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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Air Force **Date:** February 2016

|   |  |
|---|--|
| <b>Appropriation/Budget Activity</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0401319F / <i>Presidential Aircraft Replacement (PAR)</i> |
|---|--|

| COST (\$ in Millions)                            | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element                            | -           | 11.006  | 82.420  | 351.220      | 0.000       | 351.220       | 625.631 | 740.999 | 573.711 | 487.270 | Continuing       | Continuing |
| 655250: <i>Presidential Aircraft Recap (PAR)</i> | -           | 11.006  | 82.420  | 351.220      | 0.000       | 351.220       | 625.631 | 740.999 | 573.711 | 487.270 | Continuing       | Continuing |
| Quantity of RDT&E Articles                       |             | -       | -       | 2            | -           | 2             | -       | -       | -       | -       |                  |            |

**Program MDAP/MAIS Code:** 425

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

The Presidential Aircraft Recapitalization (PAR) Program will replace the Presidential VC-25A fleet which faces capability gaps, rising maintenance costs, and parts obsolescence as it reaches the end of its planned 30-year life-cycle. The PAR Program Office will deliver a new fleet of aircraft to meet the requirements for the President to execute the duties of Head of State, Chief Executive, and Commander-in-Chief. The Boeing 747-8 commercial aircraft will be uniquely modified to provide the President, staff, and guests with safe and reliable air transportation with the equivalent level of communications capability and security available in the White House. The modifications to the 747-8 aircraft will include an electrical power upgrade with dual Auxiliary Power Units that are usable in flight, a mission communication system, work and rest environment, executive interior, military avionics, self-defense system, autonomous enplaning and deplaning, and autonomous baggage loading. No significant changes to the existing VC-25A Concept of Operations or Concept of Employment are expected.

In August 2012, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) approved the PAR Materiel Development Decision. The Capability Development Document, was validated by the Joint Requirements Oversight Council in November 2014. In January 2015, the Secretary of the Air Force's Determination and Findings designated the Boeing 747-8 aircraft as the PAR platform, and the USD (AT&L)'s Acquisition Decision Memorandum authorized Pre-Milestone B (Pre-MS B) contracts aimed at improving affordability and reducing program execution risk. In February 2015, the Assistant Secretary of the Air Force for Acquisition approved a Justification and Approval designating Boeing as the sole source for PAR Pre-MS B and design, integration and modification activities. The acquisition strategy was approved by USD (AT&L) in September 2015.

This budget supports Pre-MS B risk reduction activities and studies as well as design, modification, install and test of two aircraft to make them Presidential mission ready. Pre-MS B efforts are the first step in a deliberate process to control program risks and life-cycle costs. These activities will include the definition of detailed requirements and design trade-offs required to support informed decisions, that will lead to a lower risk Engineering and Manufacturing Development program and lower life cycle costs. Following a successful MS B in 4th quarter FY16, the program will purchase two Boeing 747-8 commercial aircraft and begin Preliminary Design. Given the commercial aircraft delivery timeline, the Program Office must award a contract to Boeing for the commercial aircraft before design work begins. In FY18 the EMD activities will include the management, detailed design, integration, modification, test/verification, certification and pre-operational support to deliver two PAR Aircraft to be Presidential mission ready.

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|---|--|

| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017 Base</b> | <b>FY 2017 OCO</b> | <b>FY 2017 Total</b> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 11.006         | 102.620        | 480.977             | 0.000              | 480.977              |
| Current President's Budget                        | 11.006         | 82.420         | 351.220             | 0.000              | 351.220              |
| Total Adjustments                                 | 0.000          | -20.200        | -129.757            | 0.000              | -129.757             |
| • Congressional General Reductions                | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Directed Reductions               | 0.000          | -20.200        |                     |                    |                      |
| • Congressional Rescissions                       | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Adds                              | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Directed Transfers                | 0.000          | 0.000          |                     |                    |                      |
| • Reprogrammings                                  | 0.000          | 0.000          |                     |                    |                      |
| • SBIR/STTR Transfer                              | 0.000          | 0.000          |                     |                    |                      |
| • Other Adjustments                               | 0.000          | 0.000          | -129.757            | 0.000              | -129.757             |

**Change Summary Explanation**

The FY2016 funding was reduced by \$20.2 million due to a Congressionally directed reduction to defer commercial aircraft buy to FY2017.

The FY 2017 funding request was reduced by \$126.257 million to account for the USD (AT&L) approved acquisition strategy. The remaining \$3.5M was reduced due to deflation.

| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>   | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Pre-MS B Risk Reduction, Commercial A/C, Prelim Design & PMA  | 10.781         | 81.960         | 350.290        |
| <b>Description:</b> Pre-MS B risk reduction activities to refine requirements and reduce risk; begin Preliminary Design activities and utilize modeling and simulation, system integration labs and mockups to assist in the design and Program Management Administration to support the program office. In FY17 the program office will begin incrementally funding 2 commercial 747-8 aircraft which will enable PAR test activities. |                |                |                |
| <b>FY 2015 Accomplishments:</b><br>Funds in FY 2015 initiated the Pre-MS B risk reduction activities and supported Program Management Administration for the program office.  |                |                |                |
| <b>FY 2016 Plans:</b><br>Funds in FY 2016 will continue Pre-MS B risk reduction activities and support Program Management Administration.   |                |                |                |
| <b>FY 2017 Plans:</b>   |                |                |                |

