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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305208N I (U) <i>DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	311.344	45.338	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	130.708	487.390
2174: <i>Distributed Common Ground System-Navy (DCGS-N)</i>	207.166	0.222	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	207.388
2227: <i>Distributed Common Ground System (DCGS-N) Inc 2</i>	104.178	45.116	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	130.708	280.002

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): MN40, M464

Note

Funding for the following projects has been realigned out of PE 0305208N into PE 0304785N as part of Program Element Consolidation starting in FY20: Project 2174 (Distributed Common Ground System-Navy (DCGS-N) and Project 2227 (DCGS-N Increment 2).

A. Mission Description and Budget Item Justification

The Distributed Common Ground System (DCGS) is a cooperative effort between the services, agencies, and the Department of Defense (DoD) to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS - Navy (DCGS-N) is the Navy instance of the Under Secretary of Defense, Intelligence (USD (I)) DCGS Family of Systems (FoS). The DoD has defined a DCGS architecture that will be compatible and interoperable across all of the Services Intelligence, Surveillance, and Reconnaissance (ISR) systems and operations. The Distributed Common Ground System (DCGS) accesses and ingests data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers. The DCGS Integrated Backbone (DIB) shares data collected across the joint enterprise. Further integration with Defense Intelligence Information Enterprise (DI2E) will enhance access and sharing of ISR information across Joint forces using common enterprise standards and services. DCGS FoS supports Joint Task Force (JTF)-level and below combat operations with critical intelligence for battle management and information dominance to maintain a tactical advantage over adversaries.

DCGS-N fulfills a critical mission set Afloat and Ashore. DCGS-N processes and exploits tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT), facilitates precision target geopositioning, mensuration, and imagery capabilities, integrates national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA), and shares Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) and Command and Control information via the DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers. The DCGS-N program conducts research and assessments of tactically relevant, emerging technologies program insertion to ensure superiority in the intelligence domain.

The DCGS-N Enterprise Node (DEN), which incorporates current DIB standards and DI2E policy, facilitates interoperability and data sharing among the DCGS FoS. DCGS-N complies with the DoD DCGS network architecture. The DCGS-N Analytics Node (DAN) is a cloud based instantiation of the DEN, and is the foundation for DCGS-N to transform DCGS-N into a modernized data environment.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305208N I (U) <i>DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS</i>	
<p>Distributed Common Ground System-Navy (DCGS-N) Increment 1 is the Navy's current fielded DCGS Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) program of record. The system is actively used by Navy force level ships and shore sites in support of the mission.</p> <p>DCGS-N Increment 2 will integrate emergent, transformational Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) technologies in order to streamline Sailor's analytical efforts and improve targeting solutions for the operator, optimizing and compressing the kill chain. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities and integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to optimize the use and analysis of sensor and platform data. DCGS-N Increment 2 leverages enterprise solutions to share information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases that build upon capability over time and allow for ongoing fleet feedback as the software matures. Each Fleet Capability Releases (FCR)), enhances afloat ISR capabilities by providing a set of software centric tools to include Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. DCGS-N Increment 2 will insert new technology enhancements via incremental software upgrades. Continued development of follow-on releases/Capability Drops (CD's) will be based upon on prioritized Fleet requirements.</p> <p>Intelligence Carry-On Program (ICOP) provides Indications and Warnings (I&W), battlespace awareness/visualization and ISR Processing, Exploitation and Dissemination (PED) capabilities in support of Navy surface and expeditionary operations. The ICOP system includes a three-eyed ruggedized workstation that serves as a powerful afloat edge computing device that is capable of operating on all three security domains (Non-Secure Internet Protocol Router (NIPR), Secure Internet Protocol Router (SIPR) and Joint Worldwide Intelligence Communications System (JWICS)) and an antenna/receiver set (called Communications Module 3 - CM3) that is used to ingest, process and exploit airborne sensor data. In addition to supporting multi-intelligence capabilities, ICOP/CM3 provides an end-to-end ISR PED architecture that includes processing organic shipboard camera systems to support Navy-wide Operational Task (OPTASK) Visual Information (Strategic Communications - "First to the Truth," pattern of life analysis and use of force/rules of engagement decisions). In addition, the ICOP system supports the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates mature COTS and GOTS applications with robust storage, processing and computing capability. ICOP adheres to the Under Secretary of Defense, Intelligence (USD (I)) interoperability mandates and federates with other Joint DCGS users via the DCGS Integrated Backbone (DIB). ICOP data is pushed to the shore-based DCGS Enterprise Node (DEN) for discovery, retrieve, and data enrichment. ICOP enables Unit-level ships and expeditionary customers to become part of the larger Intelligence Community (IC) enterprise.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Navy	Date: February 2020
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305208N I (U) <i>DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS</i>
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B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	42.846	0.000	0.000	-	0.000
Current President's Budget	45.338	0.000	0.000	-	0.000
Total Adjustments	2.492	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.492	0.000			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Funding for projects 2174 and 2227 have been realigned out of PE 0305208N into PE 0304785N as part of Program Element Consolidation starting in FY20. Summaries located in PE 0304785N.

