

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Air Force **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / Global Sensor Integrated on Network (GSIN)
---	---

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	5.321	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.321
675368: GSIN (Global Integrated Sensor Network)	-	5.321	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.321
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**  
 Beginning in FY 2024 this program will be captured under PE 0101318F / Service Support to STRATCOM - Global Strike.

**A. Mission Description and Budget Item Justification**

The missions of US Space Command (USSPACECOM) and US Strategic Command (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), nuclear enterprise, and specialized planning expertise.

The Nation's strategic Command and Control (C2) sensors and mission planning programs cannot rapidly exchange information across multiple missions, creating ambiguity that delays time critical national C2 decision making processes. Global Sensor Integrated on Network (GSIN) developed and established a unified schema that integrates disparate Missile Warning (MW), Missile Defense (MD), Technical Intelligence (TI), Measurement and signature intelligence (MASINT), and a variety of non-traditional data into a single, exposed data set, providing resilient 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.

Global Data Integration (GDI) is the new project name previously known as Global Sensor Integration on Networks (GSIN). GDI supports the DoD Data Strategy, by exposing, transporting, and fusing previously stove-piped data and making it available, exploitable, and able to be analyzed for a variety of mission perspectives, agnostic of the Information Technology (IT) platform. GDI directly supports USSPACECOM, USSTRATCOM and other Combatant Commands and Major Commands, and Nuclear Enterprise Center (NEC) mission sets.

As a leading Data as a Service (DaaS) and Analytics as a Service (AaaS) provider, GDI provides access to over 1,300+ diverse data sources; meshing selected systems and sensors, from tactical to strategic, including the nation's most modern and capable assets, improved algorithms, mobility, and forward deployment to provide earlier cross-cueing and expanded decision space when every second counts. GDI enables creation of a User-Defined Operating Picture (UDOP) to provide a single, unambiguous missile event picture allowing real-time collaboration for nuclear C2 and improved senior leader situational awareness (SA) for effective decision-making.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force Date: March 2024

**Appropriation/Budget Activity**  
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development

**R-1 Program Element (Number/Name)**  
PE 1201017SF / Global Sensor Integrated on Network (GSIN)

GDI also improves Space Domain Awareness (SDA) by accessing additional sensor capability and provides this data for the larger space order of battle capabilities. GDI dramatically improves the ingestion of non-traditional, but readily available, non-US government and commercial data to the Space Force satellite catalog. GDI addresses US Northern Command (USNORTHCOM) and USSTRATCOM's signed Joint Emergent Operational Need (JEON) ST-0010 request for uninterrupted traditional and non-traditional sensor data integration, and is an enabling capability supporting the Global Threat Characterization Assessment (GTCA) Operational Planning Team report. GDI provides critical and unique data to USSPACECOM SDA data repositories to facilitate the large Space Battle Management Command and Control (BMC2) suite of capabilities/programs. Finally, GDI provides Cross Domain Solution (CDS) access, machine learning, data analysis and correlation/fusion functions to optimize SA in the field.

The GDI Program includes two major thrusts: GDI Development; and Radar, Sensor, Technical Intelligence (TI), and Allied Systems data integration.

The GDI Development effort includes four sub-efforts: 1) DATABAHN; 2) Fusion Engine for All-Source Tracking (FEAST), 3) Analytical Collaborative Environment - Multi Intelligence (ACE-M), and 4) Data Integrity (DI) efforts.

- DATABAHN includes developing and fielding dedicated CDS Concepts of operation (CONOPS), including geographically-separated, redundant nodes, to provide greater operational resiliency.
- FEAST fuses and correlates Radio Assisted Detection and Ranging (RADAR), Overhead Persistent Infrared (OPIR) and Electronic Signals Intelligence (ELINT) data at the SECRET level, and provides high-fidelity source geolocation in support of multiple DoD and Intelligence Community (IC) organizations. This capability is being replicated on Joint Worldwide Intelligence Communications System (JWICS), greatly increasing the functionality and value to the warfighter.
- ACE-M is a cloud-based, multi enclave (Secure Internet Protocol Router (SIPR)/JWICS), battlespace awareness and tactical decision aid capability which provides agile access to authoritative and dynamic intelligence data feeds, analytics, and geospatial information layers in a single visualization environment.
- DI develops plans to use artificial intelligence (AI) and block chain technology in support of data governance, provenance and discoverability.

The Radar, Sensor, Technical Intelligence (TI), and Allied Systems data integration effort 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.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver GDI capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826SF, 605827SF, 0605828SF, 0605829SF, 0605830SF, 0605831SF, 0605832SF, and 0605898SF.

