

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2018 Budget Amendment**

November 2017



**Air Force**

*Justification Book Volume 1 of 1*

***Research, Development, Test & Evaluation, Air Force***

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Air Force • Budget Amendment FY 2018 • RDT&E Program

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Department of Defense  
 FY 2018 President's Budget Amendment  
 Exhibit R-1 FY 2018 President's Budget Amendment  
 Total Obligational Authority  
 (Dollars in Thousands)

06 Nov 2017

| Appropriation<br>-----                         | FY 2016<br>Base + OCO | FY 2017<br>Base<br>Enactment | FY 2017<br>OCO<br>Enactment | FY 2017<br>Total<br>(Base + OCO) |
|--|-----------------------|------------------------------|-----------------------------|----------------------------------|
| Research, Development, Test & Eval, AF         | 25,243,981            | 27,766,036                   | 365,205                     | 28,131,241                       |
| Total Research, Development, Test & Evaluation | 25,243,981            | 27,766,036                   | 365,205                     | 28,131,241                       |

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Department of Defense  
 FY 2018 President's Budget Amendment  
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 Total Obligational Authority  
 (Dollars in Thousands)

06 Nov 2017

| Appropriation                                  | FY 2018<br>Base<br>Request | FY 2018<br>June<br>Amendment<br>Base | FY 2018<br>Amendment<br>Emergency | FY 2018<br>OCO<br>Request | FY 2018<br>Amendment<br>OCO | FY 2018<br>Total<br>OCO | FY 2018<br>Grand Total |
|--|----------------------------|--------------------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------|------------------------|
| Research, Development, Test & Eval, AF         | 34,914,359                 |                                      | 255,744                           | 135,358                   |                             | 135,358                 | 35,305,461             |
| Total Research, Development, Test & Evaluation | 34,914,359                 |                                      | 255,744                           | 135,358                   |                             | 135,358                 | 35,305,461             |



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 FY 2018 President's Budget Amendment  
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 Total Obligational Authority  
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06 Nov 2017

| Summary Recap of Budget Activities<br>-----    | FY 2016<br>Base + OCO | FY 2017<br>Base<br>Enactment | FY 2017<br>OCO<br>Enactment | FY 2017<br>Total<br>(Base + OCO) |
|--|-----------------------|------------------------------|-----------------------------|----------------------------------|
| Basic Research                                 | 510,673               | 545,024                      |                             | 545,024                          |
| Applied Research                               | 1,241,501             | 1,325,652                    |                             | 1,325,652                        |
| Advanced Technology Development                | 675,737               | 807,705                      |                             | 807,705                          |
| Advanced Component Development & Prototypes    | 1,555,274             | 2,867,270                    | 13,700                      | 2,880,970                        |
| System Development & Demonstration             | 3,832,399             | 3,961,420                    | 18,425                      | 3,979,845                        |
| Management Support                             | 1,512,458             | 1,275,223                    |                             | 1,275,223                        |
| Operational Systems Development                | 15,915,939            | 16,983,742                   | 333,080                     | 17,316,822                       |
| Total Research, Development, Test & Evaluation | 25,243,981            | 27,766,036                   | 365,205                     | 28,131,241                       |
| <br>Summary Recap of FYDP Programs<br>-----    |                       |                              |                             |                                  |
| Strategic Forces                               | 551,805               | 617,561                      |                             | 617,561                          |
| General Purpose Forces                         | 1,608,073             | 2,072,138                    | 56,500                      | 2,128,638                        |
| Intelligence and Communications                | 1,605,446             | 1,839,698                    | 74,915                      | 1,914,613                        |
| Mobility Forces                                | 294,978               | 479,520                      | 12,000                      | 491,520                          |
| Research and Development                       | 8,916,417             | 9,827,315                    | 27,425                      | 9,854,740                        |
| Central Supply and Maintenance                 | 98,763                | 96,834                       |                             | 96,834                           |
| Training Medical and Other                     | 3,155                 | 3,114                        |                             | 3,114                            |
| Administration and Associated Activities       | 110,405               | 29,791                       |                             | 29,791                           |
| Support of Other Nations                       | 2,315                 | 4,784                        |                             | 4,784                            |

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Department of Defense  
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 (Dollars in Thousands)

06 Nov 2017

| Summary Recap of Budget Activities             | FY 2018<br>Base<br>Request | FY 2018<br>June<br>Amendment<br>Base | FY 2018<br>Amendment<br>Emergency | FY 2018<br>OCO<br>Request | FY 2018<br>Amendment<br>OCO | FY 2018<br>Total<br>OCO | FY 2018<br>Grand Total |
|--|----------------------------|--------------------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------|------------------------|
| Basic Research                                 | 505,259                    |                                      |                                   |                           |                             |                         | 505,259                |
| Applied Research                               | 1,284,114                  |                                      |                                   |                           |                             |                         | 1,284,114              |
| Advanced Technology Development                | 794,017                    |                                      |                                   |                           |                             |                         | 794,017                |
| Advanced Component Development & Prototypes    | 4,605,030                  |                                      | 90,500                            | 13,200                    |                             | 13,200                  | 4,708,730              |
| System Development & Demonstration             | 4,476,762                  |                                      |                                   |                           |                             |                         | 4,476,762              |
| Management Support                             | 2,663,875                  |                                      |                                   |                           |                             |                         | 2,663,875              |
| Operational Systems Development                | 20,585,302                 |                                      | 165,244                           | 122,158                   |                             | 122,158                 | 20,872,704             |
| Total Research, Development, Test & Evaluation | 34,914,359                 |                                      | 255,744                           | 135,358                   |                             | 135,358                 | 35,305,461             |
| Summary Recap of FYDP Programs                 |                            |                                      |                                   |                           |                             |                         |                        |
| Strategic Forces                               | 825,038                    |                                      |                                   |                           |                             |                         | 825,038                |
| General Purpose Forces                         | 2,962,365                  |                                      |                                   | 9,750                     |                             | 9,750                   | 2,972,115              |
| Intelligence and Communications                | 1,466,925                  |                                      | 90,500                            | 5,400                     |                             | 5,400                   | 1,562,825              |
| Mobility Forces                                | 602,629                    |                                      |                                   |                           |                             |                         | 602,629                |
| Research and Development                       | 10,713,989                 |                                      |                                   | 7,800                     |                             | 7,800                   | 10,721,789             |
| Central Supply and Maintenance                 | 109,419                    |                                      |                                   |                           |                             |                         | 109,419                |
| Training Medical and Other                     | 3,615                      |                                      |                                   |                           |                             |                         | 3,615                  |
| Administration and Associated Activities       | 121,899                    |                                      |                                   |                           |                             |                         | 121,899                |
| Support of Other Nations                       | 4,569                      |                                      |                                   |                           |                             |                         | 4,569                  |

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|--|-----------------------|------------------------------|-----------------------------|----------------------------------|
| Space  |                       |                              |                             |                                  |
| Classified Programs                            | 12,052,624            | 12,795,281                   | 194,365                     | 12,989,646                       |
| Total Research, Development, Test & Evaluation | 25,243,981            | 27,766,036                   | 365,205                     | 28,131,241                       |

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|--|----------------------------|--------------------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------|------------------------|
| Space  | 3,165,909                  |                                      |                                   |                           |                             |                         | 3,165,909              |
| Classified Programs                            | 14,938,002                 |                                      | 165,244                           | 112,408                   |                             | 112,408                 | 15,215,654             |
| Total Research, Development, Test & Evaluation | 34,914,359                 |                                      | 255,744                           | 135,358                   |                             | 135,358                 | 35,305,461             |

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| Applied Research                               | 1,241,501             | 1,325,652                    |                             | 1,325,652                        |
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|--|----------------------------|--------------------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------|------------------------|
| Space  | 3,165,909                  |                                      |                                   |                           |                             |                         | 3,165,909              |
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| Total Research, Development, Test & Evaluation | 34,914,359                 |                                      | 255,744                           | 135,358                   |                             | 135,358                 | 35,305,461             |



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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item  | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 1       | 0601102F               | Defense Research Sciences   | 01  | 365,276            | 380,812                |                       | 380,812                    | U  |
| 2       | 0601103F               | University Research Initiatives                                   | 01  | 132,526            | 150,044                |                       | 150,044                    | U  |
| 3       | 0601108F               | High Energy Laser Research Initiatives                            | 01  | 12,871             | 14,168                 |                       | 14,168                     | U  |
|         |                        | Basic Research  |     | 510,673            | 545,024                |                       | 545,024                    |    |
| 4       | 0602102F               | Materials   | 02  | 132,768            | 159,152                |                       | 159,152                    | U  |
| 5       | 0602201F               | Aerospace Vehicle Technologies                                    | 02  | 118,263            | 132,831                |                       | 132,831                    | U  |
| 6       | 0602202F               | Human Effectiveness Applied Research                              | 02  | 108,784            | 111,647                |                       | 111,647                    | U  |
| 7       | 0602203F               | Aerospace Propulsion  | 02  | 184,498            | 195,671                |                       | 195,671                    | U  |
| 8       | 0602204F               | Aerospace Sensors   | 02  | 151,264            | 162,674                |                       | 162,674                    | U  |
| 9       | 0602298F               | Science and Technology Management - Major Headquarters Activities | 02  |                    |                        |                       |                            | U  |
| 10      | 0602601F               | Space Technology  | 02  | 107,442            | 117,915                |                       | 117,915                    | U  |
| 11      | 0602602F               | Conventional Munitions  | 02  | 105,296            | 109,649                |                       | 109,649                    | U  |
| 12      | 0602605F               | Directed Energy Technology  | 02  | 122,835            | 127,163                |                       | 127,163                    | U  |
| 13      | 0602788F               | Dominant Information Sciences and Methods                         | 02  | 171,196            | 166,650                |                       | 166,650                    | U  |
| 14      | 0602890F               | High Energy Laser Research  | 02  | 39,155             | 42,300                 |                       | 42,300                     | U  |
|         |                        | Applied Research  |     | 1,241,501          | 1,325,652              |                       | 1,325,652                  |    |
| 15      | 0603112F               | Advanced Materials for Weapon Systems                             | 03  | 38,238             | 53,137                 |                       | 53,137                     | U  |
| 16      | 0603199F               | Sustainment Science and Technology (S&T)                          | 03  | 17,323             | 20,636                 |                       | 20,636                     | U  |

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item  | Act | FY 2018 Base Request | FY 2018 June Amendment Base | FY 2018 Amendment Emergency | FY 2018 OCO Request | FY 2018 Amendment OCO | FY 2018 Total OCO | FY 2018 Grand Total | Se |
|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 1       | 0601102F               | Defense Research Sciences   | 01  | 342,919              |                             |                             |                     |                       |                   | 342,919             | U  |
| 2       | 0601103F               | University Research Initiatives                                   | 01  | 147,923              |                             |                             |                     |                       |                   | 147,923             | U  |
| 3       | 0601108F               | High Energy Laser Research Initiatives                            | 01  | 14,417               |                             |                             |                     |                       |                   | 14,417              | U  |
|         |                        | Basic Research  |     | 505,259              |                             |                             |                     |                       |                   | 505,259             |    |
| 4       | 0602102F               | Materials   | 02  | 124,264              |                             |                             |                     |                       |                   | 124,264             | U  |
| 5       | 0602201F               | Aerospace Vehicle Technologies                                    | 02  | 124,678              |                             |                             |                     |                       |                   | 124,678             | U  |
| 6       | 0602202F               | Human Effectiveness Applied Research                              | 02  | 108,784              |                             |                             |                     |                       |                   | 108,784             | U  |
| 7       | 0602203F               | Aerospace Propulsion  | 02  | 192,695              |                             |                             |                     |                       |                   | 192,695             | U  |
| 8       | 0602204F               | Aerospace Sensors   | 02  | 152,782              |                             |                             |                     |                       |                   | 152,782             | U  |
| 9       | 0602298F               | Science and Technology Management - Major Headquarters Activities | 02  | 8,353                |                             |                             |                     |                       |                   | 8,353               | U  |
| 10      | 0602601F               | Space Technology  | 02  | 116,503              |                             |                             |                     |                       |                   | 116,503             | U  |
| 11      | 0602602F               | Conventional Munitions  | 02  | 112,195              |                             |                             |                     |                       |                   | 112,195             | U  |
| 12      | 0602605F               | Directed Energy Technology  | 02  | 132,993              |                             |                             |                     |                       |                   | 132,993             | U  |
| 13      | 0602788F               | Dominant Information Sciences and Methods                         | 02  | 167,818              |                             |                             |                     |                       |                   | 167,818             | U  |
| 14      | 0602890F               | High Energy Laser Research  | 02  | 43,049               |                             |                             |                     |                       |                   | 43,049              | U  |
|         |                        | Applied Research  |     | 1,284,114            |                             |                             |                     |                       |                   | 1,284,114           |    |
| 15      | 0603112F               | Advanced Materials for Weapon Systems                             | 03  | 37,856               |                             |                             |                     |                       |                   | 37,856              | U  |
| 16      | 0603199F               | Sustainment Science and Technology (S&T)                          | 03  | 22,811               |                             |                             |                     |                       |                   | 22,811              | U  |