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| <b>Appropriation/Budget Activity</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0401319F / <i>Presidential Aircraft Replacement (PAR)</i> |
|---|--|

| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>   | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b> |
|---|----------------|----------------|----------------|
| Funds in FY 2017 will complete Pre-MS B risk reduction activities, begin Preliminary Design activities and support Program Management Administration. The program office will also begin incrementally funding 2 aircraft which will support PAR developmental activities.  |                |                |                |
| <b>Title:</b> Government Test<br><br><b>Description:</b> Government test activities to prepare for, oversee, and conduct test events.<br><br><b>FY 2015 Accomplishments:</b><br>Funds in FY 2015 were used for government test activities to prepare for test events.<br><br><b>FY 2016 Plans:</b><br>Funds in FY 2016 will be used to prepare for government test activities.<br><br><b>FY 2017 Plans:</b><br>Funds in FY 2017 will be used to prepare for, oversee and conduct initial test events. | 0.225          | 0.460          | 0.930          |
| <b>Accomplishments/Planned Programs Subtotals</b>   |                |                |                |
|   | 11.006         | 82.420         | 351.220        |

**D. Other Program Funding Summary (\$ in Millions)**

| <u>Line Item</u>                                | <u>FY 2015</u> | <u>FY 2016</u> | <u>FY 2017</u><br><u>Base</u> | <u>FY 2017</u><br><u>OCO</u> | <u>FY 2017</u><br><u>Total</u> | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020</u> | <u>FY 2021</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • MILCON: PE<br>0401319F: <i>PAR Facilities</i> | 0.000          | 0.000          | 22.220                        | 0.000                        | 22.220                         | 277.500        | 31.000         | 0.000          | 0.000          | -                                 | -                 |

**Remarks**

**E. Acquisition Strategy**  
 The USD(AT&L) PAR Acquisition Strategy was approved in September 2015. The PAR Program will integrate technologically mature subsystems into commercial Boeing 747-8 aircraft. The PAR program will design, modify, install and test two aircraft to make them Presidential mission ready. Boeing will be the sole source for PAR development activities. However, the Air Force intends to incorporate competition for subsystems for the modified aircraft as much as practicable and will participate substantively in selected Boeing-led subsystem competitions. The PAR Program will have a single contract with multiple planned major contract modifications which include 747-8 commercial aircraft, Preliminary Design and EMD. The initial effort for risk reduction activities was awarded on 29 January 2016.

**F. Performance Metrics**  
 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.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force |                        |                                |             |   |            |         |            |  |            |             |            | Date: February 2016 |                  |            |                          |
|---|------------------------|--------------------------------|-------------|---|------------|---------|------------|--|------------|-------------|------------|---------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity                               |                        |                                |             | R-1 Program Element (Number/Name)                     |            |         |            | Project (Number/Name)                      |            |             |            |                     |                  |            |                          |
| 3600 / 5  |                        |                                |             | PE 0401319F / Presidential Aircraft Replacement (PAR) |            |         |            | 655250 / Presidential Aircraft Recap (PAR) |            |             |            |                     |                  |            |                          |
| <b>Product Development (\$ in Millions)</b>                 |                        |                                |             | FY 2015   |            | FY 2016 |            | FY 2017 Base                               |            | FY 2017 OCO |            | FY 2017 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                                       | Award Date | Cost        | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| PAR Contract Activities                                     | Various                | Not specified. : TBD           | -           | 7.689   | Sep 2015   | 75.850  | Feb 2016   | 344.020                                    | Oct 2016   | 0.000       |            | 344.020             | Continuing       | Continuing | -                        |
| <b>Subtotal</b>   |                        |                                | -           | 7.689   |            | 75.850  |            | 344.020                                    |            | 0.000       |            | 344.020             | -                | -          | -                        |
| <b>Support (\$ in Millions)</b>                             |                        |                                |             | FY 2015   |            | FY 2016 |            | FY 2017 Base                               |            | FY 2017 OCO |            | FY 2017 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                                       | Award Date | Cost        | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
|   |                        |                                | -           | -   |            | -       |            | -  |            | -           |            | -                   | -                | -          | -                        |
| <b>Subtotal</b>   |                        |                                | -           | -   |            | -       |            | -  |            | -           |            | -                   | -                | -          | -                        |
| <b>Test and Evaluation (\$ in Millions)</b>                 |                        |                                |             | FY 2015   |            | FY 2016 |            | FY 2017 Base                               |            | FY 2017 OCO |            | FY 2017 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                                       | Award Date | Cost        | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| PAR Developmental Test and Evaluation                       | MIPR                   | 412 TW : Edwards AFB, CA       | -           | 0.225   | Sep 2015   | 0.460   | Aug 2016   | 0.930                                      | Aug 2017   | 0.000       |            | 0.930               | Continuing       | Continuing | -                        |
| <b>Subtotal</b>   |                        |                                | -           | 0.225   |            | 0.460   |            | 0.930                                      |            | 0.000       |            | 0.930               | -                | -          | -                        |
| <b>Management Services (\$ in Millions)</b>                 |                        |                                |             | FY 2015   |            | FY 2016 |            | FY 2017 Base                               |            | FY 2017 OCO |            | FY 2017 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                                       | Award Date | Cost        | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| PAR Other Government Costs                                  | Various                | AFLCMC/WLJ : Dayton, OH        | -           | 1.176   | Dec 2014   | 2.671   | Nov 2015   | 2.090                                      | Nov 2016   | 0.000       |            | 2.090               | Continuing       | Continuing | -                        |
| A&AS  | C/T&M                  | AFLCMC/WL : Dayton, OH         | -           | 1.916   | Feb 2015   | 3.439   | Feb 2016   | 4.180                                      | Feb 2017   | 0.000       |            | 4.180               | Continuing       | Continuing | -                        |
| <b>Subtotal</b>   |                        |                                | -           | 3.092   |            | 6.110   |            | 6.270                                      |            | 0.000       |            | 6.270               | -                | -          | -                        |
| <b>Project Cost Totals</b>                                  |                        |                                | -           | 11.006  |            | 82.420  |            | 351.220                                    |            | 0.000       |            | 351.220             | -                | -          | -                        |

