

**UNCLASSIFIED**

| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                       |             |         |         |              |                                                                       |               |         |         |         | Date: February 2015 |                  |            |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-----------------------------------------------------------------------|---------------|---------|---------|---------|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |               |         |         |         |                     |                  |            |
| COST (\$ in Millions)                                                                                                                 | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO                                                           | FY 2016 Total | FY 2017 | FY 2018 | FY 2019 | FY 2020             | Cost To Complete | Total Cost |
| Total Program Element                                                                                                                 | -           | 97.134  | 82.948  | 54.807       | -                                                                     | 54.807        | 32.877  | 83.604  | 100.185 | 28.973              | -                | 480.528    |
| 672569: C-17A Aircraft                                                                                                                | -           | 97.134  | 82.948  | 54.807       | -                                                                     | 54.807        | 32.877  | 83.604  | 100.185 | 28.973              | -                | 480.528    |
| Quantity of RDT&E Articles                                                                                                            | -           | -       | -       | -            | -                                                                     | -             | -       | -       | 2       | -                   |                  |            |

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

The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting mobility requirements. Specific tasks associated with the airlift mission include deployment, employment, sustaining support, retrograde, and combat redeployment. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during airland operations. The C-17 will perform its airlift mission well into this century.

C-17 RDT&E funding efforts support, but are not limited to: aircraft performance improvements and airspace access mandates (i.e., Communications/Navigation Improvements); flight test activities and facilities; development of solutions for obsolescence and safety of flight issues; systems engineering/program management administration support; support for avionics laboratories; block development/change management; proposal preparation for new projects; cost estimating and engineering/acquisition studies not related to requirements generation.

In FY16, the Efforts in the C-17 R2 part C, "Accomplishments/Planned Programs", transition from Performance Improvement and Obsolescence, Systems Engineering, and Test in FY14 & 15 to link RDT&E funding directly to Programs on the Air Force Acquisition Master List (AML).

As a result, funding on lines that appear as unfunded in FY16 have transitioned to the following Programs: Common Configuration (CC), Communications/Navigation and Capability Mandates(CN/CM), Extended Range Onboard Inert Gas Generating System (ER/OBIGGS)II and Beyond Line of Sight (BLOS).

CC includes several projects: Modernized Replacement Core Integrated Processor (M-RCIP), Communication and Navigation Capability (Comm Nav), Replacement Heads Up Display (RHUD), Identification Friend or Foe (IFF) & Global Air Traffic Management (GATM) updates, and Airdrop Improvements.

CN/CM includes Communication, Navigation, Surveillance & Air Traffic Management (CNS/ATM) which is Automatic Dependent Surveillance Broadcast Out (ADS-B out).

ER OBIGGS II includes Onboard Inert Gas Generating System (OBIGGS) Filter Fire Fix which is a redesign of the OBIGGS II shutoff valve.

BLOS modernization includes satellite communications and increased broadband capabilities. AERO I modernization is multi-channel voice and data delivered via an intermediate-gain antenna.

