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

R-1 ITEM NOMENCLATURE

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

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM

DATE: February 2012

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

| 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 | 30.133 | 22.791 | 30.889 | - | 30.889 | 11.920 | 7.424 | 5.735 | 3.568 | Continuing | Continuing | | | | |
| 675059: Strategic War Planning System (SWPS) | 18.056 | 10.118 | 21.155 | - | 21.155 | - | - | - | - | Continuing | Continuing | | | | |
| 675282: Joint Navigation Warfare Center (JNWC) | 9.102 | 9.551 | - | - | - | - | - | - | - | Continuing | Continuing | | | | |
| 675368: GSIN (Global Integrated Sensor Network) | 2.975 | 3.122 | 9.734 | - | 9.734 | 11.920 | 7.424 | 5.735 | 3.568 | Continuing | Continuing | | | | |

A. Mission Description and Budget Item Justification

The mission of USSTRATCOM is to establish and provide full-spectrum global strike, coordinated space and information operations capabilities to meet both deterrent and decisive national security objectives, and to provide operational space support, integrated missile defense, Global Command Control Communications and Computers Intelligence Surveillance and Reconnaissance (C4ISR), and specialized planning expertise to the joint warfighter. This mission has been defined by the 2002 Unified Command Plan (UCP) changes 1 and 2. To enable completion of these missions, USSTRATCOM is modernizing the Integrated Strategic Planning and Analysis Network (ISPAN) (formerly known as SWPS), developing information systems and techniques to counter and conduct Navigation Warfare (NAVWAR) and establishing a unified national architecture integrating disparate Missile Warning/Missile Defense (MW/MD) systems into a single Internet Protocol (IP)-based system known as the Global Sensor Integrated Network (GSIN) to provide redundant and unambiguous MW/MD data to national leadership. When the ISPAN modernization is complete the system will support the warfighter in both deliberate and adaptive planning environments while allowing the National Command Authorities to employ the full spectrum of kinetic and non-kinetic weapons. The ISPAN system will continue to evolve as weapon systems are matured, new systems are developed, and the threat changes, particularly in the area of worldwide proliferation of Weapons of Mass Destruction (WMD).

Navigation Warfare (NAVWAR) is a warfighting application of electronic warfare (EW), Information Operations (IO) and space control (SC) employing various techniques and technologies to negate or prevent hostile use of positioning, navigation, and timing (PNT) information and protect unimpeded use of PNT information by U.S., Allied, and Coalition Forces while not unduly disrupting peaceful use outside an area of operation. The Joint Navigation Warfare Center (JNWC) was established to integrate and coordinate NAVWAR PNT capabilities across the mission areas of intelligence, surveillance, reconnaissance, information operations, electronic warfare, and space control. The JNWC is also commissioned to integrate NAVWAR into space operations and assists the warfighter with subject matter expertise to "operationalize" NAVWAR, encouraging the NAVWAR view that the Global Positioning System is a taskable weapons system in addition to being a worldwide PNT service. The JNWC establishes and maintains the Department's premier basis of NAVWAR expertise, and provides subject matter expertise and knowledge support to warfighters, Department decision makers, the Federal Interagency (the Department of Homeland Security and other civil agencies concerned with the Critical National Infrastructure), and the coalition through testing and evaluation; modeling, simulation and analysis; and exercise and training support.

The Nation's strategic C2, sensors and mission planning programs can not rapidly exchange information across multiple missions, creating ambiguity that delays time critical national C2 decision making processes. GSIN establishes a unified national architecture integrating disparate MW/MD systems into a single IP-based

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force Page 1 of 19

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM

BA 7: Operational Systems Development

system providing redundant and unambiguous MW/MD data to national leadership. GSIN nets together all sensors, from tactical to strategic, including the Nation's most modern and capable assets - taking advantage of their larger numbers, improved algorithms, mobility and forward deployment to provide earlier cross-cueing and expanded decision space when every second counts. GSIN will permit an IP-based User Defined Operational Picture (UDOP) to augment voice conferencing and rapidly build a single, unambiguous missile event picture allowing real-time senior collaboration for nuclear C2 and improved senior leader situational awareness (SA) and decision-making.