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item  | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 17      | 0603203F               | Advanced Aerospace Sensors                          | 03  | 39,794             | 40,945                 |                       | 40,945                     | U  |
| 18      | 0603211F               | Aerospace Technology Dev/Demo                       | 03  | 95,266             | 130,950                |                       | 130,950                    | U  |
| 19      | 0603216F               | Aerospace Propulsion and Power Technology           | 03  | 168,542            | 109,594                |                       | 109,594                    | U  |
| 20      | 0603270F               | Electronic Combat Technology                        | 03  | 45,359             | 66,150                 |                       | 66,150                     | U  |
| 21      | 0603401F               | Advanced Spacecraft Technology                      | 03  | 62,278             | 71,593                 |                       | 71,593                     | U  |
| 22      | 0603444F               | Maui Space Surveillance System (MSSS)               | 03  | 12,303             | 11,681                 |                       | 11,681                     | U  |
| 23      | 0603456F               | Human Effectiveness Advanced Technology Development | 03  | 24,094             | 26,492                 |                       | 26,492                     | U  |
| 24      | 0603601F               | Conventional Weapons Technology                     | 03  | 42,204             | 107,009                |                       | 107,009                    | U  |
| 25      | 0603605F               | Advanced Weapons Technology                         | 03  | 37,301             | 49,064                 |                       | 49,064                     | U  |
| 26      | 0603680F               | Manufacturing Technology Program                    | 03  | 51,467             | 62,344                 |                       | 62,344                     | U  |
| 27      | 0603788F               | Battlespace Knowledge Development and Demonstration | 03  | 41,568             | 58,110                 |                       | 58,110                     | U  |
|         |                        | Advanced Technology Development                     |     | 675,737            | 807,705                |                       | 807,705                    |    |
| 28      | 0603260F               | Intelligence Advanced Development                   | 04  | 5,032              | 5,598                  |                       | 5,598                      | U  |
| 29      | 0603287F               | Physical Security Equipment                         | 04  |                    |                        | 9,000                 | 9,000                      | U  |
| 30      | 0603438F               | Space Control Technology                            | 04  | 3,955              | 7,534                  |                       | 7,534                      | U  |
| 31      | 0603742F               | Combat Identification Technology                    | 04  | 21,025             | 24,418                 |                       | 24,418                     | U  |
| 32      | 0603790F               | NATO Research and Development                       | 04  | 4,566              | 4,333                  |                       | 4,333                      | U  |
| 33      | 0603830F               | Space Security and Defense Program                  | 04  | 30,771             | 32,399                 |                       | 32,399                     | U  |

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| Line No | Program Element Number | Item  | Act | FY 2018 Base Request | FY 2018 June Amendment Base | FY 2018 Amendment Emergency | FY 2018 OCO Request | FY 2018 Amendment OCO | FY 2018 Total OCO | FY 2018 Grand Total | Se |
|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 17      | 0603203F               | Advanced Aerospace Sensors                          | 03  | 40,978               |                             |                             |                     |                       |                   | 40,978              | U  |
| 18      | 0603211F               | Aerospace Technology Dev/Demo                       | 03  | 115,966              |                             |                             |                     |                       |                   | 115,966             | U  |
| 19      | 0603216F               | Aerospace Propulsion and Power Technology           | 03  | 104,499              |                             |                             |                     |                       |                   | 104,499             | U  |
| 20      | 0603270F               | Electronic Combat Technology                        | 03  | 60,551               |                             |                             |                     |                       |                   | 60,551              | U  |
| 21      | 0603401F               | Advanced Spacecraft Technology                      | 03  | 58,910               |                             |                             |                     |                       |                   | 58,910              | U  |
| 22      | 0603444F               | Maui Space Surveillance System (MSSS)               | 03  | 10,433               |                             |                             |                     |                       |                   | 10,433              | U  |
| 23      | 0603456F               | Human Effectiveness Advanced Technology Development | 03  | 33,635               |                             |                             |                     |                       |                   | 33,635              | U  |
| 24      | 0603601F               | Conventional Weapons Technology                     | 03  | 167,415              |                             |                             |                     |                       |                   | 167,415             | U  |
| 25      | 0603605F               | Advanced Weapons Technology                         | 03  | 45,502               |                             |                             |                     |                       |                   | 45,502              | U  |
| 26      | 0603680F               | Manufacturing Technology Program                    | 03  | 46,450               |                             |                             |                     |                       |                   | 46,450              | U  |
| 27      | 0603788F               | Battlespace Knowledge Development and Demonstration | 03  | 49,011               |                             |                             |                     |                       |                   | 49,011              | U  |
|         |                        | Advanced Technology Development                     |     | 794,017              |                             |                             |                     |                       |                   | 794,017             |    |
| 28      | 0603260F               | Intelligence Advanced Development                   | 04  | 5,652                |                             |                             |                     |                       |                   | 5,652               | U  |
| 29      | 0603287F               | Physical Security Equipment                         | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 30      | 0603438F               | Space Control Technology                            | 04  |                      |                             |                             | 7,800               |                       | 7,800             | 7,800               | U  |
| 31      | 0603742F               | Combat Identification Technology                    | 04  | 24,397               |                             |                             |                     |                       |                   | 24,397              | U  |
| 32      | 0603790F               | NATO Research and Development                       | 04  | 3,851                |                             |                             |                     |                       |                   | 3,851               | U  |
| 33      | 0603830F               | Space Security and Defense Program                  | 04  |                      |                             |                             |                     |                       |                   |                     | U  |

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Department of the Air Force  
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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item   | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 34      | 0603851F               | Intercontinental Ballistic Missile - Dem/Val                 | 04  | 34,765             | 113,663                |                       | 113,663                    | U  |
| 35      | 0603859F               | Pollution Prevention - Dem/Val                               | 04  |                    | 3,500                  |                       | 3,500                      | U  |
| 36      | 0604015F               | Long Range Strike - Bomber                                   | 04  | 710,390            | 1,338,309              |                       | 1,338,309                  | U  |
| 37      | 0604201F               | Integrated Avionics Planning and Development                 | 04  |                    |                        |                       |                            | U  |
| 38      | 0604257F               | Advanced Technology and Sensors                              | 04  |                    | 34,818                 |                       | 34,818                     | U  |
| 39      | 0604288F               | National Airborne Ops Center (NAOC) Recap                    | 04  |                    |                        |                       |                            | U  |
| 40      | 0604317F               | Technology Transfer  | 04  | 7,494              | 8,368                  |                       | 8,368                      | U  |
| 41      | 0604327F               | Hard and Deeply Buried Target Defeat System (HDBTDS) Program | 04  | 62,034             | 54,708                 |                       | 54,708                     | U  |
| 42      | 0604414F               | Cyber Resiliency of Weapon Systems-ACS                       | 04  |                    |                        |                       |                            | U  |
| 43      | 0604422F               | Weather System Follow-on                                     | 04  | 46,307             | 88,953                 |                       | 88,953                     | U  |
| 44      | 0604425F               | Space Situation Awareness Systems                            | 04  |                    | 9,901                  |                       | 9,901                      | U  |
| 45      | 0604776F               | Deployment & Distribution Enterprise R&D                     | 04  |                    | 25,890                 |                       | 25,890                     | U  |
| 46      | 0604857F               | Operationally Responsive Space                               | 04  | 22,123             | 18,421                 |                       | 18,421                     | U  |
| 47      | 0604858F               | Tech Transition Program                                      | 04  | 264,673            | 384,964                |                       | 384,964                    | U  |
| 48      | 0605230F               | Ground Based Strategic Deterrent                             | 04  | 64,966             | 111,421                |                       | 111,421                    | U  |
| 49      | 0201184F               | Counter Narco-Terrorism Program Office                       | 04  | 1,850              |                        |                       |                            | U  |
| 50      | 0207110F               | Next Generation Air Dominance                                | 04  | 32,495             | 20,161                 |                       | 20,161                     | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 34      | 0603851F               | Intercontinental Ballistic Missile - Dem/Val                 | 04  | 10,736               |                             |                             |                     |                       |                   | 10,736              | U  |
| 35      | 0603859F               | Pollution Prevention - Dem/Val                               | 04  | 2                    |                             |                             |                     |                       |                   | 2                   | U  |
| 36      | 0604015F               | Long Range Strike - Bomber                                   | 04  | 2,003,580            |                             |                             |                     |                       |                   | 2,003,580           | U  |
| 37      | 0604201F               | Integrated Avionics Planning and Development                 | 04  | 65,458               |                             |                             |                     |                       |                   | 65,458              | U  |
| 38      | 0604257F               | Advanced Technology and Sensors                              | 04  | 68,719               |                             |                             |                     |                       |                   | 68,719              | U  |
| 39      | 0604288F               | National Airborne Ops Center (NAOC) Recap                    | 04  | 7,850                |                             |                             |                     |                       |                   | 7,850               | U  |
| 40      | 0604317F               | Technology Transfer  | 04  | 3,295                |                             |                             |                     |                       |                   | 3,295               | U  |
| 41      | 0604327F               | Hard and Deeply Buried Target Defeat System (HDBTDS) Program | 04  | 17,365               |                             |                             |                     |                       |                   | 17,365              | U  |
| 42      | 0604414F               | Cyber Resiliency of Weapon Systems-ACS                       | 04  | 32,253               |                             |                             |                     |                       |                   | 32,253              | U  |
| 43      | 0604422F               | Weather System Follow-on                                     | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 44      | 0604425F               | Space Situation Awareness Systems                            | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 45      | 0604776F               | Deployment & Distribution Enterprise R&D                     | 04  | 26,222               |                             |                             |                     |                       |                   | 26,222              | U  |
| 46      | 0604857F               | Operationally Responsive Space                               | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 47      | 0604858F               | Tech Transition Program                                      | 04  | 840,650              |                             |                             |                     |                       |                   | 840,650             | U  |
| 48      | 0605230F               | Ground Based Strategic Deterrent                             | 04  | 215,721              |                             |                             |                     |                       |                   | 215,721             | U  |
| 49      | 0201184F               | Counter Narco-Terrorism Program Office                       | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 50      | 0207110F               | Next Generation Air Dominance                                | 04  | 294,746              |                             |                             |                     |                       |                   | 294,746             | U  |

