025 | - | - | - | - | - | 0.025 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 4.630 | - | 417 | 4.059 | - | - | 0.025 | - | - | - | - | - | 0.025 |

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment **Aggregated Items Title:** Items Less Than \$5 Million

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| PMA (NVG) Other Government Cost | A | | - | - | - | - | - | 0.011 | - | - | 0.020 | - | - | 0.026 | - | - | - | - | - | 0.026 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.011 | - | - | 0.020 | - | - | 0.026 | - | - | - | - | - | 0.026 |
| Subtotal: Safety, Rescue Equipment | | | - | - | - | - | - | 34.699 | - | - | 35.553 | - | - | 29.991 | - | - | 13.600 | - | - | 43.591 |
| Total | | | - | - | - | - | - | 34.699 | - | - | 35.553 | - | - | 29.991 | - | - | 13.600 | - | - | 43.591 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The FY2019 OCO funding total of \$13.600M includes \$9.200M for Night Vision Goggle Upgrade in support of Air Forces Central Command Urgent Operational Need (UON) and subsequent Capability Transition Decision (CTD) and \$4.000M for training and simulators, assault zone, airfield marking tools, approach landing capability, weather data collection and analysis, personnel, and technical recovery equipment, visual augmentation, unmanned capabilities, aerial insertion, ground transportation, and maritime in support of Special Tactics/Combat Control Battlefield Airmen. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq | P-1 Line Item Number / Title: 843050 / Mechanized Material Handling Equip |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|--------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 7.344 | 10.381 | 88.298 | 0.000 | 88.298 | 11.900 | 12.126 | 8.695 | 18.775 | - | 157.519 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 7.344 | 10.381 | 88.298 | 0.000 | 88.298 | 11.900 | 12.126 | 8.695 | 18.775 | - | 157.519 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 7.344 | 10.381 | 88.298 | 0.000 | 88.298 | 11.900 | 12.126 | 8.695 | 18.775 | - | 157.519 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Mechanized Materials Handling Equipment (MMHE) line provides funding for Mechanized Materials Handling Systems (MMHS) and Storage Aids Systems (SAS).

MMHS and SAS equipment provide bases worldwide with automated and static equipment to store, receive, and ship materiel. MMHS and SAS equipment involves the design and acquisition of mechanized and non-mechanized materials handling systems such as receiving, storage, and distribution systems; high density storage systems; and a variety of SAS equipment including racks, shelving, modular cabinets, and mezzanines.

Transportation systems generally include equipment such as heavy duty freight handling 463L pallet conveyors, pallet buildup/breakdown lift conveyor stations, cargo staging racks, and overhead bridge cranes for air freight terminal systems; roller conveyors and overhead cranes for aerial delivery facility systems; inbound and outbound baggage conveyors and passenger boarding bridges for air passenger terminals.

Other types of MMHS include narrow aisle vehicle replacements and external aircraft fuel tank storage systems.

Adequately equipped facilities are essential to the storage and handling of weapon system components, and the processing of personnel, freight, and baggage to reduce pipeline time and to provide enhanced Air Force capability to respond to crises and threats whenever they occur in the world.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PE 0104222F, 0202834F, 0207597F, 0401319F, 0402834F, 0502834F, 0502844F, 0702834F, and 0802834F.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| AF | | | | | | | | | |
| Quantity | 19 | 26 | 26 | 0 | 26 | 24 | 27 | 22 | 23 |
| Total Obligation Authority | 6.280 | 8.629 | 86.024 | 0.000 | 86.024 | 10.025 | 8.276 | 8.695 | 18.775 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq | P-1 Line Item Number / Title: 843050 / Mechanized Material Handling Equip |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|--------------|---------------|
| AFNG | Quantity | 2 | 2 | 7 | 0 | 7 | 3 | 5 | 0 | 0 |
| | Total Obligation Authority | 0.709 | 0.876 | 1.887 | 0.000 | 1.887 | 1.075 | 3.850 | 0.000 | 0.000 |
| AFR | Quantity | 1 | 2 | 1 | 0 | 1 | 2 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.355 | 0.876 | 0.387 | 0.000 | 0.387 | 0.800 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 22 | 30 | 34 | 0 | 34 | 29 | 32 | 22 | 23 |
| Secondary Distribution | Total Obligation Authority | 7.344 | 10.381 | 88.298 | 0.000 | 88.298 | 11.900 | 12.126 | 8.695 | 18.775 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq **P-1 Line Item Number / Title:** 843050 / Mechanized Material Handling Equip

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Mechanized Material Handling Equip | | | | - / - | - / 7.344 | - / 10.381 | - / 88.298 | - / 0.000 | - / 88.298 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 7.344 | - / 10.381 | - / 88.298 | - / 0.000 | - / 88.298 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement funds for MMHS/SAS equipment increases the productivity of Air Force operations, enhances management control of assets, reduces multiple handling of logistics materiel by consolidating assets, increases flexibility at a minimum investment cost, enhances safety, reduces losses due to damage of materiel in transport, and reduces congestion and delays in the receiving, storage and issue operations in supply, base level aircraft maintenance, and transportation facilities.

There are two single-year requirements that result in a sharp funding spike in FY19. The first is a high-density storage system for the VC-25B two-bay hangar complex. The second requirement is the replacement of the air cargo handling system at Travis AFB.

FY19 MMHE is to be purchased in the following quantities: 12 material storage and distribution systems, 15 storage aid systems, 5 aerial port equipment systems, and 1 wing tank system. A variety of equipment types used in supply and aircraft maintenance operations will be provided in support of the VC-25B two-bay hangar complex.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 3 **P-1 Line Item Number / Title:** 843050 / Mechanized Material Handling Equip **Aggregated Items Title:** Mechanized Material Handling Equip

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| MECHANIZED MATERIALS HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | |
| MATERIAL STORAGE AND DISTRIBUTION SYSTEMS | A | | - | - | - | 0.355 | 8 | 2.837 | 0.438 | 14 | 6.136 | 0.387 | 12 | 4.649 | - | - | 0.000 | 0.387 | 12 | 4.649 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 5 | 1.773 | | 10 | 4.384 | | 8 | 3.025 | | - | 0.000 | | 8 | 3.025 |
| AFNG | | | - | - | - | | 2 | 0.709 | | 2 | 0.876 | | 3 | 1.237 | | - | - | | 3 | 1.237 |
| AFR | | | - | - | - | | 1 | 0.355 | | 2 | 0.876 | | 1 | 0.387 | | - | - | | 1 | 0.387 |
| STORAGE AIDS SYSTEMS | A | | - | - | - | 0.290 | 12 | 3.485 | 0.260 | 15 | 3.895 | 0.181 | 15 | 2.721 | - | - | - | 0.181 | 15 | 2.721 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 12 | 3.485 | | 15 | 3.895 | | 11 | 2.071 | | - | - | | 11 | 2.071 |
| AFNG | | | - | - | - | | - | - | | - | - | | 4 | 0.650 | | - | - | | 4 | 0.650 |
| AERIAL PORT EQUIPMENT | A | | - | - | - | 0.511 | 2 | 1.022 | 0.350 | 1 | 0.350 | 7.664 | 5 | 38.318 | - | - | - | 7.664 | 5 | 38.318 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | | 2 | 1.022 | | 1 | 0.350 | | 5 | 38.318 | | - | - | | 5 | 38.318 |
| WING TANK STORAGE SYSTEMS | A | | - | - | - | - | - | - | - | - | - | 1.500 | 1 | 1.500 | - | - | - | 1.500 | 1 | 1.500 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | | 1 | 1.500 | | - | - | | 1 | 1.500 |
| MATERIALS HANDLING EQUIPMENT FOR VC-25B MULTI-BAY HANGAR COMPLEX | A | | - | - | - | - | - | - | - | - | - | 41.110 | 1 | 41.110 | - | - | - | 41.110 | 1 | 41.110 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | | 1 | 41.110 | | - | - | | 1 | 41.110 |
| Subtotal: MECHANIZED MATERIALS HANDLING EQUIPMENT | | | - | - | - | - | - | 7.344 | - | - | 10.381 | - | - | 88.298 | - | - | 0.000 | - | - | 88.298 |
| Total | | | - | - | - | - | - | 7.344 | - | - | 10.381 | - | - | 88.298 | - | - | 0.000 | - | - | 88.298 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | P-1 Line Item Number / Title: 845010 / Base Procured Equipment |
|--|--|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 6.852 | 22.538 | 17.031 | 28.800 | 45.831 | 14.543 | 14.652 | 10.883 | 11.176 | - | 126.475 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 6.852 | 22.538 | 17.031 | 28.800 | 45.831 | 14.543 | 14.652 | 10.883 | 11.176 | - | 126.475 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 6.852 | 22.538 | 17.031 | 28.800 | 45.831 | 14.543 | 14.652 | 10.883 | 11.176 | - | 126.475 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Base Procured Equipment:

Organizations throughout the Air Force acquire authorized investment equipment from the General Services Administration, Defense Logistics Agency, and commercial sources when these items exceed \$250,000 in cost or are unavailable through Air Force central procurement. Examples of equipment in this P-1 line typically include equipment and/or specialized tools for road and ground maintenance; vehicle maintenance; vehicle corrosion control; civil engineering maintenance; electrical and carpentry shops; specialized laboratories; kitchen and dining facilities; printing plants; microfilm, graphics support facilities; training ranges; uninterruptible power supply systems, physiological trainers to include, but are not limited to Barney Chairs, Altitude Chambers, Spatial Disorientation Trainers, Hypoxia Familiarization Trainers and Part Task Trainers, Reduced Oxygen Breathing Devices, Terrain Boards, Parachuting Trainers, Aircrew Exercise Equipment.

PEs associated with this P-1 Line are: 0202834F, 0205219F, 0208534F, 0305534F, 0402834F, 0502834F, 0502844F, 0702834F, 0802834F, 0804721F, 0804731F, 0804743F, 0804752F, 0808534F, 0901212F

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AF | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 6.852 | 21.587 | 16.066 | 28.800 | 44.866 | 14.543 | 14.652 | 10.883 | 11.176 |
| AFNG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 0.000 | 0.847 | 0.860 | 0.000 | 0.860 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 0.000 | 0.104 | 0.105 | 0.000 | 0.105 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: Secondary Distribution | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Total Obligation Authority | 6.852 | 22.538 | 17.031 | 28.800 | 45.831 | 14.543 | 14.652 | 10.883 | 11.176 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment

P-1 Line Item Number / Title:
845010 / Base Procured Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Base Procured Equipment | | | | - / - | - / 6.852 | - / 22.538 | - / 17.031 | - / 28.800 | - / 45.831 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 6.852 | - / 22.538 | - / 17.031 | - / 28.800 | - / 45.831 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

Base Procured Equipment:

PE 22834F - FY19 funds procure:

Power Conditioning & Continuation Interfacing Equipment (PCCIE):

The PCCIE Program Office procures, replaces and modernizes uninterruptible power supply (UPS) systems to meet Air Force requirements. The Uninterruptible Power Supply (UPS) systems protect sensitive electronic equipment/systems such as command and control centers, intelligence missions, radars, etc. Many of these systems have exceeded the life expectancy of 12-15 years. PCCIE program is structured into small projects (from 3 - 125 kilovolt amps (kva)) and large projects (greater than 125 kva) and includes associated ancillary equipment.

Power Conditioning & Continuation Interfacing Equipment (PCCIE):

The new systems collectively satisfy critical user requirements and will:

1. Reduce overall footprint and weight by 50-60%.
2. Reduce operating and sustainment costs by 30%-50%.
3. Reduce acquisition costs as it applies to installation since many newer systems consist of more internal pre-wiring.
4. Lower parts count dramatically improves reliability by reducing the potential points of failure within the system.
5. Produce greater energy savings and higher operating efficiency in all configurations, typically between 92% and 93.5%; with all types of loads.

