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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

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| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0305240F: <i>Support to DCGS Enterprise</i> |
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| COST (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|--|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | - | 24.500 | - | 24.500 | 25.016 | 25.350 | 26.026 | 26.497 | Continuing | Continuing |
| 674826: <i>Common Imagery Ground / Surface Systems</i> | - | - | 14.073 | - | 14.073 | 14.352 | 14.499 | 14.774 | 15.054 | Continuing | Continuing |
| 675265: <i>Common Imagery Processor (CIP)</i> | - | - | 10.427 | - | 10.427 | 10.664 | 10.851 | 11.252 | 11.443 | Continuing | Continuing |

Note

In FY 2013, Distributed Common Ground System (DCGS) Integrated Backbone (DIB) transferred from PE 0305208F, Distributed Common Ground System (DCGS), in order to improve visibility into this effort. AF is lead service under the auspice of USD(I).

In FY 2013, DCGS-Imagery (DCGS-I) Testbed transferred from PE 0305208F, DCGS, in order to improve visibility into this effort. AF is lead service under the auspice of USD(I).

In FY 2013, DCGS Enterprise transferred from PE 0305208F, DCGS, in order to improve visibility into this effort. AF is lead service under the auspice of USD(I).

In FY 2013, Common Imagery Processor (CIP) transferred from PE 0305208F, DCGS, in order to improve visibility into this effort. AF is lead service under the auspice of USD(I).

A. Mission Description and Budget Item Justification

The efforts in this Program Element are those the AF is lead service for under the auspices of USD(I). The funding was previously executed within PE0305208F. Beginning with the FY13 President's Budget, the AF DCGS Program and Support to DCGS Enterprise programs are being reported separately for improved visibility.

The Air Force has been charged by DoD with developing, upgrading and managing the DCGS Integration Backbone (DIB) for all the Services to provide common DCGS enterprise services and interoperability at the data level. Using the DIB, AF DCGS modernization will transform AF DCGS from its existing proprietary system to a net-centric service oriented architecture.

The DCGS Imagery (DCGS-I) Testbed is an integration and test environment, which is used by the Services and Agency program offices to conduct integration of DCGS components and test interoperability interfaces with new sensors, applications, and net centric operations. This testbed also supports the integration and testing of DoD DCGS components prior to introduction into the operational environment. Upgrades to the DCGS-I Testbed will ensure it maintains current with DCGS standards and architecture.

AF DCGS also participates in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

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The Common Imagery Processor (CIP) is a major interoperability initiative to develop a common sensor processing element within DCGS-Imagery architecture. The function of the CIP is to accept airborne imagery data, process it into an exploitable image, and output the image to other elements within DCGS-I. Efforts are underway to augment the CIP baseline to process data from upgraded/new sensors.

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.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

| B. Program Change Summary (\$ in Millions) | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013 Base</u> | <u>FY 2013 OCO</u> | <u>FY 2013 Total</u> |
|---|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| Previous President's Budget | - | - | - | - | - |
| Current President's Budget | - | - | 24.500 | - | 24.500 |
| Total Adjustments | - | - | 24.500 | - | 24.500 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Other Adjustments | - | - | 24.500 | - | 24.500 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | | | | | | | | | DATE: February 2012 | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i> | | | | R-1 ITEM NOMENCLATURE PE 0305240F: <i>Support to DCGS Enterprise</i> | | | | PROJECT 674826: <i>Common Imagery Ground / Surface Systems</i> | | | |
| COST (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
| 674826: <i>Common Imagery Ground / Surface Systems</i> | - | - | 14.073 | - | 14.073 | 14.352 | 14.499 | 14.774 | 15.054 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

Note

NOTE: Beginning in FY13, the efforts in this BPAC are being moved from Program Element (PE) 0305208F to this PE 0305240F, "Support to DCGS Enterprise". This new PE captures those efforts the AF is lead service for under the auspices of USD(I) and was created to improve visibility into these efforts.

A. Mission Description and Budget Item Justification

The Air Force has been charged by DoD with developing, upgrading and managing the DCGS Integration Backbone (DIB) for all the Services to provide common DCGS enterprise services and interoperability at the data level. Using the DIB, AF DCGS modernization will transform AF DCGS from its existing proprietary system to a net-centric service oriented architecture.

The DCGS Imagery (DCGS-I) Testbed is an integration and test environment, which is used by the Services and Agency program offices to conduct integration of DCGS components and test interoperability interfaces with new sensors, applications, and net centric operations. This testbed also supports the integration and testing of DoD DCGS components prior to introduction into the operational environment. Upgrades to the DCGS-I Testbed will ensure it maintains current with DCGS standards and architecture.

