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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Army **Date:** May 2021

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305208A / <i>Distributed Common Ground/Surface Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	28.821	40.771	-	-	-	-	-	-	-	-	-
D07: <i>DCGS-A Common Modules</i>	-	28.821	40.771	-	-	-	-	-	-	-	-	-

Note

Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.

A. Mission Description and Budget Item Justification

Distributed Common Ground System - Army (DCGS-A) is the Intelligence, Surveillance and Reconnaissance (ISR) System of Systems (SoS) for Joint, Interagency, Allied, Coalition, and National data analysis, sharing and collaboration. The core functions of DCGS-A are: the vertical and horizontal synchronization of ISR Processing, Exploitation and Dissemination (PED) efforts; operations in a networked environment at multiple security levels; the control of select Army and joint sensor systems; the fusion of all acquired data and information, and distribution of relevant red (threat), gray (non-aligned), and environmental (weather and terrain) information; and providing the Warfighters' early warning, targeting, and sensor ground station capabilities. DCGS-A provides a single integrated ISR ground processing system composed of common components that are interoperable with sensors, other information sources, all Warfighting Functions, compliant with standards providing the Defense Information & Intelligence Enterprise (DI2E) and Intelligence Community Information Technology Enterprise (IC ITE). DCGS-A is fielded in Fixed, Mobile, and embedded configurations emphasizing the use of reach and split based operations by improving accessibility of data in order to reduce forward deployed footprint. As enhanced commercial capabilities are integrated and tested, a continuing series of software capability drop releases will be provided into Army Common/commodity hardware and fielded to units IAW the Army Resourcing Priority List (ARPL) process.

DCGS-A is designated as a Program of Record (PoR) within the Command Post Computing Environment (CPCE) of the Common Operating Environment (COE). DCGS-A provides the Single and Shareable Geospatial Foundation (SSGF) Cross Cutting Capability (CCC), and is defining the DCGS-A architecture to fit within the COE as described by the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA(ALT)) COE Implementation Plan. This is in accordance with the G-3/5/7 priority to align all Army networks, procurements and enhancements under one COE and one vision leveraging intelligence community investments. PM DCGS-A continues to work with PM Mission Command (PM MC) to converge on CP CE Tactical Server Infrastructure (TSI).

DCGS-A provides technologically advanced Processing, Exploitation, and Dissemination (PED) capabilities through iterative software releases delivered in tailored and scalable mobile, fixed, and embedded configurations in all maneuver and maneuver support units from Company Intelligence Support Team to Army Service Component Command, and in select maneuver sustainment units battalion and above.

PE 0305208A has no FY22 funds request.

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B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	28.821	47.204	40.186	-	40.186
Current President's Budget	28.821	40.771	0.000	-	0.000
Total Adjustments	0.000	-6.433	-40.186	-	-40.186
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.433			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-40.186	-	-40.186

Change Summary Explanation

Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0305208A / <i>Distributed Common Ground/Surface Systems</i>	Project (Number/Name) D07 / <i>DCGS-A Common Modules</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
<i>D07: DCGS-A Common Modules</i>	-	28.821	40.771	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note

The Distributed Common Ground System - Army was formerly designated a Major Automation Information System (MAIS) program. Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.

A. Mission Description and Budget Item Justification

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DCGS-A is designated as a Program of Record (PoR) within the Command Post Computing Environment (CPCE) of the Common Operating Environment (COE). DCGS-A provides the Single and Shareable Geospatial Foundation (SSGF) Cross Cutting Capability (CCC), and is defining the DCGS-A architecture to fit within the COE as described by the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA(ALT)) COE Implementation Plan. This is in accordance with the G-3/5/7 priority to align all Army networks, procurements and enhancements under one COE and one vision leveraging intelligence community investments. PM DCGS-A continues to work with PM Mission Command (PM MC) to converge on CP CE Tactical Server Infrastructure (TSI).

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PE 0305208A has no funds request in FY22.

