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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |         |                      |              |                                                                                 |               |         |         |         | DATE: April 2013 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |         |                      |              | R-1 ITEM NOMENCLATURE<br>PE 0604283F: Battle Mgmt Com & Ctrl Sensor Development |               |         |         |         |                  |                  |            |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | All Prior Years | FY 2012 | FY 2013 <sup>#</sup> | FY 2014 Base | FY 2014 OCO <sup>##</sup>                                                       | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018          | Cost To Complete | Total Cost |
| Total Program Element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.000           | 30.362  | 114.417              | 0.000        | -                                                                               | 0.000         | 0.000   | 0.000   | 0.000   | 0.000            | Continuing       | Continuing |
| 646002: Three Dimensional Expeditionary Long Range Radar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.000           | 30.362  | 114.417              | 0.000        | -                                                                               | 0.000         | 0.000   | 0.000   | 0.000   | 0.000            | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 | 0       | 0                    | 0            |                                                                                 | 0             | 0       | 0       | 0       | 0                |                  |            |
| MDAP/MAIS Code(s): 393                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| <sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| <sup>##</sup> The FY 2014 OCO Request will be submitted at a later date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| Note                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| In FY 2012, Project 6002, Three Dimensional Expeditionary Long Range Radar (3DELRR), efforts transferred from PE 0207412F, Control and Reporting Center, Project 5294, Theater Air Control System Improvement - Radar, in order to provide this pre-Major Defense Acquisition Program its own Program Element.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| In FY 2014, Project 6002, Three Dimensional Expeditionary Long Range Radar (3DELRR), transferred to PE 0207455F, Three Dimensional Expeditionary Long Range Radar (3DELRR), Project 6002, in order to provide this pre-Major Defense Acquisition Program its own Program Element.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| Totals include funding for PRCP Program Number (PNO) 393, 3DELRR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| Beginning in FY12, PE 0604283F funds the development of the Three-Dimensional Expeditionary Long-Range Radar (3DELRR) which will replace the current legacy AN/TPS-75 radar. 3DELRR will be the principal United States Air Force (USAF) long-range, ground-based sensor for detecting, identifying, tracking, and reporting aerial targets for the USAF Joint Force Air Component Commander (JFACC) through the Theater Air Control System (TACS). The 3DELRR will respond to the operational need to detect and report highly maneuverable, small radar cross section targets to enable battlefield awareness while at the same time mitigating the reliability, maintainability, and sustainability issues plaguing the AN/TPS-75 radar system. The 3DELRR will provide air controllers with a precise, real-time air picture of sufficient quality to conduct close control of individual aircraft under a wide range of environmental and operational conditions. It will replace the aging USAF AN/TPS-75 radar system as the AN/TPS-75 is incapable of detecting some current and emerging threats. In addition, as the AN/TPS-75 is reaching the end of its service life, it is more difficult and costly to maintain. The United States Marine Corps (USMC) is considering 3DELRR as a potential replacement for the AN/TPS-59, at the end of its service life, to support the Marine Air-Ground Task Force (MAGTF) Commander through the Marine Air Command and Control System (MACCS). |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |
| 3DELRR will address system sustainability, transportability and operational availability shortfalls while providing long-range surveillance, detection, and tracking of Air Breathing Targets (ABTs) and, potentially, Theater Ballistic Missiles (TBMs). This capability will support the Air Force's contribution to the primary roles of the Airspace Control Authority (ACA) and the Area Air Defense Commander (AADC) and enhance the USAF contributions to the Integrated Air and Missile Defense (IAMD) mission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |         |                      |              |                                                                                 |               |         |         |         |                  |                  |            |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                 |         | DATE: April 2013 |             |               |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | R-1 ITEM NOMENCLATURE<br>PE 0604283F: Battle Mgmt Com & Ctrl Sensor Development |         |                  |             |               |
| area. This new radar will provide the USAF Control and Reporting Center (CRC) and, if purchased by the USMC, the Tactical Air Operations Center (TAOC), with real-time data to display air activity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                 |         |                  |             |               |
| The Pre-Engineering & Manufacturing Development (Pre-EMD) efforts of the 3DELRR Program begin in FY12 and continue through FY13. Acquisition activities during this Pre-EMD period include, but are not limited to: full and open source selection to award up to three competing contracts; requirements refinement; completion of the preliminary design development; continued software and hardware subsystem-level development; modeling and simulation to support the system development; implementation of mitigation techniques to combat existing and emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. A Preliminary Design Review (PDR) and Capability Demonstration C Event will be conducted during this timeframe to ensure the program is successful in the development of a preliminary system design. Activities will also include studies and analyses to support both current program planning and execution, and future program planning, as well as finalization of Milestone (MS) B documentation and preparation for a MS B review. |  |                                                                                 |         |                  |             |               |
| This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                 |         |                  |             |               |
| B. Program Change Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | FY 2012                                                                         | FY 2013 | FY 2014 Base     | FY 2014 OCO | FY 2014 Total |
| Previous President's Budget                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 30.362                                                                          | 114.417 | 0.000            | -           | 0.000         |
| Current President's Budget                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | 30.362                                                                          | 114.417 | 0.000            | -           | 0.000         |
| Total Adjustments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | 0.000                                                                           | 0.000   | 0.000            | -           | 0.000         |
| • Congressional General Reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | -                                                                               | 0.000   |                  |             |               |
| • Congressional Directed Reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | -                                                                               | 0.000   |                  |             |               |
| • Congressional Rescissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 0.000                                                                           | 0.000   |                  |             |               |
| • Congressional Adds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | -                                                                               | 0.000   |                  |             |               |
| • Congressional Directed Transfers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | -                                                                               | 0.000   |                  |             |               |
| • Reprogrammings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | 0.000                                                                           | 0.000   |                  |             |               |
| • SBIR/STTR Transfer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | 0.000                                                                           | 0.000   |                  |             |               |
| • Other Adjustments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 0.000                                                                           | 0.000   | 0.000            | -           | 0.000         |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                 |         | FY 2012          | FY 2013     | FY 2014       |
| Title: Technology Development (TD); Pre-EMD Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                 |         | 23.533           | 102.901     | 0.000         |
| Description: TD phase and Pre-EMD efforts associated with delivering a new long-range ground-based sensor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                 |         |                  |             |               |
| FY 2012 Accomplishments:<br>Continued the TD phase efforts of the 3DELRR Program with the start of the pre-EMD period and developed a system design. Acquisition activities during FY12 included full and open source selection, preliminary design development, software and hardware subsystem level development, to support system development, implementation of mitigation techniques to combat existing and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                 |         |                  |             |               |