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.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Air Force				<b>Date:</b> March 2024	
<b>Appropriation/Budget Activity</b> 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		<b>R-1 Program Element (Number/Name)</b> PE 1201017SF I Global Sensor Integrated on Network (GSIN)			
<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	5.321	0.000	0.000	0.000	0.000
Current President's Budget	5.321	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• 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	0.000	0.000	0.000
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>		
<b>Title:</b> Global Data Integration (GDI) Development	4.821	0.000	-		
<b>Description:</b> 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.					
<b>FY 2024 Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A					
<b>Title:</b> Radar, Sensor, Technical Intelligence (TI), and Allied Systems	0.500	0.000	-		
<b>Description:</b> 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/					

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Air Force		<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 3620F: <i>Research, Development, Test &amp; Evaluation, Space Force I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / <i>Global Sensor Integrated on Network (GSIN)</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
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.				
<b>FY 2024 Plans:</b> N/A				
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A				
<b>Accomplishments/Planned Programs Subtotals</b>		5.321	0.000	-
<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>Remarks</b>				
<b>E. Acquisition Strategy</b> GDI uses existing government contract vehicles whenever available, from agencies such as Missile Defense Agency (MDA) or Air Force Life Cycle Management Center (AFLCMC) 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. The contracts are managed by the relevant organization's contracting office.  Massachusetts Institute of Technology/Lincoln Labs (MIT/LL) will provide the Data Integrity effort based upon ongoing research as an FFRDC.  All contracts are competed whenever possible.				



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Air Force</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3620F / 7	<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / <i>Global Sensor Integrated on Network (GSIN)</i>	<b>Project (Number/Name)</b> 675368 / <i>GSIN (Global Integrated Sensor Network)</i>

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>DATABAHN</b>																												
Production/Fielding	█	█	█	█																								
Initial Operational Capability				█																								
Integration and Testing				█	█																							
Full Operational Capability						█	█																					
<b>FEAST</b>																												
Development, Integration, and Testing	█	█	█	█																								
<b>ACE-M</b>																												
Common Operating Picture (COP) in a Cross Domain Solution (CDS) Environment	█	█	█	█																								
DATABAHN Ingestion into COP	█	█	█	█	█	█	█																					
Resiliency Testing of GDI's Three Pillars					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
<b>DI</b>																												
R&D Proof of Concept	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
<b>Radar, Sensor, Technical Intelligence (TI) and Allied Systems</b>																												
(RADAR 1) Integration and Testing	█	█	█	█																								
(RADAR 1) Initial Operational Capability		█	█	█																								
(RADAR 2) Design/Develop		█	█	█	█	█	█																					
(RADAR 2) Production/Fielding					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
(RADAR 2) Integration and Testing																												
(RADAR 2) Initial Operational Capability																												
(RADAR 3) Design/Develop				█	█																							
(RADAR 3) Production/Fielding						█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
(RADAR 3) Integration and Testing																												

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Air Force</b>		<b>Date: March 2024</b>																														
<b>Appropriation/Budget Activity</b> 3620F / 7		<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / <i>Global Sensor Integrated on Network (GSIN)</i>																														
		<b>Project (Number/Name)</b> 675368 / <i>GSIN (Global Integrated Sensor Network)</i>																														
	<b>FY 2023</b>				<b>FY 2024</b>				<b>FY 2025</b>				<b>FY 2026</b>				<b>FY 2027</b>				<b>FY 2028</b>				<b>FY 2029</b>							
	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	1	2	3	4
(RADAR 3) Initial Operational Capability																																

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force			<b>Date:</b> March 2024	
<b>Appropriation/Budget Activity</b> 3620F / 7	<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / <i>Global Sensor Integrated on Network (GSIN)</i>	<b>Project (Number/Name)</b> 675368 / <i>GSIN (Global Integrated Sensor Network)</i>		

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>DATABAHN</i></b>				
Production/Fielding	1	2023	3	2023
Initial Operational Capability	4	2023	4	2023
Integration and Testing	4	2023	1	2024
Full Operational Capability	2	2024	2	2024
<b><i>FEAST</i></b>				
Development, Integration, and Testing	1	2023	3	2023
<b><i>ACE-M</i></b>				
Common Operating Picture (COP) in a Cross Domain Solution (CDS) Environment	1	2023	4	2023
DATABAHN Ingestion into COP	1	2023	4	2024
Resiliency Testing of GDI's Three Pillars	3	2023	2	2027
<b><i>DI</i></b>				
R&D Proof of Concept	1	2023	4	2027
<b><i>Radar, Sensor, Technical Intelligence (TI) and Allied Systems</i></b>				
(RADAR 1) Integration and Testing	1	2023	1	2023
(RADAR 1) Initial Operational Capability	2	2023	2	2023
(RADAR 2) Design/Develop	2	2023	4	2023
(RADAR 2) Production/Fielding	4	2023	4	2025
(RADAR 2) Integration and Testing	4	2025	3	2027
(RADAR 2) Initial Operational Capability	4	2027	4	2027
(RADAR 3) Design/Develop	4	2023	4	2023
(RADAR 3) Production/Fielding	1	2024	1	2026

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3620F / 7	<b>R-1 Program Element (Number/Name)</b> PE 1201017SF / <i>Global Sensor Integrated on Network (GSIN)</i>	<b>Project (Number/Name)</b> 675368 / <i>GSIN (Global Integrated Sensor Network)</i>

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
(RADAR 3) Integration and Testing	1	2026	3	2027
(RADAR 3) Initial Operational Capability	4	2027	4	2027

**Note**  
All RADAR timelines are notional, pending FMS actions.