**UNCLASSIFIED**

|                                                                                                                                                                                                                                                                                                                         |  |                                                                       |         |                     |             |               |             |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------|---------------------|-------------|---------------|-------------|---------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                                                                                                                                                                                                         |  |                                                                       |         | Date: February 2015 |             |               |             |               |
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development                                                                                                                                                                                   |  | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |         |                     |             |               |             |               |
| This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.                 |  |                                                                       |         |                     |             |               |             |               |
| B. Program Change Summary (\$ in Millions)                                                                                                                                                                                                                                                                              |  | FY 2014                                                               | FY 2015 | FY 2016 Base        | FY 2016 OCO | FY 2016 Total |             |               |
| Previous President's Budget                                                                                                                                                                                                                                                                                             |  | 97.134                                                                | 83.773  | 56.172              | -           | 56.172        |             |               |
| Current President's Budget                                                                                                                                                                                                                                                                                              |  | 97.134                                                                | 82.948  | 54.807              | -           | 54.807        |             |               |
| Total Adjustments                                                                                                                                                                                                                                                                                                       |  | -                                                                     | -0.825  | -1.365              | -           | -1.365        |             |               |
| • Congressional General Reductions                                                                                                                                                                                                                                                                                      |  | -                                                                     | -0.825  |                     |             |               |             |               |
| • Congressional Directed Reductions                                                                                                                                                                                                                                                                                     |  | -                                                                     | -       |                     |             |               |             |               |
| • Congressional Rescissions                                                                                                                                                                                                                                                                                             |  | -                                                                     | -       |                     |             |               |             |               |
| • Congressional Adds                                                                                                                                                                                                                                                                                                    |  | -                                                                     | -       |                     |             |               |             |               |
| • Congressional Directed Transfers                                                                                                                                                                                                                                                                                      |  | -                                                                     | -       |                     |             |               |             |               |
| • Reprogrammings                                                                                                                                                                                                                                                                                                        |  | -                                                                     | -       |                     |             |               |             |               |
| • SBIR/STTR Transfer                                                                                                                                                                                                                                                                                                    |  | -                                                                     | -       |                     |             |               |             |               |
| • Other Adjustments                                                                                                                                                                                                                                                                                                     |  | -                                                                     | -       | -1.365              | -           | -1.365        |             |               |
| Change Summary Explanation                                                                                                                                                                                                                                                                                              |  |                                                                       |         |                     |             |               |             |               |
| FY16 - Reduction due to restructuring the replacement heads-up display development                                                                                                                                                                                                                                      |  |                                                                       |         |                     |             |               |             |               |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                    |  |                                                                       |         | FY 2014             | FY 2015     | FY 2016 Base  | FY 2016 OCO | FY 2016 Total |
| Title: Performance Improvement and Obsolescence                                                                                                                                                                                                                                                                         |  |                                                                       |         | 74.498              | 57.273      | -             | -           | -             |
| Description: Continued development of C-17 aircraft performance improvements for its avionics, aircraft and mission systems and the development of solutions to emergent obsolescence and safety of flight issues, airspace access mandates and engineering/acquisition studies not related to requirements generation. |  |                                                                       |         |                     |             |               |             |               |
| FY 2014 Accomplishments:<br>Continued development of C-17 aircraft performance improvements/mandates to include projects, but not limited to, RHUD, Intrument Landing System & Flight Control Computer (ILS & FCC), Comm Nav, M-RCIP, and ADS-B out. Completes Airdrop, Comm Nav Capabilities, RCIP and IFF & GATM.     |  |                                                                       |         |                     |             |               |             |               |
| FY 2015 Plans:<br>Continues development of C-17 aircraft performance improvements/mandates to include projects, but not limited to, RHUD and ADS-B out. Completes ILS & FCC updates. Begins efforts to redesign On-Board Inert Gas                                                                                      |  |                                                                       |         |                     |             |               |             |               |

**UNCLASSIFIED**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                       |         |                     |                |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------|---------------------|----------------|------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                       |         | Date: February 2015 |                |                  |
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |         |                     |                |                  |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | FY 2014                                                               | FY 2015 | FY 2016<br>Base     | FY 2016<br>OCO | FY 2016<br>Total |
| Generation System II (OBIGGS II) shut off valve to eliminate the potential for OBIGGS II filter fires and improve fuel efficiency.<br><br><b>FY 2016 Base Plans:</b><br>N/A<br><br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                       |         |                     |                |                  |
| <b>Title:</b> Systems Engineering/Program Managment<br><br><b>Description:</b> Continuation of Systems Engineering/prime contractor Program Management (SE/PM). Funding supports software updates, system integration, software development, laboratories, test facilities, and programmatic efforts in support of C-17.<br><br><b>FY 2014 Accomplishments:</b><br>Continuation of SE/PM. Funding supported software updates, system integration and software development laboratories, test facilities, and programmatic efforts in support of C-17.<br><br><b>FY 2015 Plans:</b><br>Continuation of SE/PM. Funding supports software updates, system integration and software development laboratories, test facilities, and programmatic efforts in support of C-17.<br><br><b>FY 2016 Base Plans:</b><br>N/A<br><br><b>FY 2016 OCO Plans:</b><br>N/A |  | 7.976                                                                 | 9.000   | -                   | -              | -                |
| <b>Title:</b> Boeing Flight Test<br><br><b>Description:</b> Continues contractor testing of new capabilities as required. Costs include maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br><br><b>FY 2014 Accomplishments:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 8.160                                                                 | 9.175   | -                   | -              | -                |