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.

| B. Program Change Summary (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|---|---------|---------|---------------------|-------------|---------------|
| Previous President's Budget | 28.441 | 23.072 | 22.650 | - | 22.650 |
| Current President's Budget | 30.133 | 22.791 | 30.889 | - | 30.889 |
| Total Adjustments | 1.692 | -0.281 | 8.239 | - | 8.239 |
| Congressional General Reductions | - | -0.281 | | | |
| Congressional Directed Reductions | - | - | | | |
| Congressional Rescissions | - | - | | | |
| Congressional Adds | - | - | | | |
| Congressional Directed Transfers | - | - | | | |
| Reprogrammings | 2.967 | - | | | |
| SBIR/STTR Transfer | -0.814 | - | | | |
| Other Adjustments | -0.461 | - | 8.239 | - | 8.239 |

Change Summary Explanation

FY11 increased \$2.967M for Global Sensor Integrated Network (GSIN).

FY11 Congressional General Reduction of 0.461M in Other Adjustment row.

FY12 Congressional General Reduction (FFRDC, Sec. 8023) of 0.281M.

FY13 increased a total of \$8.239M based on a reduction of \$9.666M for Joint Navigation Warfare Center, an increase of \$10.7M for Integrated Strategic Planning and Analysis Network Increment 4, and an increase of \$7.205M for GSIN.

In FY 2013, 675282, Joint Navigation Warfare Center, efforts were transferred to PE 0105921F, Service Support to STRATCOM Space Activities (O&M).

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|---|---|---------|-----------------|----------------|------------------|------------|----------------------------------|---------------|--------------|---------------------|------------|
| · · · · · · · · · · · · · · · · · · · | PRIATION/BUDGET ACTIVITY esearch, Development, Test & Evaluation, Air Force perational Systems Development R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS | | | | | IING SYS - | PROJECT 675059: Str (SWPS) | rategic War I | Planning Sys | stem | |
| 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 |
| 675059: Strategic War Planning System (SWPS) | 18.056 | 10.118 | 21.155 | - | 21.155 | - | - | - | - | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

A. Mission Description and Budget Item Justification

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

The mission of USSTRATCOM is to establish and provide full-spectrum global strike, coordinated space and information operations capabilities to meet both deterrent and decisive national security objectives, and to provide operational space support, integrated missile defense, Global Command Control Communications and Computers Intelligence Surveillance and Reconnaissance (C4ISR), and specialized planning expertise to the joint warfighter. This mission has been defined by the 2002 Unified Command Plan (UCP) changes 1 and 2. To enable these missions, the Integrated Strategic Planning and Analysis Network (ISPAN) (formerly known as SWPS) must be capable of both deliberate and adaptive planning employing the full spectrum of kinetic and non-kinetic weapons. The planning system will continue to evolve as weapon systems are matured, new systems are developed, and the threat changes, particularly in the area of worldwide proliferation of Weapons of Mass Destruction (WMD).

The ISPAN modernization program includes initiation of Course of Action (COA) Development as a service to the DoD enterprise, workflow and decision support development, Combatant Commander (COCOM) Collaboration, User Defined Operational Picture (UDOP)), conventional mission planning integration, and Mission Planning Analysis System (MPAS) maintenance and modernization. This includes software coding, integration of multiple internal and external planning applications, as well as developmental and early operational test activities. ISPAN also includes automated data processing equipment (ADPE), software, facilities support, manpower, and training to support the mission objectives of ISPAN, associated deployable and distributed data processing nodes, and subsidiary systems. Activities also include studies and analysis to support both current program planning and execution and future program planning.

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.

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|--|---------|---------|---------|
| Title: ISPAN Increment 2 Modernization | 18.056 | 10.118 | 2.800 |
| Description: Funds the next increment of planning tools for the ISPAN Collaborative Information Environment (CIE). Increment 2 continues by building on capabilities delivered in Block 1. Increment 2 will develop advanced decision support capabilities for senior leader situational awareness through enhanced data analysis and visualization, and expand development of services and operational nodes to support Global Information Grid (GIG) Enterprise services and distributed operation. | | | |
| FY 2011 Accomplishments: | | | |

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force UNCLASSIFIED
Page 3 of 19

