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| Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force   |             |         |         |              |   |               |         |         |         | Date: March 2014 |                  |            |
|---|-------------|---------|---------|--------------|---|---------------|---------|---------|---------|------------------|------------------|------------|
| Appropriation/Budget Activity<br>3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD) |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604270F I Electronic Warfare Development |               |         |         |         |                  |                  |            |
| COST (\$ in Millions)   | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO #   | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019          | Cost To Complete | Total Cost |
| Total Program Element   | -           | 1.914   | 1.971   | 1.965        | -   | 1.965         | 1.967   | 2.003   | 2.041   | 2.080            | Continuing       | Continuing |
| 653891: Advanced IR Counter Measures (AIRCМ)  | -           | 1.914   | 1.971   | 1.965        | -   | 1.965         | 1.967   | 2.003   | 2.041   | 2.080            | Continuing       | Continuing |

# The FY 2015 OCO Request will be submitted at a later date.

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

This program consolidates Air Force funding and management of common Electronic Warfare (EW) systems from Materiel Solutions Analysis through Engineering and Manufacturing Development and transition to operational capability. EW is an integral warfighting effect supporting AF Global Strike, Global Persistent Attack and Global Mobility operations as well as Joint-Coalition operations. EW systems influence, deceive, disrupt, degrade, deny, and destroy threats to air operations throughout the electromagnetic spectrum. This PE supports Electronic Support (ES), Electronic Protection (EP), and Electronic Attack (EA). ES programs support the collection, analysis, and dissemination of information related to the detection, geo-location, characterization, and identification of threats to air operations. EP Programs preserve the electromagnetic spectrum for use by friendly forces. EA programs provide self-protection through active and passive measures that deceive threats to air operations using kinetic and non-kinetic means to defeat threats that rely on the electromagnetic spectrum (Radio Frequency (RF), Electro-Optical (EO), Infrared (IR)).

This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.

|  |                       |                       |                            |                           |                             |
|--|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| <b><u>B. Program Change Summary (\$ in Millions)</u></b> | <b><u>FY 2013</u></b> | <b><u>FY 2014</u></b> | <b><u>FY 2015 Base</u></b> | <b><u>FY 2015 OCO</u></b> | <b><u>FY 2015 Total</u></b> |
| Previous President's Budget                              | 1.975                 | 1.971                 | 1.990                      | -                         | 1.990                       |
| Current President's Budget                               | 1.914                 | 1.971                 | 1.965                      | -                         | 1.965                       |
| Total Adjustments  | -0.061                | -                     | -0.025                     | -                         | -0.025                      |
| • Congressional General Reductions                       | -0.003                | -                     |                            |                           |                             |
| • Congressional Directed Reductions                      | -                     | -                     |                            |                           |                             |
| • Congressional Rescissions                              | -                     | -                     |                            |                           |                             |
| • Congressional Adds                                     | -                     | -                     |                            |                           |                             |
| • Congressional Directed Transfers                       | -                     | -                     |                            |                           |                             |
| • Reprogrammings   | -                     | -                     |                            |                           |                             |
| • SBIR/STTR Transfer                                     | -0.058                | -                     |                            |                           |                             |
| • Other Adjustments                                      | -                     | -                     | -0.025                     | -                         | -0.025                      |

## **Change Summary Explanation**

No Significant Changes

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|   |             |         |         |              |  |               |         |         |   |                  |                  |            |
|---|-------------|---------|---------|--------------|--|---------------|---------|---------|---|------------------|------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force  |             |         |         |              |  |               |         |         |   | Date: March 2014 |                  |            |
| Appropriation/Budget Activity<br>3600 / 5   |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604270F / <i>Electronic Warfare Development</i> |               |         |         | Project (Number/Name)<br>653891 / <i>Advanced IR Counter Measures (AIRCM)</i> |                  |                  |            |
| COST (\$ in Millions)   | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO #  | FY 2015 Total | FY 2016 | FY 2017 | FY 2018   | FY 2019          | Cost To Complete | Total Cost |
| 653891: <i>Advanced IR Counter Measures (AIRCM)</i>   | -           | 1.914   | 1.971   | 1.965        | -  | 1.965         | 1.967   | 2.003   | 2.041   | 2.080            | Continuing       | Continuing |
| Quantity of RDT&E Articles  | -           | -       | -       | -            | -  | -             | -       | -       | -   | -                |                  |            |
| # The FY 2015 OCO Request will be submitted at a later date.  |             |         |         |              |  |               |         |         |   |                  |                  |            |
| A. Mission Description and Budget Item Justification  |             |         |         |              |  |               |         |         |   |                  |                  |            |
| The Advanced Infrared Countermeasure (AIRCM) project contains related aircraft self-protection efforts aimed at increasing aircraft survivability against the increasing threat of sophisticated infrared-guided surface-to-air and air-to-air missiles. These missiles may employ sophisticated next-generation electro-optics or dual-mode IR and radio frequency seekers. AIRCM will provide advanced IR expendable countermeasures and/or IRCM techniques that will be functionally compatible with existing dispenser systems and employed across multiple USAF weapons systems. This also explicitly includes any and all flare and decoy development and testing that may be demanded or needed in current operations supporting the war on terrorism regardless of aircraft platform. Similar activities that are supplementary to this effort may be accomplished ad hoc using platform specific funding or through other testing activities such as joint services or NATO test groups. |             |         |         |              |  |               |         |         |   |                  |                  |            |
| BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.  |             |         |         |              |  |               |         |         |   |                  |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions)  |             |         |         |              |  |               |         |         | FY 2013   | FY 2014          | FY 2015          |            |
| Title: IR Flare Testing   |             |         |         |              |  |               |         |         | 1.914   | 1.971            | 1.965            |            |
| Description: IR flare testing and qualification on aircraft   |             |         |         |              |  |               |         |         |   |                  |                  |            |
| FY 2013 Accomplishments:<br>Qualified IR flare cocktails on various aircraft.   |             |         |         |              |  |               |         |         |   |                  |                  |            |
| FY 2014 Plans:<br>Activities include qualification of IR flare cocktails on various aircraft.   |             |         |         |              |  |               |         |         |   |                  |                  |            |
| FY 2015 Plans:<br>Activities include testing and qualification of IR flare cocktails on various aircraft.   |             |         |         |              |  |               |         |         |   |                  |                  |            |
| Accomplishments/Planned Programs Subtotals  |             |         |         |              |  |               |         |         | 1.914   | 1.971            | 1.965            |            |