# UNCLASSIFIED

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                       |         |                     |                |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------|---------------------|----------------|------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                       |         | Date: February 2015 |                |                  |
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |         |                     |                |                  |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | FY 2014                                                               | FY 2015 | FY 2016<br>Base     | FY 2016<br>OCO | FY 2016<br>Total |
| Continued contractor testing of new capabilities as required. Costs included maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br><br><b>FY 2015 Plans:</b><br>Continues contractor testing of new capabilities as required. Costs include maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br><br><b>FY 2016 Base Plans:</b><br>N/A<br><br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                      |  |                                                                       |         |                     |                |                  |
| <b>Title:</b> Edwards Flight Test<br><br><b>Description:</b> Continues direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay when using Air Force flight test locations.<br><br><b>FY 2014 Accomplishments:</b><br>Continued direct costs of flight testing. The costs included ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations.<br><br><b>FY 2015 Plans:</b><br>Continues direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations.<br><br><b>FY 2016 Base Plans:</b><br>N/A<br><br><b>FY 2016 OCO Plans:</b><br>N/A |  | 6.500                                                                 | 7.500   | -                   | -              | -                |
| <b>Title:</b> Common Configuration<br><br><b>Description:</b> Common Configuration (CC) is a multiple development, integration and retrofit project to support achievement of the C-17 A Block 18+ baseline. It consists of projects including M-RCIP, Comm Nav, and RHUD that lead to modifications and upgrades to the C-17. Support for on going flight test, software labs, system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | -                                                                     | -       | 29.685              | -              | 29.685           |

## UNCLASSIFIED

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                       |         |                     |                |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------|---------------------|----------------|------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                       |         | Date: February 2015 |                |                  |
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development                                                                                                                                                                                                                                                                                                                           |  | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |         |                     |                |                  |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                            |  | FY 2014                                                               | FY 2015 | FY 2016<br>Base     | FY 2016<br>OCO | FY 2016<br>Total |
| engineering, program management and engineering/acquisition studies not related to requirements generation are included in the overall program cost.                                                                                                                                                                                                                                                                                                            |  |                                                                       |         |                     |                |                  |
| FY 2014 Accomplishments:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                       |         |                     |                |                  |
| FY 2015 Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                       |         |                     |                |                  |
| FY 2016 Base Plans:<br>Will continue development of RHUD. Support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation are included in the overall program cost.                                                                                                                                                                                          |  |                                                                       |         |                     |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                       |         |                     |                |                  |
| Title: Communications/Navigation and Capability Mandates                                                                                                                                                                                                                                                                                                                                                                                                        |  | -                                                                     | -       | -                   | -              | -                |
| Description: Communication/Navigation & Capability Mandates is a program to develop, integrate and retrofit C-17 A CNS/ATM mandates required functionality improvements and updates beyond the C-17 A baseline. It includes the ADS-B out project. Support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation are included in the overall program cost. |  |                                                                       |         |                     |                |                  |
| FY 2014 Accomplishments:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                       |         |                     |                |                  |
| FY 2015 Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                       |         |                     |                |                  |
| FY 2016 Base Plans:<br>Completes ADS-B out.                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                       |         |                     |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                       |         |                     |                |                  |
| Title: Extended Range Onboard Inert Gas Generating System II                                                                                                                                                                                                                                                                                                                                                                                                    |  | -                                                                     | -       | 18.010              | -              | 18.010           |