R-1 Line #121

DATE: February 2012

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|--|--|--------------|---------------|-------------|-------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | | | DATE: Fe | bruary 2012 | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | PROJEC 675059: (SWPS) | Strategic Wa | r Planning Sy | vstem | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2011 | FY 2012 | FY 2013 | |
| Completed development activities for CIE and Net-centricity and e support capabilities for senior leader situational awareness through development of services and operational nodes to support GIG Enterprise services. | h enhanced data analysis and visualization, and expan | | | | |
| FY 2012 Plans: Continue Increment 2 Modernization development effort and enha capabilities. | ncing planned | | | | |
| FY 2013 Plans: Continues Increment 2 Modernization development effort and world | king delinquency reports. | | | | |
| Title: Increment 3 Modernization | | | - | - | 7.65 |
| Description: Funds pre-Milestone B risk reduction activities for the Information Environment (CIE). Builds on the capabilities and tech more complete implementation of the joint operation planning production and integrated COA development to meet the desired crisis action | nnology developed in Block 1 and Increment 2, to achie cess that includes collaborative campaign/contingency | eve a | | | |
| FY 2011 Accomplishments: N/A | | | | | |
| FY 2012 Plans: N/A | | | | | |
| FY 2013 Plans: Funds pre-Milestone B risk reduction activities for the next increme capabilities and technology developed in Block 1 and Increment 2, operation planning process that includes collaborative campaign/c the desired crisis action and time sensitive planning timelines. | , to achieve a more complete implementation of the joir | | | | |
| Title: ISPAN Increment 4 Modernization | | | - | - | 10.70 |
| Description: ISPAN Increment 4 MPAS Modernization provides a footprint, faster planning timelines, enhanced analysis and plan op capabilities in the future. ISPAN Inc 4 is an evolution of the Block | otimization, and the ability to incorporate new air vehicle | | | | |
| FY 2011 Accomplishments: | | | | | |
| | | | | | |

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force UNCLASSIFIED
Page 4 of 19

| · • | | | | • | | |
|---|--|--|---------|----------|---------|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM | PROJECT - 675059: Strategic War Planning System (SWPS) | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2011 | FY 2012 | FY 2013 | |
| N/A | | 2011 | 2012 | 1 1 2010 | | |
| FY 2012 Plans: N/A | | | | | | |
| FY 2013 Plans: Funds pre-Milestone B risk reduction activities including studies ar | nd analyses to identify the best approach to increase sy | /stem | | | | |

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

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

robustness, enhance plan optimization and improve planning timelines.

| | | | FY 2013 | FY 2013 | FY 2013 | | | | | Cost To | |
|------------------------------|---------|---------|-------------|------------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2011 | FY 2012 | Base | <u>000</u> | <u>Total</u> | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Complete | Total Cost |
| OPAF, PE 0101313F, Strategic | 11.790 | 13.240 | 9.197 | 0.000 | 9.197 | 7.863 | 7.037 | 7.192 | 7.289 | Continuing | Continuing |
| War: - | | | | | | | | | | | |

Accomplishments/Planned Programs Subtotals

D. Acquisition Strategy

ISPAN will develop and modernize strategic planning tools for the combatant commanders using an evolutionary acquisition strategy with development contracts that are negotiated and awarded in a competitive environment.

E. Performance Metrics

Air Force

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.

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM

UNCLASSIFIED
Page 5 of 19

R-1 Line #121

DATE: February 2012

18.056

10.118

21.155

| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force | | DATE: February 2012 |
|---|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM | PROJECT 675059: Strategic War Planning System (SWPS) |
| The operational dystems 2010/09/ment | 000770770077 | (6 6) |
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| Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force | DATE: February 2012 | | |
|---|---------------------------------------|-------------|-----------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0101313F: STRAT WAR PLANNING SYS - | 675059: Str | rategic War Planning System |
| BA 7: Operational Systems Development | USSTRATCOM | (SWPS) | |

Schedule Details

| | Start | | End | | |
|-------------------------------------|---------|------|---------|------|--|
| Events | Quarter | Year | Quarter | Year | |
| ISPAN Increment 2 Spiral 1 Delivery | 4 | 2011 | 4 | 2011 | |
| ISPAN Increment 2 Spiral 2 Delivery | 3 | 2012 | 3 | 2012 | |
| ISPAN Increment 2 IOC | 4 | 2012 | 4 | 2012 | |
| ISPAN Increment 2 FOC | 4 | 2013 | 4 | 2013 | |
| ISPAN Increment 4 PDR | 3 | 2013 | 3 | 2013 | |
| ISPAN Increment 4 Milestone B | 1 | 2014 | 1 | 2014 | |

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | | | | | | | | | | DATE: February 2012 | | |
|--|---------|---------|-----------------|--------------------------------------|--------------------|-------------------|------------|---------------------------------|-------------------------------|---------------------|------------|--|
| 3600: Research, Development, Test & Evaluation, Air Force | | | | R-1 ITEM N PE 0101313 USSTRATO | 3F: <i>STRAT</i> I | TURE WAR PLANN | IING SYS - | PROJECT 675282: Jo (JNWC) | int Navigation Warfare Center | | | |
| 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 | |
| 675282: Joint Navigation Warfare Center (JNWC) | 9.102 | 9.551 | - | - | - | - | - | - | - | Continuing | Continuing | |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

Note

In FY 2013, 675282, Joint Navigation Warfare Center, efforts transferred to PE 0105921F, Service Support to STRATCOM Space Activities (O&M).