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy										Date: February 2020		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS					Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)		
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
2174: <i>Distributed Common Ground System-Navy (DCGS-N)</i>	207.166	0.222	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	207.388
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: MN40

Note

Funding has been realigned out of PE 0305208N Project 2174, into PE 0304785N as part of RD TEN PE Consolidation starting in FY20.

A. Mission Description and Budget Item Justification

The Distributed Common Ground System (DCGS) is a cooperative effort between the services, agencies, and the Department of Defense (DoD) to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS - Navy (DCGS-N) is the Navy instance of the Under Secretary of Defense, Intelligence (USD (I)) DCGS Family of Systems (FoS). The DoD has defined a DCGS architecture that will be compatible and interoperable across all of the Services Intelligence, Surveillance, and Reconnaissance (ISR) systems and operations. DCGS accesses and ingests data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers. The DCGS Integrated Backbone (DIB) shares data collected across the joint enterprise. Further integration with Defense Intelligence Information Enterprise (DI2E) will enhance access and sharing of ISR information across Joint forces using common enterprise standards and services. DCGS FoS supports Joint Task Force (JTF)-level and below combat operations with critical intelligence for battle management and information dominance to maintain a tactical advantage over adversaries.

DCGS-N system fulfills a critical mission set Afloat and Ashore. DCGS-N processes and exploits tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT), facilitates precision target geopositioning, mensuration, and imagery capabilities, integrates national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA), and shares Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) and Command and Control information via the DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers. The DCGS-N program conducts research and assessments of tactically relevant, emerging technologies program insertion to ensure superiority in the intelligence domain.

The DCGS-N Enterprise Node (DEN), which incorporates current DIB standards and DI2E policy, facilitates interoperability and data sharing among the DCGS FoS. DCGS-N complies with the DoD DCGS network architecture. The DCGS-N Analytics Node (DAN) is a cloud based instantiation of the DEN, and is the foundation for DCGS-N to transform DCGS-N into a modernized data environment.

DCGS-N Increment 1 is the Navy's current fielded DCGS ISR&T program of record. The system is actively used by Navy force level ships and shore sites in support of the mission.

Intelligence Carry-On Program (ICOP) provides Indications and Warnings (I&W), battlespace awareness/visualization and Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation and Dissemination (PED) capabilities in support of Navy surface and expeditionary operations. The ICOP system

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)

includes a three-eyed ruggedized workstation that serves as a powerful afloat edge computing device that is capable of operating on all three security domains (Non-Secure Internet Protocol Router (NIPR), Secure Internet Protocol Router (SIPR) and Joint Worldwide Intelligence Communications System (JWICS)) and an antenna/receiver set (called Communications Module 3 - CM3) that is used to ingest, process and exploit airborne sensor data.