PE 84731F - FY19 funds procure:

a). Keesler Trainer/Simulator for Expeditionary Combat Support Radio Course: TS-4528A/U Multi-Channel DOCCT/S System (2x 3U), Two Channel, Lab/Class Local RF; Includes redundant power supply, training & IW Phase II channel control capability. This item simulates a UHF satellite terminal control station as well as the satellite system itself. It enables two-satellite ground terminals to establish a connection and pass data and voice communications to each other. It is used to certify objective completion in the Expeditionary Combat Support Radio course.

b). Goodfellow AFB Fire Training Burn Trainers: New Fire Cause and Fire Inspection Trainers, Structural Burn Training Fire Box and SBCA Compressor and Air Pack Fill Station Replacement.

c). Parachute System for Pararescue and Combat Rescue Officer training (Lackland AFB): Purchase of RamAir (RA-1) Parachute System

PE 84752F - FY19 funds procure Laboratory equipment for AF Institute of Technology.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845010 / Base Procured Equipment **Aggregated Items Title:** Base Procured Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| BASE PROCURED EQUIPMENT | A | | - | - | - | - | - | - | 7.500 | 1 | 7.500 | - | - | - | 28.800 | 1 | 28.800 | 28.800 | 1 | 28.800 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | | 1 | 7.500 | | - | - | | 1 | 28.800 | | 1 | 28.800 |
| AF CIVIL ENGR SPT AGENCY | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF SPACE CMD | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AIR COMBAT CMD | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AIR EDUCATION & TRAINING CMD | A | | - | - | - | - | - | 2.788 | - | - | - | - | - | 11.826 | - | - | - | - | - | 11.826 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 2.788 | - | - | - | - | 11.826 | - | - | - | - | - | - | 11.826 |
| PACIFIC AIR FORCES | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| US AIR FORCES EUROPE | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| US AIR FORCE ACADEMY | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AIR FORCE MATERIEL CMD | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCCIE | A | | - | - | - | - | - | 3.998 | - | - | 3.803 | - | - | 4.150 | - | - | - | - | - | 4.150 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 3.998 | - | - | 3.803 | - | - | 4.150 | - | - | - | - | - | 4.150 |
| 1) PCCIE PMA | A | | - | - | - | - | - | 0.066 | - | - | 10.284 | - | - | 0.090 | - | - | - | - | - | 0.090 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.066 | - | - | 10.284 | - | - | 0.090 | - | - | - | - | - | 0.090 |
| PCCIE ANG/RES | A | | - | - | - | - | - | - | - | - | 0.951 | - | - | 0.965 | - | - | - | - | - | 0.965 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AFNG | | | - | - | - | - | - | - | - | 0.847 | - | - | 0.860 | - | - | - | - | - | - | 0.860 |
| AFR | | | - | - | - | - | - | - | - | 0.104 | - | - | 0.105 | - | - | - | - | - | - | 0.105 |
| AIR FORCE GLOBAL STRIKE CMD | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AIR FORCE WIDE/ PCCIE | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Uncategorized | | | - | - | - | - | - | 6.852 | - | - | 22.538 | - | - | 17.031 | - | - | 28.800 | - | - | 45.831 |
| Total | | | - | - | - | - | - | 6.852 | - | - | 22.538 | - | - | 17.031 | - | - | 28.800 | - | - | 45.831 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
1) PCCIE PMA - FY18 funding will support Program Office Management efforts including computer support, travel, A&AS and cost estimating/analysis services

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 | P-1 Line Item Number / Title: 845010 / Base Procured Equipment | Aggregated Items Title: Base Procured Equipment |
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UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | P-1 Line Item Number / Title: 845100 / Engineering and EOD Equipment |
|--|--|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0205671F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|----------------|---------------|---------------|----------------|---------------|----------------|----------------|----------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 267.400 | 106.714 | 82.635 | 53.500 | 136.135 | 49.124 | 161.486 | 162.562 | 150.761 | - | 1,034.182 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 267.400 | 106.714 | 82.635 | 53.500 | 136.135 | 49.124 | 161.486 | 162.562 | 150.761 | - | 1,034.182 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 267.400 | 106.714 | 82.635 | 53.500 | 136.135 | 49.124 | 161.486 | 162.562 | 150.761 | - | 1,034.182 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

FY19 OCO funding \$53.3M Remotely Operated/Automated Weapons Systems (CROWS). Provides threat detection and engagement capabilities to enable sustained sortie generation/air ops: 0208028FF Program Element Code associated with P-1 line.

FY19 Baseline Funding \$16.523M EOD (Explosive Ordnance Disposal Forces): 0204424F Program Elements Codes (PECs) associated with P-1 Line. The funding supports Explosive Ordnance Disposal (EOD) teams equipment requirements in countering explosive threats in garrison and deployed locations. The major component of this funding is a \$10M robotic upgrade and repair which will bridge the gap until the Advanced EOD Robot System (AEODRS) Increment 3 is phased in.

FY19 Baseline Funding \$2.407M for Airfield Damage Repair (ADR) program: PEC 0208028F Airfield Damage Repair (ADR) associated with P-1 Line. The funding supports the major components of ADR and ensure the Air Force has the capability to repair airfields in minimal timing to support sortie generations. The major repair components of Air Field Damage Repair training/Small Size, Medium Sized (R-1)Kits. Current efforts under ADR are intended to bring the repair time in to operational acceptable limits in support of COCOM post attack Air Tasking Orders.

FY19 Baseline Funding of \$27.293M for Expedient Small Asset Protection (ESAP) shelters: PEC 0208028F associated with P-1 Line. Funding provided to procure ESAP Shelters and ESAP shelter support.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment

P-1 Line Item Number / Title:
845100 / Engineering and EOD Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205671F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Engineering and EOD Equipment | | | | - / - | - / 267.400 | - / 106.714 | - / 82.635 | - / 53.500 | - / 136.135 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 267.400 | - / 106.714 | - / 82.635 | - / 53.500 | - / 136.135 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 OCO funding \$53.5M in PEC 0207588F will procure containerized and mobilized target engagement systems to in the following quantities: \$32.9M will procure 40 fully integrated Containerized CROWS weapons stations and \$20.5M will procure 49 Mobilized CROWS weapons stations ensuring remote hostile threat engagement in a rapidly evolving, highly mobile adaptive basing environment where light, lean and lethal effects through system integration and remote engagement are critical to joint Service and integrated defense mission assurance. These systems are an advancement in current CROWS capability adding additional weapons platforms and multiple firing points.

FY19 Baseline funding of \$16.523M in PEC 0204424F will procure Explosive Ordnance Disposal (EOD) support in the following quantities: \$10M purchases the F6A robotic upgrade and repair that will be utilized to bridge the gap until the Advanced EOD Robotic System (AEDRS) Increment 3 comes online; \$540K procures ordnance locators used to detect buried munitions and IEDs; \$4.27M procures remote firing devices designed to command detonate explosives and associated EOD equipment using UHF radio signals and time delay; \$213K procures Mk series ordnance disruption and render safe tools; \$1.5M purchases down requirements for the Base Support Emergency Response Vehicle (BSERV) and the Bomb Response Vehicle (BRV) used by flights during emergency responses in garrison.

FY19 Baseline ADR funding of \$2.407M in PEC 0208028F Air Field Damage repair kits. The support equipment items include ADR Tool Trailers (hand tools and small/medium equipment items required for crater repair), Small Repair Kits (hand tools and saws for expeditious and semi-permanent repairs), Inclement Weather Kits (tools and materials to place rapid setting materials in cold, hot, and wet weather), water skids (provides supplemental weather for rapid setting materials), and light carts (support night operations). The Basic/Small kit is used to provide basic repair equipment/materials in order to repair approximately 18 small (10 ft diameter) craters or three, 25 diameter craters in 6.5 hours. Additional airfield damage can be repaired based on the availability of time and materials. Basic/Small kits will also be used at training locations.

FY19 Baseline funding of \$29.293M in PEC 0208028F will procure Expeditionary Small Asset Protection (ESAP) shelters in the following quantities: 14 ESAP Type I Fighter Aircraft Shelters for \$19.6M; 10 ESAP Type II Equipment shelters for \$4.31M and \$3.383M for Shelters support. ESAP shelters are critical for protection of airfield assets (fighter aircraft and ground support equipment) that are in immediate danger of an attack. These ESAPs will be strategically postured within the PACAF theater.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845100 / Engineering and EOD Equipment **Aggregated Items Title:** Engineering and EOD Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| CVRJ CREW Refurbishment | A | | - | - | - | - | - | 213.500 | - | - | - | - | - | - | - | - | - | - | - | |
| JCREW Dismounted Systems | A | | - | - | - | 0.075 | 49 | 3.674 | - | - | - | - | - | - | - | - | - | - | - | |
| JCREW Mounted Systems | A | | - | - | - | 0.221 | 218 | 48.226 | 0.291 | 128 | 37.300 | - | - | - | - | - | - | - | - | |
| JCREW Fixed Site Systems | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| JCREW Vehicle Integration Kits | A | | - | - | - | - | - | - | 0.010 | 313 | 3.127 | - | - | - | - | - | - | - | - | |
| CREW Universal Test Sets | A | | - | - | - | - | - | - | 0.047 | 26 | 1.226 | - | - | - | - | - | - | - | - | |
| FRS (EOD portable X-RAY) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Total Containment Vessel | A | | - | - | - | - | - | - | 0.300 | 5 | 1.500 | - | - | - | - | - | - | - | - | |
| Base Support Emergency Response Transport | A | | - | - | - | - | - | - | - | - | - | 0.300 | 5 | 1.500 | - | - | - | 0.300 | 5 | 1.500 |
| Fuze Disassembly System, Explosive Ordnance Disposal | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Light Tactical Trailers | A | | - | - | - | - | - | - | 0.035 | 10 | 0.352 | 0.023 | 24 | 0.540 | - | - | - | 0.023 | 24 | 0.540 |
| EOD-M Program - Ordnance Locator | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| EOD-M IED Search Kits | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| EOD-M Diarming Toolsets | A | | - | - | - | - | - | - | - | - | - | 0.013 | 16 | 0.213 | - | - | - | 0.013 | 16 | 0.213 |
| EOD-M Robotics | A | | - | - | - | - | - | - | - | - | - | 0.278 | 36 | 10.000 | - | - | - | 0.278 | 36 | 10.000 |
| EOD-M Mini Remote Firing Device | A | | - | - | - | - | - | - | 0.035 | 142 | 4.970 | 0.035 | 122 | 4.270 | - | - | - | 0.035 | 122 | 4.270 |
| RECOVERY REPAIR KIT (Training/Small Sized) | A | | - | - | - | 0.400 | 5 | 2.000 | 0.465 | 3 | 1.395 | - | - | - | - | - | - | - | - | |
| RECOVERY REPAIR KIT - R1 (Medium Sized Kit) | A | | - | - | - | - | - | - | - | - | - | 2.407 | 1 | 2.407 | - | - | - | 2.407 | 1 | 2.407 |
| RECOVERY REPAIR KIT - R2 (Large Size Kit) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| RECOVERY REPAIR KIT - R3 (Very Large Size Kit) | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845100 / Engineering and EOD Equipment **Aggregated Items Title:** Engineering and EOD Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|----------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | |
| RADBO Equipment, Integration, & Spares Kits | A | | - | - | - | - | - | - | 2.857 | 14 | 40.000 | - | - | - | - | - | - | - | - | - | |
| Support Agadez Infrastructure - IT Service Mgmt Services | A | | - | - | - | - | - | - | 0.248 | 1 | 0.248 | - | - | - | - | - | - | - | - | - | |
| ROWPU, 1500gph | A | | - | - | - | - | - | - | 0.290 | 10 | 2.900 | - | - | - | - | - | - | - | - | - | |
| LAMS-V | A | | - | - | - | - | - | - | 0.248 | 3 | 0.744 | - | - | 36.412 | - | - | - | - | - | 36.412 | |
| EALS Kit | A | | - | - | - | - | - | - | 0.556 | 1 | 0.556 | - | - | - | - | - | - | - | - | - | |
| ESAP Type I Shelters | A | | - | - | - | - | - | - | 0.900 | 8 | 7.200 | 1.400 | 14 | 19.600 | - | - | - | 1.400 | 14 | 19.600 | |
| ESAP Type II Shelters | A | | - | - | - | - | - | - | 0.415 | 6 | 2.490 | 0.431 | 10 | 4.310 | - | - | - | 0.431 | 10 | 4.310 | |
| ESAP Shelter Support | A | | - | - | - | - | - | - | 2.706 | 1 | 2.706 | 3.383 | 1 | 3.383 | - | - | - | 3.383 | 1 | 3.383 | |
| CROWS Containerized Weapons Station | A | | - | - | - | - | - | - | - | - | - | - | - | - | 0.825 | 40 | 33.018 | 0.825 | 40 | 33.018 | |
| CROWS Mobilized Platform | A | | - | - | - | - | - | - | - | - | - | - | - | - | 0.418 | 49 | 20.482 | 0.418 | 49 | 20.482 | |
| Subtotal: Uncategorized | | | - | - | - | - | - | - | 267.400 | - | - | 106.714 | - | - | 82.635 | - | - | 53.500 | - | - | 136.135 |
| Total | | | - | - | - | - | - | - | 267.400 | - | - | 106.714 | - | - | 82.635 | - | - | 53.500 | - | - | 136.135 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | P-1 Line Item Number / Title: 845420 / Mobility Equipment |
|--|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|--------------|--------------|---------------|---------------|--------------|----------------|----------------|----------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 58.128 | 8.470 | 9.549 | 78.562 | 88.111 | 9.197 | 209.181 | 138.524 | 157.100 | - | 668.711 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 58.128 | 8.470 | 9.549 | 78.562 | 88.111 | 9.197 | 209.181 | 138.524 | 157.100 | - | 668.711 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 58.128 | 8.470 | 9.549 | 78.562 | 88.111 | 9.197 | 209.181 | 138.524 | 157.100 | - | 668.711 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This program funds procurement of Basic Expeditionary Airfield Resources (BEAR). It includes, but is not limited to, equipment to support the bed down of deployed forces (personnel, aircraft and support equipment) at austere and semi-austere locations. BEAR assets are a critical Agile Combat Support enabler for the Expeditionary Air Force. BEAR is composed of five types of air base capability packages: housekeeping, feeding, hygiene, power generation and flight line. Flight line packages consist of airfield lighting, aircraft hangars, fire stations, and numerous additional systems to support airfield operations. The program provides funding to procure new and replacement equipment items, and multi-media packages required to support BEAR training facilities at Silver Flag Sites, Regional Training Sites, Technical Schools, Technical Certification Centers, Services Combat Center Training, 635MMG, and Eagle Flag. Costs include inventory reconstitution, spares and consumables, repairs, and procurement of new equipment for upgrades or full UTC's replacement. BEAR demonstrates its critical role in support of European Deterrence Initiative, the Pacific Theatre and all major operations worldwide.