A. Mission Description and Budget Item Justification

Navigation Warfare (NAVWAR) is a warfighting application of electronic warfare (EW), Information Operations (IO), and space control (SC) employing various techniques and technologies to negate or prevent hostile use of positioning, navigation, and timing (PNT) information and protect unimpeded use of PNT information by U.S., Allied, and Coalition Forces while not unduly disrupting peaceful use outside an area of operation. The Joint Navigation Warfare Center (JNWC) integrates and coordinates NAVWAR PNT capabilities across the mission areas of intelligence, surveillance, reconnaissance, information operations, electronic warfare, cyber and space control. The JNWC establishes and maintains the Department's premier basis of NAVWAR expertise, and provides subject matter expertise and knowledge support to warfighters, Department decision makers, the Federal Interagency (the Department of Homeland Security and other civil agencies concerned with the Critical National Infrastructure), and the coalition through testing and evaluation; modeling, simulation and analysis; and exercise and training support. In recent years, the Global Positioning System (GPS) has become one of the most critical enablers of modern, advanced technology warfare. In an era where everything from advanced weapons systems to basic goods and services are tracked or guided by navigation systems such as GPS, Navigation Warfare is an interest and concern, especially if those systems are interrupted or lost. Likewise, as Global Navigation Satellite Systems (GNSS) proliferate, it becomes necessary to consider not only denying adversary use of GPS but also negating adversary use of alternate GNSS systems for PNT. The primary mission of the JNWC is to provide joint warfighter NAVWAR support through three broad mission areas:

- a. Warfighter Operational Support The JNWC applies knowledge of PNT vulnerabilities, prevention capabilities, and system operations to integrate NAVWAR as an element of warfighting operations. The JNWC provides reach-back capabilities to assist in resolving NAVWAR issues, address situations involving degradation or denial of PNT capabilities, and recommend actions to mitigate effects of both hostile and non-hostile events. The JNWC develops and maintains current information for the warfighter and theater commanders to include assessments of adversary capabilities, assessments of coalition capabilities and limitations, and other topics of special interest. The JNWC also provides subject matter expertise and knowledge support to Department acquisition and policy decision makers, the Federal Interagency (the Department of Homeland Security and other civil agencies concerned with the Critical National Infrastructure), and the coalition.
- b. Test, Training, Exercises, and Experiments This JNWC mission area is the centerpiece for maintaining NAVWAR currency of information for the warfighter. The JNWC conducts annual NAVWAR field test events, and provides NAVWAR technical assistance for training, exercises and experiments. The JNWC, as part of this effort, maintains Integrated Joint NAVWAR Test Roadmaps and current intelligence products on adversary NAVWAR capabilities and Coalition NAVWAR capabilities and vulnerabilities. JNWC GYPSY field test events focus on fielded operational systems and capabilities to integrate NAVWAR and PNT operations, to baseline current NAVWAR electronic protection, support, and attack capabilities, and to assist warfighters optimize and deconflict theater/tactical assets. JNWC FORTUNE field test

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force UNCLASSIFIED
Page 8 of 19

R-1 Line #121

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | DATE: February 2012 | | |
|--|---------------------------------------|-------------|-------------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0101313F: STRAT WAR PLANNING SYS - | 675282: Joi | int Navigation Warfare Center |
| BA 7: Operational Systems Development | USSTRATCOM | (JNWC) | |

events are more engineering focused and are used to evaluate specific NAVWAR capabilities or vulnerabilities, and to reduce engineering risk for GYPSY events. Test, training, exercise and experiment activities: 1) prepare the joint warfighter for operations in current and rapidly evolving NAVWAR threat environments; 2) establish priorities, standardized operational procedures for tactics, techniques, and procedures; 3) test electronic attack CONOPs to endure deconfliction and optimization with other operations to mitigate blue force fratricide; and 4) evolve standardized test methods.

