Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

Date: May 2017

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational

PE 0305208N I Distributed Common Ground Sys

Systems Development

COST (\$ in Millions)	Prior			FY 2018	FY 2018	FY 2018					Cost To	Total
COST (\$ III MIIIIONS)	Years	FY 2016	FY 2017	Base	oco	Total	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Cost
Total Program Element	203.481	23.149	44.571	46.150	-	46.150	48.207	42.293	36.333	38.158	Continuing	Continuing
2174: Distributed Common Ground System-Navy (DCGS-N)	203.481	1.730	1.637	0.325	-	0.325	0.356	0.274	0.280	0.285	Continuing	Continuing
2227: Distributed Common Ground System (DCGS-N) Inc 2	0.000	21.419	42.934	45.825	-	45.825	47.851	42.019	36.053	37.873	80.800	354.774

Program MDAP/MAIS Code:

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

A. Mission Description and Budget Item Justification

The Distributed Common Ground System - Navy (DCGS-N) is the Navy's portion of the Under Secretary of Defense, Intelligence (USD (I)) DCGS Family of Systems (FoS). The Department of Defense (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. This collected data is shared across a Joint enterprise using the DCGS Integration Backbone (DIB) and in time, the Defense Intelligence Information Enterprise (DI2E) to enhance access and sharing of ISR information across Joint forces through the use of 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 across the full spectrum of operations, including peace, conflict, war, and Overseas Contingency Operations (OCO). DCGS is a cooperative effort between the services, agencies, and DoD to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS-N core components include the Analyst Work Station from the Global Command and Control System (GCCS) - Integrated Imagery and Intelligence (I3), Generic Area Limitation Environment (GALE) Signal Intelligence (SIGINT), Common Geo-positioning Services (CGS), Image Product Library (IPL), Modernized Integrated Database (MIDB), Joint Concentrator Architecture (JCA) and Track Management Services.

The DCGS-N system represents the integration of 1) The processing and exploitation of tactical and Imagery Intelligence (IMINT) and SIGINT; 2) Precision target geopositioning, mensuration, and imagery dissemination capabilities; 3) Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); and 4) Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) and Command and Control information via DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers (e.g., Global Command and Control System - Maritime (GCCS-M)), Joint Mission Planning System (JMPS), and many others.

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 ensures compliance with the DoD DCGS network architecture.

The Navy is establishing an ISR Enterprise way ahead that will emphasize a reach back strategy to provide intelligence products to support deployed ship and shore operations. The Navy will also migrate to a Service Oriented Architecture (SOA) that requires the development, integration, and testing of a Maritime ISR Enterprise

PE 0305208N: Distributed Common Ground Sys

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

Date: May 2017

Appropriation/Budget Activity

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development

R-1 Program Element (Number/Name)

PE 0305208N I Distributed Common Ground Sys

capability, development and migration of ISR SOA applications, and development and integration to leverage a Common Computing Environment (CCE) and the Intelligence Community Information Technology Enterprise (IC ITE). Distributed Common Ground System - Navy (DCGS-N) will also become the focal point for migration of Maritime Domain Awareness (MDA) fusion and analysis Maritime Fusion & Analysis (MFAS) tool applications for the Navy. Additionally, ISR systems will play key roles in enabling the national-to-tactical integration necessary for an integrated maritime targeting capability in support of kinetic and non-kinetic fires.

Distributed Common Ground System-Navy (DCGS-N) Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide MDA capabilities and integrate TCPED capabilities to improve the use and analysis of sensor and platform data. DCGS-N Increment 2 will be based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases. The first release provides an enhanced Navy ISR enterprise that converges and builds on the DCGS-N Increment 1 and Maritime Domain Awareness Enterprise Nodes; leverages the Defense Intelligence Information Enterprise (DI2E); is compliant with the Common Computing Environment (CCE) and the IC ITE; federates ISR and TCPED workflow and production improving throughout the automation; exploits new and evolving unmanned systems sensor data; provides Multi-Intelligence (Multi-INT) cross-queuing and modular tools. The second release enhances afloat ISR capabilities by providing a set of software centric tools providing Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. Follow-on releases will be developed based on Fleet requirements.