# UNCLASSIFIED

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                       |         |                     |                |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------|---------------------|----------------|------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                       |         | Date: February 2015 |                |                  |
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 7:<br>Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | R-1 Program Element (Number/Name)<br>PE 0401130F I C-17 Aircraft (IF) |         |                     |                |                  |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | FY 2014                                                               | FY 2015 | FY 2016<br>Base     | FY 2016<br>OCO | FY 2016<br>Total |
| <p><b>Description:</b> ER/OBIGGS II Filter Fire Fix is a program that redesigns the OBIGGS II shutoff valve and makes software changes to the Warning and Caution Computer (WCC). It includes support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation.</p> <p><b>FY 2014 Accomplishments:</b><br/>N/A</p> <p><b>FY 2015 Plans:</b><br/>N/A</p> <p><b>FY 2016 Base Plans:</b><br/>This program will continue efforts to redesign On-Board Inert Gas Generation System (OBIGGS) II shut off valve to eliminate the potential for OBIGGS II filter fires and improve fuel efficiency. It will include support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation.</p> <p><b>FY 2016 OCO Plans:</b><br/>N/A</p>                                                 |  |                                                                       |         |                     |                |                  |
| <p><b>Title:</b> Beyond Line of Sight</p> <p><b>Description:</b> Beyond Line-Of-Sight (BLOS) modernization modifications is a development, integration, and retrofit program for C-17 communications. BLOS modifies and improves hardware and software for voice and data communications on the C-17. The program will modify both integrated aircraft avionics as well as back-end mission communications and could utilize both military and commercial satellite systems to extend communication ranges. The current efforts include but are not limited to AERO-I modernization (multi-channel voice and data delivered via an intermediate-gain antenna), increased broadband and secure data capability. It includes support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation.</p> <p><b>FY 2014 Accomplishments:</b><br/>N/A</p> <p><b>FY 2015 Plans:</b></p> |  | -                                                                     | -       | 7.112               | -              | 7.112            |

**UNCLASSIFIED**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-------------------------|------------------------|--------------------------|------------------------------------------------------------------------------|----------------|----------------------------|------------------------|-----------------------------|-------------------|
| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                |                         |                        |                          |                                                                              |                | <b>Date:</b> February 2015 |                        |                             |                   |
| <b>Appropriation/Budget Activity</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                 |                |                |                         |                        |                          | <b>R-1 Program Element (Number/Name)</b><br>PE 0401130F I C-17 Aircraft (IF) |                |                            |                        |                             |                   |
| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                         |                        |                          | <b>FY 2014</b>                                                               | <b>FY 2015</b> | <b>FY 2016<br/>Base</b>    | <b>FY 2016<br/>OCO</b> | <b>FY 2016<br/>Total</b>    |                   |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>FY 2016 Base Plans:</b><br>Efforts will include, but are not limited, to AERO-I modernization (multi-channel voice and data delivered via an intermediate-gain antenna)and increased broadband capabilities. It will include support for on going flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation.                                                                                                                  |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                |                         |                        |                          | 97.134                                                                       | 82.948         | 54.807                     | -                      | 54.807                      |                   |
| <b>D. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>Line Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016<br/>Base</b> | <b>FY 2016<br/>OCO</b> | <b>FY 2016<br/>Total</b> | <b>FY 2017</b>                                                               | <b>FY 2018</b> | <b>FY 2019</b>             | <b>FY 2020</b>         | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
| • APAF: BA05: Line Item #<br>C01700: <i>Aircraft Modifications</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 98.197         | 89.394         | 46.997                  | -                      | 46.997                   | 73.678                                                                       | 61.880         | 41.330                     | 52.846                 | Continuing                  | Continuing        |
| • APAF: BA07: Line Item #<br>C01700: <i>Aircraft Support<br/>Equipment &amp; Facilities</i>                                                                                                                                                                                                                                                                                                                                                                                                                          | 49.952         | 20.111         | 30.108                  | -                      | 30.108                   | 36.369                                                                       | 4.822          | -                          | -                      | Continuing                  | Continuing        |
| • APAF: BA06: Line Item # 000999:<br><i>Initial Spares and Repair Parts</i>                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10.218         | 14.105         | 12.943                  | -                      | 12.943                   | 13.721                                                                       | 13.333         | 13.060                     | 13.281                 | Continuing                  | Continuing        |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>E. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| The C-17 Acquisition Strategy is based on several separate contracts to support the entire scope of the C-17 weapon system. Globemaster Operational Enhancement (GLOBE) is an indefinite delivery, indefinite quantity (IDIQ) contract used to purchase services and research articles (through delivery orders) to support all RDT&E with our prime contractor. In addition, purchase orders are used to support flight test activities at Edwards AFB. Additional contract vehicles could be utilized as required. |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| <b>F. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |
| Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.                                                                                                                                                                                                                                                                   |                |                |                         |                        |                          |                                                                              |                |                            |                        |                             |                   |