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 51      | 0207455F               | Three Dimensional Long-Range Radar (3DELRR)                | 04  | 7,865              | 48,958                 |                       | 48,958                     | U  |
| 52      | 0305164F               | NAVSTAR Global Positioning System (User Equipment) (SPACE) | 04  | 143,118            | 309,047                |                       | 309,047                    | U  |
| 53      | 0305236F               | Common Data Link Executive Agent (CDL EA)                  | 04  |                    | 42,338                 |                       | 42,338                     | U  |
| 54      | 0306250F               | Cyber Operations Technology Development                    | 04  | 91,845             | 157,944                | 4,700                 | 162,644                    | U  |
| 55      | 0306415F               | Enabled Cyber Activities                                   | 04  |                    | 15,842                 |                       | 15,842                     | U  |
| 56      | 0408011F               | Special Tactics / Combat Control                           | 04  |                    |                        |                       |                            | U  |
| 57      | 0901410F               | Contracting Information Technology System                  | 04  |                    | 5,782                  |                       | 5,782                      | U  |
| 58      | 1203164F               | NAVSTAR Global Positioning System (User Equipment) (SPACE) | 04  |                    |                        |                       |                            | U  |
| 59      | 1203710F               | EO/IR Weather Systems                                      | 04  |                    |                        |                       |                            | U  |
| 60      | 1206422F               | Weather System Follow-on                                   | 04  |                    |                        |                       |                            | U  |
| 61      | 1206425F               | Space Situation Awareness Systems                          | 04  |                    |                        |                       |                            | U  |
| 62      | 1206434F               | Midterm Polar MILSATCOM System                             | 04  |                    |                        |                       |                            | U  |
| 63      | 1206438F               | Space Control Technology                                   | 04  |                    |                        |                       |                            | U  |
| 64      | 1206730F               | Space Security and Defense Program                         | 04  |                    |                        |                       |                            | U  |
| 65      | 1206760F               | Protected Tactical Enterprise Service (PTES)               | 04  |                    |                        |                       |                            | U  |
| 66      | 1206761F               | Protected Tactical Service (PTS)                           | 04  |                    |                        |                       |                            | U  |
| 67      | 1206855F               | Protected SATCOM Services (PSCS) - Aggregated              | 04  |                    |                        |                       |                            | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 51      | 0207455F               | Three Dimensional Long-Range Radar (3DELRR)                | 04  | 10,645               |                             |                             |                     |                       |                   | 10,645              | U  |
| 52      | 0305164F               | NAVSTAR Global Positioning System (User Equipment) (SPACE) | 04  |                      |                             |                             |                     |                       |                   |                     | U  |
| 53      | 0305236F               | Common Data Link Executive Agent (CDL EA)                  | 04  | 41,509               |                             |                             |                     |                       |                   | 41,509              | U  |
| 54      | 0306250F               | Cyber Operations Technology Development                    | 04  | 226,287              |                             | 90,500                      | 5,400               |                       | 5,400             | 322,187             | U  |
| 55      | 0306415F               | Enabled Cyber Activities                                   | 04  | 16,687               |                             |                             |                     |                       |                   | 16,687              | U  |
| 56      | 0408011F               | Special Tactics / Combat Control                           | 04  | 4,500                |                             |                             |                     |                       |                   | 4,500               | U  |
| 57      | 0901410F               | Contracting Information Technology System                  | 04  | 15,867               |                             |                             |                     |                       |                   | 15,867              | U  |
| 58      | 1203164F               | NAVSTAR Global Positioning System (User Equipment) (SPACE) | 04  | 253,939              |                             |                             |                     |                       |                   | 253,939             | U  |
| 59      | 1203710F               | EO/IR Weather Systems                                      | 04  | 10,000               |                             |                             |                     |                       |                   | 10,000              | U  |
| 60      | 1206422F               | Weather System Follow-on                                   | 04  | 112,088              |                             |                             |                     |                       |                   | 112,088             | U  |
| 61      | 1206425F               | Space Situation Awareness Systems                          | 04  | 34,764               |                             |                             |                     |                       |                   | 34,764              | U  |
| 62      | 1206434F               | Midterm Polar MILSATCOM System                             | 04  | 63,092               |                             |                             |                     |                       |                   | 63,092              | U  |
| 63      | 1206438F               | Space Control Technology                                   | 04  | 7,842                |                             |                             |                     |                       |                   | 7,842               | U  |
| 64      | 1206730F               | Space Security and Defense Program                         | 04  | 41,385               |                             |                             |                     |                       |                   | 41,385              | U  |
| 65      | 1206760F               | Protected Tactical Enterprise Service (PTES)               | 04  | 18,150               |                             |                             |                     |                       |                   | 18,150              | U  |
| 66      | 1206761F               | Protected Tactical Service (PTS)                           | 04  | 24,201               |                             |                             |                     |                       |                   | 24,201              | U  |
| 67      | 1206855F               | Protected SATCOM Services (PSCS) - Aggregated              | 04  | 16,000               |                             |                             |                     |                       |                   | 16,000              | U  |

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 68      | 1206857F               | Operationally Responsive Space               | 04  |                    |                        |                       |                            | U  |
|         |                        | Advanced Component Development & Prototypes  |     | 1,555,274          | 2,867,270              | 13,700                | 2,880,970                  |    |
| 69      | 0604200F               | Future Advanced Weapon Analysis & Programs   | 05  |                    |                        |                       |                            | U  |
| 70      | 0604201F               | Integrated Avionics Planning and Development | 05  |                    |                        |                       |                            | U  |
| 71      | 0604222F               | Nuclear Weapons Support                      | 05  |                    |                        |                       |                            | U  |
| 72      | 0604270F               | Electronic Warfare Development               | 05  | 813                | 5,176                  |                       | 5,176                      | U  |
| 73      | 0604281F               | Tactical Data Networks Enterprise            | 05  | 49,495             | 80,799                 |                       | 80,799                     | U  |
| 74      | 0604287F               | Physical Security Equipment                  | 05  | 5,973              | 8,458                  | 18,000                | 26,458                     | U  |
| 75      | 0604329F               | Small Diameter Bomb (SDB) - EMD              | 05  | 27,950             | 38,987                 |                       | 38,987                     | U  |
| 76      | 0604421F               | Counterspace Systems                         | 05  | 24,134             | 34,394                 | 425                   | 34,819                     | U  |
| 77      | 0604425F               | Space Situation Awareness Systems            | 05  | 30,116             | 23,945                 |                       | 23,945                     | U  |
| 78      | 0604426F               | Space Fence                                  | 05  | 240,692            | 168,364                |                       | 168,364                    | U  |
| 79      | 0604429F               | Airborne Electronic Attack                   | 05  | 8,067              | 8,915                  |                       | 8,915                      | U  |
| 80      | 0604441F               | Space Based Infrared System (SBIRS) High EMD | 05  | 291,510            | 161,966                |                       | 161,966                    | U  |
| 81      | 0604602F               | Armament/Ordnance Development                | 05  | 36,266             | 20,312                 |                       | 20,312                     | U  |
| 82      | 0604604F               | Submunitions                                 | 05  | 2,419              | 2,503                  |                       | 2,503                      | U  |
| 83      | 0604617F               | Agile Combat Support                         | 05  | 56,178             | 50,680                 |                       | 50,680                     | U  |
| 84      | 0604618F               | Joint Direct Attack Munition                 | 05  |                    | 9,901                  |                       | 9,901                      | U  |
| 85      | 0604706F               | Life Support Systems                         | 05  | 7,904              | 7,520                  |                       | 7,520                      | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 68      | 1206857F               | Operationally Responsive Space               | 04  | 87,577               |                             |                             |                     |                       |                   | 87,577              | U  |
|         |                        | Advanced Component Development & Prototypes  |     | 4,605,030            |                             | 90,500                      | 13,200              |                       | 13,200            | 4,708,730           |    |
| 69      | 0604200F               | Future Advanced Weapon Analysis & Programs   | 05  | 5,100                |                             |                             |                     |                       |                   | 5,100               | U  |
| 70      | 0604201F               | Integrated Avionics Planning and Development | 05  | 101,203              |                             |                             |                     |                       |                   | 101,203             | U  |
| 71      | 0604222F               | Nuclear Weapons Support                      | 05  | 3,009                |                             |                             |                     |                       |                   | 3,009               | U  |
| 72      | 0604270F               | Electronic Warfare Development               | 05  | 2,241                |                             |                             |                     |                       |                   | 2,241               | U  |
| 73      | 0604281F               | Tactical Data Networks Enterprise            | 05  | 38,250               |                             |                             |                     |                       |                   | 38,250              | U  |
| 74      | 0604287F               | Physical Security Equipment                  | 05  | 19,739               |                             |                             |                     |                       |                   | 19,739              | U  |
| 75      | 0604329F               | Small Diameter Bomb (SDB) - EMD              | 05  | 38,979               |                             |                             |                     |                       |                   | 38,979              | U  |
| 76      | 0604421F               | Counterspace Systems                         | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 77      | 0604425F               | Space Situation Awareness Systems            | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 78      | 0604426F               | Space Fence                                  | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 79      | 0604429F               | Airborne Electronic Attack                   | 05  | 7,091                |                             |                             |                     |                       |                   | 7,091               | U  |
| 80      | 0604441F               | Space Based Infrared System (SBIRS) High EMD | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 81      | 0604602F               | Armament/Ordnance Development                | 05  | 46,540               |                             |                             |                     |                       |                   | 46,540              | U  |
| 82      | 0604604F               | Submunitions                                 | 05  | 2,705                |                             |                             |                     |                       |                   | 2,705               | U  |
| 83      | 0604617F               | Agile Combat Support                         | 05  | 31,240               |                             |                             |                     |                       |                   | 31,240              | U  |
| 84      | 0604618F               | Joint Direct Attack Munition                 | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 85      | 0604706F               | Life Support Systems                         | 05  | 9,060                |                             |                             |                     |                       |                   | 9,060               | U  |

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|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 86      | 0604735F               | Combat Training Ranges                                  | 05  | 11,368             | 68,409                 |                       | 68,409                     | U  |
| 87      | 0604800F               | F-35 - EMD  | 05  | 575,932            | 450,387                |                       | 450,387                    | U  |
| 88      | 0604853F               | Evolved Expendable Launch Vehicle Program (SPACE) - EMD | 05  | 224,920            | 395,173                |                       | 395,173                    | U  |
| 89      | 0604932F               | Long Range Standoff Weapon                              | 05  | 16,143             | 95,604                 |                       | 95,604                     | U  |
| 90      | 0604933F               | ICBM Fuze Modernization                                 | 05  | 138,027            | 189,751                |                       | 189,751                    | U  |
| 91      | 0605030F               | Joint Tactical Network Center (JTNC)                    | 05  |                    | 1,131                  |                       | 1,131                      | U  |
| 92      | 0605031F               | Joint Tactical Network (JTN)                            | 05  |                    |                        |                       |                            | U  |
| 93      | 0605213F               | F-22 Modernization Increment 3.2B                       | 05  | 115,603            | 70,290                 |                       | 70,290                     | U  |
| 94      | 0605214F               | Ground Attack Weapons Fuze Development                  | 05  | 3,477              | 937                    |                       | 937                        | U  |
| 95      | 0605221F               | KC-46   | 05  | 572,118            | 229,924                |                       | 229,924                    | U  |
| 96      | 0605223F               | Advanced Pilot Training                                 | 05  | 10,395             | 7,377                  |                       | 7,377                      | U  |
| 97      | 0605229F               | Combat Rescue Helicopter                                | 05  | 150,341            | 273,331                |                       | 273,331                    | U  |
| 98      | 0605431F               | Advanced EHF MILSATCOM (SPACE)                          | 05  | 208,095            | 229,131                |                       | 229,131                    | U  |
| 99      | 0605432F               | Polar MILSATCOM (SPACE)                                 | 05  | 71,867             | 45,815                 |                       | 45,815                     | U  |
| 100     | 0605433F               | Wideband Global SATCOM (SPACE)                          | 05  | 49,954             | 76,632                 |                       | 76,632                     | U  |
| 101     | 0605458F               | Air & Space Ops Center 10.2 RDT&E                       | 05  | 55,333             | 21,911                 |                       | 21,911                     | U  |
| 102     | 0605931F               | B-2 Defensive Management System                         | 05  | 261,162            | 289,015                |                       | 289,015                    | U  |
| 103     | 0101125F               | Nuclear Weapons Modernization                           | 05  | 204,358            | 137,909                |                       | 137,909                    | U  |
| 104     | 0207171F               | F-15 EPAWSS   | 05  | 174,439            | 250,669                |                       | 250,669                    | U  |
| 105     | 0207328F               | Stand In Attack Weapon                                  | 05  |                    |                        |                       |                            | U  |

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|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 86      | 0604735F               | Combat Training Ranges                                  | 05  | 87,350               |                             |                             |                     |                       |                   | 87,350              | U  |
| 87      | 0604800F               | F-35 - EMD  | 05  | 292,947              |                             |                             |                     |                       |                   | 292,947             | U  |
| 88      | 0604853F               | Evolved Expendable Launch Vehicle Program (SPACE) - EMD | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 89      | 0604932F               | Long Range Standoff Weapon                              | 05  | 451,290              |                             |                             |                     |                       |                   | 451,290             | U  |
| 90      | 0604933F               | ICBM Fuze Modernization                                 | 05  | 178,991              |                             |                             |                     |                       |                   | 178,991             | U  |
| 91      | 0605030F               | Joint Tactical Network Center (JTNC)                    | 05  | 12,736               |                             |                             |                     |                       |                   | 12,736              | U  |
| 92      | 0605031F               | Joint Tactical Network (JTN)                            | 05  | 9,319                |                             |                             |                     |                       |                   | 9,319               | U  |
| 93      | 0605213F               | F-22 Modernization Increment 3.2B                       | 05  | 13,600               |                             |                             |                     |                       |                   | 13,600              | U  |
| 94      | 0605214F               | Ground Attack Weapons Fuze Development                  | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 95      | 0605221F               | KC-46   | 05  | 93,845               |                             |                             |                     |                       |                   | 93,845              | U  |
| 96      | 0605223F               | Advanced Pilot Training                                 | 05  | 105,999              |                             |                             |                     |                       |                   | 105,999             | U  |
| 97      | 0605229F               | Combat Rescue Helicopter                                | 05  | 354,485              |                             |                             |                     |                       |                   | 354,485             | U  |
| 98      | 0605431F               | Advanced EHF MILSATCOM (SPACE)                          | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 99      | 0605432F               | Polar MILSATCOM (SPACE)                                 | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 100     | 0605433F               | Wideband Global SATCOM (SPACE)                          | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 101     | 0605458F               | Air & Space Ops Center 10.2 RDT&E                       | 05  | 119,745              |                             |                             |                     |                       |                   | 119,745             | U  |
| 102     | 0605931F               | B-2 Defensive Management System                         | 05  | 194,570              |                             |                             |                     |                       |                   | 194,570             | U  |
| 103     | 0101125F               | Nuclear Weapons Modernization                           | 05  | 91,237               |                             |                             |                     |                       |                   | 91,237              | U  |
| 104     | 0207171F               | F-15 EPAWSS   | 05  | 209,847              |                             |                             |                     |                       |                   | 209,847             | U  |
| 105     | 0207328F               | Stand In Attack Weapon                                  | 05  | 3,400                |                             |                             |                     |                       |                   | 3,400               | U  |