The AF continues to modernize major BEAR components to replace obsolete and inefficient items (e.g., Power Generation, Hygiene, Refrigeration, EALS, MAAS, Shelters, and Feeding):

Force Module Water System: Water System takes non-potable water and converts it into potable water. The system is modular and scalable in design and consists of Source Run, Water Production, Reverse Osmosis Water Purification Unit (ROWPU), Initial, Follow-on, and Industrial Operations, Flight line Extension, freeze protection, grey water recovery, pumping, piping, and storage equipment; applicable fittings; and other components such as fluid control valves.

Power System: Consists of prime and secondary power equipment which provides the capability to generate and distribute power to billeting, feeding, flight line and industrial operations at forward deployed sites. The primary power source for BEAR bed down locations is the BEAR Power Unit (BPU). The BPU is an 800 kilowatt (kW) Tier II compliant diesel generator. The power from the BPU is distributed through buried high voltage cabling and stepped down to facility power through the Secondary Distribution Center (SDC). The SDC is a 150 kilovolt-ampere (KVA) transformer capable of supporting twelve (12) billeting shelters via the Primary Distribution Panels (PDP).

Expeditionary Airfield Lighting System (EALS)(Legacy): Light Emitting Diode (LED) and incandescent runway lighting system designed to be rapidly installed at contingency airfields and at other locations that need temporary airfield lighting. The lighting kit for runways includes runway edge and threshold lights, precision approach path indicator (PAPI), and strobe approach lights, distance to go marker lamps, taxi way lamps and battery-operated obstruction lights. The EALS also includes the generators, cables, control cables, transformers and regulators. The entire system is packaged on six (6) mobile trailers. System will be replaced with a Next Generation System over the FYDP.

Mobile Aircraft Arresting System: This air transportable barrier arresting Bak-12 mounted on a mobile trailer to accommodate the recovery of fighter aircraft returning to battle damaged airfield.

UNCLASSIFIED

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | | P-1 Line Item Number / Title: 845420 / Mobility Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Hygiene: Hygiene includes Shower, Shave and Latrine, WH-400 water heaters for initial Hygiene fielding and Self Help Laundry system which provides personal hygiene facilities in support of BEAR bases.</p> <p>Hygiene Shelters: Hygiene Shelters are designed to be used as changing rooms connecting to the BEAR Hygiene System. The shelters support personnel utilizing BEAR Hygiene Systems.</p> <p>Refrigeration: Refrigeration units designed for the carriage of deep frozen, frozen, chilled and general cargo by road, rail, air, and sea (above or below deck), suitable for austere environmental conditions. It is used to support the BEAR services, feeding and mortuary operations.</p> <p>Shelters: Shelters vary in sizes and are needed for billeting, kitchen, hygiene, and aircraft and equipment maintenance. Includes lighting, electrical equipment, environmental control units, remote area lighting, Shelter Flies, Shelter Flooring/matting for various shelter sizes, Shelter liners.</p> <p>Shelter Flooring: Shelter flooring varies in size for small and large shelters (ACH, LAMS, Mortuary).</p> <p>Feeding: BEAR Feeding includes kitchen and all applicable equipment. BEAR Feeding system provides the capability to prepare, and then serve, 500 meals over a two hour serving period, twice per day (24 hour period). The Feeding system is worldwide deployable and supports numerous basing options. This system supports initial mission requirements and follow-on high mobility feeding requirements for rapidly deployable mobility packages and other contingencies in all theaters of operation.</p> <p>10K Fuel Bladder: Collapsible, coated fabric fuel bladders are often used as an auxiliary fuel source for MEP generators. This is especially true for high fuel-consumption prime power generators.</p> <p>Heating, Ventilating, and Air Conditioning (HVAC): provide thermal comfort and acceptable indoor air quality.</p> <p>Environmental Control Unit (ECU): Heat Pump to provide cooling, heating via reversing valve (heat pump) and supplemental heat via resistance heat strips.</p> <p>Training/Multi-Media Training - Provides BEAR and items for all training sites and funds for all required BEAR multi-media training requirements.</p> <p>"Fiscal Year (FY) 2017 Request for Additional Appropriations": \$34.982 million was required to address emergency warfighting readiness requirements. Power generation is a must to sustain operations at austere locations. BEAR Power Unit is a modernization effort to replace legacy power units that have out lived life expectancy and no longer have repair capability. Purchasing BEAR PU requirements early allowed assembly lines to continue without interruption for a smooth requirement fulfillment.</p> <p>"Fiscal Year (FY17) Received two Congressional Earmarks totaling \$15M dollars to address BEAR disconnects to support warfighter readiness requirements. \$10M dollars (Water Earmark) procured BEAR Water Systems to include water purification units (ROWPU), and water distribution systems. \$5M dollars (Shelters Earmark) will procure Energy efficient shelters.</p> <p>Program element associated with this P-1 Line is: 0401135F.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment **P-1 Line Item Number / Title:** 845420 / Mobility Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Mobility Equipment | | | | - / - | - / 58.128 | - / 8.470 | - / 9.549 | - / 78.562 | - / 88.111 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 58.128 | - / 8.470 | - / 9.549 | - / 78.562 | - / 88.111 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 procurement dollars in the amount of \$9.549M, procures assets including, but not limited to, 4 Next Generation Airfield Lighting System (NGEALS), 1 Next Generation Small Shelter System ,2 Mobile Aircraft Arresting System, 1 BEAR System Load Installation Management System (BSLIM) and PMA in Support of Installation and unit mission requirements for Air Force personnel.
 FY19 OCO dollars in the amount of \$78.562M procure assets across various BEAR platforms to support efforts including but not limited to the European Deterrence Initiative (EDI/ECAOS).
 Current funding spread facilitates the consistent deployment of BEAR assets into the field.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845420 / Mobility Equipment **Aggregated Items Title:** Mobility Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Uncategorized | | | | | | | | | | | | | | | | | | | | |
| BEAR High Power (BPU) | A | | - | - | - | 653,803.92 | 51 | 33.344 | - | - | - | - | - | - | - | - | - | - | - | - |
| Expeditionary Airfield Lighting System (EALS) (Legacy Procurement) | A | | - | - | - | - | - | - | 625,000.00 | 8 | 5.000 | - | - | - | 560,000.00 | 5 | 2.800 | 560,000.00 | 5 | 2.800 |
| Air Conditioner Initial KTR | A | | - | - | - | - | - | - | - | - | - | - | - | 1,000K | 1 | 1.000 | 1,000K | 1 | 1.000 | 1,000K |
| Next Generation Expeditionary Airfield Lighting System (NGEALS) | A | | - | - | - | - | - | - | - | - | 1,231K | 4 | 4.925 | - | - | - | - | 1,231K | 4 | 4.925 |
| HYGIENE | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | 284,380.74 | 50 | 14.219 | 284,380.74 | 50 | 14.219 | |
| Heater Duct | A | | - | - | - | - | - | - | - | - | - | - | - | 5,117.00 | 1,560 | 7.983 | 5,117.00 | 1,560 | 7.983 | |
| BEAR Water System (Reverse Osmosis Water Purification Unit) ROWPU / | A | | - | - | - | 282,120.00 | 19 | 5.360 | - | - | - | - | - | 430,120.00 | 25 | 10.753 | 430,120.00 | 25 | 10.753 | |
| NEXT GENERATION SMALL SHELTER SYSTEM | A | | - | - | - | - | - | - | - | - | 173,000.00 | 1 | 0.173 | - | - | - | - | 173,000.00 | 1 | 0.173 |
| MOBILE AIRCRAFT ARRESTING SYSTEM | A | | - | - | - | - | - | - | 1,000K | 1 | 1.000 | 1,000K | 2 | 2.000 | 273,575.00 | 19 | 5.198 | 342,758.33 | 21 | 7.198 |
| BEAR Water Source Runs | A | | - | - | - | 230,155.00 | 7 | 1.611 | - | - | - | - | - | - | - | - | - | - | - | - |
| BEAR Water System Initial | A | | - | - | - | 518,509.00 | 9 | 4.667 | - | - | - | - | - | - | - | - | - | - | - | - |
| HYGIENE SHELTER | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | 10,454.00 | 120 | 1.254 | 10,454.00 | 120 | 1.254 | |
| BEAR Environmental Shelters | A | | - | - | - | 50,000.00 | 100 | 5.000 | - | - | - | - | - | 109,909.09 | 22 | 2.418 | 109,909.09 | 22 | 2.418 | |
| 10K FUEL BLADDER | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| FEEDING - 9-2 Legacy Kitchen Replacement | A | | - | - | - | 508,750.00 | 4 | 2.035 | 663,000.00 | 2 | 1.326 | - | - | - | 500,000.00 | 11 | 5.500 | 500,000.00 | 11 | 5.500 |
| FEEDING - EEK | A | | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| LARGE AREA MAINTENANCE SHELTERS (LAMS) | A | | - | - | - | 256,833.33 | 18 | 4.623 | - | - | - | - | - | 208,447.11 | 36 | 7.504 | 208,447.11 | 36 | 7.504 | |
| BEAR System Installation Load Management System (BSLIM) | A | | - | - | - | - | - | - | - | - | - | 1,307K | 1 | 1.307 | - | - | - | 1,307K | 1 | 1.307 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845420 / Mobility Equipment **Aggregated Items Title:** Mobility Equipment