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | <b>DATE:</b> April 2013                                                                           |                |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604283F: <i>Battle Mgmt Com &amp; Ctrl Sensor Development</i> |                |                |
| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>FY 2012</b>                                                                                    | <b>FY 2013</b> | <b>FY 2014</b> |
| emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. Activities also include continuing development of Milestone (MS) B documentation as well as studies and analyses to support both current program planning and execution and future program planning.<br><br><b>FY 2013 Plans:</b><br>The pre-EMD period of the 3DELRR Program continues through FY13. Acquisition activities during FY13 include, but are not limited to, a full and open source selection, managing up to three concurrent prime contracts, completion of the preliminary design development, continuing software and hardware subsystem-level development to support the system development, implementation of mitigation techniques to combat existing and emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. A combined System Requirements and Function Review (SRFR), Preliminary Design Review (PDR), and Capability Demonstration C Event ensures the program achieves a preliminary system design. Activities also include studies and analyses to support both current program planning and execution and future program planning as well as finalization of MS B documentation. |  |                                                                                                   |                |                |
| <b>Title:</b> Test and Evaluation Support<br><br><b>Description:</b> Test and Evaluation Support<br><br><b>FY 2012 Accomplishments:</b><br>Test and evaluation support activities for continued development of the test strategy and test-related documentation, planning of future developmental test and evaluation events, information assurance planning, and participation in technical and test-related working groups.<br><br><b>FY 2013 Plans:</b><br>Continues test and evaluation support activities for development of the test strategy and test-related documentation, planning of future developmental test and evaluation events, information assurance planning, and participation in technical and test related working groups.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | 0.100                                                                                             | 0.300          | 0.000          |
| <b>Title:</b> Systems Engineering/ Technical Support<br><br><b>Description:</b> Systems Engineering/Technical Support<br><br><b>FY 2012 Accomplishments:</b><br>Systems Engineering/Technical Support<br><br><b>FY 2013 Plans:</b><br>Systems Engineering/Technical Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 0.945                                                                                             | 3.617          | 0.000          |