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item   | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 106     | 0207701F               | Full Combat Mission Training                 | 05  | 17,290             | 12,051                 |                       | 12,051                     | U  |
| 107     | 0303267F               | Auctioned Spectrum Relocation Fund           | 05  | 40,571             |                        |                       |                            | U  |
| 108     | 0303367F               | Spectrum Access Research and Development     | 05  | 383                |                        |                       |                            | U  |
| 109     | 0305176F               | Combat Survivor Evader Locator               | 05  | 958                | 29,253                 |                       | 29,253                     | U  |
| 110     | 0307581F               | JSTARS Recap                                 | 05  | 51,306             | 128,019                |                       | 128,019                    | U  |
| 111     | 0401310F               | C-32 Executive Transport Recapitalization    | 05  |                    |                        |                       |                            | U  |
| 112     | 0401319F               | Presidential Aircraft Recapitalization (PAR) | 05  | 82,420             | 322,220                |                       | 322,220                    | U  |
| 113     | 0701212F               | Automated Test Systems                       | 05  | 14,422             | 14,561                 |                       | 14,561                     | U  |
| 114     | 1203176F               | Combat Survivor Evader Locator               | 05  |                    |                        |                       |                            | U  |
| 115     | 1203940F               | Space Situation Awareness Operations         | 05  |                    |                        |                       |                            | U  |
| 116     | 1206421F               | Counterspace Systems                         | 05  |                    |                        |                       |                            | U  |
| 117     | 1206425F               | Space Situation Awareness Systems            | 05  |                    |                        |                       |                            | U  |
| 118     | 1206426F               | Space Fence                                  | 05  |                    |                        |                       |                            | U  |
| 119     | 1206431F               | Advanced EHF MILSATCOM (SPACE)               | 05  |                    |                        |                       |                            | U  |
| 120     | 1206432F               | Polar MILSATCOM (SPACE)                      | 05  |                    |                        |                       |                            | U  |
| 121     | 1206433F               | Wideband Global SATCOM (SPACE)               | 05  |                    |                        |                       |                            | U  |
| 122     | 1206441F               | Space Based Infrared System (SBIRS) High EMD | 05  |                    |                        |                       |                            | U  |
| 123     | 1206442F               | Evolved SBIRS                                | 05  |                    |                        |                       |                            | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 106     | 0207701F               | Full Combat Mission Training                 | 05  | 16,727               |                             |                             |                     |                       |                   | 16,727              | U  |
| 107     | 0303267F               | Auctioned Spectrum Relocation Fund           | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 108     | 0303367F               | Spectrum Access Research and Development     | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 109     | 0305176F               | Combat Survivor Evader Locator               | 05  |                      |                             |                             |                     |                       |                   |                     | U  |
| 110     | 0307581F               | JSTARS Recap                                 | 05  | 417,201              |                             |                             |                     |                       |                   | 417,201             | U  |
| 111     | 0401310F               | C-32 Executive Transport Recapitalization    | 05  | 6,017                |                             |                             |                     |                       |                   | 6,017               | U  |
| 112     | 0401319F               | Presidential Aircraft Recapitalization (PAR) | 05  | 434,069              |                             |                             |                     |                       |                   | 434,069             | U  |
| 113     | 0701212F               | Automated Test Systems                       | 05  | 18,528               |                             |                             |                     |                       |                   | 18,528              | U  |
| 114     | 1203176F               | Combat Survivor Evader Locator               | 05  | 24,967               |                             |                             |                     |                       |                   | 24,967              | U  |
| 115     | 1203940F               | Space Situation Awareness Operations         | 05  | 10,029               |                             |                             |                     |                       |                   | 10,029              | U  |
| 116     | 1206421F               | Counterspace Systems                         | 05  | 66,370               |                             |                             |                     |                       |                   | 66,370              | U  |
| 117     | 1206425F               | Space Situation Awareness Systems            | 05  | 48,448               |                             |                             |                     |                       |                   | 48,448              | U  |
| 118     | 1206426F               | Space Fence                                  | 05  | 35,937               |                             |                             |                     |                       |                   | 35,937              | U  |
| 119     | 1206431F               | Advanced EHF MILSATCOM (SPACE)               | 05  | 145,610              |                             |                             |                     |                       |                   | 145,610             | U  |
| 120     | 1206432F               | Polar MILSATCOM (SPACE)                      | 05  | 33,644               |                             |                             |                     |                       |                   | 33,644              | U  |
| 121     | 1206433F               | Wideband Global SATCOM (SPACE)               | 05  | 14,263               |                             |                             |                     |                       |                   | 14,263              | U  |
| 122     | 1206441F               | Space Based Infrared System (SBIRS) High EMD | 05  | 311,844              |                             |                             |                     |                       |                   | 311,844             | U  |
| 123     | 1206442F               | Evolved SBIRS                                | 05  | 71,018               |                             |                             |                     |                       |                   | 71,018              | U  |

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|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 124     | 1206853F               | Evolved Expendable Launch Vehicle Program (SPACE) - EMD | 05  |                    |                        |                       |                            | U  |
|         |                        | System Development & Demonstration                      |     | 3,832,399          | 3,961,420              | 18,425                | 3,979,845                  |    |
| 125     | 0604256F               | Threat Simulator Development                            | 06  | 23,558             | 21,630                 |                       | 21,630                     | U  |
| 126     | 0604759F               | Major T&E Investment                                    | 06  | 70,894             | 66,385                 |                       | 66,385                     | U  |
| 127     | 0605101F               | RAND Project Air Force                                  | 06  | 33,943             | 34,641                 |                       | 34,641                     | U  |
| 128     | 0605502F               | Small Business Innovation Research                      | 06  | 337,762            |                        |                       |                            | U  |
| 129     | 0605712F               | Initial Operational Test & Evaluation                   | 06  | 11,172             | 11,529                 |                       | 11,529                     | U  |
| 130     | 0605807F               | Test and Evaluation Support                             | 06  | 683,307            | 676,417                |                       | 676,417                    | U  |
| 131     | 0605826F               | Acq Workforce- Global Power                             | 06  |                    |                        |                       |                            | U  |
| 132     | 0605827F               | Acq Workforce- Global Vig & Combat Sys                  | 06  |                    |                        |                       |                            | U  |
| 133     | 0605828F               | Acq Workforce- Global Reach                             | 06  |                    |                        |                       |                            | U  |
| 134     | 0605829F               | Acq Workforce- Cyber, Network, & Bus Sys                | 06  |                    |                        |                       |                            | U  |
| 135     | 0605830F               | Acq Workforce- Global Battle Mgmt                       | 06  |                    |                        |                       |                            | U  |
| 136     | 0605831F               | Acq Workforce- Capability Integration                   | 06  |                    |                        |                       |                            | U  |
| 137     | 0605832F               | Acq Workforce- Advanced Prgm Technology                 | 06  |                    |                        |                       |                            | U  |
| 138     | 0605833F               | Acq Workforce- Nuclear Systems                          | 06  |                    |                        |                       |                            | U  |
| 139     | 0605860F               | Rocket Systems Launch Program (SPACE)                   | 06  | 21,245             | 11,198                 |                       | 11,198                     | U  |

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|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 124     | 1206853F               | Evolved Expendable Launch Vehicle Program (SPACE) - EMD | 05  | 297,572              |                             |                             |                     |                       |                   | 297,572             | U  |
|         |                        | System Development & Demonstration                      |     | 4,476,762            |                             |                             |                     |                       |                   | 4,476,762           |    |
| 125     | 0604256F               | Threat Simulator Development                            | 06  | 35,405               |                             |                             |                     |                       |                   | 35,405              | U  |
| 126     | 0604759F               | Major T&E Investment                                    | 06  | 82,874               |                             |                             |                     |                       |                   | 82,874              | U  |
| 127     | 0605101F               | RAND Project Air Force                                  | 06  | 34,346               |                             |                             |                     |                       |                   | 34,346              | U  |
| 128     | 0605502F               | Small Business Innovation Research                      | 06  |                      |                             |                             |                     |                       |                   |                     | U  |
| 129     | 0605712F               | Initial Operational Test & Evaluation                   | 06  | 15,523               |                             |                             |                     |                       |                   | 15,523              | U  |
| 130     | 0605807F               | Test and Evaluation Support                             | 06  | 678,289              |                             |                             |                     |                       |                   | 678,289             | U  |
| 131     | 0605826F               | Acq Workforce- Global Power                             | 06  | 219,809              |                             |                             |                     |                       |                   | 219,809             | U  |
| 132     | 0605827F               | Acq Workforce- Global Vig & Combat Sys                  | 06  | 223,179              |                             |                             |                     |                       |                   | 223,179             | U  |
| 133     | 0605828F               | Acq Workforce- Global Reach                             | 06  | 138,556              |                             |                             |                     |                       |                   | 138,556             | U  |
| 134     | 0605829F               | Acq Workforce- Cyber, Network, & Bus Sys                | 06  | 221,393              |                             |                             |                     |                       |                   | 221,393             | U  |
| 135     | 0605830F               | Acq Workforce- Global Battle Mgmt                       | 06  | 152,577              |                             |                             |                     |                       |                   | 152,577             | U  |
| 136     | 0605831F               | Acq Workforce- Capability Integration                   | 06  | 196,561              |                             |                             |                     |                       |                   | 196,561             | U  |
| 137     | 0605832F               | Acq Workforce- Advanced Prgm Technology                 | 06  | 28,322               |                             |                             |                     |                       |                   | 28,322              | U  |
| 138     | 0605833F               | Acq Workforce- Nuclear Systems                          | 06  | 126,611              |                             |                             |                     |                       |                   | 126,611             | U  |
| 139     | 0605860F               | Rocket Systems Launch Program (SPACE)                   | 06  |                      |                             |                             |                     |                       |                   |                     | U  |

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 140     | 0605864F               | Space Test Program (STP)   | 06  | 28,143             | 42,070                 |                       | 42,070                     | U  |
| 141     | 0605898F               | Management HQ - R&D  | 06  |                    |                        |                       |                            | U  |
| 142     | 0605976F               | Facilities Restoration and Modernization - Test and Evaluation Support | 06  | 40,518             | 134,111                |                       | 134,111                    | U  |
| 143     | 0605978F               | Facilities Sustainment - Test and Evaluation Support                   | 06  | 27,895             | 28,091                 |                       | 28,091                     | U  |
| 144     | 0606017F               | Requirements Analysis and Maturation                                   | 06  | 21,922             | 33,746                 |                       | 33,746                     | U  |
| 145     | 0606116F               | Space Test and Training Range Development                              | 06  | 18,465             | 18,528                 |                       | 18,528                     | U  |
| 146     | 0606392F               | Space and Missile Center (SMC) Civilian Workforce                      | 06  | 169,196            | 171,666                |                       | 171,666                    | U  |
| 147     | 0308602F               | ENTEPRISE INFORMATION SERVICES (EIS)                                   | 06  | 3,841              | 4,410                  |                       | 4,410                      | U  |
| 148     | 0702806F               | Acquisition and Management Support                                     | 06  | 16,358             | 14,613                 |                       | 14,613                     | U  |
| 149     | 0804731F               | General Skill Training   | 06  | 1,268              | 1,404                  |                       | 1,404                      | U  |
| 150     | 0909999F               | Financing for Cancelled Account Adjustments                            | 06  | 656                |                        |                       |                            | U  |
| 151     | 1001004F               | International Activities   | 06  | 2,315              | 4,784                  |                       | 4,784                      | U  |
| 152     | 1206116F               | Space Test and Training Range Development                              | 06  |                    |                        |                       |                            | U  |
| 153     | 1206392F               | Space and Missile Center (SMC) Civilian Workforce                      | 06  |                    |                        |                       |                            | U  |
| 154     | 1206398F               | Space & Missile Systems Center - MHA                                   | 06  |                    |                        |                       |                            | U  |
| 155     | 1206860F               | Rocket Systems Launch Program (SPACE)                                  | 06  |                    |                        |                       |                            | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 140     | 0605864F               | Space Test Program (STP)   | 06  |                      |                             |                             |                     |                       |                   |                     | U  |
| 141     | 0605898F               | Management HQ - R&D  | 06  | 9,154                |                             |                             |                     |                       |                   | 9,154               | U  |
| 142     | 0605976F               | Facilities Restoration and Modernization - Test and Evaluation Support | 06  | 135,507              |                             |                             |                     |                       |                   | 135,507             | U  |
| 143     | 0605978F               | Facilities Sustainment - Test and Evaluation Support                   | 06  | 28,720               |                             |                             |                     |                       |                   | 28,720              | U  |
| 144     | 0606017F               | Requirements Analysis and Maturation                                   | 06  | 35,453               |                             |                             |                     |                       |                   | 35,453              | U  |
| 145     | 0606116F               | Space Test and Training Range Development                              | 06  |                      |                             |                             |                     |                       |                   |                     | U  |
| 146     | 0606392F               | Space and Missile Center (SMC) Civilian Workforce                      | 06  |                      |                             |                             |                     |                       |                   |                     | U  |
| 147     | 0308602F               | ENTEPRISE INFORMATION SERVICES (EIS)                                   | 06  | 29,049               |                             |                             |                     |                       |                   | 29,049              | U  |
| 148     | 0702806F               | Acquisition and Management Support                                     | 06  | 14,980               |                             |                             |                     |                       |                   | 14,980              | U  |
| 149     | 0804731F               | General Skill Training   | 06  | 1,434                |                             |                             |                     |                       |                   | 1,434               | U  |
| 150     | 0909999F               | Financing for Cancelled Account Adjustments                            | 06  |                      |                             |                             |                     |                       |                   |                     | U  |
| 151     | 1001004F               | International Activities   | 06  | 4,569                |                             |                             |                     |                       |                   | 4,569               | U  |
| 152     | 1206116F               | Space Test and Training Range Development                              | 06  | 25,773               |                             |                             |                     |                       |                   | 25,773              | U  |
| 153     | 1206392F               | Space and Missile Center (SMC) Civilian Workforce                      | 06  | 169,887              |                             |                             |                     |                       |                   | 169,887             | U  |
| 154     | 1206398F               | Space & Missile Systems Center - MHA                                   | 06  | 9,531                |                             |                             |                     |                       |                   | 9,531               | U  |
| 155     | 1206860F               | Rocket Systems Launch Program (SPACE)                                  | 06  | 20,975               |                             |                             |                     |                       |                   | 20,975              | U  |

