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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force | <b>DATE:</b> February 2012 |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b>   |                |                |                         | <b>R-1 ITEM NOMENCLATURE</b>                    |                          |                |                |                |                |                             |                   |
|--|----------------|----------------|-------------------------|---|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 7: <i>Operational Systems Development</i> |                |                |                         | PE 0708012F: <i>Logistic Support Activities</i> |                          |                |                |                |                |                             |                   |
| <b>COST (\$ in Millions)</b>   | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013<br/>Base</b> | <b>FY 2013<br/>OCO</b>                          | <b>FY 2013<br/>Total</b> | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
| Total Program Element  | -              | 0.944          | 0.577                   | -   | 0.577                    | 0.581          | 0.597          | 0.620          | 0.639          | Continuing                  | Continuing        |
| 673318: <i>Product Data Systems<br/>Modernization (PDSM)</i>   | -              | 0.944          | 0.577                   | -   | 0.577                    | 0.581          | 0.597          | 0.620          | 0.639          | Continuing                  | Continuing        |
| Quantity of RDT&E Articles   | 0              | 0              | 0                       | 0   | 0                        | 0              | 0              | 0              | 0              |                             |                   |

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

The Aircraft Structural Integrity Management Information System (ASIMIS) and ASIP operate as directed by AFPD 63-10 and MIL-STD-1530C. ASIMIS responsibilities include: Receiving, storing and reporting recorder downloads from all aircraft. Track and report quality control data for flight data recorders (Structural Data Recorder, Crash Survivable Flight Data Recorder, etc...), monitor usage, severity and any accumulated damage by plane and base, analyze the data, calculate crack growth in key locations in the airframe structure, project crack growth in order to provide a basis for maintenance scheduling, maintain a complete flight hour and calendar date history of each aircraft.

This project supports the implementation of the software package Air Force Grow (AFGROW) in the ASIMIS suite of tools to support the Aircraft Structural Integrity Program (ASIP) community. AFGROW is a crack prediction software package owned and operated by LexTech Inc. Originally developed under the name ASDGRO in 1985, AFGROW was owned and operated by the United States Air Force through version 4.0012.15. AFGROW will be used by Air Force structural engineers to predict the life expectancy of a/c components for a variety of weapon systems under cyclic loading under the assumption that defects exist. AFGROW is also used to address maintenance requirements if/when damage is identified within a component. Funding will be used to provide software licenses and training ASIP managers and weapon system engineers. Funding will also be used to provide for the research and development of software upgrades to suit ASIP manager needs.

This project supports the implementation of the software package Probability of Failure (PROF) in the ASIMIS suite of tools to support the Aircraft Structural Integrity Program (ASIP) community. PROF is a risk analysis software package owned and distributed by the United States Air Force. PROF is used by Air Force structural engineers to predict the probability of failure of a weapon system under specified usages. PROF provides for the ability to set inspection/maintenance schedules before failure occurs, without creating excess/unnecessary inspections that would impair mission readiness.

ETIMS Program baseline transferred from PE 78611F BPAC 673318 to PE 78012F BPAC 673318 beginning in FY13 -- Air Force Technical Order functionality implementation of the Enhanced Technical Information System (ETIMS) Enterprise. Provides for modify the ETIMS system to support Nuclear Weapons Related Material (NWRM) technical data requirements.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force   |         |   |              | DATE: February 2012 |               |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 7: Operational Systems Development |         | R-1 ITEM NOMENCLATURE<br>PE 0708012F: Logistic Support Activities |              |                     |               |
| B. Program Change Summary (\$ in Millions)  | FY 2011 | FY 2012   | FY 2013 Base | FY 2013 OCO         | FY 2013 Total |
| Previous President's Budget   | -       | 0.944   | 0.299        | -                   | 0.299         |
| Current President's Budget  | -       | 0.944   | 0.577        | -                   | 0.577         |
| Total Adjustments   | -       | -   | 0.278        | -                   | 0.278         |
| • Congressional General Reductions  | -       | -   |              |                     |               |
| • Congressional Directed Reductions   | -       | -   |              |                     |               |
| • Congressional Rescissions   | -       | -   |              |                     |               |
| • Congressional Adds  | -       | -   |              |                     |               |
| • Congressional Directed Transfers  | -       | -   |              |                     |               |
| • Reprogrammings  | -       | -   |              |                     |               |
| • SBIR/STTR Transfer  | -       | -   |              |                     |               |
| • Other Adjustments   | -       | -   | 0.278        | -                   | 0.278         |
| C. Accomplishments/Planned Programs (\$ in Millions)  | FY 2011 | FY 2012   | FY 2013 Base | FY 2013 OCO         | FY 2013 Total |
| Title: ASIMIS Modernization   | -       | 0.544   | 0.100        | -                   | 0.100         |
| Description: Mainframe Modernization  |         |   |              |                     |               |
| FY 2012 Plans:  |         |   |              |                     |               |
| - Mainframe to Server Migration   |         |   |              |                     |               |
| - Web Modernization   |         |   |              |                     |               |
| - Miscellaneous Enhancements  |         |   |              |                     |               |
| FY 2013 Base Plans:   |         |   |              |                     |               |
| - Web Modernization   |         |   |              |                     |               |
| - Miscellaneous Enhancements  |         |   |              |                     |               |
| Title: AFGROW   | -       | 0.200   | 0.100        | -                   | 0.100         |
| Description: AFGROW   |         |   |              |                     |               |
| FY 2012 Plans:  |         |   |              |                     |               |
| - Purchase Software Licensing for 4 Sites   |         |   |              |                     |               |
| - Provide Funding for Training for 4 Sites  |         |   |              |                     |               |
| - Continue Software Updating  |         |   |              |                     |               |
| FY 2013 Base Plans:   |         |   |              |                     |               |
| - Purchase Software Licensing for 4 Sites   |         |   |              |                     |               |