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force                                                                                                                                                                                                          |                |                |                         |                        |                                                                                                   |                |                |                |                | <b>DATE:</b> April 2013     |                   |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>                                                                                            |                |                |                         |                        | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604283F: <i>Battle Mgmt Com &amp; Ctrl Sensor Development</i> |                |                |                |                |                             |                   |                |
| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                         |                |                |                         |                        |                                                                                                   |                |                |                |                | <b>FY 2012</b>              | <b>FY 2013</b>    | <b>FY 2014</b> |
| N/A                                                                                                                                                                                                                                                                                 |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>Title:</b> Management Services                                                                                                                                                                                                                                                   |                |                |                         |                        |                                                                                                   |                |                |                |                | 5.784                       | 7.599             | 0.000          |
| <b>Description:</b> Management Services                                                                                                                                                                                                                                             |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>FY 2012 Accomplishments:</b><br>Management Services                                                                                                                                                                                                                              |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>FY 2013 Plans:</b><br>Management Services                                                                                                                                                                                                                                        |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| N/A                                                                                                                                                                                                                                                                                 |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                   |                |                |                         |                        |                                                                                                   |                |                |                |                | 30.362                      | 114.417           | 0.000          |
| <b>D. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                            |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>Line Item</b>                                                                                                                                                                                                                                                                    | <b>FY 2012</b> | <b>FY 2013</b> | <b>FY 2014<br/>Base</b> | <b>FY 2014<br/>OCO</b> | <b>FY 2014<br/>Total</b>                                                                          | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |                |
| • RDTE: BA04: PE 0207455F:<br><i>Three Dimensional Long Range Radar</i>                                                                                                                                                                                                             | 0.000          | 0.000          | 70.160                  |                        | 70.160                                                                                            | 69.533         | 57.985         | 54.000         | 15.100         | Continuing                  | Continuing        |                |
| • OPAF: BA04: Line Item #<br>646002: <i>Three Dimensional Long Range Radar</i>                                                                                                                                                                                                      | 0.000          | 0.000          | 0.000                   |                        | 0.000                                                                                             | 0.000          | 0.000          | 0.000          | 63.800         | Continuing                  | Continuing        |                |
| <b>Remarks</b>                                                                                                                                                                                                                                                                      |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>E. Acquisition Strategy</b><br>The Three-Dimensional Expeditionary Long-Range Radar (3DELRR) Project will provide full capability via full and open competition to further advance command and control (C2) capabilities supporting battlefield C2.                              |                |                |                         |                        |                                                                                                   |                |                |                |                |                             |                   |                |
| <b>F. Performance Metrics</b><br>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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| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Air Force</b>                                                                                         |                                   |                                           |                        |                |                   |                                                                                           |                   |                     |                   |                    |                   | <b>DATE:</b> April 2013                                                       |                         |                   |                                 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 4: Advanced Component Development & Prototypes (ACD&P) |                                   |                                           |                        |                |                   | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604283F: Battle Mgmt Com & Ctrl<br>Sensor Development |                   |                     |                   |                    |                   | <b>PROJECT</b><br>646002: Three Dimensional Expeditionary<br>Long Range Radar |                         |                   |                                 |
| <b>Product Development (\$ in Millions)</b>                                                                                                                    |                                   |                                           |                        | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                            |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                                                          |                         |                   |                                 |