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|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 156     | 1206864F               | Space Test Program (STP)  | 06  |                    |                        |                       |                            | U  |
|         |                        | Management Support  |     | 1,512,458          | 1,275,223              |                       | 1,275,223                  |    |
| 157     | 0603423F               | Global Positioning System III - Operational Control Segment             | 07  | 344,226            | 390,364                |                       | 390,364                    | U  |
| 158     | 0604222F               | Nuclear Weapons Support   | 07  |                    |                        |                       |                            | U  |
| 159     | 0604233F               | Specialized Undergraduate Flight Training                               | 07  | 7,742              | 18,427                 |                       | 18,427                     | U  |
| 160     | 0604445F               | Wide Area Surveillance  | 07  | 17,639             | 46,695                 |                       | 46,695                     | U  |
| 162     | 0605018F               | AF Integrated Personnel and Pay System (AF-IPPS)                        | 07  | 30,334             | 10,295                 |                       | 10,295                     | U  |
| 163     | 0605024F               | Anti-Tamper Technology Executive Agency                                 | 07  | 25,857             | 31,858                 |                       | 31,858                     | U  |
| 164     | 0605117F               | Foreign Materiel Acquisition and Exploitation                           | 07  | 41,689             | 58,360                 |                       | 58,360                     | U  |
| 165     | 0605278F               | HC/MC-130 Recap RDT&E   | 07  | 8,646              | 8,987                  |                       | 8,987                      | U  |
| 166     | 0606018F               | NC3 Integration   | 07  |                    |                        |                       |                            | U  |
| 167     | 0101113F               | B-52 Squadrons  | 07  | 70,172             | 83,267                 |                       | 83,267                     | U  |
| 168     | 0101122F               | Air-Launched Cruise Missile (ALCM)                                      | 07  | 451                | 453                    |                       | 453                        | U  |
| 169     | 0101126F               | B-1B Squadrons  | 07  | 2,174              | 3,930                  |                       | 3,930                      | U  |
| 170     | 0101127F               | B-2 Squadrons   | 07  | 105,914            | 127,458                |                       | 127,458                    | U  |
| 171     | 0101213F               | Minuteman Squadrons   | 07  | 128,492            | 178,958                |                       | 178,958                    | U  |
| 172     | 0101313F               | Integrated Strategic Planning and Analysis Network (ISPAN) - USSTRATCOM | 07  | 26,954             | 38,886                 |                       | 38,886                     | U  |

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|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 156     | 1206864F               | Space Test Program (STP)  | 06  | 25,398               |                             |                             |                     |                       |                   | 25,398              | U  |
|         |                        | Management Support  |     | 2,663,875            |                             |                             |                     |                       |                   | 2,663,875           |    |
| 157     | 0603423F               | Global Positioning System III - Operational Control Segment             | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 158     | 0604222F               | Nuclear Weapons Support   | 07  | 27,579               |                             |                             |                     |                       |                   | 27,579              | U  |
| 159     | 0604233F               | Specialized Undergraduate Flight Training                               | 07  | 5,776                |                             |                             |                     |                       |                   | 5,776               | U  |
| 160     | 0604445F               | Wide Area Surveillance  | 07  | 16,247               |                             |                             |                     |                       |                   | 16,247              | U  |
| 162     | 0605018F               | AF Integrated Personnel and Pay System (AF-IPPS)                        | 07  | 21,915               |                             |                             |                     |                       |                   | 21,915              | U  |
| 163     | 0605024F               | Anti-Tamper Technology Executive Agency                                 | 07  | 33,150               |                             |                             |                     |                       |                   | 33,150              | U  |
| 164     | 0605117F               | Foreign Materiel Acquisition and Exploitation                           | 07  | 66,653               |                             |                             |                     |                       |                   | 66,653              | U  |
| 165     | 0605278F               | HC/MC-130 Recap RDT&E   | 07  | 38,579               |                             |                             |                     |                       |                   | 38,579              | U  |
| 166     | 0606018F               | NC3 Integration   | 07  | 12,636               |                             |                             |                     |                       |                   | 12,636              | U  |
| 167     | 0101113F               | B-52 Squadrons  | 07  | 111,910              |                             |                             |                     |                       |                   | 111,910             | U  |
| 168     | 0101122F               | Air-Launched Cruise Missile (ALCM)                                      | 07  | 463                  |                             |                             |                     |                       |                   | 463                 | U  |
| 169     | 0101126F               | B-1B Squadrons  | 07  | 62,471               |                             |                             |                     |                       |                   | 62,471              | U  |
| 170     | 0101127F               | B-2 Squadrons   | 07  | 193,108              |                             |                             |                     |                       |                   | 193,108             | U  |
| 171     | 0101213F               | Minuteman Squadrons   | 07  | 210,845              |                             |                             |                     |                       |                   | 210,845             | U  |
| 172     | 0101313F               | Integrated Strategic Planning and Analysis Network (ISPAN) - USSTRATCOM | 07  | 25,736               |                             |                             |                     |                       |                   | 25,736              | U  |

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Department of the Air Force  
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06 Nov 2017

Appropriation: 3600F Research, Development, Test & Eval, AF

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 173     | 0101314F               | Night Fist - USSTRATCOM                                      | 07  | 87                 |                        |                       |                            | U  |
| 174     | 0101316F               | Worldwide Joint Strategic Communications                     | 07  | 3,815              | 13,042                 |                       | 13,042                     | U  |
| 175     | 0101324F               | Integrated Strategic Planning & Analysis Network             | 07  |                    |                        |                       |                            | U  |
| 177     | 0102110F               | UH-1N Replacement Program                                    | 07  |                    | 14,116                 |                       | 14,116                     | U  |
| 178     | 0102326F               | Region/Sector Operation Control Center Modernization Program | 07  |                    | 10,868                 |                       | 10,868                     | U  |
| 179     | 0105921F               | Service Support to STRATCOM - Space Activities               | 07  | 9,388              | 8,674                  |                       | 8,674                      | U  |
| 180     | 0205219F               | MQ-9 UAV   | 07  | 124,695            | 138,316                | 35,000                | 173,316                    | U  |
| 181     | 0205671F               | Joint Counter RCIED Electronic Warfare                       | 07  | 300                |                        |                       |                            | U  |
| 182     | 0207040F               | Multi-Platform Electronic Warfare Equipment                  | 07  | 3,980              |                        |                       |                            | U  |
| 183     | 0207131F               | A-10 Squadrons   | 07  | 16,200             | 4,853                  | 6,500                 | 11,353                     | U  |
| 184     | 0207133F               | F-16 Squadrons   | 07  | 153,611            | 120,195                | 15,000                | 135,195                    | U  |
| 185     | 0207134F               | F-15E Squadrons  | 07  | 210,029            | 356,717                |                       | 356,717                    | U  |
| 186     | 0207136F               | Manned Destructive Suppression                               | 07  | 14,400             | 14,773                 |                       | 14,773                     | U  |
| 187     | 0207138F               | F-22A Squadrons  | 07  | 224,550            | 376,464                |                       | 376,464                    | U  |
| 188     | 0207142F               | F-35 Squadrons   | 07  | 51,990             | 76,713                 |                       | 76,713                     | U  |
| 189     | 0207161F               | Tactical AIM Missiles  | 07  | 33,615             | 52,898                 |                       | 52,898                     | U  |
| 190     | 0207163F               | Advanced Medium Range Air-to-Air Missile (AMRAAM)            | 07  | 44,335             | 62,470                 |                       | 62,470                     | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 173     | 0101314F               | Night Fist - USSTRATCOM                                      | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 174     | 0101316F               | Worldwide Joint Strategic Communications                     | 07  | 6,272                |                             |                             |                     |                       |                   | 6,272               | U  |
| 175     | 0101324F               | Integrated Strategic Planning & Analysis Network             | 07  | 11,032               |                             |                             |                     |                       |                   | 11,032              | U  |
| 177     | 0102110F               | UH-1N Replacement Program                                    | 07  | 108,617              |                             |                             |                     |                       |                   | 108,617             | U  |
| 178     | 0102326F               | Region/Sector Operation Control Center Modernization Program | 07  | 3,347                |                             |                             |                     |                       |                   | 3,347               | U  |
| 179     | 0105921F               | Service Support to STRATCOM - Space Activities               | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 180     | 0205219F               | MQ-9 UAV   | 07  | 201,394              |                             |                             |                     |                       |                   | 201,394             | U  |
| 181     | 0205671F               | Joint Counter RCIED Electronic Warfare                       | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 182     | 0207040F               | Multi-Platform Electronic Warfare Equipment                  | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 183     | 0207131F               | A-10 Squadrons   | 07  | 17,459               |                             |                             |                     |                       |                   | 17,459              | U  |
| 184     | 0207133F               | F-16 Squadrons   | 07  | 246,578              |                             |                             |                     |                       |                   | 246,578             | U  |
| 185     | 0207134F               | F-15E Squadrons  | 07  | 320,271              |                             |                             |                     |                       |                   | 320,271             | U  |
| 186     | 0207136F               | Manned Destructive Suppression                               | 07  | 15,106               |                             |                             |                     |                       |                   | 15,106              | U  |
| 187     | 0207138F               | F-22A Squadrons  | 07  | 610,942              |                             |                             |                     |                       |                   | 610,942             | U  |
| 188     | 0207142F               | F-35 Squadrons   | 07  | 334,530              |                             |                             |                     |                       |                   | 334,530             | U  |
| 189     | 0207161F               | Tactical AIM Missiles  | 07  | 34,952               |                             |                             |                     |                       |                   | 34,952              | U  |
| 190     | 0207163F               | Advanced Medium Range Air-to-Air Missile (AMRAAM)            | 07  | 61,322               |                             |                             |                     |                       |                   | 61,322              | U  |

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|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 191     | 0207224F               | Combat Rescue and Recovery                    | 07  | 398                |                        |                       |                            | U  |
| 192     | 0207227F               | Combat Rescue - Pararescue                    | 07  | 636                | 362                    |                       | 362                        | U  |
| 193     | 0207247F               | AF TENCAP                                     | 07  | 37,489             | 28,413                 |                       | 28,413                     | U  |
| 194     | 0207249F               | Precision Attack Systems Procurement          | 07  | 1,064              | 649                    |                       | 649                        | U  |
| 195     | 0207253F               | Compass Call                                  | 07  | 32,024             | 13,723                 |                       | 13,723                     | U  |
| 196     | 0207268F               | Aircraft Engine Component Improvement Program | 07  | 104,092            | 109,859                |                       | 109,859                    | U  |
| 197     | 0207277F               | ISR Innovations                               | 07  |                    |                        |                       |                            | U  |
| 198     | 0207325F               | Joint Air-to-Surface Standoff Missile (JASSM) | 07  | 9,221              | 21,902                 |                       | 21,902                     | U  |
| 199     | 0207410F               | Air & Space Operations Center (AOC)           | 07  | 20,588             | 30,343                 |                       | 30,343                     | U  |
| 200     | 0207412F               | Control and Reporting Center (CRC)            | 07  | 557                | 13,292                 |                       | 13,292                     | U  |
| 201     | 0207417F               | Airborne Warning and Control System (AWACS)   | 07  | 124,457            | 86,644                 |                       | 86,644                     | U  |
| 202     | 0207418F               | Tactical Airborne Control Systems             | 07  | 5,786              | 2,442                  |                       | 2,442                      | U  |
| 204     | 0207431F               | Combat Air Intelligence System Activities     | 07  | 6,793              | 15,461                 |                       | 15,461                     | U  |
| 205     | 0207444F               | Tactical Air Control Party-Mod                | 07  | 10,747             | 11,843                 |                       | 11,843                     | U  |
| 206     | 0207448F               | C2ISR Tactical Data Link                      | 07  | 1,629              | 1,446                  |                       | 1,446                      | U  |
| 207     | 0207452F               | DCAPES  | 07  | 12,909             | 14,979                 |                       | 14,979                     | U  |
| 208     | 0207573F               | National Technical Nuclear Forensics          | 07  |                    |                        |                       |                            | U  |
| 209     | 0207590F               | Seek Eagle                                    | 07  | 21,131             | 25,308                 |                       | 25,308                     | U  |
| 210     | 0207601F               | USAF Modeling and Simulation                  | 07  | 20,358             | 16,072                 |                       | 16,072                     | U  |

