Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

**R-1 ITEM NOMENCLATURE** 

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

PE 0207040F: Multi-Platform Electronics

**DATE:** February 2011

BA 7: Operational Systems Development

| COST (\$ in Millions)       | FY 2010 | FY 2011 | FY 2012<br>Base | FY 2012<br>OCO | FY 2012<br>Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To<br>Complete | Total Cost |
|-----------------------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| Total Program Element       | 14.370  | 15.574  | -               | -              | -                | -       | -       | -       | -       | Continuing          | Continuing |
| 675310: EA Pod DRFM Upgrade | 14.370  | 15.574  | -               | -              | -                | -       | -       | -       | -       | Continuing          | Continuing |

### A. Mission Description and Budget Item Justification

Overall, the PE funds on-going sustainment, maintenance, and upgrade of Multi-Platform Electronic Attack (EA) jamming pods and associated combat test equipment as well as sustainment of various other Electronic Warfare equipment. Specifically, this program provides procurement, research and development, and operations and maintenance for sustaining the ALQ-131 and ALQ-184 EA jamming pods. These pods are the sole self-protection jamming systems for US Air Force A-10 aircraft and most models of the F-16 aircraft. This upgrade to the ALQ-131 is necessary to keep pace with adversary technological advances in surface-to-air and air-to-air missile systems. Digital Radio Frequency Memory (DRFM) allows an electronic system to digitally record and store characteristics of received signals in order to produce a jamming pulse that more precisely replicates the threat systems pulse. With the current/near term threat systems the A-10 and F-16 are likely to encounter, this level of fidelity is necessary to effectively protect these aircraft in this increasingly lethal environment. This PE is in Budget Activity 7 - Operational System Development because it supports upgrade development of the ALQ-131, a fielded system.

| B. Program Change Summary (\$ in Millions)            | FY 2010 | FY 2011 | <b>FY 2012 Base</b> | FY 2012 OCO | FY 2012 Total |
|---|---------|---------|---------------------|-------------|---------------|
| Previous President's Budget                           | 14.747  | 15.574  | -                   | -           | -             |
| Current President's Budget                            | 14.370  | 15.574  | -                   | -           | -             |
| Total Adjustments                                     | -0.377  | -       | -                   | -           | -             |
| <ul> <li>Congressional General Reductions</li> </ul>  |         | -       |                     |             |               |
| <ul> <li>Congressional Directed Reductions</li> </ul> |         | -       |                     |             |               |
| <ul> <li>Congressional Rescissions</li> </ul>         | -       | -       |                     |             |               |
| <ul> <li>Congressional Adds</li> </ul>                |         | -       |                     |             |               |
| <ul> <li>Congressional Directed Transfers</li> </ul>  |         | -       |                     |             |               |
| <ul> <li>Reprogrammings</li> </ul>                    | -       | -       |                     |             |               |
| SBIR/STTR Transfer                                    | -       | -       |                     |             |               |
| Other Adjustments                                     | -0.377  | -       | -                   | -           | -             |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force  |         |         |                 |                |                  |         |         |  | DATE: February 2011 |                     |            |
|---|---------|---------|-----------------|----------------|------------------|---------|---------|--|---------------------|---------------------|------------|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development |         |         |                 |                |                  |         |         | PROJECT<br>675310: EA Pod DRFM Upgrade |                     |                     |            |
| COST (\$ in Millions)   | FY 2010 | FY 2011 | FY 2012<br>Base | FY 2012<br>OCO | FY 2012<br>Total | FY 2013 | FY 2014 | FY 2015                                | FY 2016             | Cost To<br>Complete | Total Cost |
| 675310: EA Pod DRFM Upgrade   | 14.370  | 15.574  | -               | -              | -                | -       | -       | -                                      | -                   | Continuing          | Continuing |
| Quantity of RDT&E Articles  | 0       | 0       | 0               | 0              | 0                | 0       | 0       | 0                                      | 0                   |                     |            |

## A. Mission Description and Budget Item Justification

Overall, the PE funds on-going sustainment, maintenance, and upgrade of Multi-Platform Electronic Attack (EA) jamming pods and associated combat test equipment as well as sustainment of various other Electronic Warfare equipment. Specifically, this program provides procurement, research and development, and operations and maintenance for sustaining the ALQ-131 and ALQ-184 EA jamming pods. These pods are the sole self-protection jamming systems for US Air Force A-10 aircraft and most models of the F-16 aircraft. This upgrade to the ALQ-131 is necessary to keep pace with adversary technological advances in surface-to-air and air-to-air missile systems. Digital Radio Frequency Memory (DRFM) allows an electronic system to digitally record and store characteristics of received signals in order to produce a jamming pulse that more precisely replicates the threat systems pulse. With the current/near term threat systems the A-10 and F-16 are likely to encounter, this level of fidelity is necessary to effectively protect these aircraft in this increasingly lethal environment. This PE is in Budget Activity 7 - Operational System Development because it supports upgrade development of the ALQ-131, a fielded system.

