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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0301017F / <i>Global Sensor Integrated on Network (GSIN)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	-	5.974	-	5.974	3.505	3.572	3.640	3.705	Continuing	Continuing
675368: <i>GSIN (Global Integrated Sensor Network)</i>	-	-	-	5.974	-	5.974	3.505	3.572	3.640	3.705	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
In FY 2016, PE 0101313F, (Strategic War Planning System), Project 675368, (Global Sensor Integrated on Network) efforts were transferred to PE 0301017F, (Global Sensor Integrated on Network), Project 675368, (Global Sensor Integrated on Network), in order to provide improved transparency.

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, the CJCS Plan ORD and the USSTRATCOM Plan ORD. GSIN nets together selected systems and 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 enable a User Defined Operating Picture (UDOP) to provide a single, unambiguous missile event picture allowing real-time senior collaboration for nuclear C2, improved senior leader situational awareness (SA), and decision-making.

The Nation's strategic C2, sensors and mission planning programs cannot rapidly exchange information across multiple missions, creating ambiguity that delays time critical national C2 decision making processes. GSIN establishes a unified schema integrating disparate Missile Warning/Missile Defense (MW/MD) data into a single exposed data set providing redundant and unambiguous MW/MD data to national leadership. GSIN enables existing sensors to provide data in net-centric formats consumable by other authorized systems and mission areas, thus reducing the need to acquire more sensors. Activities also include studies and analysis to support both current program planning, execution, and future program planning.

The 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 year.

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B. Program Change Summary (\$ in Millions)	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	5.974	-	5.974
Total Adjustments	-	-	5.974	-	5.974
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	5.974	-	5.974

Change Summary Explanation

In FY 2016, PE 0101313F, (Strategic War Planning System), Project 675368, (Global Sensor Integrated on Network) efforts were transferred to PE 0301017F, (Global Sensor Integrated on Network), Project 675368, (Global Sensor Integrated on Network), in order to provide improved transparency.

C. Accomplishments/Planned Programs (\$ in Millions)	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>
Title: Sensor Data Exposure: NDPP, TPY-2, MASINT	-	-	3.700
Description: Non traditional Data Pre Processor (NDPP): Design, develop, expose and integrate SSA data from Commercial, Owner-Operator, and Allied non-traditional sensors into space production systems, Space Catalog via the Global Information Grid. Develop implementation plans to mature data exposure capabilities. Army Navy Transportable Radar (AN/TPY-2): Design, develop, test, expose and integrate Space Situational Awareness (SSA) data from the missile defense AN/TPY-2 sensor into space production systems and the Global Information Grid. Develop implementation plans to mature data exposure capabilities. Measurement and Signals (MASINT) / Technical Intelligence (TI): Designs, develops, exposes, and integrates data from MASINT and Technical Intelligence sensors in regions of the world where we currently do not have coverage. Provides near real time data from sensors that previously reported hours or days after events.			
FY 2016 Plans: NDPP: Finalize development of NDPP capability and integration with space production systems and the Space Catalog. Integrate with Joint Space Operations Center (JSpOC) Mission System (JMS). Develop implementation plans to mature data exposure capabilities. TPY-2: Continue C2BMC SSA development to accomodate TPY-2 sensor. Integration development with space			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
production systems. Finalize C2BMC to enable it to participate in MDA's enterprise wide Ground Test Campaign. MASINT: Begin Phase 2 of MASINT exposure capability that incorporates additional technical intelligence sensors.				
Title: Data Integration: Launch Characterization Data Services Net Centric Data Integration Schema Configuration Control Technical Outreach		-	-	2.274
Description: Develop common XML net-enabled data schemas and configuration management processes and procedures for Missile Warning, Missile Defense, Space, MASINT/Technical Intelligence, Sensor data to manage the XML schema and associated XML messaging and services. Develop technical outreach for potential new GSIN data consumers and providers who require GSIN sensor data. Upgrade GSIN capabilities as DISA Enterprise Services evolve. Continue modifications to data services. Support integration of GSIN sensor data into appropriate registries/catalogs. Continue development of GSIN data services to enable visualization in a common operating picture. Conduct studies and demonstrations of SSA capabilities, data correlation, launch event characterization and assessment services for risk reduction evaluations.				
FY 2016 Plans: Continue development of common XML net-enabled data schemas to integrate additional sensor data, and continue to develop configuration control processes, technical outreach processes for new GSIN data consumers and providers. Upgrade GSIN capabilities as DISA Enterprise Services evolve. Continue modifications to data services in support of Launch Characterization, SSA, NDPP and new, emerging programs.				
Accomplishments/Planned Programs Subtotals		-	-	5.974
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. 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.				
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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0301017F / <i>Global Sensor Integrated on Network (GSIN)</i>	Project (Number/Name) 675368 / <i>GSIN (Global Integrated Sensor Network)</i>
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Data Correlation, Visualization Architecture, Data Filtering Studies	C/CPFF	MIT/LL : Boston, MA	-	-		-		0.339	Nov 2015	-		0.339	Continuing	Continuing	-
Common Schema, Configuration and Control	C/CPFF	BAH : Omaha, NE	-	-		-		0.680	Nov 2015	-		0.680	Continuing	Continuing	-
CExpose Space Situational Awareness Data--Commercial, Owner/ Operator, Allied	C/CPAF	Lockheed Martin : Colorado Springs, CO	-	-		-		0.300	Nov 2015	-		0.300	Continuing	Continuing	-
Expose Space Situational Awareness Data - AN/TPY-2 Sensor	C/CPAF	Raytheon : Woburn, MA	-	-		-		-		-		-	Continuing	Continuing	-
Expose Space Situational Awareness Data - AN/TPY-2 Sensor (2)	C/CPAF	Lockheed Marting : Huntsville, AL	-	-		-		2.912	Nov 2015	-		2.912	Continuing	Continuing	-
Expose Space Situational Awareness Data - MASINT/TI	C/CPAF	MIT/LL : Boston, MA	-	-		-		0.538	Nov 2015	-		0.538	Continuing	Continuing	-
Subtotal			-	-		-		4.769		-		4.769	-	-	-

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MW, MD, Space Subject Matter Expert Support	C/CPFF	Various : Omaha, NE	-	-		-		0.420	Jan 2016	-		0.420	Continuing	Continuing	-
Subtotal			-	-		-		0.420		-		0.420	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force		Date: February 2015
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
NDPP Delivery									■																			
TPY-2 Delivery																												
MASINT/TI Spiral 2 Delivery																												
MASINT/TI Spiral 3 Delivery																												
Data Integration Spiral 2 Delivery									■																			
Data Integration Spiral 3 Delivery																												
Data Integration Spiral 4 Delivery																												
Data Integration Delivery																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NDPP Delivery	2	2016	2	2016
TPY-2 Delivery	1	2018	1	2018
MASINT/TI Spiral 2 Delivery	4	2017	4	2017
MASINT/TI Spiral 3 Delivery	3	2019	3	2019
Data Integration Spiral 2 Delivery	2	2016	2	2016
Data Integration Spiral 3 Delivery	3	2017	3	2017
Data Integration Spiral 4 Delivery	2	2018	2	2018
Data Integration Delivery	1	2019	1	2019