

UNCLASSIFIED

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

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 0305240F / <i>Support to DCGS Enterprise</i>
--	---

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	-	28.774	31.589	30.932	0.000	30.932	31.396	32.008	33.127	33.782	Continuing	Continuing
674826: <i>Common Imagery Ground / Surface Systems</i>	-	2.389	2.400	2.409	0.000	2.409	2.466	2.514	2.602	2.654	Continuing	Continuing
675265: <i>Common Imagery Processor (CIP)</i>	-	26.385	29.189	28.523	0.000	28.523	28.930	29.494	30.525	31.128	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element funds the Imagery Processing effort which consists of the Virtual Imagery Processing Capability (VIP-C) program and associated Imagery Processing Research and Development.

1) The Imagery Processing effort develops the Virtual Imagery Processing Capability (VIP-C) and the High Performance Compute (HPC) Environment within the Support to DCGS architecture. The VIP-C and HPC environment provides mission critical image processing capabilities to include raw data ingest, initial image formation, and data conditioning/normalization to optimize ISR data for exploitation by humans and machines, value-added algorithmic processing, and configurable analytic workflows. It also covers Machine Assisted Geospatial Intelligence (GEOINT) Exploitation (MAGE), which is a comprehensive program to employ advanced technologies, automation, and augmentation at speed and scale to close the gap between image collection and actionable intelligence. Current efforts are focused on enabling support for new sensors/data types and developing/ scaling core MAGE components.

2)The DCGS Enterprise Interoperability and Cyber Defense efforts provide support to the Office of the Under Secretary of Defense for Intelligence and Security (OUSD(I&S)), AF DCGS and NATO interoperability efforts. This includes the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 \$0.150M was expended for civilian pay expenses in this program element, and in FY24 \$1.100M is forecasted for civilian pay expenses in this program element.

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

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

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 0305240F / <i>Support to DCGS Enterprise</i>
--	---

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	28.774	31.589	30.878	0.000	30.878
Current President's Budget	28.774	31.589	30.932	0.000	30.932
Total Adjustments	0.000	0.000	0.054	0.000	0.054
• 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	0.054	0.000	0.054

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise				Project (Number/Name) 674826 / Common Imagery Ground / Surface Systems			
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
674826: Common Imagery Ground / Surface Systems	-	2.389	2.400	2.409	0.000	2.409	2.466	2.514	2.602	2.654	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project element funds the Common Imagery Ground / Surface Systems enterprise support capabilities. This includes support to OUSD(I&S) and AF DCGS priority efforts.

The funding provides support to OUSD(I&S), AF DCGS and NATO interoperability efforts. This includes the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

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

	FY 2023	FY 2024	FY 2025
Title: DCGS Enterprise Interoperability	2.389	2.400	2.409
Description: Provide support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts.			
FY 2024 Plans: Continue to support OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts.			
FY 2025 Plans: Will continue to support OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts.			
FY 2024 to FY 2025 Increase/Decrease Statement: Increase is an adjustment for inflation.			
Accomplishments/Planned Programs Subtotals	2.389	2.400	2.409

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

N/A

Remarks

D. Acquisition Strategy

The Air Force uses an incremental acquisition approach with development cycles and sprints to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024			
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise				Project (Number/Name) 674826 / Common Imagery Ground / Surface Systems							
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
DCGS Enterprise Interoperability	C/Various	Various : Various	-	2.389	Apr 2023	2.400	Apr 2024	2.409	Apr 2025	-		2.409	Continuing	Continuing	-
Subtotal			-	2.389		2.400		2.409		-		2.409	Continuing	Continuing	N/A
			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	2.389		2.400		2.409		-		2.409	Continuing	Continuing	N/A
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise	Project (Number/Name) 674826 / Common Imagery Ground / Surface Systems

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

DCGS Enterprise Interoperability	
Support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise	

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305240F / <i>Support to DCGS Enterprise</i>	Project (Number/Name) 674826 / <i>Common Imagery Ground / Surface Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>DCGS Enterprise Interoperability</i>				
Support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise	1	2023	4	2029