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|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 191     | 0207224F               | Combat Rescue and Recovery                    | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 192     | 0207227F               | Combat Rescue - Pararescue                    | 07  | 693                  |                             |                             |                     |                       |                   | 693                 | U  |
| 193     | 0207247F               | AF TENCAP                                     | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 194     | 0207249F               | Precision Attack Systems Procurement          | 07  | 1,714                |                             |                             |                     |                       |                   | 1,714               | U  |
| 195     | 0207253F               | Compass Call                                  | 07  | 14,040               |                             |                             |                     |                       |                   | 14,040              | U  |
| 196     | 0207268F               | Aircraft Engine Component Improvement Program | 07  | 109,243              |                             |                             |                     |                       |                   | 109,243             | U  |
| 197     | 0207277F               | ISR Innovations                               | 07  |                      |                             |                             | 5,750               |                       | 5,750             | 5,750               | U  |
| 198     | 0207325F               | Joint Air-to-Surface Standoff Missile (JASSM) | 07  | 29,932               |                             |                             |                     |                       |                   | 29,932              | U  |
| 199     | 0207410F               | Air & Space Operations Center (AOC)           | 07  | 26,956               |                             |                             |                     |                       |                   | 26,956              | U  |
| 200     | 0207412F               | Control and Reporting Center (CRC)            | 07  | 2,450                |                             |                             |                     |                       |                   | 2,450               | U  |
| 201     | 0207417F               | Airborne Warning and Control System (AWACS)   | 07  | 151,726              |                             |                             |                     |                       |                   | 151,726             | U  |
| 202     | 0207418F               | Tactical Airborne Control Systems             | 07  | 3,656                |                             |                             |                     |                       |                   | 3,656               | U  |
| 204     | 0207431F               | Combat Air Intelligence System Activities     | 07  | 13,420               |                             |                             |                     |                       |                   | 13,420              | U  |
| 205     | 0207444F               | Tactical Air Control Party-Mod                | 07  | 10,623               |                             |                             |                     |                       |                   | 10,623              | U  |
| 206     | 0207448F               | C2ISR Tactical Data Link                      | 07  | 1,754                |                             |                             |                     |                       |                   | 1,754               | U  |
| 207     | 0207452F               | DCAPES  | 07  | 17,382               |                             |                             |                     |                       |                   | 17,382              | U  |
| 208     | 0207573F               | National Technical Nuclear Forensics          | 07  | 2,307                |                             |                             |                     |                       |                   | 2,307               | U  |
| 209     | 0207590F               | Seek Eagle                                    | 07  | 25,397               |                             |                             |                     |                       |                   | 25,397              | U  |
| 210     | 0207601F               | USAF Modeling and Simulation                  | 07  | 10,175               |                             |                             |                     |                       |                   | 10,175              | U  |

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|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 211     | 0207605F               | Wargaming and Simulation Centers  | 07  | 5,819              | 4,245                  |                       | 4,245                      | U  |
| 212     | 0207697F               | Distributed Training and Exercises                                      | 07  | 4,202              | 3,668                  |                       | 3,668                      | U  |
| 213     | 0208006F               | Mission Planning Systems  | 07  | 54,176             | 71,785                 |                       | 71,785                     | U  |
| 214     | 0208007F               | Tactical Deception  | 07  |                    |                        |                       |                            | U  |
| 215     | 0208087F               | AF Offensive Cyberspace Operations                                      | 07  | 14,939             | 25,025                 |                       | 25,025                     | U  |
| 216     | 0208088F               | AF Defensive Cyberspace Operations                                      | 07  | 7,414              | 39,439                 |                       | 39,439                     | U  |
| 219     | 0301017F               | Global Sensor Integrated on Network (GSIN)                              | 07  | 5,803              | 3,392                  |                       | 3,392                      | U  |
| 220     | 0301112F               | Nuclear Planning and Execution System (NPES)                            | 07  |                    | 4,060                  |                       | 4,060                      | U  |
| 226     | 0301400F               | Space Superiority Intelligence  | 07  | 13,965             | 12,380                 |                       | 12,380                     | U  |
| 227     | 0301401F               | Air Force Space and Cyber Non-Traditional ISR for Battlespace Awareness | 07  |                    |                        |                       |                            | U  |
| 228     | 0302015F               | E-4B National Airborne Operations Center (NAOC)                         | 07  | 76,760             | 26,048                 |                       | 26,048                     | U  |
| 229     | 0303001F               | Family of Advanced BLoS Terminals (FAB-T)                               | 07  | 12,313             | 42,378                 |                       | 42,378                     | U  |
| 230     | 0303131F               | Minimum Essential Emergency Communications Network (MEECN)              | 07  | 92,036             | 39,457                 |                       | 39,457                     | U  |
| 231     | 0303140F               | Information Systems Security Program                                    | 07  | 44,578             | 37,388                 |                       | 37,388                     | U  |
| 232     | 0303141F               | Global Combat Support System  | 07  |                    | 52                     |                       | 52                         | U  |
| 233     | 0303142F               | Global Force Management - Data Initiative                               | 07  | 2,470              | 2,099                  |                       | 2,099                      | U  |
| 234     | 0303601F               | MILSATCOM Terminals   | 07  | 9,000              |                        |                       |                            | U  |

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|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 211     | 0207605F               | Wargaming and Simulation Centers  | 07  | 12,839               |                             |                             |                     |                       |                   | 12,839              | U  |
| 212     | 0207697F               | Distributed Training and Exercises                                      | 07  | 4,190                |                             |                             |                     |                       |                   | 4,190               | U  |
| 213     | 0208006F               | Mission Planning Systems  | 07  | 85,531               |                             |                             |                     |                       |                   | 85,531              | U  |
| 214     | 0208007F               | Tactical Deception  | 07  | 3,761                |                             |                             |                     |                       |                   | 3,761               | U  |
| 215     | 0208087F               | AF Offensive Cyberspace Operations                                      | 07  | 35,693               |                             |                             | 4,000               |                       | 4,000             | 39,693              | U  |
| 216     | 0208088F               | AF Defensive Cyberspace Operations                                      | 07  | 20,964               |                             |                             |                     |                       |                   | 20,964              | U  |
| 219     | 0301017F               | Global Sensor Integrated on Network (GSIN)                              | 07  | 3,549                |                             |                             |                     |                       |                   | 3,549               | U  |
| 220     | 0301112F               | Nuclear Planning and Execution System (NPES)                            | 07  | 4,371                |                             |                             |                     |                       |                   | 4,371               | U  |
| 226     | 0301400F               | Space Superiority Intelligence  | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 227     | 0301401F               | Air Force Space and Cyber Non-Traditional ISR for Battlespace Awareness | 07  | 3,721                |                             |                             |                     |                       |                   | 3,721               | U  |
| 228     | 0302015F               | E-4B National Airborne Operations Center (NAOC)                         | 07  | 35,467               |                             |                             |                     |                       |                   | 35,467              | U  |
| 229     | 0303001F               | Family of Advanced BLoS Terminals (FAB-T)                               | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 230     | 0303131F               | Minimum Essential Emergency Communications Network (MEECN)              | 07  | 48,841               |                             |                             |                     |                       |                   | 48,841              | U  |
| 231     | 0303140F               | Information Systems Security Program                                    | 07  | 42,973               |                             |                             |                     |                       |                   | 42,973              | U  |
| 232     | 0303141F               | Global Combat Support System  | 07  | 105                  |                             |                             |                     |                       |                   | 105                 | U  |
| 233     | 0303142F               | Global Force Management - Data Initiative                               | 07  | 2,147                |                             |                             |                     |                       |                   | 2,147               | U  |
| 234     | 0303601F               | MILSATCOM Terminals   | 07  |                      |                             |                             |                     |                       |                   |                     | U  |

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 236     | 0304260F               | Airborne SIGINT Enterprise                                     | 07  | 111,142            | 90,762                 |                       | 90,762                     | U  |
| 237     | 0304310F               | Commercial Economic Analysis                                   | 07  |                    |                        |                       |                            | U  |
| 240     | 0305020F               | CCMD Intelligence Information Technology                       | 07  |                    | 1,507                  |                       | 1,507                      | U  |
| 241     | 0305099F               | Global Air Traffic Management (GATM)                           | 07  | 4,089              | 4,354                  |                       | 4,354                      | U  |
| 242     | 0305110F               | Satellite Control Network (SPACE)                              | 07  | 7,327              | 14,624                 |                       | 14,624                     | U  |
| 243     | 0305111F               | Weather Service  | 07  | 28,812             | 24,974                 |                       | 24,974                     | U  |
| 244     | 0305114F               | Air Traffic Control, Approach, and Landing System (ATCALs)     | 07  | 18,830             | 17,770                 |                       | 17,770                     | U  |
| 245     | 0305116F               | Aerial Targets   | 07  | 2,578              | 3,051                  |                       | 3,051                      | U  |
| 248     | 0305128F               | Security and Investigative Activities                          | 07  | 455                | 405                    |                       | 405                        | U  |
| 249     | 0305145F               | Arms Control Implementation                                    | 07  | 9,116              | 4,844                  |                       | 4,844                      | U  |
| 250     | 0305146F               | Defense Joint Counterintelligence Activities                   | 07  | 361                | 339                    |                       | 339                        | U  |
| 253     | 0305173F               | Space and Missile Test and Evaluation Center                   | 07  | 3,490              | 3,989                  |                       | 3,989                      | U  |
| 254     | 0305174F               | Space Innovation, Integration and Rapid Technology Development | 07  | 1,543              | 1,570                  | 4,715                 | 6,285                      | U  |
| 255     | 0305179F               | Integrated Broadcast Service (IBS)                             | 07  | 9,760              | 8,833                  |                       | 8,833                      | U  |
| 256     | 0305182F               | Spacelift Range System (SPACE)                                 | 07  | 5,708              | 21,867                 |                       | 21,867                     | U  |
| 257     | 0305202F               | Dragon U-2   | 07  | 34,471             | 37,217                 |                       | 37,217                     | U  |
| 258     | 0305205F               | Endurance Unmanned Aerial Vehicles                             | 07  | 5,000              | 50,000                 |                       | 50,000                     | U  |
| 259     | 0305206F               | Airborne Reconnaissance Systems                                | 07  | 61,742             | 13,465                 |                       | 13,465                     | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 236     | 0304260F               | Airborne SIGINT Enterprise                                     | 07  | 121,948              |                             |                             |                     |                       |                   | 121,948             | U  |
| 237     | 0304310F               | Commercial Economic Analysis                                   | 07  | 3,544                |                             |                             |                     |                       |                   | 3,544               | U  |
| 240     | 0305020F               | CCMD Intelligence Information Technology                       | 07  | 1,542                |                             |                             |                     |                       |                   | 1,542               | U  |
| 241     | 0305099F               | Global Air Traffic Management (GATM)                           | 07  | 4,453                |                             |                             |                     |                       |                   | 4,453               | U  |
| 242     | 0305110F               | Satellite Control Network (SPACE)                              | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 243     | 0305111F               | Weather Service  | 07  | 26,654               |                             |                             |                     |                       |                   | 26,654              | U  |
| 244     | 0305114F               | Air Traffic Control, Approach, and Landing System (ATCALs)     | 07  | 6,306                |                             |                             |                     |                       |                   | 6,306               | U  |
| 245     | 0305116F               | Aerial Targets   | 07  | 21,295               |                             |                             |                     |                       |                   | 21,295              | U  |
| 248     | 0305128F               | Security and Investigative Activities                          | 07  | 415                  |                             |                             |                     |                       |                   | 415                 | U  |
| 249     | 0305145F               | Arms Control Implementation                                    | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 250     | 0305146F               | Defense Joint Counterintelligence Activities                   | 07  | 3,867                |                             |                             |                     |                       |                   | 3,867               | U  |
| 253     | 0305173F               | Space and Missile Test and Evaluation Center                   | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 254     | 0305174F               | Space Innovation, Integration and Rapid Technology Development | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 255     | 0305179F               | Integrated Broadcast Service (IBS)                             | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 256     | 0305182F               | Spacelift Range System (SPACE)                                 | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 257     | 0305202F               | Dragon U-2   | 07  | 34,486               |                             |                             |                     |                       |                   | 34,486              | U  |
| 258     | 0305205F               | Endurance Unmanned Aerial Vehicles                             | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 259     | 0305206F               | Airborne Reconnaissance Systems                                | 07  | 4,450                |                             |                             |                     |                       |                   | 4,450               | U  |