## UNCLASSIFIED

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force |                              |                                   |                |         |               |                                                                       |               |                 |               |                                                  |               | Date: February 2015 |                     |               |                                |
|-------------------------------------------------------------|------------------------------|-----------------------------------|----------------|---------|---------------|-----------------------------------------------------------------------|---------------|-----------------|---------------|--------------------------------------------------|---------------|---------------------|---------------------|---------------|--------------------------------|
| Appropriation/Budget Activity<br>3600 / 7                   |                              |                                   |                |         |               | R-1 Program Element (Number/Name)<br>PE 0401130F / C-17 Aircraft (IF) |               |                 |               | Project (Number/Name)<br>672569 / C-17A Aircraft |               |                     |                     |               |                                |
| Product Development (\$ in Millions)                        |                              |                                   |                | FY 2014 |               | FY 2015                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO                                   |               | FY 2016<br>Total    |                     |               |                                |
| Cost Category Item                                          | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost                                                                  | Award<br>Date | Cost            | Award<br>Date | Cost                                             | Award<br>Date | Cost                | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Performance Improvement<br>and Obsolescence                 | Various                      | Boeing : Long<br>Beach, CA        | -              | 74.498  | Dec 2013      | 57.273                                                                | Nov 2014      | -               |               | -                                                |               | -                   | Continuing          | Continuing    | -                              |
| Systems Engineering/<br>Program Management                  | Various                      | Boeing : Long<br>Beach, CA        | -              | 7.976   | Nov 2013      | 9.000                                                                 | Nov 2014      | -               |               | -                                                |               | -                   | Continuing          | Continuing    | -                              |
| Common Configuration                                        | Various                      | Boeing : Long<br>Beach, CA        | -              | -       |               | -                                                                     |               | 29.685          | Nov 2015      | -                                                |               | 29.685              | Continuing          | Continuing    | 107.941                        |
| Extended Range Onboard<br>Inert Gas Generating<br>System II | Various                      | Boeing : Long<br>Beach, CA        | -              | -       |               | -                                                                     |               | 18.010          | May 2016      | -                                                |               | 18.010              | Continuing          | Continuing    | 18.010                         |
| Beyond Line of Sight                                        | Various                      | Boeing : Long<br>Beach, CA        | -              | -       |               | -                                                                     |               | 7.112           | Jun 2016      | -                                                |               | 7.112               | Continuing          | Continuing    | -                              |
| Subtotal                                                    |                              |                                   | -              | 82.474  |               | 66.273                                                                |               | 54.807          |               | -                                                |               | 54.807              | -                   | -             | -                              |
| Support (\$ in Millions)                                    |                              |                                   |                | FY 2014 |               | FY 2015                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO                                   |               | FY 2016<br>Total    |                     |               |                                |
| Cost Category Item                                          | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost                                                                  | Award<br>Date | Cost            | Award<br>Date | Cost                                             | Award<br>Date | Cost                | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Subtotal                                                    |                              |                                   | -              | -       |               | -                                                                     |               | -               |               | -                                                |               | -                   | -                   | -             | -                              |
| Test and Evaluation (\$ in Millions)                        |                              |                                   |                | FY 2014 |               | FY 2015                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO                                   |               | FY 2016<br>Total    |                     |               |                                |
| Cost Category Item                                          | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost                                                                  | Award<br>Date | Cost            | Award<br>Date | Cost                                             | Award<br>Date | Cost                | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Edwards Flight Test                                         | PO                           | AFTC : Edwards, CA                | -              | 6.500   | Oct 2013      | 7.500                                                                 | Nov 2014      | -               |               | -                                                |               | -                   | Continuing          | Continuing    | -                              |
| Boeing Flight Test                                          | SS/CPIF                      | Boeing : Long<br>Beach, CA        | -              | 8.160   | Dec 2013      | 9.175                                                                 | Nov 2014      | -               |               | -                                                |               | -                   | Continuing          | Continuing    | -                              |
| Subtotal                                                    |                              |                                   | -              | 14.660  |               | 16.675                                                                |               | -               |               | -                                                |               | -                   | -                   | -             | -                              |

**UNCLASSIFIED**

|                                                                        |  |  |  |  |                                                                              |  |  |  |  |                                                         |  |                            |  |  |
|------------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------|--|--|--|--|---------------------------------------------------------|--|----------------------------|--|--|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Air Force |  |  |  |  |                                                                              |  |  |  |  |                                                         |  | <b>Date:</b> February 2015 |  |  |
| <b>Appropriation/Budget Activity</b><br>3600 / 7                       |  |  |  |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0401130F / C-17 Aircraft (IF) |  |  |  |  | <b>Project (Number/Name)</b><br>672569 / C-17A Aircraft |  |                            |  |  |

