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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 United States Special Operations Command **DATE:** February 2011

| | |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i> |
|---|---|

| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | 0.706 | 1.922 | 1.392 | - | 1.392 | 0.785 | 0.798 | 0.812 | 0.826 | Continuing | Continuing |
| S700: <i>SOF Communications Equipment and Electronics Sys</i> | 0.706 | 1.922 | 1.392 | - | 1.392 | 0.785 | 0.798 | 0.812 | 0.826 | Continuing | Continuing |

A. Mission Description and Budget Item Justification

This program element provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

| B. Program Change Summary (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 0.730 | 1.922 | 1.392 | - | 1.392 |
| Current President's Budget | 0.706 | 1.922 | 1.392 | - | 1.392 |
| Total Adjustments | -0.024 | - | - | - | - |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | -0.001 | - | | | |
| • SBIR/STTR Transfer | -0.023 | - | | | |
| • Other Adjustment | - | - | | | |

Change Summary Explanation

Funding:

FY 2010 Decrease of \$0.024 million is due to a reprogramming for higher command priorities (-\$0.001 million) and a transfer of funds for Small Business Innovative Research (-\$0.023 million).

FY 2011 None.

FY 2012 None.

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|---|---|
| 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i> | PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i> |

Schedule: None.

Technical: None.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 United States Special Operations Command **DATE:** February 2011

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| APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i> | PROJECT S700: <i>SOF Communications Equipment and Electronics Sys</i> |
|---|---|---|

| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| S700: <i>SOF Communications Equipment and Electronics Sys</i> | 0.706 | 1.922 | 1.392 | - | 1.392 | 0.785 | 0.798 | 0.812 | 0.826 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

A. Mission Description and Budget Item Justification

This project provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Advanced Development is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that C4 systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments. The sub-projects funded in this project meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team), Above Operational Element (Deployed) and Above Operational Element (Garrison).

OPERATIONAL ELEMENT (TEAM)

- SOF Deployable Node (SDN) is a family of satellite communications assemblages that includes the following subprograms: heavy, medium, light, and Evolutionary Technology Insertions (ETI). The SOF Deployable Node provides new technology for the next generation antenna capability for all systems: heavy, medium, and light. This program consists of a family of deployable super high frequency, multi-band, satellite communications assemblages capable of supporting high-capacity, voice, data, video teleconferencing and video at all levels of classification. ETIs include Satellite on the Move (SOTM) version A (float and ground variants).

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

| | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|---------|---------|--------------|-------------|---------------|
| Title: SOF Deployable Node | 0.706 | 1.922 | 1.392 | - | 1.392 |
| FY 2010 Accomplishments: Developed and tested next generation antennas for the family of SOF Deployable Nodes. Continued to develop, test and evaluate an interim mobile strategic entry point. Refined, tested and evaluated tropospheric beyond line of sight capability. Tested and evaluated new 1.2 meter Hawkeye III Light and 2.0 meter antennas. Tested | | | | | |

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|---|---|---|

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|--|---------|---------|--------------|-------------|---------------|
| and evaluated communications-on-the-move capability and the AN/PSC-14 Broadband Global Area Network SATCOM. <i>FY 2011 Plans:</i> Develops, test, and evaluate next generation SOF Deployable Node Light manpack systems and multi-purpose baseband, and the next generation SOF Deployable Medium terminal. Test and evaluate migration to Ka-band 1.6 meter antenna. Develop and test next generation enhanced line of sight capability. Test and evaluate new wideband SATCOM systems and encryption devices. <i>FY 2012 Base Plans:</i> Continue to develop, test, and evaluate next generation light manpack systems and multi-purpose baseband, and the next generation medium terminal. | | | | | |
| Accomplishments/Planned Programs Subtotals | 0.706 | 1.922 | 1.392 | - | 1.392 |

| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | |
|--|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|------------------------------------|
| <u>Line Item</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012 Base</u> | <u>FY 2012 OCO</u> | <u>FY 2012 Total</u> | <u>FY 2013</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>Cost To Complete Total Cost</u> |
| • PROC3: <i>COMMUNICATIONS EQUIPMENT AND ELECTRONICS</i> | 58.564 | 67.807 | 87.489 | 2.325 | 89.814 | 102.104 | 99.767 | 88.061 | 101.144 | Continuing Continuing |

D. Acquisition Strategy

- SOF Deployable Node is a fielded program being upgraded for next generation evolutionary technology insertions for all systems: heavy, medium, and light variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational test, and acceptance support.

E. Performance Metrics
N/A

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| Exhibit R-4, RDT&E Schedule Profile: PB 2012 United States Special Operations Command | | | DATE: February 2011 |
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| | FY 2010 | | | | FY 2011 | | | | FY 2012 | | | | FY 2013 | | | | FY 2014 | | | | FY 2015 | | | | FY 2016 | | | |
|------------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| SOF Deployable Node Antenna | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Evolutionary Technology Insertions | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 United States Special Operations Command **DATE:** February 2011

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|---|---|---|

Schedule Details

| Events by Sub Project | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| <i>SOF Deployable Node Antenna</i> | | | | |
| Evolutionary Technology Insertions | 3 | 2010 | 4 | 2016 |