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| PMA - OTHER GOVERNMENT COST | A | | - | - | - | - | - | 0.054 | - | - | 0.074 | - | - | 0.074 | - | - | - | - | - | 0.074 |
| PMA- CONTRACTOR SERVICES | A | | - | - | - | - | - | 1.022 | - | - | 1.070 | - | - | 1.070 | - | - | - | - | - | 1.070 |
| TRANSPORTATION | A | | - | - | - | - | - | 0.412 | - | - | - | - | - | - | - | - | - | - | - | - |
| POWER GENERATION (OCO) | A | | - | - | - | - | - | - | - | - | - | - | - | - | 17,522.20 | 1,066 | 18.679 | 17,522.20 | 1,066 | 18.679 |
| HYGIENE SHELTER (OCO) | A | | - | - | - | - | - | - | - | - | - | - | - | - | 10,454.00 | 120 | 1.254 | 10,454.00 | 120 | 1.254 |
| Subtotal: Uncategorized | | | - | - | - | - | - | 58.128 | - | - | 8.470 | - | - | 9.549 | - | - | 78.562 | - | - | 88.111 |
| Total | | | - | - | - | - | - | 58.128 | - | - | 8.470 | - | - | 9.549 | - | - | 78.562 | - | - | 88.111 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Unit Costs for FY19 are assumed and subject to change.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment |
|--|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 30.557 | 139.173 | 24.005 | 28.055 | 52.060 | 50.426 | 56.672 | 53.156 | 33.472 | - | 415.516 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 30.557 | 139.173 | 24.005 | 28.055 | 52.060 | 50.426 | 56.672 | 53.156 | 33.472 | - | 415.516 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 30.557 | 139.173 | 24.005 | 28.055 | 52.060 | 50.426 | 56.672 | 53.156 | 33.472 | - | 415.516 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This program provides a wide variety of base support items with worldwide application, to include but not limited to: Aircraft Arresting Systems; Aircraft Recovery Systems; Industrial Plant Equipment (IPE); Fuels Support Equipment; Base Generator Power Systems, Deployable Debrief Facilities (DDF); Flight Line Fire Extinguishers and Cargo Pallet and Net systems. This equipment provides prime support for all base missions and supports the Air Force Metrology and Calibration Program to ensure accuracy and uniformity in standards and equipment used to measure and test Air Force systems and equipment. Accuracy is achieved by relating all measurements to national and international standards maintained by the National Institute of Standards and Technology (NIST) and other recognized sources. That relationship produces a traceability chain through a measurement hierarchy whereby base measurement standards are calibrated against Air Force primary standards, which are in turn calibrated against the national standards. Accuracy is imperative to ensure that the weapons used by our operational forces arrive on target. Uniformity is imperative to ensure consistency of AF systems and safety of AF operators. Program ensures development/determination, procurement, and distribution of standards and related equipment to 65 Air Force Base PMELs residing in every Major Command (MAJCOM) worldwide and to the Air Force Primary Standards Laboratory (AFPSL). This program serves a critical role in support of Transport and Fighter Aircraft Operations across multiple operations worldwide, including but not limited to the European Deterrence Initiative, Pacific Theater, and other forward operating locations.

Lack of funding for these equipment items limits flight operations, maintenance capabilities, testing functions, anti-terrorism/security missions, communications capabilities, and the ability of Air Force units to meet peacetime and deployment requirements.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Program elements associated with this P-1 Line are: 0702207F, 0202834F, 0207142F, 0208031F, 0208530F, 0402834F, 0502834F, 0502844F, 0702834F, 0802834F, 0804741F.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|------------------------|----------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| AF | Quantity | 4 | 7 | 3,665 | 15 | 3,680 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 28.668 | 138.407 | 24.005 | 28.055 | 52.060 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFNG | Quantity | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment | P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|---------------|----------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|
| | Total Obligation Authority | 1.511 | 0.766 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Obligation Authority | 0.378 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | 9 | 9 | 3,665 | 15 | 3,680 | 0 | 0 | 0 | 0 |
| Secondary Distribution | Total Obligation Authority | 30.557 | 139.173 | 24.005 | 28.055 | 52.060 | 0.000 | 0.000 | 0.000 | 0.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment **P-1 Line Item Number / Title:** 845990 / Base Maintenance and Support Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Base Maintenance and Support Equipment | | | | - / - | - / 30.557 | - / 139.173 | - / 24.005 | - / 28.055 | - / 52.060 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 30.557 | - / 139.173 | - / 24.005 | - / 28.055 | - / 52.060 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY19 procurement dollars will procure support equipment items, Program Management Administration (PMA), and other government associated costs in support of base and unit mission requirements for Air Force personnel.

FY19 OCO dollars will procure equipment in support of, but not limited to, the European Contingency Air Operations Set (ECAOS) Deployable Air Base Systems (DABS) - Facilities, Equipment, and Vehicles (FEV).

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|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 | | | | | | | | | | P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment | | | | | Aggregated Items Title: Base Maintenance and Support Equipment | | | | |

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Support Equipment and Vehicles (SEV) | | | | | | | | | | | | | | | | | | | | |
| FSE / FORCE | A | | - | - | - | - | - | 26.016 | - | - | 24.036 | 1.557 | 9 | 14.012 | 1.563 | 12 | 18.755 | 1.560 | 21 | 32.767 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 26.016 | - | - | 24.036 | | 9 | 14.012 | | 12 | 18.755 | | 21 | 32.767 |
| PMA OTHER GOVERNMENT COSTS (FORCE) | A | | - | - | - | - | - | 0.019 | - | - | 0.020 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.019 | - | - | 0.020 | - | - | - | - | - | - | - | - | - |
| AIRCRAFT ARRESTING SYSTEM | A | | - | - | - | 0.268 | 2 | 0.535 | 0.301 | 1 | 0.301 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 2 | 0.535 | - | 1 | 0.301 | - | - | - | - | - | - | - | - | - |
| BASE GENERATOR POWER SYSTEMS | A | | - | - | - | - | - | - | 0.190 | 1 | 0.190 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | 1 | 0.190 | - | - | - | - | - | - | - | - | - |
| BASE PALLETS AND NETS SYSTEMS | A | | - | - | - | - | - | - | - | - | - | 0.002 | 3,656 | 8.045 | - | - | - | 0.002 | 3,656 | 8.045 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | - | 3,656 | 8.045 | - | - | - | - | - | 3,656 | 8.045 |
| PMA - OTHER GOVERNMENT COSTS | A | | - | - | - | - | - | 0.035 | - | - | 0.010 | - | - | 0.020 | - | - | - | - | - | 0.020 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 0.035 | - | - | 0.010 | - | - | 0.020 | - | - | - | - | - | 0.020 |
| PMA CONTRACTOR SERVICES | A | | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ECAOS/DABS-FEV ⁽¹⁾ | A | | - | - | - | - | - | - | - | - | 110.405 | - | - | - | 3.100 | 3 | 9.300 | 3.100 | 3 | 9.300 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | - | - | - | 110.405 | - | - | - | - | 3 | 9.300 | - | 3 | 9.300 |
| Subtotal: Support Equipment and Vehicles (SEV) | | | - | - | - | - | - | 26.605 | - | - | 134.962 | - | - | 22.077 | - | - | 28.055 | - | - | 50.132 |
| Air Force Sustainment Center (AFSC) (404) | | | | | | | | | | | | | | | | | | | | |
| IPE EQUIPMENT | A | | - | - | - | 0.378 | 7 | 2.644 | 0.383 | 5 | 1.915 | - | - | - | - | - | - | - | - | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | 2 | 0.755 | - | 3 | 1.149 | - | - | - | - | - | - | - | - | - |
| AFNG | | | - | - | - | - | 4 | 1.511 | - | 2 | 0.766 | - | - | - | - | - | - | - | - | - |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 | P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment | Aggregated Items Title: Base Maintenance and Support Equipment |
|---|---|--|

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|--|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| AFR | | | | - | - | | 1 | 0.378 | | - | - | | - | - | | - | - | | - | - |
| Subtotal: Air Force Sustainment Center (AFSC) (404) | | | - | - | - | - | - | 2.644 | - | - | 1.915 | - | - | - | - | - | - | - | - | - |
| OTHER ORGANIZATIONS | | | | | | | | | | | | | | | | | | | | |
| AUTOMATED HIGH VACUUM GAUGE SYSTEM (AFMETCAL) | A | | | - | - | | - | - | 0.400 | 1 | 0.400 | | - | - | - | | - | - | | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 1 | 0.400 | | - | - | - | | - | - | | - |
| DEPLOYABLE DEBRIEF FACILITIES (DDF) | A | | | - | - | | - | 1.308 | | - | 1.346 | | - | 1.368 | | - | - | | - | 1.368 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 1.308 | | - | 1.346 | | - | 1.368 | | - | - | | - | 1.368 |
| EXERCISE PREFAB GYM FACILITY (2) | A | | | - | - | | - | - | 0.550 | 1 | 0.550 | | - | - | - | | - | - | | - |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | 1 | 0.550 | | - | - | - | | - | - | | - |
| EQUIPMENT FOR UNDERGRADUATE PILOT TRAINING (UPT) | A | | | - | - | | - | - | | - | - | | - | 0.560 | | - | - | | - | 0.560 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | - | | - | - | | - | 0.560 | | - | - | | - | 0.560 |
| Subtotal: OTHER ORGANIZATIONS | | | - | - | - | - | - | 1.308 | - | - | 2.296 | - | - | 1.928 | - | - | - | - | - | 1.928 |
| Total | | | - | - | - | - | - | 30.557 | - | - | 139.173 | - | - | 24.005 | - | - | 28.055 | - | - | 52.060 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
PROGRAM MANAGEMENT ADMINISTRATION (PMA): PMA supports the operation of the program office in its management and oversight role via travel, procurement of supplies and Advisory and Administrative Services (A&AS).
Requirements are subject to change based on shifts in Air Force priorities in the year of execution.

Footnotes:
(1) FY18 funding includes \$110.405M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV)
(2) FY18 funding for COCOM requirement for USAFE (Incirlik AB) ; FY19 includes \$9.300M requested for Overseas Contingency Operations for pre-fab shelters.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects | P-1 Line Item Number / Title: 846070 / DARP RC135 |
|--|---|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305207F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

RC-135 procurement is executed by the Big Safari RC-135 Program Manager (PM) and is supported by various contractors. The contractors provide services including Program Depot Maintenance (PDM), prime mission equipment overhaul, special repair activity, in-plant support (sustainment engineering, software engineering, and program management), configuration management, LRU repair, and field service maintenance and training for special operational missions. The RC-135 Program Manager provides the full-range of weapons system management, acquisition oversight, program security and integrated logistics for the RC-135 aircraft, power plant, sensors and associated support and equipment. Due to the rapidly changing global threat environment, the PM has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander and Intelligence Community (IC) requirements.