| <b>Cost Category Item</b>                                                                                                                                      | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>All Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>        | <b>Award Date</b> | <b>Cost</b>                                                                   | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| Modeling & Simulation                                                                                                                                          | SS/CPFF                           | MIT/Lincoln Laboratory:Lexington, MA      | 0.000                  | 3.220          | Oct 2011          | 2.055                                                                                     | Dec 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 5.275             | 5.275                           |
| System Threat Assessment                                                                                                                                       | SS/CPFF                           | MITRE:Bedford, MA                         | 0.000                  | 0.318          | Nov 2011          | 0.408                                                                                     | Nov 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 0.726             | 0.636                           |
| Pre-EMD Period                                                                                                                                                 | C/FFP                             | Various:Various,                          | 0.000                  | 19.995         | Sep 2012          | 100.438                                                                                   | Oct 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 120.433           | 122.157                         |
| <b>Subtotal</b>                                                                                                                                                |                                   |                                           | 0.000                  | 23.533         |                   | 102.901                                                                                   |                   | 0.000               |                   | 0.000              |                   | 0.000                                                                         | 0.000                   | 126.434           | 128.068                         |
| <b>Support (\$ in Millions)</b>                                                                                                                                |                                   |                                           |                        | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                            |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                                                          |                         |                   |                                 |
| <b>Cost Category Item</b>                                                                                                                                      | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>All Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>        | <b>Award Date</b> | <b>Cost</b>                                                                   | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| System Engineering - A                                                                                                                                         | SS/CPFF                           | MIT/Lincoln Laboratory:Lexington, MA      | 0.000                  | 0.929          | Jan 2012          | 2.898                                                                                     | Jan 2013          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 3.827             | 3.827                           |
| System Engineering - B                                                                                                                                         | MIPR                              | Naval Research Laboratory:Washington, DC  | 0.000                  | 0.016          | Aug 2012          | 0.181                                                                                     | Oct 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 0.197             | 0.181                           |
| System Engineering - C                                                                                                                                         | SS/CPFF                           | Carnegie Mellon University:Pittsburgh, PA | 0.000                  | 0.000          |                   | 0.538                                                                                     | Dec 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 0.538             | 0.538                           |
| <b>Subtotal</b>                                                                                                                                                |                                   |                                           | 0.000                  | 0.945          |                   | 3.617                                                                                     |                   | 0.000               |                   | 0.000              |                   | 0.000                                                                         | 0.000                   | 4.562             | 4.546                           |
| <b>Test and Evaluation (\$ in Millions)</b>                                                                                                                    |                                   |                                           |                        | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                            |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                                                          |                         |                   |                                 |
| <b>Cost Category Item</b>                                                                                                                                      | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>All Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>        | <b>Award Date</b> | <b>Cost</b>                                                                   | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| 46th Test Wing                                                                                                                                                 | PO                                | 46th TW:Ft Walton Beach, FL               | 0.000                  | 0.100          | Oct 2011          | 0.250                                                                                     | Oct 2012          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 0.350             | 0.400                           |
| Joint Interoperability Test Command                                                                                                                            | MIPR                              | JITC:Ft. Huachuca, AZ                     | 0.000                  | 0.000          |                   | 0.050                                                                                     | Apr 2013          | 0.000               |                   | -                  |                   | 0.000                                                                         | 0.000                   | 0.050             |                                 |
| <b>Subtotal</b>                                                                                                                                                |                                   |                                           | 0.000                  | 0.100          |                   | 0.300                                                                                     |                   | 0.000               |                   | 0.000              |                   | 0.000                                                                         | 0.000                   | 0.400             |                                 |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|---------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------|--|-------------------------|--|--|--|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2014 Air Force                                                                                                                   |  |  |  |  |  |                                                                                                   |  |  |  |                                                                                   |  | <b>DATE:</b> April 2013 |  |  |  |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> |  |  |  |  |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604283F: <i>Battle Mgmt Com &amp; Ctrl Sensor Development</i> |  |  |  | <b>PROJECT</b><br>646002: <i>Three Dimensional Expeditionary Long Range Radar</i> |  |                         |  |  |  |

