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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

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 0101318F / <i>Service Support to STRATCOM - Global Strike</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	7.562	0.000	7.562	7.317	6.939	7.063	7.318	Continuing	Continuing
675368: <i>Global Data Integration (GDI)</i>	-	0.000	0.000	7.562	0.000	7.562	7.317	6.939	7.063	7.318	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2024, PE 1201017SF, Global Sensor Integrated on Network [GSIN], Project 675368, GSIN [Global Integrated Sensor Network] efforts were transferred to PE 0101318F, Service Support to STRATCOM - Global Strike, Project 675368, Global Data Integration [GDI], in order to facilitate proper execution of funding.

A. Mission Description and Budget Item Justification

The missions of USSPACECOM and USSTRATCOM include establishing and providing 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.

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 developed and established a unified schema that integrates 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 also enables existing radars and sensors to provide data in net-centric formats consumable by other authorized systems and mission areas, thus reducing the need to acquire more systems. Activities also include studies and analysis to support current program planning, execution, and future program planning.

GSIN directly supports USSPACECOM, USSTRATCOM and other Combatant Command and MAJCOM mission sets. GSIN meshes 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. Repurposing these traditionally stove-piped systems and sensors, GSIN enables the warfighter in several ways. GSIN enables creation of a User Defined Operating Picture (UDOP) to provide a single, unambiguous missile event picture allowing realtime collaboration for nuclear C2 and improved senior leader situational awareness (SA) for effective decision-making. GSIN also improves Space Situational Awareness (SSA) by tapping additional sensor capability and provides this data for the larger space order of battle capabilities. GSIN dramatically improves the ingestion of nontraditional, but readily available, non-US government and commercial data to the United States Space Force (USSF) satellite catalog. GSIN addresses NORTHCOM/STRATCOM's signed Joint Emergent Operational Need (JEON) ST-0010 request for uninterrupted traditional and non-traditional sensor data integration and the Global Threat Characterization Assessment (GTCA) Operational Planning Team report. GSIN provides critical and unique data to the USSPACECOM SSA data repositories to facilitate the large Space Battle Management Command and Control (BMC2) suite of capabilities/programs. Finally, GSIN provides Machine Learner and Data Analysis functions to optimize and operate situational awareness in the field.

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Space Acquisition must respond with speed and agility to emerging adversary threats. Space & Missile Systems Center (SMC) is transforming the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SMC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	7.562	0.000	7.562
Total Adjustments	0.000	0.000	7.562	0.000	7.562
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	7.562	0.000	7.562