  

| Management Services (\$ in Millions) |                              |                                   |                | FY 2014 |               | FY 2015 |               | FY 2016<br>Base |               | FY 2016<br>OCO |               | FY 2016<br>Total |                     |               |                                |
|--------------------------------------|------------------------------|-----------------------------------|----------------|---------|---------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| <b>Subtotal</b>                      |                              |                                   | -              | -       |               | -       |               | -               |               | -              |               | -                | -                   | -             | -                              |

  

|                            | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
|----------------------------|----------------|---------|---------|-----------------|----------------|------------------|---------------------|---------------|--------------------------------|
| <b>Project Cost Totals</b> | -              | 97.134  | 82.948  | 54.807          | -              | 54.807           | -                   | -             | -                              |

**Remarks**

**UNCLASSIFIED**

|                                                                   |  |  |                                                                              |  |  |
|-------------------------------------------------------------------|--|--|------------------------------------------------------------------------------|--|--|
| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Air Force |  |  | <b>Date:</b> February 2015                                                   |  |  |
| <b>Appropriation/Budget Activity</b><br>3600 / 7                  |  |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0401130F / C-17 Aircraft (IF) |  |  |
|                                                                   |  |  | <b>Project (Number/Name)</b><br>672569 / C-17A Aircraft                      |  |  |

|                                       | FY 2014 |   |   |   | FY 2015 |   |   |   | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   |
|---------------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                                       | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 |
| Airdrop Improvements                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Comm Nav Capabilities                 |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Replacement Core Integrated Processor |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| IFF and GATM Mode 5                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| ILS and FCC updates                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| CNS/ATM ADS-B out                     |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| -- Critical Design Review (CDR)       |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| -- Begin Flight Test                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| OBIGGS II Filter Fire Fix             |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| - CDR                                 |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| - Begin Flight Test                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| AERO I Modernization                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| - Test Readiness Review               |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| - Flight Test Begins                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Replacement Heads up Display (RHUD)   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| -- CDR                                |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| -- Flight Test Begins                 |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| -- 2 RHUD RDTE Articles               |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

**UNCLASSIFIED**

|                                                                    |                                                                              |                                                         |                            |
|--------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Air Force |                                                                              |                                                         | <b>Date:</b> February 2015 |
| <b>Appropriation/Budget Activity</b><br>3600 / 7                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0401130F / C-17 Aircraft (IF) | <b>Project (Number/Name)</b><br>672569 / C-17A Aircraft |                            |

**Schedule Details**

| Events                                | Start   |      | End     |      |
|---------------------------------------|---------|------|---------|------|
|                                       | Quarter | Year | Quarter | Year |
| Airdrop Improvements                  | 1       | 2014 | 3       | 2014 |
| Comm Nav Capabilities                 | 1       | 2014 | 3       | 2014 |
| Replacement Core Integrated Processor | 1       | 2014 | 3       | 2014 |
| IFF and GATM Mode 5                   | 1       | 2014 | 4       | 2014 |
| ILS and FCC updates                   | 1       | 2014 | 3       | 2015 |
| CNS/ATM ADS-B out                     | 1       | 2014 | 2       | 2016 |
| -- Critical Design Review (CDR)       | 3       | 2014 | 3       | 2014 |
| -- Begin Flight Test                  | 2       | 2015 | 2       | 2015 |
| OBIGGS II Filter Fire Fix             | 3       | 2015 | 2       | 2017 |
| - CDR                                 | 2       | 2016 | 2       | 2016 |
| - Begin Flight Test                   | 4       | 2016 | 4       | 2016 |
| AERO I Modernization                  | 4       | 2016 | 2       | 2019 |
| - Test Readiness Review               | 1       | 2017 | 1       | 2017 |
| - Flight Test Begins                  | 3       | 2018 | 3       | 2018 |
| Replacement Heads up Display (RHUD)   | 1       | 2014 | 4       | 2019 |
| -- CDR                                | 1       | 2016 | 1       | 2016 |
| -- Flight Test Begins                 | 2       | 2018 | 2       | 2018 |
| -- 2 RHUD RDTE Articles               | 1       | 2019 | 1       | 2019 |