c. Navigation Warfare Information Analysis Center (IAC) – The JNWC develops and maintains methods, standards, models and simulations used in NAVWAR analysis and operates the NAVWAR Information Analysis Center (IAC). JNWC evaluates new models for accuracy and applicability to specific situations and rapidly evolving threat environments. It also develops and maintains standard test methodologies created solely by the U.S. as well as test methods developed in collaboration with coalition partners. These standard methodologies ensure data sharing is efficient and effective, and ensures accurate feedback to the operational communities. The JNWC, as part of this effort, manages the GPS EA Frequency Clearance process and conducts independent analysis and verification of EA frequency clearance requests. It also maintains and upgrades the Global Positioning System Reliability Prediction Model (GPS-RPM) frequency clearance model as required and conducts modeling and simulation exercises on GPS interference to include test and exercise threat laydowns for DoD organizations unable to perform their own modeling. The NAVWAR IAC serves as a source of NAVWAR information and technical expertise for DoD researchers, engineers, program managers, warfighters, testers, and others. It collects, analyzes, synthesizes, and disseminates scientific and technical information in clearly defined specialized subject areas. It promotes standardization by: 1) providing in-depth analyses; 2) creating products that respond to technical inquiries; 3) preparing state-of-the-art reports, handbooks, and databases; 4) conducting technology assessments; and 5) supporting the exchange of information within the NAVWAR community. Activities also include studies and analysis to support both current program planning and execution and future program planning.

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.

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|--|---------|---------|---------|
| Title: NAVWAR Ops Support | 2.057 | 2.244 | - |
| Description: NAVWAR Operational Warfighter Support | | | |
| FY 2011 Accomplishments: Provided COCOM reachback analysis to develop adversary, threat and intel assessments. | | | |
| FY 2012 Plans: Continues COCOM reachback analysis support to develop adversary, threat and intel assessments. | | | |
| FY 2013 Plans: N/A | | | |
| Title: NAVWAR Test, Training, Exercises and Experiments | 3.560 | 3.662 | - |
| Description: Funds will support Field Tests, NATO trials, U.S. PNT Tests, Exercises and Experiments. | | | |

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force Page 9 of 19

| Exhibit R-2A, RDT&E Project Justific | cation: PB | 2013 Air Fo | rce | | | | | | DATE: Fe | bruary 2012 | |
|---|---|-------------------|-----------------|----------------|------------------|---------------|-------------|--|----------|-----------------------|---------|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & BA 7: Operational Systems Developme | Development, Test & Evaluation, Air Force PE 0101313F: STRAT WAR PLANNING SYS - 67528 | | | | | | | PROJEC 675282: <i>J</i> (<i>JNWC</i>) | | ion Warfare C | Center |
| B. Accomplishments/Planned Progra | ams (\$ in N | <u>/lillions)</u> | | | | | | | FY 2011 | FY 2012 | FY 2013 |
| FY 2011 Accomplishments: Supported FORTUNE and GYPSY Fie | eld Tests, N | ATO trials, l | J.S. PNT Te | sts, Exercise | s and Exper | iments. | | | | | |
| FY 2012 Plans: Continues support for FORTUNE and | GYPSY Fie | eld Tests, NA | ATO trials, U | .S. PNT Test | s, Exercises | and Experi | ments. | | | | |
| FY 2013 Plans: N/A | | | | | | | | | | | |
| Title: NAVWAR Modeling, Simulation, | Tools and | Methods | | | | | | | 3.485 | 3.645 | - |
| Description: Funds support the Inform Model (GPS-RPM) Upgrades, GPS free analyses. | | | | | | | | | | | |
| FY 2011 Accomplishments: Supported the Information Analysis Ce Upgrades, GPS frequency clearance e | | | | | | | | -RPM) | | | |
| FY 2012 Plans: Continues support for the IAC, will devisimulation methodologies, standards a | • | | PM Upgrade: | s, GPS frequ | ency cleara | nce evaluatio | ons, modeli | ing and | | | |
| FY 2013 Plans: N/A | | | | | | | | | | | |
| | | | | Accon | nplishments | /Planned P | rograms S | ubtotals | 9.102 | 9.551 | - |
| C. Other Program Funding Summary | y (\$ in Milli | ons) | | | | | | | | | |
| Line Item | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 201 | 6 FY 201 | Cost To 7 Complete | - |
| • N/A: <i>N/A</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.00 | 0.00 | 0.000 | 0.00 |

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NAVWAR will investigate, test, and simulate potential threats and mitigation strategies for preventing the hostile use of Positioning, Navigation and Timing (PNT)

information through the use of competitive contracts and selective employment of government agencies.