| Management Services (\$ in Millions) |                        |                                |                 | FY 2012 |            | FY 2013 |            | FY 2014 Base |            | FY 2014 OCO |            | FY 2014 Total |            |                  |            |                          |
|--------------------------------------|------------------------|--------------------------------|-----------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------|------------------|------------|--------------------------|
| Cost Category Item                   | Contract Method & Type | Performing Activity & Location | All Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          | Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| Program Management Administration    | Various                | Various:Various,               | 0.000           | 5.784   | Oct 2011   | 7.599   | Oct 2012   | 0.000        |            | -           |            | 0.000         |            | 0.000            | 13.383     | 11.765                   |
| <b>Subtotal</b>                      |                        |                                | 0.000           | 5.784   |            | 7.599   |            | 0.000        |            | 0.000       |            | 0.000         |            | 0.000            | 13.383     | 11.765                   |

|                            | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-----------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| <b>Project Cost Totals</b> | 0.000           | 30.362  | 114.417 | 0.000        | 0.000       | 0.000         | 0.000            | 144.779    |                          |

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

## APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force  
BA 4: Advanced Component Development & Prototypes (ACD&P)

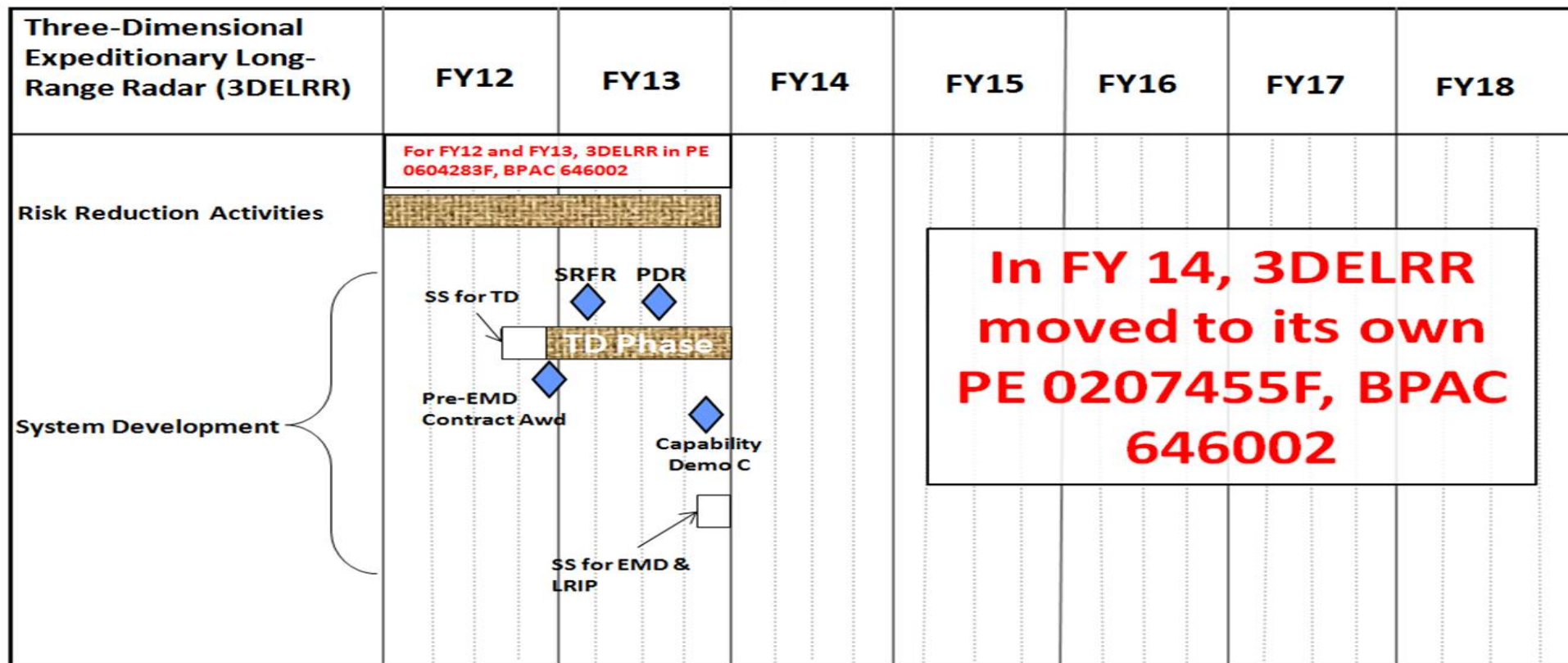
## R-1 ITEM NOMENCLATURE

PE 0604283F: Battle Mgmt Com & Ctrl  
Sensor Development

## PROJECT

646002: Three Dimensional Expeditionary  
Long Range Radar

## 3DELRR Program Schedule



Design / development



Key events

EMD: Engineering & Manufacturing Development

LRIP: Low Rate Initial Production

PDR: Preliminary Design Review

SS: Source Selection

SRFR: System Requirements Functional Review TD: Technology Development

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|                                                                                                                                                                                          |                                                                                                             |                                                                                             |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force                                                                                                                       |                                                                                                             |                                                                                             | <b>DATE:</b> April 2013 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604283F: <i>Battle Mgmt Com &amp; Ctrl</i><br><i>Sensor Development</i> | <b>PROJECT</b><br>646002: <i>Three Dimensional Expeditionary</i><br><i>Long Range Radar</i> |                         |

## Schedule Details

| Events                                     | Start   |      | End     |      |
|--------------------------------------------|---------|------|---------|------|
|                                            | Quarter | Year | Quarter | Year |
| Risk Reduction Activities                  | 1       | 2012 | 4       | 2013 |
| TD Phase Source Selection                  | 3       | 2012 | 4       | 2012 |
| Pre-EMD Contract Award                     | 4       | 2012 | 4       | 2012 |
| Tech Development (TD) Phase                | 4       | 2012 | 4       | 2013 |
| System Requirement Functional Review       | 2       | 2013 | 2       | 2013 |
| Preliminary Design Review                  | 3       | 2013 | 3       | 2013 |
| Capability Demonstration C                 | 4       | 2013 | 4       | 2013 |
| Source Selection for EMD and LRIP Contract | 4       | 2013 | 4       | 2013 |