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|  |                    |                |  |                     |                    |   |                            |                   |                                 |  |
|--|--------------------|----------------|--|---------------------|--------------------|---|----------------------------|-------------------|---------------------------------|--|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2017 Air Force |                    |                |  |                     |                    |   | <b>Date:</b> February 2016 |                   |                                 |  |
| <b>Appropriation/Budget Activity</b><br>3600 / 5                       |                    |                | <b>R-1 Program Element (Number/Name)</b><br>PE 0401319F / <i>Presidential Aircraft Replacement (PAR)</i> |                     |                    | <b>Project (Number/Name)</b><br>655250 / <i>Presidential Aircraft Recap (PAR)</i> |                            |                   |                                 |  |
|  | <b>Prior Years</b> | <b>FY 2015</b> | <b>FY 2016</b>   | <b>FY 2017 Base</b> | <b>FY 2017 OCO</b> | <b>FY 2017 Total</b>  | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |  |

**Remarks**  
 Prior Years RDT&E Funding \$27.3M was executed in PE 0401314F, Project 675355, BA07

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2017 Air Force |  | <b>Date:</b> February 2016  |
| <b>Appropriation/Budget Activity</b><br>3600 / 5                  | <b>R-1 Program Element (Number/Name)</b><br>PE 0401319F / <i>Presidential Aircraft Replacement (PAR)</i> | <b>Project (Number/Name)</b><br>655250 / <i>Presidential Aircraft Recap (PAR)</i> |

|  | FY 2015 |   |   |   | FY 2016              |   |   |    | FY 2017              |   |   |   | FY 2018              |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   | FY 2021 |   |    |   |
|--|---------|---|---|---|----------------------|---|---|----|----------------------|---|---|---|----------------------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|---|
|  | 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 |
| Pre-MS B Risk Reduction Activities       |         |   |   |   | ████████████████████ |   |   |    |                      |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| Commercial A/C RFP Release               |         |   |   |   | ██                   |   |   |    |                      |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| Milestone B and EMD RFP Release Decision |         |   |   |   |                      |   |   | ██ |                      |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| Commercial A/C Award                     |         |   |   |   |                      |   |   |    | ██                   |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| Preliminary Design Award & Activities    |         |   |   |   |                      |   |   |    | ████████████████████ |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| PDR                                      |         |   |   |   |                      |   |   |    |                      |   |   |   | ██                   |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| EMD Award & Activities                   |         |   |   |   |                      |   |   |    |                      |   |   |   | ████████████████████ |   |   |   |         |   |   |   |         |   |   |   |         |   |    |   |
| CDR                                      |         |   |   |   |                      |   |   |    |                      |   |   |   |                      |   |   |   |         |   |   |   |         |   |   |   |         |   | ██ |   |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Air Force |  | <b>Date:</b> February 2016  |
| <b>Appropriation/Budget Activity</b><br>3600 / 5                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0401319F / <i>Presidential Aircraft Replacement (PAR)</i> | <b>Project (Number/Name)</b><br>655250 / <i>Presidential Aircraft Recap (PAR)</i> |

Schedule Details

| Events                                   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Pre-MS B Risk Reduction Activities       | 2       | 2016 | 2       | 2018 |
| Commercial A/C RFP Release               | 2       | 2016 | 2       | 2016 |
| Milestone B and EMD RFP Release Decision | 4       | 2016 | 4       | 2016 |
| Commercial A/C Award                     | 1       | 2017 | 1       | 2017 |
| Preliminary Design Award & Activities    | 4       | 2016 | 4       | 2018 |
| PDR                                      | 3       | 2018 | 3       | 2018 |
| EMD Award & Activities                   | 3       | 2018 | 4       | 2021 |
| CDR                                      | 4       | 2019 | 4       | 2019 |

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