Page 10 of 19

R-1 Line #121

D. Acquisition Strategy

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|---|---|--|--|--|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | | DATE: February 2012 | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM | PROJECT 675282: Joint Navigation Warfare Center (JNWC) | | |
| E. Performance Metrics Please refer to the Performance Base Budget Overview Book fo Force performance goals and most importantly, how they contrib | DIGET ACTIVITY elopment, Test & Evaluation, Air Force stems Development USSTRATCOM Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are control or to the control of the control | | | |
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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force | | DATE: February 2012 |
|---|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM | PROJECT 675282: Joint Navigation Warfare Center (JNWC) |
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air ForceDATE: February 2012APPROPRIATION/BUDGET ACTIVITYR-1 ITEM NOMENCLATUREPROJECT3600: Research, Development, Test & Evaluation, Air ForcePE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM675282: Joint Navigation Warfare Center (JNWC)

Schedule Details

| | Si | tart | End | | |
|---|---------|------|---------|------|--|
| Events | Quarter | Year | Quarter | Year | |
| Warfighter Operational Support Contract Award | 1 | 2011 | 1 | 2011 | |
| Warfighter Operational Support Combatant Command Exercise | 4 | 2012 | 4 | 2012 | |
| FORTUNE Field Test 1 | 3 | 2011 | 3 | 2011 | |
| FORTUNE Field Test 2 | 2 | 2012 | 2 | 2012 | |
| GYPSY HOTEL 2 Field Trial | 2 | 2011 | 2 | 2011 | |
| GYPSY INDIA Field Test | 3 | 2012 | 3 | 2012 | |
| NATO Trials Hammer 11 Exercise | 4 | 2011 | 4 | 2011 | |
| GPS Frequency Clearance Modeling Tool Update Release | 4 | 2011 | 4 | 2011 | |
| GPS Frequency Clearance Modeling Tool Update Release 2 | 4 | 2012 | 4 | 2012 | |

| , | | | | | | | | | | , | |
|--|--------------|--------------|-----------------|--------------------------------------|--------------------|-------------------|------------|-----------------------------------|---------------|---------------------|------------|
| APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Test BA 7: Operational Systems Develop | & Evaluation | n, Air Force | | R-1 ITEM N PE 0101313 USSTRATO | 3F: <i>STRAT V</i> | TURE WAR PLANN | IING SYS - | PROJECT 675368: GS Network) | SIN (Global I | ntegrated Se | ensor |
| 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 |
| 675368: GSIN (Global Integrated Sensor Network) | 2.975 | 3.122 | 9.734 | - | 9.734 | 11.920 | 7.424 | 5.735 | 3.568 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

A. Mission Description and Budget Item Justification

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

The mission of USSTRATCOM is to establish and provide full-spectrum global strike, coordinated space and information operations capabilities to meet both deterrent and decisive national security objectives, and to provide operational space support, integrated missile defense, Global Command control Communications and Computers Intelligence Surveillance and Reconnaissance (C4ISR), and specialized planning expertise to the joint warfighter. This mission has been defined by the 2002 Unified Command Plan (UCP) changes 1 and 2. GSIN nets together all sensors, from tactical to strategic, including the Nation's most modern and capable assets, taking advantage of their larger numbers, improved algorithms, mobility and forward deployment to provide earlier cross-cueing and expanded decision space when every second counts. GSIN will permit an IP-based User Defined Operating Picture (UDOP) to augment voice conferencing and rapidly build a single, unambiguous missile event picture allowing real-time senior collaboration for nuclear C2 and improved senior leader situational awareness (SA) and decision-making.

The Nation's strategic C2, sensors and mission planning programs can not rapidly exchange information across multiple missions, creating ambiguity that delays time critical national C2 decision making processes. The problem is most evident in the Department's missile warning (MW) and missile defense (MD) programs. GSIN establishes a unified national architecture integrating disparate MW/MD systems into a single IP-based system providing redundant and unambiguous MW/MD data to national leadership. Activities also include studies and analysis to support both current program planning and execution and future program planning.

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.