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| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 7: Operational Systems Development  |  | R-1 ITEM NOMENCLATURE<br>PE 0708012F: Logistic Support Activities |         |                     |             |               |
| C. Accomplishments/Planned Programs (\$ in Millions)   |  | FY 2011   | FY 2012 | FY 2013 Base        | FY 2013 OCO | FY 2013 Total |
| - Provide Funding for Training for 4 Sites<br>- Continue Software Updating   |  |   |         |                     |             |               |
| Title: PROF<br>Description: PROF<br>FY 2012 Plans:<br>- Continue Software Updating<br>FY 2013 Base Plans:<br>- Continue Software Updating  |  | -   | 0.200   | 0.100               | -           | 0.100         |
| Title: ETIMS Enhancements<br>Description: ETIMS Modernization<br>FY 2012 Plans:<br>.<br>FY 2013 Base Plans:<br>Continue ETIMS enhancements and incorporate technical Data activities and technical integration. Incorporate management and support of AF technical data activities.<br>FY 2013 OCO Plans:<br>N/A |  | -   | -       | 0.277               | -           | 0.277         |
| Accomplishments/Planned Programs Subtotals   |  | -   | 0.944   | 0.577               | -           | 0.577         |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0708012F: <i>Logistic Support Activities</i> |
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**D. Other Program Funding Summary (\$ in Millions)**

| <u>Line Item</u>                                  | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</u><br><u>Base</u> | <u>FY 2013</u><br><u>OCO</u> | <u>FY 2013</u><br><u>Total</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>FY 2017</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • ASIMIS , Operations and Maintenance: <i>N/A</i> | 0.104          | 0.265          | 0.117                         | 0.000                        | 0.117                          | 0.123          | 0.260          | 0.152          | 0.000          | Continuing                        | Continuing        |
| • ETIMS Sustainment: <i>ETIMS, 3400, 78012F</i>   | 4.338          | 5.507          | 5.206                         | 0.000                        | 5.206                          | 4.647          | 4.477          | 4.234          | 4.315          | Continuing                        | Continuing        |

**E. Acquisition Strategy**

ASIMIS will migrate the mainframe code to a new, modern, more manageable, and maintainable language. The acquisition will be a Cost Plus-Fixed Fee (CPFF) contract line item on a competitively awarded contract utilizing Full and Open Competition.

ETIMS will incrementally develop enhancements to the existing project to ensure a user friendly, technically accurate, and current digital TO management solution at the point of use. The acquisition will be a Cost Plus Fixed Fee (CPFF) contract line item on a competitively awarded contract utilizing Full and Open Competition (FAR part 15).

**F. Performance Metrics**

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

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force  |   | <b>DATE:</b> February 2012   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0708012F: <i>Logistic Support Activities</i> | <b>PROJECT</b><br>673318: <i>Product Data Systems Modernization (PDSM)</i> |
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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force   |   |  | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0708012F: <i>Logistic Support Activities</i> | <b>PROJECT</b><br>673318: <i>Product Data Systems Modernization (PDSM)</i> |                            |

Schedule Details

| Events                        | Start   |      | End     |      |
|-------------------------------|---------|------|---------|------|
|                               | Quarter | Year | Quarter | Year |
| ETIMS Design and Development  | 3       | 2012 | 2       | 2017 |
| ETIMS Integration and Test    | 2       | 2013 | 3       | 2017 |
| ETIMS Pre-Production          | 3       | 2013 | 4       | 2017 |
| ETIMS Production and Fielding | 4       | 2013 | 4       | 2017 |