FY18 funding totals include \$0.700M for Overseas Contingency Operations.
Program element associated with this line is 0305207F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects | P-1 Line Item Number / Title: 846070 / DARP RC135 |
|--|---|

| | | |
|--|---|---|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305207F |
|--|---|---|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a | 1 / DARP Modification (Capability Improvement) | | A | | - / 23.973 | - / 25.287 | - / 26.685 | - / 26.262 | - / 0.000 | - / 26.262 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 23.973 | - / 25.287 | - / 26.685 | - / 26.262 | - / 0.000 | - / 26.262 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a | 1 / DARP Modification (Capability Improvement) | | A | | - / 26.716 | - / 27.204 | - / 27.685 | - / 28.178 | - / - | - / 211.990 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 26.716 | - / 27.204 | - / 27.685 | - / 28.178 | - / - | - / 211.990 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY19 procurement funding acquires and installs various upgrade and enhancement modifications for ground support equipment associated with the RC-135 program. This ground support equipment is directly tied to fielded baselines of the RC-135 V/W RIVET JOINT, RC-135S COBRA BALL, and the RC-135U COMBAT SENT. The requirement to maintain commonality with fielded baselines necessitates the continuous modification and installation of upgrades concurrent with RC-135 aircraft entering operational status. These ground systems are critical to the post-mission processing of highly perishable intelligence information, and supporting aircrew proficiency training, virtual simulation exercises that contribute to distributed mission training initiatives, and provide support to indigenous maintenance during aircraft deployments to "bare-base locations. Additionally, all applicable ground support equipment is required to comply with NSA intelligence data recording formats and requirements due to the nature and sensitivity of the information.

Ground support equipment includes, but is not limited to: RIVET JOINT Mission Trainer (RJMT), Ground Data Processing System (GDPS), Mission Crew Training System (MCTS), Modular Processing System (MPS), and the Airborne Capability Extension System (ACES).

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846070 / DARP RC135 | Modification Number / Title: 1 / DARP Modification |
|---|---|--|

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

RC-135 procurement is executed by the Big Safari RC-135 Program Manager (PM) and is supported by various contractors. The contractors provide services including Program Depot Maintenance (PDM), prime mission equipment overhaul, special repair activity, in-plant support (sustainment engineering, software engineering, and program management), configuration management, LRU repair, and field service maintenance and training for special operational missions. The RC-135 Program Manager provides the full-range of weapons system management, acquisition oversight, program security and integrated logistics for the RC-135 aircraft, power plant, sensors and associated support and equipment. Due to the rapidly changing global threat environment, the PM has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander and Intelligence Community (IC) requirements.

FY19 procurement funding acquires and installs various upgrade and enhancement modifications for ground support equipment associated with the RC-135 program. This ground support equipment is directly tied to fielded baselines of the RC-135 V/W RIVET JOINT, RC-135S COBRA BALL, and the RC-135U COMBAT SENT. The requirement to maintain commonality with fielded baselines necessitates the continuous modification and installation of upgrades concurrent with RC-135 aircraft entering operational status. These ground systems are critical to the post-mission processing of highly perishable intelligence information, and supporting aircrew proficiency training, virtual simulation exercises that contribute to distributed mission training initiatives, and provide support to indigenous maintenance during aircraft deployments to "bare-base locations. Additionally, all applicable ground support equipment is required to comply with NSA intelligence data recording formats and requirements due to the nature and sensitivity of the information.

Ground support equipment includes, but is not limited to: RIVET JOINT Mission Trainer (RJMT), Ground Data Processing System (GDPS), Mission Crew Training System (MCTS), Modular Processing System (MPS), and the Airborne Capability Extension System (ACES).

Milestone/Development Status

Fully Fielded Systems

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|---|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | | P-1 Line Item Number / Title: 846070 / DARP RC135 | | | | | Modification Number / Title: 1 / DARP Modification | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: RC-135 | | | | Modification Type: Capability Improvement | | | | Related RDT&E PEs: 0305207F | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BL12 Ground Systems | | | | | | | | | | | | | |
| A Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| BL12 Ground Systems:INSTALL KITS Group A (Active) | 1 / 6.000 | 1 / 6.322 | 1 / 6.616 | 1 / 6.011 | - / - | 1 / 6.011 | 1 / 6.110 | 1 / 6.370 | 1 / 6.486 | 1 / 6.609 | - / - | 8 / 50.524 | |
| <i>Subtotal: Recurring</i> | - / 6.000 | - / 6.322 | - / 6.616 | - / 6.011 | - / - | - / 6.011 | - / 6.110 | - / 6.370 | - / 6.486 | - / 6.609 | - / - | - / 50.524 | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| BL12 Ground Systems:EQUIPMENT Group B (Active) | 1 / 16.901 | 1 / 17.893 | 1 / 18.997 | 1 / 19.179 | - / - | 1 / 19.179 | 1 / 19.534 | 1 / 19.762 | 1 / 20.127 | 1 / 20.497 | - / - | 8 / 152.890 | |
| <i>Subtotal: Recurring</i> | - / 16.901 | - / 17.893 | - / 18.997 | - / 19.179 | - / - | - / 19.179 | - / 19.534 | - / 19.762 | - / 20.127 | - / 20.497 | - / - | - / 152.890 | |
| <i>Subtotal: BL12 Ground Systems</i> | - / 22.901 | - / 24.215 | - / 25.613 | - / 25.190 | - / - | - / 25.190 | - / 25.644 | - / 26.132 | - / 26.613 | - / 27.106 | - / - | - / 203.414 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / 22.901 | - / 24.215 | - / 25.613 | - / 25.190 | - / - | - / 25.190 | - / 25.644 | - / 26.132 | - / 26.613 | - / 27.106 | - / - | - / 203.414 | |
| Installation | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> BL12 Ground Systems | | | | | | | | | | | | | |
| | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 8 / 8.576 | |
| <i>Subtotal: Installation</i> | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 8 / 8.576 | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | 23.973 | 25.287 | 26.685 | 26.262 | 0.000 | 26.262 | 26.716 | 27.204 | 27.685 | 28.178 | - | 211.990 | |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846070 / DARP RC135 | Modification Number / Title: 1 / DARP Modification |
|---|---|--|

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Modification Item 1 of 1: BL12 Ground Systems

Manufacturer Information

| | |
|--|---------------------------------------|
| Manufacturer Name: L3 Communications | Manufacturer Location: Greenville, TX |
| Administrative Leadtime (in Months): 2 | Production Leadtime (in Months): 6 |

| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|----------|----------|----------|----------|
| Contract Dates | Dec 2016 | Dec 2017 | Dec 2018 | Dec 2019 | Dec 2020 | Dec 2021 | Dec 2022 |
| Delivery Dates | Jun 2017 | Jun 2018 | Jun 2019 | Jun 2020 | Jun 2021 | Jun 2022 | Jun 2023 |

Installation Information

Method of Implementation: Contractor Facility

| Installation Cost | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years | 1 / 1.072 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 |
| FY 2017 | - / - | 1 / 1.072 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 |
| FY 2018 | - / - | - / - | 1 / 1.072 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 |
| FY 2019 | - / - | - / - | - / - | 1 / 1.072 | - / - | 1 / 1.072 | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 |
| FY 2020 | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 | - / - | - / - | - / - | - / - | 1 / 1.072 |
| FY 2021 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 | - / - | - / - | - / - | 1 / 1.072 |
| FY 2022 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 | - / - | - / - | 1 / 1.072 |
| FY 2023 | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | 1 / 1.072 | - / - | 1 / 1.072 |
| To Complete | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | 1 / 1.072 | - / - | 8 / 8.576 |

Installation Schedule

| | PYS | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| In | 1 | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | 0 | 8 |
| Out | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | - | - | - | 1 | 0 | 8 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects | P-1 Line Item Number / Title: 846080 / DCGS-AF |
|--|--|

| | | |
|--|--|---|
| ID Code (A=Service Ready, B=Not Service Ready): B | Program Elements for Code B Items: 0305208F | Other Related Program Elements: 0305208F |
|--|--|---|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 237.455 | 187.623 | 448.290 | 2.000 | 450.290 | 150.455 | 153.206 | 155.923 | 158.697 | - | 1,493.649 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 237.455 | 187.623 | 448.290 | 2.000 | 450.290 | 150.455 | 153.206 | 155.923 | 158.697 | - | 1,493.649 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 237.455 | 187.623 | 448.290 | 2.000 | 450.290 | 150.455 | 153.206 | 155.923 | 158.697 | - | 1,493.649 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Air Force Distributed Common Ground System (AF DCGS)/PE0305208F is the Combat Air Force (CAF) weapon system architecture for planning and direction, collection, processing and exploitation, analysis and production, and dissemination (PCPAD) of data from Intelligence, Surveillance, and Reconnaissance (ISR) missions. Since AF DCGS is also a major component of the DoD DCGS, the system is designed to complement and interoperate with the DoD, Army, Navy and Marine Corps DCGS. The AF DCGS mission is to provide Joint Task Force (JTF) Commanders, Air Component Commanders, Unified Commands, and other directed organizations with global, time-sensitive ISR PCPAD across the spectrum of military operations. AF DCGS is a multi-INT network linked weapon system (AN/GSQ-272) capable of exploiting intelligence data from manned platforms, remotely piloted aircraft (RPA), non-traditional ISR platforms, national and commercial satellites, and other collection systems. AF DCGS is designed to support joint operational requirements by providing a common PCPAD means to provide time-sensitive intelligence to field commanders and in support of the Air Operations Center (AOC) mission requirements. Currently, the AF DCGS worldwide architecture is composed of two worldwide core sites, three regional core sites, two remote Air Force Forces (AF FOR) sites, four National Mission Partner (NMP) sites, three support sites, and multiple National Guard Bureau (NGB) sites. Currently, AF DCGS is supporting ongoing operations from forward deployed and in-garrison CONUS and OCONUS based locations. The system employs a concept of data distribution, information sharing and collaborative work centers. AF DCGS provides the national leadership and the warfighter with integrated and interoperable national and airborne reconnaissance by providing quality and fused Signals Intelligence (SIGINT), Measurement and Signature Intelligence (MASINT), and Geospatial Intelligence (GEOINT) tailored to the warfighter for all levels of conflict.

AF DCGS is transforming by integrating the necessary technologies and tools to provide increased capabilities and meet emerging and urgent operational needs. These efforts will also integrate commercial-off-the-shelf and government-off-the-shelf upgrades to provide current technologies and achieve necessary application services. The next series of upgrades will meet the operational need to integrate new and/or improved sensor capabilities, as well as enhance interoperability by migrating to an Open Architecture (OA) to improve data sharing ability per DoD direction.

AF DCGS is managed in eight efforts: GEOINT (GB 4.1), GEOINT Transformation, Systems Release (SR 3.0), SIGINT Transformation, Sensor Integration, Multi-INT, Infrastructure Transformation, and DCGS Reference Imagery Transition (DRT):

1. GB 4.1: The GEOINT Baseline 4.1 (GB4.1) effort completes the Bulk Release process and provides a common baseline across the weapon system. It also integrates Airborne Cuing and Exploitation System, Hyper Spectral ACES-HY (MQ-1) and Global Hawk Block 40 capability into AF DCGS.
2. GEOINT Transformation: The GEOINT Transformation effort rapidly integrates new capabilities and migrates GEOINT-specific applications & capabilities into the open architecture framework.
3. *SR 3.0: The Systems Release (3.0) effort completes SIGINT Bulk Release process and provides a common baseline across the weapon system. Provides the ability to PCPAD the Airborne Signals Intelligence Payload (ASIP) family of systems and integrates the Common Intelligence Collections System (CICS) capability.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects | P-1 Line Item Number / Title: 846080 / DCGS-AF |
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|--|--|---|
| ID Code (A=Service Ready, B=Not Service Ready): B | Program Elements for Code B Items: 0305208F | Other Related Program Elements: 0305208F |
|--|--|---|

Line Item MDAP/MAIS Code: N/A

- 4. SIGINT Transformation: Rapidly integrate new capabilities, leverage mission partner methods and tools, exchange data, and migrate the SIGINT-specific applications/capabilities into the open architecture framework.
- 5. Sensor Integration: The Sensor Integration effort rapidly integrates AF, Joint, & Coalition Sensor data into DCGS Enterprise to ingest data, perform sensor planning, and Command & Control.
- 6. Multiple-Intelligence(Multi-INT): Provides and supports Open Architecture-based Enterprise Services, moves to commodity hardware, a virtual desktop environment, and facilitates enterprise-wide collaborative tools.
- 7. Network Infrastructure Transformation: The Infrastructure Transformation effort modernizes the AF DCGS infrastructure to improve data ingest, transfer, and storage capabilities while migrating the network toward a cloud architecture.
- 8. DRT: The Air Force DCGS Reference Imagery Transition (DRT) effort provides data ingest, transfer, and storage capabilities for NGA reference imagery data.