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|--|---------|---------|---------|
| Title: GSIN Increments 2 and 3 Common XML Data Schema | 2.967 | 2.848 | 2.416 |
| Description: Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards | | | |
| FY 2011 Accomplishments: | | | |

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force UNCLASSIFIED
Page 14 of 19

R-1 Line #121

DATE: February 2012

| B. Accomplishments/Planned Programs (\$ in Millions) Developed options and implementation plans for incremental development to mature data exposure capabilities and migrate dato a common, XML net-enabled command capability solution. FY 2012 Plans: Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards FY 2013 Plans: Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint concept or Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | | February 2012 | |
|--|----------------|------------------|---------|
| 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development B. Accomplishments/Planned Programs (\$ in Millions) Developed options and implementation plans for incremental development to mature data exposure capabilities and migrate dato a common, XML net-enabled command capability solution. FY 2012 Plans: Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards FY 2013 Plans: Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint concept Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | JECT | | |
| Developed options and implementation plans for incremental development to mature data exposure capabilities and migrate dato a common, XML net-enabled command capability solution. FY 2012 Plans: Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards FY 2013 Plans: Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint conceptor Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction—evaluations. Modifications and enhancements to visualization and | 868: GSIN (Glo | oal Integrated S | ensor |
| Developed options and implementation plans for incremental development to mature data exposure capabilities and migrate dato a common, XML net-enabled command capability solution. FY 2012 Plans: Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards FY 2013 Plans: Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint concept or Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction—evaluations. Modifications and enhancements to visualization and | FY 2011 | FY 2012 | FY 2013 |
| Continue to develop a common, XML net-enabled data schema to integrate Missile Warning, Missile Defense Sensor data for DISA Secret and below interoperability. Integrate Space Situational Awareness sensor data into the XML Schema Register data schema and services with appropriate registries/catalogs. Develop configuration control processes and procedures to manage the XML schema and associated XML messaging and services. Begin Development of Sensor Registry Prototype and development of Joint Concept for Data Identification and Migration to Common Standards FY 2013 Plans: Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint conceptor Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | ıta | | |
| Will continue incremental development of common schema to integrate Space Situational Awareness sensor data; register data schema and services with appropriate registries/catalogs; continue development of Sensor Registry Prototype and Joint conceptor Data Identification and Migration to Common Standards; test and field Increment 2. Title: GSIN Visualization and Data Services, Demonstrations and Studies Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | d | | |
| Description: Continue to fund development of integrated Missile Warning and Missile Defense visualization and data software services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | | | |
| services to display data in a common operational picture. Conduct studies and demonstrations of data correlation, launch ever characterization and assessment services for risk reduction evaluations. Modifications and enhancements to visualization and | | - 0.274 | 0.113 |
| data services; Continue studies to include demonstration and evaluation of Resource Broker and Space Situational Awareness capabilities | nt I | | |
| FY 2011 Accomplishments: N/A | | | |
| FY 2012 Plans: Continue development of integrated Missile Warning and Missile Defense visualization and data software services to display dain a common operational picture. Conduct studies and demonstrations of data correlation, launch event characterization and assessment services for risk reduction evaluations. | ata | | |
| FY 2013 Plans: Will continue modifications and enhancements to visualization and data services; Continue studies to include demonstration and evaluation of Resource Broker and Space Situational Awareness capabilities | d | | |
| Title: GSIN Increment 1 Missile Defense (MD) Data Exposure Services Mods | 0.00 | - 8 | - |
| Description: Minor enhancements and modifications to MD data exposure services based on changes to common XML scheme | na | | |