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Radar, Sensor, Technical Intelligence [TI], and Allied Systems	-	-	0.500
Description: Radar, sensor, technical intelligence and Allied Systems: Designs, develops, exposes and integrates data from radar, sensors and technical intelligence systems in regions of the world where potential GDI users currently do not have coverage. Provide real time data from systems that previously reported in hours or days after critical events. Conduct studies/surveys/meetings as necessary to continually identify systems meeting GDI user data exposure needs. Designs, develops, tests, exposes, and integrates SDA data from previously untapped systems into space production systems and the Global Information Grid [GIG]. Develop implementation plans to mature data exposure capabilities.			
FY 2024 Plans:			
- Complete Integration and Testing of Radar 1 and support Initial Operational Capability [IOC]			
- Continue Production/Fielding of Radar 2			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
- Rapidly implement system resiliency and situational awareness changes required to operate in the contested space domain				
FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred from PE 1201017S in 2024.				
Title: Global Data Integration [GDI] Development		-	-	7.062
Description: : Effort title changed from "Global Data Integration (GDI)" to "Global Data Integration [GDI] Development" to differentiate major thrust from new project title. This is not a new start. Develop common Extensible Markup Language [XML] net-enabled data schemas and configuration management processes and procedures for Missile Warning, Missile Defense, Space, MASINT/Technical Intelligence, and Sensor data to manage the XML schema and associated XML messaging and services. Develop technical outreach for potential new GDI data consumers and providers who require GDI sensor data. Upgrade GDI capabilities as Defense Information Systems Agency [DISA] Enterprise Services evolve. Continue modifications to data services. Support integration of GDI sensor data into appropriate registries/catalogs. Continue development of GDI data services to enable visualization in a common operating picture. Conduct studies and demonstrations of SSA capabilities, data correlation, and assessment services for risk reduction evaluations.				
FY 2024 Plans:				
-DATABAHN: Continue pursuing accreditation. Develop and field a dedicated CDS and Cloud presence, including geographically separated, redundant nodes, providing greater operational resiliency. Provide capability to include new data consumers and providers who require GDI sensor data. Support integration of GDI sensor data into appropriate registries and catalogs. Continue development of GDI data services to enable visualization in a common operating picture.				
-FEAST: Develop a test bed for block-chain efforts and finalize replication of Secret Internet Protocol Routed Network [SIPRNET]-level FEAST capability on Joint Worldwide Intelligence Communications System [JWICS]. Integrate additional Top Secret/Special Compartmentalized Information [TS/SCI] data sources and algorithms.				
-ACE-M: Develop data fusion plans and capabilities, such as visual display of situational awareness data, analytic tools and algorithms, and historical playback of events, for new and existing GDI users				
-DI: Develop plans to incorporate new capabilities in AI and block-chain technology. Test and evaluate all GDI segments in support of data governance, provenance and discovery. Additionally, FY 2023 funding will allow the program to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to: studies, technical analysis, risk reduction experiments and prototyping, integration and test of command and control [C2], resiliency measures and mission partner interfaces, space test/combat range events, and office support etc.				
FY 2023 to FY 2024 Increase/Decrease Statement:				

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Funding transferred from PE 1201017S in 2024.			
Accomplishments/Planned Programs Subtotals	-	-	7.562

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

N/A

Remarks

E. Acquisition Strategy

GDI uses existing government contract vehicles whenever available to develop and modernize the combined SDA/MW/MD/MASINT/TI data exposure architecture and solution. When appropriate contracts do not exist or not available to GDI, USSTRATCOM awards new contracts in support of responsive and consistent GDI goals.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101318F / <i>Service Support to STRATCOM - Global Strike</i>	Project (Number/Name) 675368 / <i>Global Data Integration (GDI)</i>

	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
DATABAHN																												
Integration Testing																												
Full Operational Capability																												
ACE-M																												
Cp,,pm Operating Picture [COP] in a Cross Domain Solution [CDS] Environment																												
DATABAHN Ingestion into COP																												
Resiliency Testing of GDI's Three Pillars																												
DI																												
R&D Proof of Concept																												
Radar, Sensor, Technical Intelligence [TI] and Allied Systems																												
RADAR 2 Design/Develop																												
RADAR 2 Production/Fielding																												
RADAR 2 Integration and Testing																												
RADAR 2 Initial Operational Capability																												
RADAR 3 Production/Fielding																												
RADAR 3 Integration and Testing																												
RADAR 3 Initial Operational Capability																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101318F / <i>Service Support to STRATCOM - Global Strike</i>	Project (Number/Name) 675368 / <i>Global Data Integration (GDI)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>DATABAHN</i>				
Integration Testing	1	2024	2	2024
Full Operational Capability	1	2024	2	2024
<i>ACE-M</i>				
Cp,,pm Operating Picture [COP] in a Cross Domain Solution [CDS] Environment	1	2024	2	2024
DATABAHN Ingestion into COP	1	2024	4	2024
Resiliency Testing of GDI's Three Pillars	1	2024	2	2027
<i>DI</i>				
R&D Proof of Concept	1	2024	4	2028
<i>Radar, Sensor, Technical Intelligence [TI] and Allied Systems</i>				
RADAR 2 Design/Develop	1	2024	1	2024
RADAR 2 Production/Fielding	1	2024	4	2025
RADAR 2 Integration and Testing	1	2024	3	2027
RADAR 2 Initial Operational Capability	4	2027	4	2027
RADAR 3 Production/Fielding	1	2024	4	2025
RADAR 3 Integration and Testing	4	2025	3	2027
RADAR 3 Initial Operational Capability	4	2027	4	2027