Detailed information on PE 0305240F, Support to DoD DCGS Enterprise remains classified and will be provided on a need-to-know basis.

Funding for this exhibit Line Item # 846080 is contained in PEs 0305208F and 0305240F.

FY17 funding totals include \$0.8M for Overseas Contingence Operations

FY18 funding totals include \$9.2M for Overseas Contingence Operations

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Program Management Administration (PMA): FY19 funding permits the System Program Office (SPO) to support the fielding and installation of new and developing capabilities. This includes the initial bed down and operability testing, technical interchange meetings, and events incident to fielding both hardware and software products, and maintaining configuration control of fielded products.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|-----------------------------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|
| AF | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 229.955 | 177.023 | 433.990 | 2.000 | 435.990 | 128.537 | 130.886 | 133.207 | 135.577 |
| AFNG | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 7.500 | 10.600 | 14.300 | 0.000 | 14.300 | 0.000 | 0.000 | 0.000 | 0.000 |
| AFR | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | - | - | - |
| Total: Secondary Distribution | Quantity | 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| | Total Obligation Authority | 237.455 | 187.623 | 448.290 | 2.000 | 450.290 | 128.537 | 130.886 | 133.207 | 135.577 |

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects **P-1 Line Item Number / Title:** 846080 / DCGS-AF

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305208F **Other Related Program Elements:** 0305208F

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Distributed Common Ground/Surface Systems | | | | - / 0.000 | - / 24.428 | - / 5.747 | - / 0.000 | - / 0.000 | - / 0.000 |
| P-3a | 1 / GEOINT Transformation (GEOINT) (Reliability & Maintainability) | | B | | - / - | - / 9.897 | - / 26.809 | - / 11.393 | - / 0.000 | - / 11.393 |
| P-3a | 2 / Network Infrastructure Transformation (Reliability & Maintainability) | | B | | - / - | - / 103.066 | - / 82.506 | - / 362.494 | - / 0.000 | - / 362.494 |
| P-3a | 3 / Multi-Intelligence (Multi-INT) (Reliability & Maintainability) | | B | | - / - | - / 10.122 | - / 17.688 | - / 16.006 | - / 0.000 | - / 16.006 |
| P-3a | 4 / Sensor Integration (Reliability & Maintainability) | | B | | - / - | - / 20.336 | - / 9.003 | - / 21.568 | - / 0.000 | - / 21.568 |
| P-3a | 5 / Signals Intelligence (SIGINT) (Reliability & Maintainability) | | B | | - / - | - / 6.839 | - / 24.577 | - / 15.309 | - / 0.000 | - / 15.309 |
| P-40a | Support to DCGS Enterprise | | | | - / - | - / 62.767 | - / 21.293 | - / 21.520 | - / 2.000 | - / 23.520 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 237.455 | - / 187.623 | - / 448.290 | - / 2.000 | - / 450.290 |

| Exhibits Schedule | | | | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a | Distributed Common Ground/Surface Systems | | | | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 30.175 |
| P-3a | 1 / GEOINT Transformation (GEOINT) (Reliability & Maintainability) | | B | | - / 6.690 | - / 6.890 | - / 7.090 | - / 17.880 | - / - | - / 86.649 |
| P-3a | 2 / Network Infrastructure Transformation (Reliability & Maintainability) | | B | | - / 69.370 | - / 65.621 | - / 66.409 | - / 68.491 | - / - | - / 817.957 |
| P-3a | 3 / Multi-Intelligence (Multi-INT) (Reliability & Maintainability) | | B | | - / 18.812 | - / 28.559 | - / 29.561 | - / 9.716 | - / - | - / 130.464 |
| P-3a | 4 / Sensor Integration (Reliability & Maintainability) | | B | | - / 8.348 | - / 4.174 | - / 4.174 | - / 31.510 | - / - | - / 99.113 |
| P-3a | 5 / Signals Intelligence (SIGINT) (Reliability & Maintainability) | | B | | - / 25.317 | - / 25.642 | - / 25.973 | - / 7.980 | - / - | - / 131.637 |
| P-40a | Support to DCGS Enterprise | | | | - / - | - / - | - / - | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 150.455 | - / 153.206 | - / 155.923 | - / 158.697 | - / - | - / 1,493.649 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | | Date: February 2018 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | | | | Aggregated Modification Items Title: Distributed Common Ground/Surface Systems | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| DCGS1 / Geospatial Intelligence Bulk Release (GB) 4.1 | | | - | - | - | - | - | 0.010 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.010 | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | 0.000 |
| DCGS13 / NASIC | | | - | - | - | - | - | 0.800 | - | - | 1.800 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 0.800 | | - | 1.800 | | - | 0.000 | | - | 0.000 | | - | 0.000 |
| DCGS6 / System Release (SR) 3.0 | | | - | - | - | - | - | 5.018 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 5.018 | | - | 0.000 | | - | 0.000 | | - | - | | - | 0.000 |
| DCGS8 / DCGS Reference Imagery Transition (DRT) | | | - | - | - | - | - | 18.600 | - | - | 3.947 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | - | | - | 18.600 | | - | 3.947 | | - | 0.000 | | - | 0.000 | | - | 0.000 |
| Total | | | - | - | 0.000 | - | - | 24.428 | - | - | 5.747 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| DCGS1 / Geospatial Intelligence Bulk Release (GB) 4.1 | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 0.010 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - |
| DCGS13 / NASIC | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 2.600 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - |
| DCGS6 / System Release (SR) 3.0 | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 5.018 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - |
| DCGS8 / DCGS Reference Imagery Transition (DRT) | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | - | - | - | 22.547 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | 0.000 | | - | - | | - | - |

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| Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Air Force | | | | | | | | | | | | | | Date: February 2018 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | | | Aggregated Modification Items Title: Distributed Common Ground/Surface Systems | | | | | |

| Item Number / Title | ID CD | MDAP/MAIS Code | FY 2020 | | | FY 2021 | | | FY 2022 | | | FY 2023 | | | To Complete | | | Total Cost | | |
|---------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Total | | | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 30.175 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

| Item Number / Title | Models of Systems Affected | Modification Type |
|---|----------------------------|-------------------------------|
| DCGS1 / Geospatial Intelligence Bulk Release (GB) 4.1 | 0305208F | Reliability & Maintainability |
| DCGS13 / NASIC | 0305208F | Reliability & Maintainability |
| DCGS6 / System Release (SR) 3.0 | 0305208F | Reliability & Maintainability |
| DCGS8 / DCGS Reference Imagery Transition (DRT) | 0305208F | Reliability & Maintainability |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846080 / DCGS-AF | Modification Number / Title: 1 / GEOINT Transformation (GEOINT) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|-------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 | - | 86.649 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 | - | 86.649 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 | - | 86.649 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Geospatial Intelligence (GEOINT) Transformation effort rapidly integrates new capabilities and migrates GEOINT-specific applications & capabilities into the open architecture framework. Furthermore, GEOINT Transformation provides continuous and incremental improvement to the capability for planning and direction, collection, processing and exploitation, analysis and production, and dissemination (PCPAD) of advanced imagery intelligence. GEOINT Transformation builds upon GB4.1 to integrate new sensors, provide enhanced processing techniques, and provide imagery analysts the advanced capability to exploit, analyze, produce, and disseminate imagery.

Justification:

AF DCGS's GEOINT program's main focus is the procurement and fielding of proven technologies for multiple programs including GEOINT Transformation. The GEOINT Transformation leverages an agile infrastructure to use modern information technology (IT) practices and sets the stage from which to accomplish the goals of the AF DCGS architecture roadmap in manageable increments. GEOINT Transformation builds on the GB4.1 foundation to provide enhanced front-end image processing and advanced exploitation tools, which improve the timeliness and quality of GEOINT products, making them more useful to the war-fighter while simultaneously reducing the workload on the DCGS operator.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|-----------------------------------|--------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|---------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | | Date: February 2018 | |
|---|--------------------------------|--------------------------------|---|--|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | Modification Number / Title: 1 / GEOINT Transformation (GEOINT) | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: DCGS | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> GEOINT Transformation | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | |
| GEOINT Transformation:EQUIPMENT Group B (Active) | - / - | 0 / 8.759 | - / 25.872 | - / 10.900 | - / 0.000 | - / 10.900 | - / 6.400 | - / 6.600 | - / 6.800 | - / 17.880 | - / - | 0 / 83.211 |
| <i>Subtotal: Recurring</i> | - / - | - / 8.759 | - / 25.872 | - / 10.900 | - / 0.000 | - / 10.900 | - / 6.400 | - / 6.600 | - / 6.800 | - / 17.880 | - / - | - / 83.211 |
| <i>Subtotal: GEOINT Transformation</i> | - / - | - / 8.759 | - / 25.872 | - / 10.900 | - / 0.000 | - / 10.900 | - / 6.400 | - / 6.600 | - / 6.800 | - / 17.880 | - / - | - / 83.211 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 8.759 | - / 25.872 | - / 10.900 | - / 0.000 | - / 10.900 | - / 6.400 | - / 6.600 | - / 6.800 | - / 17.880 | - / - | - / 83.211 |
| Support (All Modification Items) | | | | | | | | | | | | |
| PMA - Other Gov't Costs | - / - | - / 0.035 | - / 0.045 | - / 0.024 | - / 0.000 | - / 0.024 | - / 0.014 | - / 0.014 | - / 0.014 | - / 0.000 | - / - | - / 0.146 |
| PMA - Contractor Services | - / - | - / 1.103 | - / 0.892 | - / 0.469 | - / 0.000 | - / 0.469 | - / 0.276 | - / 0.276 | - / 0.276 | - / 0.000 | - / - | - / 3.292 |
| ICS-Labor | - / - | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | - / 0.000 |
| <i>Subtotal: Support</i> | - / - | - / 1.138 | - / 0.937 | - / 0.493 | - / 0.000 | - / 0.493 | - / 0.290 | - / 0.290 | - / 0.290 | - / 0.000 | - / - | - / 3.438 |
| Installation | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 9.897 | 26.809 | 11.393 | 0.000 | 11.393 | 6.690 | 6.890 | 7.090 | 17.880 | - | 86.649 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | Modification Number / Title: 1 / GEOINT Transformation (GEOINT) | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: GEOINT Transformation | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Various | | | | Manufacturer Location: Robins AFB | | | |
| Administrative Leadtime (in Months): 0 | | | | Production Leadtime (in Months): 0 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | | | | | | | |
| Delivery Dates | | | | | | | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 0 | | |
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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846080 / DCGS-AF | Modification Number / Title: 2 / Network Infrastructure Transformation |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|---------------|----------------|--------------|----------------|---------------|---------------|---------------|---------------|-------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 | - | 817.957 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 | - | 817.957 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 | - | 817.957 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Infrastructure Transformation effort modernizes the AF DCGS infrastructure to improve data ingest, transfer, and storage capabilities while migrating the network toward a cloud architecture. Furthermore, the Infrastructure Transformation program adds capabilities to the baseline of the FOC weapon system already fielded and does not replace it.