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise				Project (Number/Name) 675265 / Common Imagery Processor (CIP)			
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
675265: Common Imagery Processor (CIP)	-	26.385	29.189	28.523	0.000	28.523	28.930	29.494	30.525	31.128	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Imagery Processing effort develops the Virtual Imagery Processing Capability (VIP-C) within the DCGS architecture. VIP-C accepts airborne imagery data, processes it into an exploitable format, and provides it to other elements within the weapon system and/or the DCGS Enterprise. Current efforts include further developing the virtual software capability to improve processing across the enterprise and testing, development, and demonstrations integrating updated and new/emerging sensors into DCGS. In addition, the project involves improving the Machine Assisted Geospatial Intelligence (GEOINT) Exploitation (MAGE) capability to employ advanced technologies, automation, and augmentation at speed and scale to close the gap between image collection and actionable intelligence.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, \$0.150M was expended for civilian pay expenses in this program element, and in FY24, \$1.100 M is forecasted for civilian pay expenses in this program element.

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

	FY 2023	FY 2024	FY 2025
Title: Imagery Processor	26.385	29.189	28.523
Description: Continue developing VIP-C to keep pace with growing sensor baseline and enhance imagery data quality.			
FY 2024 Plans: Continue to upgrade and improve VIP-C to enable better geo-coordinate accuracy, facilitate automated intelligence discovery and integrate new algorithms. This includes developing and integrating into a Cloud infrastructure and improving cyber defense.			
Continue to refine and scale foundational components and begin developing more advanced technologies (e.g. automated site monitoring, explainable AI/ML, adversarial attack detection/mitigation, etc.). Integration of these advanced technologies will prove critical in a high-end fight.			
FY 2025 Plans: Will continue to upgrade and improve VIP-C to enable better geo-coordinate accuracy, facilitate automated intelligence discovery and integrate new algorithms. This includes developing and integrating into a Cloud infrastructure and improving cyber defense.			

UNCLASSIFIED

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise	Project (Number/Name) 675265 / Common Imagery Processor (CIP)
--	--	---

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Will continue to refine and scale foundational components and begin developing more advanced technologies (e.g. automated site monitoring, explainable AI/ML, adversarial attack detection/mitigation, etc.). Integration of these advanced technologies will prove critical in a high-end fight.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Funding decreased due to requirements moving into sustainment			
Accomplishments/Planned Programs Subtotals	26.385	29.189	28.523

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 04 Line Item 846080: DCGS-AF	79.742	73.326	33.310	-	33.310	29.837	30.951	31.609	32.236	Continuing	Continuing

Remarks

D. Acquisition Strategy
For imagery processing capabilities, the Air Force uses an incremental acquisition approach with development cycles and spirals to develop, field, and upgrade the system. Contracts are structured for full and open competition to the maximum extent possible. Additionally, strategic partnerships and agreements with National Laboratories and other agencies are utilized.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise	Project (Number/Name) 675265 / Common Imagery Processor (CIP)

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

VIP-C/ MAGE	
Machine Assisted GEOINT Exploitation Capability Development	
SW Release 3.68	
SW Release 3x consists of 2-3 fieldings throughout FY24	
SW Release 3x consists of 2-3 fieldings throughout FY25	
SW Release 3x consists of 2-3 fieldings throughout FY26	
SW release 3x consists of 2-3 fieldings throughout FY27	
SW release 3x consists of 2-3 fieldings throughout FY28	
SW release 3x consists of 2-3 fieldings throughout FY29	

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305240F / Support to DCGS Enterprise	Project (Number/Name) 675265 / Common Imagery Processor (CIP)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
VIP-C/ MAGE				
Machine Assisted GEOINT Exploitation Capability Development	1	2023	4	2029
SW Release 3.68	1	2023	1	2023
SW Release 3x consists of 2-3 fieldings throughout FY24	1	2024	1	2025
SW Release 3x consists of 2-3 fieldings throughout FY25	1	2025	1	2026
SW Release 3x consists of 2-3 fieldings throughout FY26	1	2026	1	2027
SW release 3x consists of 2-3 fieldings throughout FY27	1	2027	1	2028
SW release 3x consists of 2-3 fieldings throughout FY28	1	2028	1	2028
SW release 3x consists of 2-3 fieldings throughout FY29	1	2029	4	2029