In addition to supporting multi-intelligence capabilities, Intelligence Carry-On Program (ICOP)/Communications Module 3 (CM3) provides an end-to-end Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation and Dissemination (PED) architecture that includes processing organic shipboard camera systems to support Navy-wide Operational Task (OPTASK) Visual Information (Strategic Communications - "First to the Truth," pattern of life analysis and use of force/rules of engagement decisions). In addition, the ICOP system supports the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates mature Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) applications with robust storage, processing and computing capability. ICOP adheres to the Under Secretary of Defense, Intelligence (USD (I)) interoperability mandates and federates with other Joint Distributed Common Ground System (DCGS) users via the DCGS Integrated Backbone (DIB). ICOP data is pushed to the shore-based DCGS Enterprise Node (DEN) for discovery, retrieve, and data enrichment. ICOP enables Unit-level ships and expeditionary customers to become part of the larger Intelligence Community (IC) enterprise.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: Distributed Common Ground System-Navy (DCGS-N) Increment 1	0.222	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2020 Plans: FY20 funding has been realigned into PE 0304785N Project 2174 as part of PE Consolidation.					
FY 2021 Base Plans: FY21 funding has been realigned into PE 0304785N Project 2174 as part of PE Consolidation.					
FY 2021 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.222	0.000	0.000	0.000	0.000

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN 2914: <i>Distributed Common Ground System-Navy (DCGS-N)</i>	10.219	18.677	18.872	-	18.872	17.457	17.720	18.118	18.483	209.073	603.757
• RDTEN/0304785N/2174: <i>Distributed Common Ground System-Navy (DCGS-N)</i>	0.000	0.583	0.592	-	0.592	0.671	0.677	0.680	0.694	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u> <u>Base</u>	<u>FY 2021</u> <u>OCO</u>	<u>FY 2021</u> <u>Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

Distributed Common Ground System-Navy(DCGS-N) programs utilize mature Commercial-Off-The-Shelf (COTS) and Governmental-Off-The-Shelf (GOTS) capabilities. The Navy adapts and integrates these capabilities and ensures interoperability with the DCGS Integration Backbone (DIB) standards and Defense Intelligence Information Enterprise (DI2E) policies. Integration of DCGS-N Increment 1 components has transitioned from Government-led to Industry-led based on the award of DCGS-N Increment 1 Prime Mission Product (PMP) contract.

Intelligence Carry-On Program (ICOP) implements a cross-decking methodology that incorporates a two phased delivery, a permanent foundation kit which supports carry-on equipment to include workstation and Communications Module 3 (CM3) antenna / receiver set. This methodology supports speed-to-fleet principles.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development Prior Years	Various	Various : Various	122.440	0.000		0.000		0.000		-		0.000	0.000	122.440	-
Integration Assembly & Test	C/CPFF	NSWC China Lake : China Lake, CA	0.908	0.180	Jan 2019	0.000		0.000		-		0.000	0.000	1.088	-
Government Technical Oversight (Dev)	WR	NIWC LANT : Charleston, SC	0.401	0.042	Jan 2019	0.000		0.000		-		0.000	0.000	0.443	-
Subtotal			123.749	0.222		0.000		0.000		-		0.000	0.000	123.971	N/A

Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support Prior Years	Various	Various : Various	45.769	0.000		0.000		0.000		-		0.000	0.000	45.769	-
Subtotal			45.769	0.000		0.000		0.000		-		0.000	0.000	45.769	N/A

Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation Prior Years	Various	Various : Various	26.470	0.000		0.000		0.000		-		0.000	0.000	26.470	-
Subtotal			26.470	0.000		0.000		0.000		-		0.000	0.000	26.470	N/A

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services Prior Years	Various	Various : Various	11.178	0.000		0.000		0.000		-		0.000	0.000	11.178	-
Subtotal			11.178	0.000		0.000		0.000		-		0.000	0.000	11.178	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy								Date: February 2020			
Appropriation/Budget Activity 1319 / 7			R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS				Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)				
	Prior Years	FY 2019	FY 2020		FY 2021 Base	FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	207.166	0.222	0.000		0.000		-	0.000	0.000	207.388	N/A

Remarks


FY20 and FY21 cost data is provided under PE 0304785N Project 2174.