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

<u>Title:</u>	FY 2020	FY 2021	FY 2022
<u>Title:</u> Integrate and Test Software	9.831	7.639	-

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0305208A / <i>Distributed Common Ground/Surface Systems</i>	Project (Number/Name) D07 / <i>DCGS-A Common Modules</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>Description: DCGS-A Intelligence applications will issue commercial contracts to vendors on multiple-award contract/s. Initial contract awards will be followed by brief design and develop periods, incorporating maximum Soldier participation and feedback to inform procurement and fielding decisions. Each evaluate, modify (if necessary) and integrate period will result in minor modifications to adapt commercial capabilities for military use through customization, cyber accreditation, and integration with other Army systems.</p> <p>FY 2021 Plans: Integrate and test All-Source and Collection Management Applications with CPCE. Complete Integration and Testing of CD2.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.</p>				
<p>Title: Government Matrix Support for Integration</p> <p>Description: Matrix Support Government for software integration to the target platforms.</p> <p>FY 2021 Plans: Continue Government Matrix Support for software integration to the target platforms.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.</p>		5.130	3.516	-
<p>Title: Project Management</p> <p>Description: Project Management support to manage the cost, schedule, and performance metrics for the program.</p> <p>FY 2021 Plans: Acquisition preparation and support for Next Generation Analytic efforts.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.</p>		3.021	3.492	-
<p>Title: Army and Joint Interoperability and Operational Testing</p> <p>Description: Testing of DCGS-A</p> <p>FY 2021 Plans:</p>		5.110	3.024	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
Complete Interoperability and Operational Testing for CD2 and Intelligence Applications: All-Source and Collection Management.				
FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.				
Title: Training Development		4.230	1.045	-
Description: Training support - embedded computer based training (CBT) for the DCGS-A software.				
FY 2021 Plans: Continue training support - embedded computer based training (CBT) for the DCGS-A software.				
FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.				
Title: Logistics Documentation		1.499	0.990	-
Description: Logistics activities including maintenance task analysis, level of repair analysis, user manual, training support package, and MANPRINT activities.				
FY 2021 Plans: Continue logistics activities including task maintenance task analysis, level of repair analysis, user manual, training support package, and MANPRINT activities.				
FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.				
Title: Ground Station Modernization		-	18.094	-
Description: Ground Station evaluation, modernization, modification, and risk reduction activities.				
FY 2021 Plans: Ground Station evaluation, software modification, and risk reduction activities. DCGS-A will also evaluate new designs and replacements for its aging Ground Station platforms to process and fuse space, aerial, and terrestrial sensor data to produce targeting solutions for long-range precision fires.				
FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.				
Title: Next Generation Analytics Evaluation		-	2.971	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
Description: Next generation analytics market research, studies, evaluate, modify, and integrate experimentation			
FY 2021 Plans: Next generation analytics market research studies, evaluate, modify, and integrate experimentation			
FY 2021 to FY 2022 Increase/Decrease Statement: Program Element 0305208A funds restructured to PE 0605148A Tactical Intel Targeting Access Node (TITAN) EMD in FY22.			
Accomplishments/Planned Programs Subtotals	28.821	40.771	-

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• BZ7316: <i>DCGS-A-INTEL</i>	205.219	197.595	92.613	-	92.613	-	-	-	-	-	-

Remarks
The Distributed Common Ground System - Army is designated a ACAT IAC

D. Acquisition Strategy
The DCGS-A program will consist of multiple capability drops structured to meet DCGS-A User requirements. The DCGS-A program will follow the Information Technology (IT) Box concept for an agile acquisition strategy to iteratively provide and field Intelligence, Surveillance, and Reconnaissance (ISR) capabilities, hosted on Commercial off the Shelf (COTS) equipment/hardware, providing low risk, efficient, time- phased releases of capability to satisfy the Army's operational needs.

The DCGS-A capabilities under Increment 1 will be leveraged to the maximum extent where applicable to meet the future DCGS-A requirements set. The DCGS-A will also leverage the Increment 1 configuration platforms fielded across the Army.

DCGS-A is a collection of software packages (COTS, and GOTS products) selected to provide each Army echelon (from Battalion up to Echelon Above Corps (EAC)) the capability to synthesize and exploit intelligence data. DCGS-A delivers these software packages on COTS and GOTS hardware components, tailored to meet each Army Echelon's intelligence mission requirements. DCGS-A is the Army's ISR Foundation Layer for Tasking, Processing, Exploitation, Dissemination (TPED) and development of situation understanding using intelligence information about the threat, weather, and terrain at all Army Echelons. DCGS-A provides the capabilities necessary for Commanders to access information, task organic sensors, and synchronize non-organic sensor assets with their organic assets. DCGS-A will continuously acquire and synthesize data and information from Joint, Interagency, Intergovernmental, and Multi-national (JIIM) sources to maintain an updated and accurate understanding of the operational environment to inform critical and time sensitive command decisions.