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM

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Page 15 of 19

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|---|----------------------|----------------------|----------------------|---|-----------------------|----------------------|----------------------|----------------------------------|------------------|-------------|------------------|
| Exhibit R-2A, RDT&E Project J | ustification: PB | 2013 Air Fo | rce | | | | | | DATE : Fe | bruary 2012 | |
| APPROPRIATION/BUDGET AC 3600: Research, Development, 7 BA 7: Operational Systems Deve | Test & Evaluation | Air Force | I | R-1 ITEM NO PE 0101313 USSTRATCO | F: STRAT W | | NG SYS - | PROJECT 675368: 6 Network) | ensor | | |
| B. Accomplishments/Planned | Programs (\$ in I | Millions) | | | | | | | FY 2011 | FY 2012 | FY 2013 |
| FY 2011 Accomplishments: Completed minor enhancements | and modification | ns to MD dat | a exposure : | services bas | ed on chang | es to comm | on XML scl | hema | | | |
| FY 2012 Plans: N/A | | | | | | | | | | | |
| FY 2013 Plans: N/A | | | | | | | | | | | |
| Title: GSIN Increments 3 and 4, | Expose and Inte | grate Space | Situational | Awareness (| SSA) Data | | | | - | - | 7.205 |
| Description: Expose senor data Information Grid; Develop implementation plans to | · · | | | onal sensors | (MD/MW/no | n-DoD) into | the Global | | | | |
| FY 2011 Accomplishments: N/A | | | | | | | | | | | |
| FY 2012 Plans: N/A | | | | | | | | | | | |
| FY 2013 Plans: Begin exposure of SSA data (Inc Global Information Grid (Increme | , | • | | | | ` | non-DoD) ii | nto the | | | |
| | | | | Accor | nplishment | s/Planned P | rograms S | Subtotals | 2.975 | 3.122 | 9.734 |
| C. Other Program Funding Sur | mmary (\$ in Milli | ons) | | | | | | | | | |
| | 5 1/ 00 / / | 5 1/ 00/0 | FY 2013 | FY 2013 | FY 2013 | 5)/ 00/ 1 | 5 \(00 \ 1 | 5)/ 00 / | o =>/ co./ | Cost To | - |
| Line Item • N/A: N/A | FY 2011 0.000 | FY 2012 0.000 | Base 0.000 | <u>OCO</u> 0.000 | <u>Total</u> 0.000 | FY 2014 0.000 | FY 2015 0.000 | | | | Total Cost 0.000 |

D. Acquisition Strategy

GSIN will use existing contract vehicles to manage, develop and modernize the combined Space Situational Awareness/Missile Warning/Missile Defense data exposure architecture and solution. These contract vehicles are already in place and available.

PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM Air Force UNCLASSIFIED
Page 16 of 19

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force | | DATE: February 2012 |
|--|---|--|
| APPROPRIATION/BUDGET ACTIVITY 6600: Research, Development, Test & Evaluation, Air Force | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - | PROJECT 675368: GSIN (Global Integrated Sensor |
| A 7: Operational Systems Development | USSTRATCOM | Network) |
| . Performance Metrics | | |
| Please refer to the Performance Base Budget Overview Book for | | nd how those resources are contributing to |
| Force performance goals and most importantly, how they contrib | ute to our mission. | |
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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force DATE: February 2012 | | | | | | | |
|--|--|----------------------------------|-------------------------------|--|--|--|--|
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| APPROPRIATION/BUDGET ACTIVITY 1600: Research, Development, Test & Evaluation, Air Force 13A 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM | PROJECT 675368: G Network) | SIN (Global Integrated Sensor | | | | |
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air ForceDATE: February 2012APPROPRIATION/BUDGET ACTIVITYR-1 ITEM NOMENCLATUREPROJECT3600: Research, Development, Test & Evaluation, Air ForcePE 0101313F: STRAT WAR PLANNING SYS - USSTRATCOM675368: GSIN (Global Integrated Sensor Network)

Schedule Details

| | Sta | End | | |
|--------------------------------|---------|------|---------|------|
| Events | Quarter | Year | Quarter | Year |
| Increment 1 Spiral Delivery | 1 | 2012 | 1 | 2012 |
| Increment 1 Capability Fielded | 3 | 2012 | 2 | 2013 |
| Increment 2 Spiral Delivery | 4 | 2012 | 4 | 2012 |
| Increment 2 Capability Fielded | 2 | 2013 | 2 | 2014 |
| Increment 3 contract award | 2 | 2012 | 2 | 2012 |
| Increment 3 Spiral Delivery | 3 | 2013 | 3 | 2013 |
| Increment 3 Capability Fielded | 2 | 2014 | 3 | 2015 |
| Increment 4 contract award | 3 | 2013 | 3 | 2013 |
| Increment 4 Spiral Delivery | 4 | 2013 | 4 | 2013 |
| Increment 4 Spiral 2 Delivery | 3 | 2014 | 3 | 2014 |
| Increment 4 Capability Fielded | 2 | 2015 | 2 | 2016 |
| Increment 5 contract award | 2 | 2014 | 2 | 2014 |
| Increment 5 Spiral Delivery | 4 | 2014 | 4 | 2014 |
| Increment 5 Spiral 2 Delivery | 3 | 2015 | 3 | 2015 |
| Increment 5 Capability Fielded | 2 | 2016 | 1 | 2017 |