Justification:

AF DCGS's Network Infrastructure Transformation program's main focus is the procurement and fielding of proven technologies for network communications, centralized storage of imagery and full motion video, communication modernization, demilitarized zone, weapon system trainer, and x86 infrastructure and addresses diminishing manufacturing sources (DMS) weapons system issues. This program will continue to deliver an integrated net-centric upgrade to the network communications infrastructure; and address any other DMS issues that are identified with legacy systems/components that AF DCGS must interface with. Additionally, upgrades will meet the operational need to store and disseminate new and/or improved sensor data, and enhance interoperability by migrating to an open architecture construct and improving data sharing ability in compliance with DoD direction.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|-----------------------------------|----------------|---------------|----------------|--------------|----------------|---------------|---------------|---------------|---------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 95.566 | 71.906 | 348.194 | - | 348.194 | 69.370 | 65.621 | 66.409 | 68.491 |
| AFNG | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 7.500 | 10.600 | 14.300 | - | 14.300 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total: | Quantity | - | - | - | - | - | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | Modification Number / Title: 2 / Network Infrastructure Transformation | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: 0305208F | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: Network Infrastructure</i> | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| Network Infrastructure:EQUIPMENT Group B (Active) | - / - | 0 / 92.471 | - / 68.949 | - / 345.120 | - / - | - / 345.120 | - / 66.064 | - / 62.547 | - / 62.697 | - / 68.491 | - / - | 0 / 766.339 | |
| Network Infrastructure:EQUIPMENT Group B (Guard) | - / - | 0 / 7.500 | - / 10.600 | - / 14.300 | - / - | - / 14.300 | - / 0.000 | - / 0.000 | - / 0.000 | - / 0.000 | - / - | 0 / 32.400 | |
| <i>Subtotal: Recurring</i> | - / - | - / 99.971 | - / 79.549 | - / 359.420 | - / - | - / 359.420 | - / 66.064 | - / 62.547 | - / 62.697 | - / 68.491 | - / - | - / 798.739 | |
| <i>Subtotal: Network Infrastructure</i> | - / - | - / 99.971 | - / 79.549 | - / 359.420 | - / - | - / 359.420 | - / 66.064 | - / 62.547 | - / 62.697 | - / 68.491 | - / - | - / 798.739 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 99.971 | - / 79.549 | - / 359.420 | - / - | - / 359.420 | - / 66.064 | - / 62.547 | - / 62.697 | - / 68.491 | - / - | - / 798.739 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| PMA - Other Gov't Costs | - / - | - / 0.175 | - / 0.103 | - / 0.108 | - / - | - / 0.108 | - / 0.116 | - / 0.108 | - / 0.130 | - / 0.000 | - / - | - / 0.740 | |
| PMA - Contractor Services | - / - | - / 2.920 | - / 2.854 | - / 2.966 | - / - | - / 2.966 | - / 3.190 | - / 2.966 | - / 3.582 | - / 0.000 | - / - | - / 18.478 | |
| <i>Subtotal: Support</i> | - / - | - / 3.095 | - / 2.957 | - / 3.074 | - / - | - / 3.074 | - / 3.306 | - / 3.074 | - / 3.712 | - / 0.000 | - / - | - / 19.218 | |
| Installation | | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 103.066 | 82.506 | 362.494 | 0.000 | 362.494 | 69.370 | 65.621 | 66.409 | 68.491 | - | 817.957 | |

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|---|----------------|----------------|--|---|---------------------------------|--|----------------|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | Modification Number / Title: 2 / Network Infrastructure Transformation | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: Network Infrastructure | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Various | | | | Manufacturer Location: Various | | | |
| Administrative Leadtime (<i>in Months</i>): 0 | | | | Production Leadtime (<i>in Months</i>): 0 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | | | | | | | |
| Delivery Dates | | | | | | | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 0 | | |
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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846080 / DCGS-AF | Modification Number / Title: 3 / Multi-Intelligence (Multi-INT) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|--|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|-------------|----------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 | - | 130.464 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 | - | 130.464 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 | - | 130.464 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Provides and supports Open Architecture-based Enterprise Services, moves the weapon system to commodity hardware, a virtual desktop environment, and facilitates enterprise-wide collaborative tools. The Open Architecture (OA) consists of segment agnostic x86-based hardware workstations capable of supporting the Virtual Desktop Environment to facilitate both Imagery intelligence (IMINT) and SIGINT segment specific software applications; and an enterprise crew communications with Beyond Line of Sight/Line of Sight (BLOS/LOS) voice and data link connectivity between airborne ISR crews and AF DCGS operators.

Justification:

This effort continues to deliver sustained/modernized Multi-INT capabilities, and addresses any other issues that are identified with other legacy systems/components that AF DCGS must interface with. Additionally, upgrades will meet the operational need to integrate new and/or improved sensor capabilities and storage and architecture requirements to support the AF DCGS enterprise and enhance interoperability by migrating to an OA construct to improve information sharing and compliance with DoD direction.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|-----------------------------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | | |
|---|--------------------------------|--------------------------------|--------------------------------|---|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | Modification Number / Title: 3 / Multi-Intelligence (Multi-INT) | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | | |
| Models of Systems Affected: 0305208F | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: | | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total | |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | |
| Procurement | | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: Multi-Int Upgrades</i> | | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | | |
| Multi-Int Upgrades:EQUIPMENT Group B (Active) | - / - | 0 / 8.723 | - / 17.190 | - / 15.310 | - / 0.000 | - / 15.310 | - / 18.000 | - / 27.341 | - / 28.981 | - / 9.716 | - / - | 0 / 125.261 | |
| <i>Subtotal: Recurring</i> | - / - | - / 8.723 | - / 17.190 | - / 15.310 | - / 0.000 | - / 15.310 | - / 18.000 | - / 27.341 | - / 28.981 | - / 9.716 | - / - | - / 125.261 | |
| <i>Subtotal: Multi-Int Upgrades</i> | - / - | - / 8.723 | - / 17.190 | - / 15.310 | - / 0.000 | - / 15.310 | - / 18.000 | - / 27.341 | - / 28.981 | - / 9.716 | - / - | - / 125.261 | |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 8.723 | - / 17.190 | - / 15.310 | - / 0.000 | - / 15.310 | - / 18.000 | - / 27.341 | - / 28.981 | - / 9.716 | - / - | - / 125.261 | |
| Support (All Modification Items) | | | | | | | | | | | | | |
| PMA - Other Gov't Costs | - / - | - / 0.069 | - / 0.032 | - / 0.045 | - / - | - / 0.045 | - / 0.053 | - / 0.079 | - / 0.038 | - / - | - / - | - / 0.316 | |
| PMA - Contractor Services | - / - | - / 1.330 | - / 0.466 | - / 0.651 | - / - | - / 0.651 | - / 0.759 | - / 1.139 | - / 0.542 | - / - | - / - | - / 4.887 | |
| <i>Subtotal: Support</i> | - / - | - / 1.399 | - / 0.498 | - / 0.696 | - / - | - / 0.696 | - / 0.812 | - / 1.218 | - / 0.580 | - / - | - / - | - / 5.203 | |
| Installation | | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | |
| Total | | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 10.122 | 17.688 | 16.006 | 0.000 | 16.006 | 18.812 | 28.559 | 29.561 | 9.716 | - | 130.464 | |

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|---|----------------|----------------|--|------------------------------------|---------------------------------|---|----------------|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | Modification Number / Title: 3 / Multi-Intelligence (Multi-INT) | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: Multi-Int Upgrades | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Various | | | | Manufacturer Location: Various | | | |
| Administrative Leadtime (in Months): 0 | | | | Production Leadtime (in Months): 0 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | | | | | | | |
| Delivery Dates | | | | | | | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 0 | | |
| | | | | | | | |

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

| | | |
|---|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846080 / DCGS-AF | Modification Number / Title: 4 / Sensor Integration |
|---|--|---|

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|---------------|-------------|---------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 | - | 99.113 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 | - | 99.113 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 | - | 99.113 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Sensor Integration effort rapidly integrates AF, Joint, and Coalition Sensor data into DCGS Enterprise to ingest data, perform sensor planning, and Command and Control.

Justification:

AF DCGS's Sensor Integration (SI) program main focus is the rapid integration of AF joint and coalition sensor data into the weapon system for PCPAD for dissemination of ISR data in-support of real-time combat operations. The SI capability also provides the weapon system the ability to perform sensor planning and command and control.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

| Secondary Distribution | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|-------------------------------|---------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|---------------|
| AF | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | 20.336 | 9.003 | 21.568 | - | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 |
| Total: | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Secondary Distribution | | | | | | | | | |
| Total Obligation Authority | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|---|--------------------------------|--------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | | Modification Number / Title: 4 / Sensor Integration | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | |
| Models of Systems Affected: 0305208F | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: 0305208F | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement | | | | | | | | | | | | |
| <i>Modification Item 1 of 1: Sensor Integration</i> | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | |
| Sensor Integration:EQUIPMENT Group B (Active) | - / - | 0 / 19.446 | - / 8.300 | - / 20.640 | - / - | - / 20.640 | - / 8.000 | - / 4.000 | - / 4.000 | - / 31.510 | - / - | 0 / 95.896 |
| <i>Subtotal: Recurring</i> | - / - | - / 19.446 | - / 8.300 | - / 20.640 | - / - | - / 20.640 | - / 8.000 | - / 4.000 | - / 4.000 | - / 31.510 | - / - | - / 95.896 |
| <i>Subtotal: Sensor Integration</i> | - / - | - / 19.446 | - / 8.300 | - / 20.640 | - / - | - / 20.640 | - / 8.000 | - / 4.000 | - / 4.000 | - / 31.510 | - / - | - / 95.896 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 19.446 | - / 8.300 | - / 20.640 | - / - | - / 20.640 | - / 8.000 | - / 4.000 | - / 4.000 | - / 31.510 | - / - | - / 95.896 |
| Support (All Modification Items) | | | | | | | | | | | | |
| PMA - Contractor Services | - / - | - / 0.890 | - / 0.654 | - / 0.864 | - / - | - / 0.864 | - / 0.324 | - / 0.162 | - / 0.162 | - / - | - / - | - / 3.056 |
| PMA - Other Gov't Costs | - / - | - / 0.000 | - / 0.049 | - / 0.064 | - / - | - / 0.064 | - / 0.024 | - / 0.012 | - / 0.012 | - / - | - / - | - / 0.161 |
| <i>Subtotal: Support</i> | - / - | - / 0.890 | - / 0.703 | - / 0.928 | - / - | - / 0.928 | - / 0.348 | - / 0.174 | - / 0.174 | - / - | - / - | - / 3.217 |
| Installation | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 20.336 | 9.003 | 21.568 | 0.000 | 21.568 | 8.348 | 4.174 | 4.174 | 31.510 | - | 99.113 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | Modification Number / Title: 4 / Sensor Integration | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: Sensor Integration | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: Various | | | | Manufacturer Location: Various | | | |
| Administrative Leadtime (in Months): 0 | | | | Production Leadtime (in Months): 0 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | | | | | | | |
| Delivery Dates | | | | | | | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 0 | | |
| | | | | | | | |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | Date: February 2018 |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | P-1 Line Item Number / Title: 846080 / DCGS-AF | Modification Number / Title: 5 / Signals Intelligence (SIGINT) |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|--------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|--------------------|----------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 | - | 131.637 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 | - | 131.637 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 | - | 131.637 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Signal Intelligence (SIGINT) Transformation effort rapidly integrates new capabilities, leverage mission partner methods and tools, exchange data, and migrates the SIGINT-specific applications/capabilities to the open architecture framework. The SIGINT Segment provides command and control (C2) of ISR sensors, data processing, and data distribution to the customers in near real time from connected sensors at both core and remote sites.