The DCGS-A software baseline will be updated and iteratively deployed to address emerging and prioritized operational requirements. PM DCGS-A, in coordination with the operational user community, will align releases with the technological readiness of targeted enhancements, and to support low-risk integration and test cycle

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times. As requirements are approved, DCGS-A will leverage commercially-available solutions and non-developmental items (NDI) to meet user needs, based on market research results. DCGS-A will issue commercial contracts or conduct NDI technology transitions from DoD Science and Technology organizations, or will re-use NDI from other Army programs, Services, or other Governmental Agencies. The DCGS-A software will be hardware agnostic so that the software can be deployed in any processing hardware equipment. This allows the DCGS-A software to be scalable and deployable in different hardware system configurations, as required by the Army at different echelons. The implementation of the latest COTS hardware procurement through the Army Common Hardware System (CHS) program with the established post-deployment hardware sparing, sustainment, and maintenance provisions, will result in significant cost efficiencies.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Army												Date: May 2021			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0305208A / Distributed Common Ground/Surface Systems				Project (Number/Name) D07 / DCGS-A Common Modules							
Management Services (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Project Management	Allot	DCGS-A : APG, MD	7.930	3.021	Oct 2019	3.492	Oct 2020	-		-		-	Continuing	Continuing	-
Milestone preparation; Activities; Trade Space Analysis (TSA)	MIPR	Various : Various	3.318	-		-		-		-		-	0.000	3.318	-
Subtotal			11.248	3.021		3.492		-		-		-	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Integrate & Test software	C/FP	Various : Various	65.322	9.831	Dec 2019	7.639	Dec 2020	-		-		-	Continuing	Continuing	Continuing
System reconfiguration	C/FP	Various : Various	4.020	-		-		-		-		-	Continuing	Continuing	-
Ground Station Modernization	C/CPFF	Various : Various	-	-		18.094	Feb 2021	-		-		-	Continuing	Continuing	-
Next Generation Analytics Evaluation	C/CPFF	Various : Various	-	-		2.971	Feb 2021	-		-		-	Continuing	Continuing	-
Subtotal			69.342	9.831		28.704		-		-		-	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Matrix Support	MIPR	Various : Various	12.595	5.130	Oct 2019	-		-		-		-	Continuing	Continuing	-
Training Development	MIPR	Various : Various	7.370	4.230	Oct 2019	1.045	Feb 2021	-		-		-	Continuing	Continuing	-
Logistics Documentation	MIPR	Various : Various	1.123	1.499	Jan 2020	0.990	Jan 2021	-		-		-	Continuing	Continuing	-
Government Matrix Support for Integration	MIPR	Various : Various	-	-		3.516	Feb 2021	-		-		-	Continuing	Continuing	-
FY 2018 NDAA SEC 825 MDAP Cost Overrun	Allot	PM DCGS-A : APG, MD	0.011	-		-		-		-		-	0.000	0.011	-
Subtotal			21.099	10.859		5.551		-		-		-	Continuing	Continuing	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Army			Date: May 2021
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Event Name	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	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
Capability Drop 2	████████████████				████████████████																							
Capability Drop 2 IOC	████████████████				▲ 1 CD2 IOC																							
All-Source Intelligence Application phase 1	████████████████				██████████																							
All-Source Intelligence Application phase 2	████████████████				██████████				████████████████████																			
Collection Management Applications phase 1	████████████████				██████████																							
Collection Management Applications phase 2	████████████████				██████████				████████████████																			
Ground Station Modernization	████████████████				██████████				████████████████																			
Next Generation Analytics Market research	████████████████				██████████				████████████████																			
Next Generation Analytics Evaluation	████████████████				██████████				████████████████████																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Army		Date: May 2021
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Capability Drop 1	4	2017	3	2019
Capability Drop 1 IOC	3	2019	3	2019
Capability Drop 2	4	2019	1	2021
Capability Drop 2 IOC	2	2021	2	2021
All-Source Intelligence Application phase 1	1	2021	1	2021
All-Source Intelligence Application phase 2	2	2021	1	2023
Collection Management Applications phase 1	2	2021	2	2021
Collection Management Applications phase 2	3	2021	2	2022
Ground Station Modernization	1	2021	2	2022
Next Generation Analytics Market research	1	2021	4	2021
Next Generation Analytics Evaluation	3	2021	2	2023