AF DCGS also participates in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

B. Accomplishments/Planned Programs (\$ in Millions)

| | FY 2011 | FY 2012 | FY 2013 |
|--|----------------|----------------|----------------|
| Title: DCGS Integration Backbone | - | - | 7.243 |
| Description: Upgrade, improve and manage the DCGS Integration Backbone (DIB). | | | |
| FY 2013 Plans: Continue to upgrade, improve and manage the DIB. | | | |
| Title: DCGS-I Testbed | - | - | 4.211 |
| Description: Continue DCGS-I Testbed development and upgrades. | | | |
| FY 2013 Plans: | | | |

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force **DATE:** February 2012

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| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0305240F: <i>Support to DCGS Enterprise</i> | PROJECT 674826: <i>Common Imagery Ground / Surface Systems</i> |
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| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---------|---------|---------|
| Continue DCGS-I Testbed developments and upgrades. | | | |
| Title: DCGS Enterprise | - | - | 2.619 |
| Description: Continue to evolve DCGS architectures and standards and manage DCGS Team efforts for USD(I). | | | |
| FY 2013 Plans: Continue evolving DCGS architectures and standards for commonality and interoperability across intelligence disciplines to include NATO interoperability and management of DCGS Team efforts for USD(I). | | | |
| Accomplishments/Planned Programs Subtotals | - | - | 14.073 |

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

| Line Item | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| • 0001: <i>RDT&E, PE 0305208F, Distributed Common Ground System</i> | 13.738 | 13.833 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

D. Acquisition Strategy

The Air Force uses an evolutionary acquisition approach with version releases and periodic upgrades to update and improve the systems and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

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.

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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force | | DATE: February 2012 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0305240F: <i>Support to DCGS Enterprise</i> | PROJECT 674826: <i>Common Imagery Ground / Surface Systems</i> |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force | | DATE: February 2012 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0305240F: <i>Support to DCGS Enterprise</i> | PROJECT 674826: <i>Common Imagery Ground / Surface Systems</i> |

Schedule Details

| Events | Start | | End | |
|--------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| DIB Version 3.0 DT and Release | 3 | 2011 | 3 | 2011 |
| DIB Version 4.0 DT and Release | 2 | 2012 | 2 | 2012 |
| DIB Version 4.x | 2 | 2013 | 2 | 2013 |
| DIB Version 5.x | 2 | 2014 | 2 | 2014 |
| DCGS-I Testbed Upgrade | 2 | 2011 | 2 | 2012 |

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|--|--|---|

| COST (\$ in Millions) | FY 2011 | | FY 2012 | | FY 2013 | | FY 2014 | | FY 2015 | | FY 2016 | | FY 2017 | | Cost To Complete | Total Cost |
|---|---------|---|---------|---|---------|---|---------|--------|---------|--------|---------|------------|------------|--|------------------|------------|
| | | | | | | | | | | | | | | | | |
| 675265: <i>Common Imagery Processor (CIP)</i> | - | - | - | - | 10.427 | - | - | 10.664 | 10.851 | 11.252 | 11.443 | Continuing | Continuing | | | |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |

Note

NOTE: Beginning in FY13, the CIP effort will be moved from Program Element (PE) 0305208F to this PE 0305240F, "Support to DCGS Enterprise". This new PE captures those efforts the AF is lead service for under the auspices of USD(I) and was created to improve visibility into these efforts.

A. Mission Description and Budget Item Justification

The Common Imagery Processor (CIP) is a major interoperability initiative to develop a common sensor processing element within DCGS-Imagery architecture. The function of the CIP is to accept airborne imagery data, process it into an exploitable image, and output the image to other elements within DCGS-I. Efforts are underway to augment the CIP baseline to process data from upgraded/new sensors.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

B. Accomplishments/Planned Programs (\$ in Millions)

| | FY 2011 | FY 2012 | FY 2013 |
|---|---------|---------|---------|
| Title: Common Imagery Processor | - | - | 10.427 |
| Description: Continue to develop the CIP to keep pace with growing sensor baseline. (Baseline includes Global Hawk, F/A-18, and U-2 sensors). | | | |
| FY 2011 Accomplishments: n/a | | | |
| FY 2012 Plans: n/a | | | |
| FY 2013 Plans: Continue to develop the CIP to keep pace with growing sensor baseline. (Baseline includes Global Hawk, F/A-18, and U-2 sensors). | | | |
| Accomplishments/Planned Programs Subtotals | - | - | 10.427 |

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

| <u>Line Item</u> | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</u> | <u>FY 2013</u> | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>FY 2017</u> | <u>Cost To</u> | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------------------|
| | | | <u>Base</u> | <u>OCO</u> | <u>Total</u> | | | | | <u>Complete</u> | <u>Total Cost</u> |
| • 0001: <i>OPAF, PE 035208F, Distributed Common Ground System</i> | 3.300 | 3.200 | 3.300 | 0.000 | 3.300 | 3.399 | 3.501 | 3.571 | 3.642 | Continuing | Continuing |
| • 0002: <i>RDT&E, PE 0305208F, Distributed Common Ground System</i> | 10.798 | 10.709 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

D. Acquisition Strategy

For the CIP, the Air Force uses an evolutionary acquisition approach with blocks (increments) and spirals to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

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.

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Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| CIP 8.1 Software Release | 1 | 2011 | 1 | 2011 |
| CIP 8.2 Software Release | 3 | 2011 | 3 | 2011 |
| CIP 9.1 Software Release | 4 | 2011 | 4 | 2011 |
| CIP 10.0 Software Release | 2 | 2012 | 2 | 2012 |
| CIP 10.1 Software Release | 4 | 2012 | 4 | 2012 |
| Sensors - Evolutionary Development | 1 | 2012 | 4 | 2017 |
| Processors - Evolutionary Development | 1 | 2012 | 4 | 2017 |
| Standards - Evolutionary Development | 1 | 2012 | 4 | 2017 |
| Architecture - Evolutionary Development | 1 | 2012 | 4 | 2017 |