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 (Dollars in Thousands)

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item  | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|---|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 260     | 0305207F               | Manned Reconnaissance Systems                           | 07  | 13,245             | 20,975                 |                       | 20,975                     | U  |
| 261     | 0305208F               | Distributed Common Ground/Surface Systems               | 07  | 22,686             | 18,902                 |                       | 18,902                     | U  |
| 262     | 0305220F               | RQ-4 UAV  | 07  | 180,547            | 244,807                |                       | 244,807                    | U  |
| 263     | 0305221F               | Network-Centric Collaborative Targeting                 | 07  | 19,587             | 22,610                 |                       | 22,610                     | U  |
| 264     | 0305236F               | Common Data Link Executive Agent (CDL EA)               | 07  | 43,709             | -2,046                 |                       | -2,046                     | U  |
| 265     | 0305238F               | NATO AGS  | 07  | 131,900            | 38,904                 |                       | 38,904                     | U  |
| 266     | 0305240F               | Support to DCGS Enterprise                              | 07  | 28,336             | 23,084                 |                       | 23,084                     | U  |
| 267     | 0305265F               | GPS III Space Segment                                   | 07  | 147,398            | 171,843                |                       | 171,843                    | U  |
| 268     | 0305600F               | International Intelligence Technology and Architectures | 07  | 2,298              | 2,360                  |                       | 2,360                      | U  |
| 269     | 0305614F               | JSPOC Mission System                                    | 07  | 80,669             | 72,889                 | 6,700                 | 79,589                     | U  |
| 270     | 0305881F               | Rapid Cyber Acquisition                                 | 07  | 3,036              | 4,280                  |                       | 4,280                      | U  |
| 271     | 0305906F               | NCMC - TW/AA System                                     | 07  |                    | 4,951                  |                       | 4,951                      | U  |
| 272     | 0305913F               | NUDET Detection System (SPACE)                          | 07  | 14,403             | 21,093                 |                       | 21,093                     | U  |
| 273     | 0305940F               | Space Situation Awareness Operations                    | 07  | 23,416             | 35,002                 | 58,800                | 93,802                     | U  |
| 274     | 0305984F               | Personnel Recovery Command & Ctrl (PRC2)                | 07  |                    |                        |                       |                            | U  |
| 275     | 0307577F               | Intelligence Mission Data (IMD)                         | 07  |                    |                        |                       |                            | U  |
| 276     | 0308699F               | Shared Early Warning (SEW)                              | 07  | 845                | 6,366                  |                       | 6,366                      | U  |
| 277     | 0401115F               | C-130 Airlift Squadron                                  | 07  | 33,962             | 15,599                 |                       | 15,599                     | U  |

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item  | Act | FY 2018 Base Request | FY 2018 June Amendment Base | FY 2018 Amendment Emergency | FY 2018 OCO Request | FY 2018 Amendment OCO | FY 2018 Total OCO | FY 2018 Grand Total | Se |
|---------|------------------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 260     | 0305207F               | Manned Reconnaissance Systems                           | 07  | 14,269               |                             |                             |                     |                       |                   | 14,269              | U  |
| 261     | 0305208F               | Distributed Common Ground/Surface Systems               | 07  | 27,501               |                             |                             |                     |                       |                   | 27,501              | U  |
| 262     | 0305220F               | RQ-4 UAV  | 07  | 214,849              |                             |                             |                     |                       |                   | 214,849             | U  |
| 263     | 0305221F               | Network-Centric Collaborative Targeting                 | 07  | 18,842               |                             |                             |                     |                       |                   | 18,842              | U  |
| 264     | 0305236F               | Common Data Link Executive Agent (CDL EA)               | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 265     | 0305238F               | NATO AGS  | 07  | 44,729               |                             |                             |                     |                       |                   | 44,729              | U  |
| 266     | 0305240F               | Support to DCGS Enterprise                              | 07  | 26,349               |                             |                             |                     |                       |                   | 26,349              | U  |
| 267     | 0305265F               | GPS III Space Segment                                   | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 268     | 0305600F               | International Intelligence Technology and Architectures | 07  | 3,491                |                             |                             |                     |                       |                   | 3,491               | U  |
| 269     | 0305614F               | JSPOC Mission System                                    | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 270     | 0305881F               | Rapid Cyber Acquisition                                 | 07  | 4,899                |                             |                             |                     |                       |                   | 4,899               | U  |
| 271     | 0305906F               | NCMC - TW/AA System                                     | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 272     | 0305913F               | NUDET Detection System (SPACE)                          | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 273     | 0305940F               | Space Situation Awareness Operations                    | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 274     | 0305984F               | Personnel Recovery Command & Ctrl (PRC2)                | 07  | 2,445                |                             |                             |                     |                       |                   | 2,445               | U  |
| 275     | 0307577F               | Intelligence Mission Data (IMD)                         | 07  | 8,684                |                             |                             |                     |                       |                   | 8,684               | U  |
| 276     | 0308699F               | Shared Early Warning (SEW)                              | 07  |                      |                             |                             |                     |                       |                   |                     | U  |
| 277     | 0401115F               | C-130 Airlift Squadron                                  | 07  | 10,219               |                             |                             |                     |                       |                   | 10,219              | U  |

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Appropriation: 3600F Research, Development, Test & Eval, AF

| Line No | Program Element Number | Item                                       | Act | FY 2016 Base + OCO | FY 2017 Base Enactment | FY 2017 OCO Enactment | FY 2017 Total (Base + OCO) | Se |
|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 278     | 0401119F               | C-5 Airlift Squadrons (IF)                 | 07  | 22,766             | 66,146                 |                       | 66,146                     | U  |
| 279     | 0401130F               | C-17 Aircraft (IF)                         | 07  | 36,082             | 12,430                 |                       | 12,430                     | U  |
| 280     | 0401132F               | C-130J Program                             | 07  | 31,410             | 16,776                 |                       | 16,776                     | U  |
| 281     | 0401134F               | Large Aircraft IR Countermeasures (LAIRCM) | 07  | 5,802              | 5,166                  |                       | 5,166                      | U  |
| 282     | 0401218F               | KC-135s                                    | 07  |                    |                        |                       |                            | U  |
| 283     | 0401219F               | KC-10s                                     | 07  | 1,597              | 3,500                  |                       | 3,500                      | U  |
| 284     | 0401314F               | Operational Support Airlift                | 07  | 46,453             | 13,817                 |                       | 13,817                     | U  |
| 285     | 0401318F               | CV-22                                      | 07  | 26,821             | 16,702                 | 12,000                | 28,702                     | U  |
| 286     | 0401840F               | AMC Command and Control System             | 07  |                    |                        |                       |                            | U  |
| 287     | 0408011F               | Special Tactics / Combat Control           | 07  | 7,665              | 7,164                  |                       | 7,164                      | U  |
| 288     | 0702207F               | Depot Maintenance (Non-IF)                 | 07  | 1,514              | 1,518                  |                       | 1,518                      | U  |
| 289     | 0708055F               | Maintenance, Repair & Overhaul System      | 07  |                    |                        |                       |                            | U  |
| 290     | 0708610F               | Logistics Information Technology (LOGIT)   | 07  | 52,482             | 57,014                 |                       | 57,014                     | U  |
| 291     | 0708611F               | Support Systems Development                | 07  | 13,987             | 9,128                  |                       | 9,128                      | U  |
| 292     | 0804743F               | Other Flight Training                      | 07  | 1,770              | 1,653                  |                       | 1,653                      | U  |
| 293     | 0808716F               | Other Personnel Activities                 | 07  | 117                | 57                     |                       | 57                         | U  |
| 294     | 0901202F               | Joint Personnel Recovery Agency            | 07  | 5,741              | 3,663                  |                       | 3,663                      | U  |
| 295     | 0901218F               | Civilian Compensation Program              | 07  | 3,475              | 3,735                  |                       | 3,735                      | U  |
| 296     | 0901220F               | Personnel Administration                   | 07  | 4,416              | 5,157                  |                       | 5,157                      | U  |

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| Line No | Program Element Number | Item                                       | Act | FY 2018 Base Request | FY 2018 June Amendment Base | FY 2018 Amendment Emergency | FY 2018 OCO Request | FY 2018 Amendment OCO | FY 2018 Total OCO | FY 2018 Grand Total | Se |
|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 278     | 0401119F               | C-5 Airlift Squadrons (IF)                 | 07  | 22,758               |                             |                             |                     |                       |                   | 22,758              | U  |
| 279     | 0401130F               | C-17 Aircraft (IF)                         | 07  | 34,287               |                             |                             |                     |                       |                   | 34,287              | U  |
| 280     | 0401132F               | C-130J Program                             | 07  | 26,821               |                             |                             |                     |                       |                   | 26,821              | U  |
| 281     | 0401134F               | Large Aircraft IR Countermeasures (LAIRCM) | 07  | 5,283                |                             |                             |                     |                       |                   | 5,283               | U  |
| 282     | 0401218F               | KC-135s                                    | 07  | 9,942                |                             |                             |                     |                       |                   | 9,942               | U  |
| 283     | 0401219F               | KC-10s                                     | 07  | 7,933                |                             |                             |                     |                       |                   | 7,933               | U  |
| 284     | 0401314F               | Operational Support Airlift                | 07  | 6,681                |                             |                             |                     |                       |                   | 6,681               | U  |
| 285     | 0401318F               | CV-22                                      | 07  | 22,519               |                             |                             |                     |                       |                   | 22,519              | U  |
| 286     | 0401840F               | AMC Command and Control System             | 07  | 3,510                |                             |                             |                     |                       |                   | 3,510               | U  |
| 287     | 0408011F               | Special Tactics / Combat Control           | 07  | 8,090                |                             |                             |                     |                       |                   | 8,090               | U  |
| 288     | 0702207F               | Depot Maintenance (Non-IF)                 | 07  | 1,528                |                             |                             |                     |                       |                   | 1,528               | U  |
| 289     | 0708055F               | Maintenance, Repair & Overhaul System      | 07  | 31,677               |                             |                             |                     |                       |                   | 31,677              | U  |
| 290     | 0708610F               | Logistics Information Technology (LOGIT)   | 07  | 33,344               |                             |                             |                     |                       |                   | 33,344              | U  |
| 291     | 0708611F               | Support Systems Development                | 07  | 9,362                |                             |                             |                     |                       |                   | 9,362               | U  |
| 292     | 0804743F               | Other Flight Training                      | 07  | 2,074                |                             |                             |                     |                       |                   | 2,074               | U  |
| 293     | 0808716F               | Other Personnel Activities                 | 07  | 107                  |                             |                             |                     |                       |                   | 107                 | U  |
| 294     | 0901202F               | Joint Personnel Recovery Agency            | 07  | 2,006                |                             |                             |                     |                       |                   | 2,006               | U  |
| 295     | 0901218F               | Civilian Compensation Program              | 07  | 3,780                |                             |                             |                     |                       |                   | 3,780               | U  |
| 296     | 0901220F               | Personnel Administration                   | 07  | 7,472                |                             |                             |                     |                       |                   | 7,472               | U  |

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|---------|------------------------|--|-----|--------------------|------------------------|-----------------------|----------------------------|----|
| 297     | 0901226F               | Air Force Studies and Analysis Agency                          | 07  | 1,064              | 1,469                  |                       | 1,469                      | U  |
| 298     | 0901538F               | Financial Management Information Systems Development           | 07  | 95,053             | 9,985                  |                       | 9,985                      | U  |
| 299     | 1201921F               | Service Support to STRATCOM - Space Activities                 | 07  |                    |                        |                       |                            | U  |
| 300     | 1202247F               | AF TENCAP  | 07  |                    |                        |                       |                            | U  |
| 301     | 1203001F               | Family of Advanced BLoS Terminals (FAB-T)                      | 07  |                    |                        |                       |                            | U  |
| 302     | 1203110F               | Satellite Control Network (SPACE)                              | 07  |                    |                        |                       |                            | U  |
| 304     | 1203165F               | NAVSTAR Global Positioning System (Space and Control Segments) | 07  |                    |                        |                       |                            | U  |
| 305     | 1203173F               | Space and Missile Test and Evaluation Center                   | 07  |                    |                        |                       |                            | U  |
| 306     | 1203174F               | Space Innovation, Integration and Rapid Technology Development | 07  |                    |                        |                       |                            | U  |
| 307     | 1203179F               | Integrated Broadcast Service (IBS)                             | 07  |                    |                        |                       |                            | U  |
| 308     | 1203182F               | Spacelift Range System (SPACE)                                 | 07  |                    |                        |                       |                            | U  |
| 309     | 1203265F               | GPS III Space Segment  | 07  |                    |                        |                       |                            | U  |
| 310     | 1203400F               | Space Superiority Intelligence                                 | 07  |                    |                        |                       |                            | U  |
| 311     | 1203614F               | JSpOC Mission System   | 07  |                    |                        |                       |                            | U  |
| 312     | 1203620F               | National Space Defense Center                                  | 07  |                    |                        |                       |                            | U  |
| 313     | 1203699F               | Shared Early Warning (SEW)                                     | 07  |                    |                        |                       |                            | U  |
| 314     | 1203906F               | NCCM - TW/AA System  | 07  |                    |                        |                       |                            | U  |