| B. Accomplishments/Planned Programs (\$ in Millions)             |           |         | FY 2012 | FY 2012 | FY 2012 |
|--|-----------|---------|---------|---------|---------|
|  | FY 2010   | FY 2011 | Base    | oco     | Total   |
| Title: ALQ-131 Upgrade   | 14.370    | 15.574  | -       | -       | -       |
| Description: ALQ-131 DRFM SDD                                    |           |         |         |         |         |
| FY 2010 Accomplishments: Continuation of above listed activities |           |         |         |         |         |
| FY 2011 Plans: Continue development of ALQ-131 updgrade.         |           |         |         |         |         |
| FY 2012 Base Plans:  |           |         |         |         |         |
| FY 2012 OCO Plans: Not Applicable.                               |           |         |         |         |         |
| Accomplishments/Planned Programs Subtota                         | ls 14.370 | 15.574  | -       | -       | -       |

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 

3600: Research, Development, Test & Evaluation, Air Force PE 0207040F: Multi-Platform Electronics 675310: EA Pod DRFM Upgrade

BA 7: Operational Systems Development

## C. Other Program Funding Summary (\$ in Millions)

|                  |         |         | FY 2012     | FY 2012 | FY 2012      |         |         |         |         | Cost To         |                   |
|------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2010 | FY 2011 | <b>Base</b> | OCO     | <u>Total</u> | FY 2013 | FY 2014 | FY 2015 | FY 2016 | <b>Complete</b> | <b>Total Cost</b> |
| • N/A:           | 0.000   | 0.000   | 0.000       | 0.000   | 0.000        | 0.000   | 0.000   | 0.000   | 0.000   | Continuing      | Continuing        |

## **D. Acquisition Strategy**

All major contracts within this project will be awarded through full and open competition.

#### E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force DATE: February 2011 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0207040F: Multi-Platform Electronics 675310: EA Pod DRFM Upgrade BA 7: Operational Systems Development FY 2012 FY 2012 FY 2012 **Product Development (\$ in Millions)** oco **FY 2011** Base Total **Total Prior** Contract Target Method Performing Years Award Award Award Cost To Value of Complete **Cost Category Item Activity & Location** Cost Date Cost Date Cost Date **Total Cost** Contract & Type Cost Cost Robins AFB TBD TBD:TBD. 9.747 15.574 Continuina Continuina 18.000 Subtotal 9.747 15.574 18.000 FY 2012 FY 2012 FY 2012 Support (\$ in Millions) FY 2011 Base oco Total **Total Prior** Target Contract Years Method Performing Award Award Award Cost To Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract Subtotal 0.000 0.000 0.000 FY 2012 FY 2012 FY 2012 Test and Evaluation (\$ in Millions) FY 2011 Base oco Total Target Contract **Total Prior** Years Method Performing Award Award Award **Cost To** Value of **Cost Category Item Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract & Type Robins AFB **TBD** TBD:TBD 5.000 0.000 5.000 13.000 Subtotal 5.000 0.000 5.000 13.000 FY 2012 FY 2012 FY 2012 Management Services (\$ in Millions) **FY 2011** Base oco Total **Total Prior** Contract Target Method Performing Years Award Award Award Cost To Value of **Cost Category Item Activity & Location** Cost Cost Cost Cost Date Complete **Total Cost** Contract & Type Date Date Cost Subtotal 0.000 0.000 0.000 **Total Prior Target** FY 2012 Years FY 2012 FY 2012 **Cost To** Value of Total Cost FY 2011 Base oco Complete **Total Cost** Contract 15.574 **Project Cost Totals** 14.747 31 000 Remarks

Air Force

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force  | DATE: February 2011   |  |
|---|---|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0207040F: Multi-Platform Electronics | PROJECT<br>675310: EA Pod DRFM Upgrade |
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| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force   |   |                   | DATE: February 2011 |
|---|---|-------------------|---------------------|
| APPROPRIATION/BUDGET ACTIVITY                             | R-1 ITEM NOMENCLATURE                   | PROJECT           |                     |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0207040F: Multi-Platform Electronics | 675310: <i>EA</i> | Pod DRFM Upgrade    |
| BA 7: Operational Systems Development                     |   |                   |                     |

# Schedule Details

|                                     | Start   |      | End     |      |  |
|-------------------------------------|---------|------|---------|------|--|
| Events                              | Quarter | Year | Quarter | Year |  |
| Developmental Testing               | 1       | 2010 | 3       | 2011 |  |
| Operational Testing                 | 2       | 2010 | 4       | 2011 |  |
| Delivery and Retrofit of Pods Start | 2       | 2010 | 4       | 2012 |  |

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