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)

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EXHIBIT R4, Schedule Profile

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROJECT NUMBER AND NAME 2174 Distributed Common Ground System – Navy (DCGS-N)			
Fiscal Year	2019			
2174 DCGS-N	1	2	3	4
DCGS-N Increments 1 Tech Refresh	 <p align="center">FOL/ECP/FC As Req</p>			

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2174 / Distributed Common Ground System- Navy (DCGS-N)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2174				
DCGS-N Increment 1 Tech Refresh	1	2019	4	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
2227: Distributed Common Ground System (DCGS-N) Inc 2	104.178	45.116	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	130.708	280.002
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: M464

Note

Funding has been realigned out of PE 0305208N Project 2227, into PE 0304785N as part of RD TEN PE Consolidation starting in FY20.

A. Mission Description and Budget Item Justification

DCGS-N Increment 2 will integrate emergent, transformational Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) technologies in order to streamline Sailor's analytical efforts and improve targeting solutions for the operator, optimizing and compressing the kill chain. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities and integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to optimize the use and analysis of sensor and platform data. DCGS-N Increment 2 leverages enterprise solutions to share information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases that build upon capability over time and allow for ongoing fleet feedback as the software matures. Each Fleet Capability Releases (FCR)), enhances afloat ISR capabilities by providing a set of software centric tools to include Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. DCGS-N Increment 2 will insert new technology enhancements via incremental software upgrades. Continued development of follow-on releases/Capability Drops (CD's) will be based upon on prioritized Fleet requirements.

DCGS-N Increment 2 will perform technical analyses and engineering efforts associated with implementation of new technology to enable rapid introduction of new products and technology, to address obsolescence and end of support issues.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: Distributed Common Ground System-Navy (DCGS-N) Increment 2	45.116	0.000	0.000	0.000	0.000
Articles:	1	-	-	-	-
FY 2020 Plans: FY20 funding has been realigned into PE 0304785N Project 2227 as part of PE Consolidation.					
FY 2021 Base Plans: FY21 funding has been realigned into PE 0304785N Project 2227 as part of PE Consolidation.					
FY 2021 OCO Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
N/A					
Accomplishments/Planned Programs Subtotals	45.116	0.000	0.000	0.000	0.000

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN 2914: <i>Distributed Common Ground System-Navy (DCGS-N)</i>	10.219	18.677	18.872	-	18.872	17.457	17.720	18.118	18.483	209.073	603.757
• RDTEN/0304785N/2227: <i>Distributed Common Ground System (DCGS-N) Inc 2</i>	0.000	42.745	26.396	-	26.396	32.063	30.089	31.287	31.994	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Distributed Common Ground System-Navy (DCGS-N) Increment 2 acquisition is based on the Department of Defense Instruction (DODI) 5000.02, Model 3, for incrementally fielded software intensive programs.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Integration Assembly & Test	WR	NIWC PAC : San Diego, CA	43.790	33.635	Oct 2018	0.000		0.000		-		0.000	0.000	77.425	-
Primary Hardware Development	WR	NIWC PAC : San Diego, CA	15.261	2.399	Nov 2018	0.000		0.000		-		0.000	0.000	17.660	-
Software Development	WR	NIWC PAC : San Diego, CA	28.052	0.000		0.000		0.000		-		0.000	0.000	28.052	-
Integration Assembly & Test	WR	NIWC LANT : Charleston, SC	0.000	1.864	Nov 2018	0.000		0.000		-		0.000	0.000	1.864	-
Software Development	WR	NIWC LANT : Charleston, SC	1.635	0.000		0.000		0.000		-		0.000	0.000	1.635	-
Government Technical Oversight (Dev)	WR	NIWC LANT : Charleston, SC	1.189	1.387	Nov 2018	0.000		0.000		-		0.000	0.000	2.576	-
Subtotal			89.927	39.285		0.000		0.000		-		0.000	0.000	129.212	N/A

Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Support	C/CPFF	SAIC : Columbia, MD	3.329	1.741	Mar 2019	0.000		0.000		-		0.000	0.000	5.070	-
Development Support	WR	NIWC LANT : Charleston, SC	0.471	0.171	Nov 2018	0.000		0.000		-		0.000	0.000	0.642	-
Integrated Logistics Support	WR	NIWC LANT : Charleston, SC	0.553	0.053	Nov 2018	0.000		0.000		-		0.000	0.000	0.606	-
Integrated Logistics Support	C/CPFF	SAIC : Columbia, MD	1.875	0.330	Dec 2018	0.000		0.000		-		0.000	0.000	2.205	-
Subtotal			6.228	2.295		0.000		0.000		-		0.000	0.000	8.523	N/A

PE 0305208N: (U)DISTRIBUTED COMMON GROUND/SURFACE
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2
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Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	C/CPFF	SAIC : Columbia, MD	0.682	0.265	Dec 2018	0.000		0.000		-		0.000	0.000	0.947	-
Developmental Test & Evaluation	WR	NIWC LANT : Charleston, SC	0.777	0.561	Nov 2018	0.000		0.000		-		0.000	0.000	1.338	-
Developmental Test & Evaluation	C/CPFF	JITC : Fort Meade, MD	0.900	0.208	Dec 2018	0.000		0.000		-		0.000	0.000	1.108	-
Developmental Test & Evaluation	C/CPFF	COTF : Norfolk, VA	0.806	0.420	Nov 2018	0.000		0.000		-		0.000	0.000	1.226	-
Subtotal			3.165	1.454		0.000		0.000		-		0.000	0.000	4.619	N/A

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Travel	Allot	NAVWAR : San Diego, CA	0.596	0.162	Nov 2018	0.000		0.000		-		0.000	0.000	0.758	-
Government Engineering Support	WR	NIWC LANT : Charleston, SC	0.508	0.200	Nov 2018	0.000		0.000		-		0.000	0.000	0.708	-
Program Management Support	C/CPFF	BAH : San Diego, CA	2.189	1.150	Nov 2018	0.000		0.000		-		0.000	0.000	3.339	-
Program Management Support	WR	NIWC LANT : Charleston, SC	0.940	0.290	Nov 2018	0.000		0.000		-		0.000	0.000	1.230	-
Program Management Support	WR	NIWC PAC : San Diego, CA	0.625	0.280	Nov 2018	0.000		0.000		-		0.000	0.000	0.905	-
Subtotal			4.858	2.082		0.000		0.000		-		0.000	0.000	6.940	N/A

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	104.178	45.116	0.000	0.000	-	0.000	0.000	149.294	N/A

PE 0305208N: (U)DISTRIBUTED COMMON GROUND/SURFACE
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy							Date: February 2020			
Appropriation/Budget Activity 1319 / 7			R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS			Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2				
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks
FY20 and FY21 cost data is provided under PE 0304785N Project 2227.

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2

CLASSIFICATION:				
EXHIBIT R4, Schedule Profile				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROJECT NUMBER AND NAME 2227 Distributed Common Ground System – Navy (DCGS-N) Increment 2		
Fiscal Year	2019			
2227 DCGS-N	1	2	3	4
Acquisition Milestones DCGS-N Increment 2		 DCGS-N Inc 2 FCR 1 FD	 DCGS-N Inc 2 FCR 3 BD	
System Development DCGS-N Increment 2	DCGS-N Inc 2 FCR 2 		DCGS-N Inc 2 FCR 3	
Test & Evaluation Milestones Trident Warrior / Empire Challenge DCGS-N Increment 2 Development and Operational Test		 TW/FoS	 DCGS-N INC 2 FCR 2 Integrated Test (DT/OT)	

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / (U)DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	Project (Number/Name) 2227 / Distributed Common Ground System (DCGS-N) Inc 2

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2227				
DCGS-N Inc 2 FCR-1 Fielding Decision (FD)	2	2019	2	2019
DCGS-N Inc 2 FCR-3 Build Decision (BD)	3	2019	3	2019
DCGS-N Inc 2 FCR-2 Development	1	2019	2	2019
DCGS-N Inc 2 FCR-3 Development	2	2019	4	2019
Trident Warrior/DCGS Family of Systems (FoS) 2019	2	2019	3	2019
DCGS-N Inc 2 FCR-2 Integrated Test (DT/OT)	3	2019	4	2019