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|---------|------------------------|--|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 297     | 0901226F               | Air Force Studies and Analysis Agency                          | 07  | 1,563                |                             |                             |                     |                       |                   | 1,563               | U  |
| 298     | 0901538F               | Financial Management Information Systems Development           | 07  | 91,211               |                             |                             |                     |                       |                   | 91,211              | U  |
| 299     | 1201921F               | Service Support to STRATCOM - Space Activities                 | 07  | 14,255               |                             |                             |                     |                       |                   | 14,255              | U  |
| 300     | 1202247F               | AF TENCAP  | 07  | 31,914               |                             |                             |                     |                       |                   | 31,914              | U  |
| 301     | 1203001F               | Family of Advanced BLoS Terminals (FAB-T)                      | 07  | 32,426               |                             |                             |                     |                       |                   | 32,426              | U  |
| 302     | 1203110F               | Satellite Control Network (SPACE)                              | 07  | 18,808               |                             |                             |                     |                       |                   | 18,808              | U  |
| 304     | 1203165F               | NAVSTAR Global Positioning System (Space and Control Segments) | 07  | 10,029               |                             |                             |                     |                       |                   | 10,029              | U  |
| 305     | 1203173F               | Space and Missile Test and Evaluation Center                   | 07  | 25,051               |                             |                             |                     |                       |                   | 25,051              | U  |
| 306     | 1203174F               | Space Innovation, Integration and Rapid Technology Development | 07  | 11,390               |                             |                             |                     |                       |                   | 11,390              | U  |
| 307     | 1203179F               | Integrated Broadcast Service (IBS)                             | 07  | 8,747                |                             |                             |                     |                       |                   | 8,747               | U  |
| 308     | 1203182F               | Spacelift Range System (SPACE)                                 | 07  | 10,549               |                             |                             |                     |                       |                   | 10,549              | U  |
| 309     | 1203265F               | GPS III Space Segment  | 07  | 243,435              |                             |                             |                     |                       |                   | 243,435             | U  |
| 310     | 1203400F               | Space Superiority Intelligence                                 | 07  | 12,691               |                             |                             |                     |                       |                   | 12,691              | U  |
| 311     | 1203614F               | JSpOC Mission System   | 07  | 99,455               |                             |                             |                     |                       |                   | 99,455              | U  |
| 312     | 1203620F               | National Space Defense Center                                  | 07  | 18,052               |                             |                             |                     |                       |                   | 18,052              | U  |
| 313     | 1203699F               | Shared Early Warning (SEW)                                     | 07  | 1,373                |                             |                             |                     |                       |                   | 1,373               | U  |
| 314     | 1203906F               | NCMC - TW/AA System  | 07  | 5,000                |                             |                             |                     |                       |                   | 5,000               | U  |

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| Line No                                      | Program Element Number | Item   | Act | FY 2016<br>Base + OCO | FY 2017<br>Base<br>Enactment | FY 2017<br>OCO<br>Enactment | FY 2017<br>Total<br>(Base + OCO) | S<br>e<br>c |
|--|------------------------|--|-----|-----------------------|------------------------------|-----------------------------|----------------------------------|-------------|
| 315  | 1203913F               | NUDET Detection System (SPACE)                                 | 07  |                       |                              |                             |                                  | U           |
| 316  | 1203940F               | Space Situation Awareness Operations                           | 07  |                       |                              |                             |                                  | U           |
| 317  | 1206423F               | Global Positioning System III -<br>Operational Control Segment | 07  |                       |                              |                             |                                  | U           |
| 9999   | 9999999999             | Classified Programs  |     | 12,052,624            | 12,795,281                   | 194,365                     | 12,989,646                       | U           |
|  |                        | Operational Systems Development                                |     | 15,915,939            | 16,983,742                   | 333,080                     | 17,316,822                       |             |
| Total Research, Development, Test & Eval, AF |                        |  |     | 25,243,981            | 27,766,036                   | 365,205                     | 28,131,241                       |             |

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| Line No                                      | Element Number | Program Item  | Act | FY 2018 Base Request | FY 2018 June Amendment Base | FY 2018 Amendment Emergency | FY 2018 OCO Request | FY 2018 Amendment OCO | FY 2018 Total OCO | FY 2018 Grand Total | Se |
|--|----------------|---|-----|----------------------|-----------------------------|-----------------------------|---------------------|-----------------------|-------------------|---------------------|----|
| 315  | 1203913F       | NUDET Detection System (SPACE)                              | 07  | 31,508               |                             |                             |                     |                       |                   | 31,508              | U  |
| 316  | 1203940F       | Space Situation Awareness Operations                        | 07  | 99,984               |                             |                             |                     |                       |                   | 99,984              | U  |
| 317  | 1206423F       | Global Positioning System III - Operational Control Segment | 07  | 510,938              |                             |                             |                     |                       |                   | 510,938             | U  |
| 9999   | 9999999999     | Classified Programs   |     | 14,938,002           |                             | 165,244                     | 112,408             |                       | 112,408           | 15,215,654          | U  |
|  |                | Operational Systems Development                             |     | 20,585,302           |                             |                             | 122,158             |                       | 122,158           | 20,872,704          |    |
| Total Research, Development, Test & Eval, AF |                |   |     | 34,914,359           |                             | 255,744                     | 135,358             |                       | 135,358           | 35,305,461          |    |

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Air Force • Budget Amendment FY 2018 • RDT&E Program

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| <b>Line #</b> | <b>Budget Activity</b> | <b>Program Element Number</b> | <b>Program Element Title</b>                 | <b>Page</b>  |
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| <b>Program Element Title</b>            | <b>Program Element Number</b> | <b>Line #</b> | <b>BA</b> | <b>Page</b>  |
|---|-------------------------------|---------------|-----------|--------------|
| Cyber Operations Technology Development | 0306250F                      | 54            | 04.....   | Volume 1 - 1 |

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**Exhibit R-2, RDT&E Budget Item Justification:** PB Amended 2018 Air Force **Date:** November 2017

| <b>Appropriation/Budget Activity</b>   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b>                     |                      |                |                |                |                |                         |                   |
|--|--------------------|----------------|----------------|---------------------|--|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> |                    |                |                |                     | PE 0306250F / <i>Cyber Operations Technology Development</i> |                      |                |                |                |                |                         |                   |
| <b>COST (\$ in Millions)</b>   | <b>Prior Years</b> | <b>FY 2016</b> | <b>FY 2017</b> | <b>FY 2018 Base</b> | <b>FY 2018 OCO</b>   | <b>FY 2018 Total</b> | <b>FY 2019</b> | <b>FY 2020</b> | <b>FY 2021</b> | <b>FY 2022</b> | <b>Cost To Complete</b> | <b>Total Cost</b> |
| Total Program Element  | -                  | 91.845         | 162.644        | 316.787             | 5.400  | 322.187              | 203.833        | 200.530        | 213.998        | 219.345        | Continuing              | Continuing        |
| 646008: <i>US Cyber Command Technology Development</i>   | -                  | 91.845         | 162.644        | 316.787             | 5.400  | 322.187              | 203.833        | 200.530        | 213.998        | 219.345        | Continuing              | Continuing        |

**Note**

FY 2017 MISSILE DEFEAT ENHANCEMENTS REPROGRAMMING (FY 17-26 PA): \$48 million is required for a classified research and development effort in support of combatant command requirements. All aspects of this effort are classified and will be provided on a need to know basis. This is a congressional special interest item.

FY 2018 MISSILE DEFEAT AND DEFENSE ENHANCEMENTS (MDDE) BUDGET AMENDMENT: \$90.5 million is required for a classified research and development effort in support of combatant command requirements. All aspects of this effort are classified and will be provided on a need to know basis.

**A. Mission Description and Budget Item Justification**

US Cyber Command's (USCYBERCOM) mission is to deter or defeat strategic threats to US interests and infrastructure, provide mission assurance for the operations and defense of the Department of Defense information environment, and support the achievement of Joint Force Commander objectives.

USCYBERCOM in conjunction with the Services and National Agencies will develop and expand infrastructure architectures and capabilities/tools to support Cyber Mission Forces (CMF).

The portfolio was restructured to facilitate alignment of resources to four program areas.

The focus is on four broad program areas:

1. **Common Services:** funding is for enterprise capabilities that enable mission execution for the Cyber Mission Forces. Common Services includes a Unified Platform (UP) to enable CMF to conduct planning and execution of full-spectrum cyber operations. UP supports and links the following common service capabilities enabling the CMF: Command and Control; defensive cyber operations; situational awareness; and training and assessment.
2. **Access Platforms:** funding supports development of capabilities and/or infrastructures used by Cyber Mission Forces for employment of access on networks to create effects. Efforts include research, analysis, testing, assessment and integration. Further details are held at higher classification levels.
3. **Tools:** funding supports development of common and specialized tools critical to gain access to or create effects on networks. Efforts include research, studies, analysis, testing, assessment of development, integration, and operational assessment of cyberspace capabilities, methodologies and tactics. Funding also supports OCO requirements for Cyber, Joint Task Force ARES.

**UNCLASSIFIED**

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB Amended 2018 Air Force | <b>Date:</b> November 2017 |
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| <b>Appropriation/Budget Activity</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0306250F / <i>Cyber Operations Technology Development</i> |
|--|--|

4. Analytics: funding supports capabilities used in Cyber Mission Force operations to store, correlate, and analyze data collected from multiple sources to garner unique insights to enable decision making.

The origin, details and specific aspects of these efforts are classified and will be provided on a need-to-know basis.

This is in Budget Activity 4, Advanced Component Development and Prototypes, because efforts are necessary to evaluate integrated technologies, representative modes, or prototype systems in a high fidelity and realistic operating environment.

| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2016</b> | <b>FY 2017</b> | <b>FY 2018 Base</b> | <b>FY 2018 OCO</b> | <b>FY 2018 Total</b> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 81.732         | 158.002        | 223.636             | 0.000              | 223.636              |
| Current President's Budget                        | 91.845         | 162.644        | 316.787             | 5.400              | 322.187              |
| Total Adjustments                                 | 10.113         | 4.642          | 93.151              | 5.400              | 98.551               |
| • Congressional General Reductions                | -0.020         | -0.058         |                     |                    |                      |
| • Congressional Directed Reductions               | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Rescissions                       | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Adds                              | 12.000         | 0.000          |                     |                    |                      |
| • Congressional Directed Transfers                | 0.000          | 0.000          |                     |                    |                      |
| • Reprogrammings                                  | 0.884          | 0.000          |                     |                    |                      |
| • SBIR/STTR Transfer                              | -2.751         | 0.000          |                     |                    |                      |
| • Other Adjustments                               | 0.000          | 4.700          | 2.651               | 5.400              | 8.051                |
| • Missile Defeat and Defense Enhancement          | -              | -              | 90.500              | -                  | 90.500               |

**Change Summary Explanation**

Fiscal Year (FY) 2016 Congressional add of FY16 \$12 million for USCYBERCOM Combatant Command (COCOM) Support.

Fiscal Year (FY) 2017 Request for Additional Appropriations: \$4.7 million in Overseas Contingency Operations (OCO) funding is required to accelerate the build of Title X Infrastructure and access platforms.

Fiscal Year (FY) 2018 Total Adjustments reflects: Overseas Contingency Operations (OCO) \$5.4 million for Joint Task Force ARES, Cyber Situational Awareness \$7 million, internal realignment (-\$5 million) and Air Force inflation. Reflects baseline \$90.5 million increase for Missile Defeat and Defense Enhancement funding for a classified research and development effort in support of combatant command requirements broken out by program area as follows:

- Access Platforms - \$25 million for a Missile Defeat and Defense Enhancement classified requirement
- Tools - \$43 million for a Missile Defeat and Defense Enhancement classified requirement
- Analytics - \$22.5 million for a Missile Defeat and Defense Enhancement classified requirement