Justification:

AF DCGS SIGINT Transformation's main focus is AF DCGS connectivity to NSANET. In order to accomplish this, SIGINT modernization must take place within the OA DCGS environment. This includes migration of SR3.0 software to an X86 environment and SIGINT workstation modernization. The NSANET project consists of SIGINT Ops on United States Cryptologic System (USCS) network, streaming special signal audio onto NSA domain for DMS sites, AF DCGS near real time tactical capabilities, DCGS/Rivet Joint (RJ) weapons system interoperability, automated language and speaker identification, AF DCGS demultiplexing capability and providing DMS sites with NSANET connectivity.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

| Secondary Distribution | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|----------------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|
| AF | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 |
| Total: Secondary Distribution | Quantity | - | - | - | - | - | - | - | - | - |
| | Total Obligation Authority | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 |

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| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | | | | | Date: February 2018 | | |
|---|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--------------------------------|--------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | | | | Modification Number / Title: 5 / Signals Intelligence (SIGINT) | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | | MDAP/MAIS Code: | | | | | |
| Models of Systems Affected: 0305208F | | | | Modification Type: Reliability & Maintainability | | | | Related RDT&E PEs: 0305208F | | | | |
| Financial Plan | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
| | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement | | | | | | | | | | | | |
| <i>Modification Item 1 of 1:</i> Signals Intelligence Transformation | | | | | | | | | | | | |
| B Kits | | | | | | | | | | | | |
| Recurring | | | | | | | | | | | | |
| Signals Intelligence Transformation:EQUIPMENT Group B (Active) | - / - | 0 / 6.250 | - / 23.962 | 0 / 14.700 | - / 0.000 | 0 / 14.700 | 0 / 24.273 | 0 / 24.598 | 0 / 24.929 | - / 7.980 | - / - | 0 / 126.692 |
| <i>Subtotal: Recurring</i> | - / - | - / 6.250 | - / 23.962 | - / 14.700 | - / 0.000 | - / 14.700 | - / 24.273 | - / 24.598 | - / 24.929 | - / 7.980 | - / - | - / 126.692 |
| <i>Subtotal: Signals Intelligence Transformation</i> | - / - | - / 6.250 | - / 23.962 | - / 14.700 | - / 0.000 | - / 14.700 | - / 24.273 | - / 24.598 | - / 24.929 | - / 7.980 | - / - | - / 126.692 |
| <i>Subtotal: Procurement, All Modification Items</i> | - / - | - / 6.250 | - / 23.962 | - / 14.700 | - / 0.000 | - / 14.700 | - / 24.273 | - / 24.598 | - / 24.929 | - / 7.980 | - / - | - / 126.692 |
| Support (All Modification Items) | | | | | | | | | | | | |
| PMA - Contractor Services | - / - | - / 0.589 | - / 0.596 | - / 0.019 | - / - | - / 0.019 | - / 1.012 | - / 1.012 | - / 1.012 | - / - | - / - | - / 4.240 |
| PMA - Other Gov't Costs | - / - | - / 0.000 | - / 0.019 | - / 0.590 | - / - | - / 0.590 | - / 0.032 | - / 0.032 | - / 0.032 | - / - | - / - | - / 0.705 |
| <i>Subtotal: Support</i> | - / - | - / 0.589 | - / 0.615 | - / 0.609 | - / - | - / 0.609 | - / 1.044 | - / 1.044 | - / 1.044 | - / - | - / - | - / 4.945 |
| Installation | | | | | | | | | | | | |
| <i>Subtotal: Installation</i> | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - | - / - |
| Total | | | | | | | | | | | | |
| Total Cost (Procurement + Support + Installation) | - | 6.839 | 24.577 | 15.309 | 0.000 | 15.309 | 25.317 | 25.642 | 25.973 | 7.980 | - | 131.637 |

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|---|----------------|----------------|--|------------------------------------|---------------------------------|--|----------------|
| Exhibit P-3a, Individual Modification: PB 2019 Air Force | | | | | | Date: February 2018 | |
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 | | | P-1 Line Item Number / Title: 846080 / DCGS-AF | | | Modification Number / Title: 5 / Signals Intelligence (SIGINT) | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | MDAP/MAIS Code: | | |
| Modification Item 1 of 1: Signals Intelligence Transformation | | | | | | | |
| Manufacturer Information | | | | | | | |
| Manufacturer Name: various | | | | Manufacturer Location: various | | | |
| Administrative Leadtime (in Months): 0 | | | | Production Leadtime (in Months): 0 | | | |
| Dates | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Contract Dates | | | | | | | |
| Delivery Dates | | | | | | | |
| Installation Information | | | | | | | |
| Method of Implementation (Organic): Org/Intermediate | | | | | Installation Quantity: 0 | | |
| | | | | | | | |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 **P-1 Line Item Number / Title:** 846080 / DCGS-AF **Aggregated Items Title:** Support to DCGS Enterprise

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2017 | | | FY 2018 | | | FY 2019 Base | | | FY 2019 OCO | | | FY 2019 Total | | |
|---|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | | | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| Support to DCGS Enterprise | | | | | | | | | | | | | | | | | | | | |
| Imagery Processing | A | | - | - | - | - | - | 3.532 | - | - | 3.611 | - | - | 3.671 | - | - | 0.000 | - | - | 3.671 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 3.532 | - | - | 3.611 | - | - | 3.671 | - | - | 0.000 | - | - | 3.671 |
| Extended Tether Program | A | | - | - | - | - | - | 18.635 | - | - | 9.813 | - | - | 9.888 | - | - | 2.000 | - | - | 11.888 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 18.635 | - | - | 9.813 | - | - | 9.888 | - | - | 2.000 | - | - | 11.888 |
| Wide Area Networks/ Networks | A | | - | - | - | - | - | 7.700 | - | - | 7.869 | - | - | 7.961 | - | - | 0.000 | - | - | 7.961 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 7.700 | - | - | 7.869 | - | - | 7.961 | - | - | 0.000 | - | - | 7.961 |
| Deployable Surface Terminal | A | | - | - | - | - | - | 32.900 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| <i>Secondary Distribution</i> | | | | | | | | | | | | | | | | | | | | |
| AF | | | - | - | - | - | - | 32.900 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 | - | - | 0.000 |
| Subtotal: Support to DCGS Enterprise | | | - | - | - | - | - | 62.767 | - | - | 21.293 | - | - | 21.520 | - | - | 2.000 | - | - | 23.520 |
| Total | | | - | - | - | - | - | 62.767 | - | - | 21.293 | - | - | 21.520 | - | - | 2.000 | - | - | 23.520 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects | P-1 Line Item Number / Title: 846510 / Special Update Program |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|-------------|------------------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | 689.710 | 840.980 | 913.813 | 0.000 | 913.813 | 721.943 | 794.307 | 850.429 | 883.501 | - | 5,694.683 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | 689.710 | 840.980 | 913.813 | 0.000 | 913.813 | 721.943 | 794.307 | 850.429 | 883.501 | - | 5,694.683 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | 689.710 | 840.980 | 913.813 | 0.000 | 913.813 | 721.943 | 794.307 | 850.429 | 883.501 | - | 5,694.683 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

Justification:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 05: Spares and Repair Parts / BSA 1: Spares And Repair Parts | P-1 Line Item Number / Title: 861900 / Spares and Repair Parts |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: 519

| Resource Summary | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|---|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
| <i>Procurement Quantity (Units in Each)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Gross/Weapon System Cost (\$ in Millions)</i> | - | 16.600 | 26.675 | 86.365 | 0.000 | 86.365 | 23.248 | 21.757 | 33.673 | 12.352 | 0.000 | 220.670 |
| <i>Less PY Advance Procurement (\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Net Procurement (P-1) (\$ in Millions)</i> | - | 16.600 | 26.675 | 86.365 | 0.000 | 86.365 | 23.248 | 21.757 | 33.673 | 12.352 | 0.000 | 220.670 |
| <i>Plus CY Advance Procurement (\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 16.600 | 26.675 | 86.365 | 0.000 | 86.365 | 23.248 | 21.757 | 33.673 | 12.352 | 0.000 | 220.670 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <i>Initial Spares (\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Flyaway Unit Cost (\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Gross/Weapon System Unit Cost (\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Initial Spares consist of reparable components, assemblies, subassemblies, and consumable items required as initial stock (including readiness spares package requirements) in support of newly fielded vehicles, communications electronics and telecommunications equipment, and other base maintenance and support equipment items. Requirements are determined by applying established factors against the acquisition cost of the end items. The factors are based on historical data of similar equipment, employment/deployment concepts, production schedules, and other related information.

The following Major Defense Acquisition Programs (MDAP) have funding in this line:

National Airspace System
Wide Area Surveillance, 519

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 05: Spares and Repair Parts / BSA 1: Spares And Repair Parts

P-1 Line Item Number / Title:
861900 / Spares and Repair Parts

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 519

| Exhibits Schedule | | | | | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-18 | Spares and Repair Parts | | | | - / - | - / 16.600 | - / 26.675 | - / 86.365 | - / 0.000 | - / 86.365 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / 16.600 | - / 26.675 | - / 86.365 | - / 0.000 | - / 86.365 |

Title represents the P-18 Title for Spares.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
In FY2019 initial spares and repair parts will be procured for the following programs Air Traffic Control, Approach, and Landing System (ATCALs); Combat Training Range Equipment; Expeditionary Airfield Basing Assets; Information Systems Security Program; National Airspace System (NAS) Plan; and Deployable C3 Systems.

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| Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2019 Air Force | | | | | Date: February 2018 | |
|--|-------------------------------|--|---------------------------|--------------------------------|--|---------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 3080F / 05 / 1 | | P-1 Line Item Number / Title: 861900 / Spares and Repair Parts | | | Title: Spares and Repair Parts | |
| End Item Line Item Number / Name [MDAP/MAIS] | Prior Years (\$ M) | FY 2017 (\$ M) | FY 2018 (\$ M) | FY 2019 Base (\$ M) | FY 2019 OCO (\$ M) | FY 2019 Total (\$ M) |
| Initial | | | | | | |
| BA 05 - Spares and Repair Parts | | | | | | |
| 861900 / Air Traffic Control, Approach, and Landing System (ATCALs) | - | 4.964 | 4.751 | 1.074 | 0.000 | 1.074 |
| 861900 / Combat Training Range Equipment | - | 5.930 | 16.188 | 6.435 | 0.000 | 6.435 |
| 861900 / Deployable C3 Systems | - | 0.000 | 0.000 | 1.986 | 0.000 | 1.986 |
| 861900 / Expeditionary Airfield Basing Assets | - | 2.842 | 1.960 | 2.193 | 0.000 | 2.193 |
| 861900 / Information Systems Security Program | - | 1.687 | 2.588 | 0.937 | 0.000 | 0.937 |
| 861900 / Minimum Essential Emergency Communications Network (MEECN) | - | 0.000 | 0.000 | 73.740 | 0.000 | 73.740 |
| 861900 / NATIONAL AIR SPACE SYSTEM (NAS) PLAN | - | 0.000 | 0.247 | 0.000 | 0.000 | 0.000 |
| 861900 / NCMC-TW/AA SYSTEM | - | 0.458 | 0.000 | 0.000 | 0.000 | 0.000 |
| 861900 / Weather Observation/Forecast | - | 0.719 | 0.941 | 0.000 | 0.000 | 0.000 |
| Subtotal: Initial | - | 16.600 | 26.675 | 86.365 | 0.000 | 86.365 |
| Total Cost (Initial + Replenishment) | - | 16.600 | 26.675 | 86.365 | 0.000 | 86.365 |

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