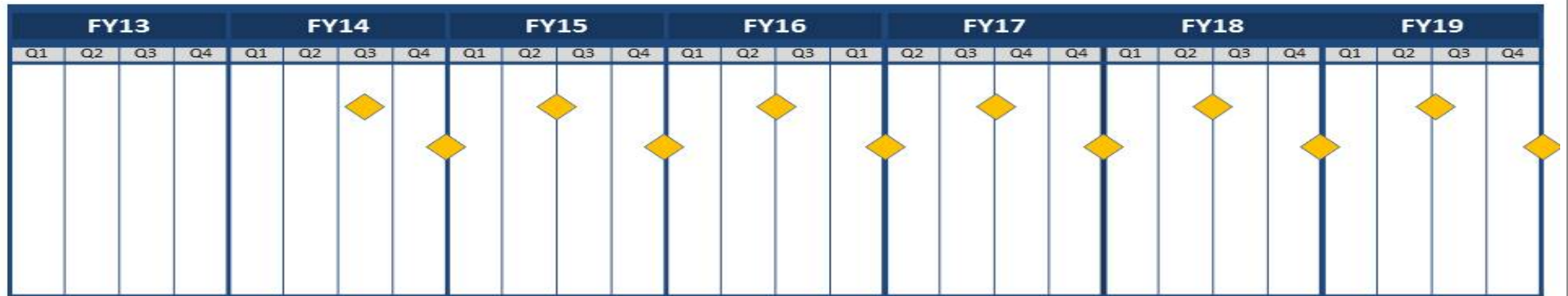
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|---|----------------|----------------|-------------------------------|--|--------------------------------|----------------|----------------|---|----------------|-----------------------------------|-------------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force  |                |                |                               |  |                                |                |                |   |                | Date: March 2014                  |                   |
| Appropriation/Budget Activity<br>3600 / 5   |                |                |                               | R-1 Program Element (Number/Name)<br>PE 0604270F / <i>Electronic Warfare Development</i> |                                |                |                | Project (Number/Name)<br>653891 / <i>Advanced IR Counter Measures (AIRCM)</i> |                |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>  |                |                |                               |  |                                |                |                |   |                |                                   |                   |
| <u>Line Item</u>  | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u><br><u>Base</u> | <u>FY 2015</u><br><u>OCO</u>   | <u>FY 2015</u><br><u>Total</u> | <u>FY 2016</u> | <u>FY 2017</u> | <u>FY 2018</u>  | <u>FY 2019</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • PAAF: BA01: Line<br>Item # 356010: <i>Flares</i>  | 41.545         | 49.194         | 73.356                        | -  | 73.356                         | 103.565        | 109.623        | 97.541  | 99.396         | Continuing                        | Continuing        |
| <b>Remarks</b><br>Qualified flares, if not in AF inventory, will be procured under PE 0208030F War Reserve Munitions, Flares.   |                |                |                               |  |                                |                |                |   |                |                                   |                   |
| <b>D. Acquisition Strategy</b><br>Do not anticipate need to award contracts as activities will be completed with Military Interdepartmental Purchase Requests.  |                |                |                               |  |                                |                |                |   |                |                                   |                   |
| <b>E. 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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| Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force |  |  |  |  |  |  |  |  |  | Date: March 2014   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Appropriation/Budget Activity<br>3600 / 5              |  |  |  |  |  |  |  |  |  | R-1 Program Element (Number/Name)<br>PE 0604270F / <i>Electronic Warfare Development</i> |  |  |  |  |  |  |  |  |  | Project (Number/Name)<br>653891 / <i>Advanced IR Counter Measures (AIRC)</i> |  |  |  |  |  |  |  |  |  |

## Flare Test Schedule



**Legend:**  
 Notional Test Event