In FY18, DCGS-N Increment 1 will continue supporting development, integration and regression testing required to align with emerging national imagery standards for tech refreshes and End-of-Life Upgrades.

In FY18, DCGS-N Increment 2 will complete development of Fleet Capability Release 1 (FCR-1) which comprises the ashore backbone of the Navy's Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) enterprise and will contain enterprise data and analytics and synchronize the Common Intelligence Picture across the Fleet. This portion of the DCGS-N Increment 2 system will support future test events. At the conclusion of development of FCR-1 the program will conduct an In Progress Test Review and integrated test of the of the FCR-1 build including rigorous cyber security testing culminating in a Fielding Technical Review to support the FCR-1 Fielding Decision Review in FY19. The program will begin planning for FCR-2 including developing the Requirements Definition Package (RDP), preparing for the Build Technical Review, and Build Decision. DGCS-N Increment 2 will begin Passive Targeting Efforts leveraging Office of Naval Research (ONR) Electromagnetic Battle Management (EMBM) Future Naval Capabilities (FNC) to network and fuse passive targeting data.

PE 0305208N: Distributed Common Ground Sys

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development

PE 0305208N / Distributed Common Ground Sys

FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
23.149	44.571	36.301	-	36.301
23.149	44.571	46.150	-	46.150
0.000	0.000	9.849	-	9.849
-	-			
-	-			
-	-			
-	-			
-	-			
-	-			
-	-			
0.000	0.000	9.200	-	9.200
0.000	0.000	0.649	-	0.649
	23.149 23.149 0.000 - - - - - - - - 0.000	23.149 44.571 23.149 44.571 0.000 0.000	23.149	23.149

Change Summary Explanation

Technical: Distributed Common Ground System - Navy (DCGS-N) Increment 2 (\$5.83M) program adjustment was added via tech change from within PE 0305208N to fund the program to the approved Component Cost Position (CCP) and updated schedule. Also, an increase (\$4M) for Passive Targeting Efforts leveraging Office of Naval Research (ONR) Electromagnetic Battle Management (EMBM) Future Naval Capabilities (FNC) to network and fuse passive targeting data.

Schedule: 1) DCGS-N Increment 2's development, milestones, and fielding have been updated to reflect a Milestone B approved schedule.

PE 0305208N: Distributed Common Ground Sys Navy

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy													
Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)										Number/Name) htributed Common Ground System- GS-N)			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
2174: Distributed Common Ground System-Navy (DCGS-N)	203.481	1.730	1.637	0.325	-	0.325	0.356	0.274	0.280	0.285	Continuing	Continuing	
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-			
Project MDAP/MAIS Code: MN4	0												

A. Mission Description and Budget Item Justification

The Distributed Common Ground System - Navy (DCGS-N) is the Navy's portion of the Under Secretary of Defense, Intelligence (USD (I)) DCGS Family of Systems (FoS). The Department of Defense (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. This collected data is shared across a Joint enterprise using the DCGS Integration Backbone (DIB) and in time, the Defense Intelligence Information Enterprise (DI2E) to enhance access and sharing of ISR information across Joint forces through the use of 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 across the full spectrum of operations, including peace, conflict, war, and Overseas Contingency Operations (OCO). DCGS is a cooperative effort between the services, agencies, and DoD to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS-N core components include the Analyst Work Station from the Global Command and Control System (GCCS) - Integrated Imagery and Intelligence (I3), Generic Area Limitation Environment (GALE) Signal Intelligence (SIGINT), Common Geo-positioning Services (CGS), Image Product Library (IPL), Modernized Integrated Database (MIDB), Joint Concentrator Architecture (JCA) and Track Management Services.

The DCGS-N system represents the integration of 1) The processing and exploitation of tactical and Imagery Intelligence (IMINT) and SIGINT; 2) Precision target geopositioning, mensuration, and imagery dissemination capabilities; 3) Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); and 4) Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) and Command and Control information via DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers (e.g., Global Command and Control System - Maritime (GCCS-M)), Joint Mission Planning System (JMPS), and many others.

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 ensures compliance with the DoD DCGS network architecture.

The Navy is establishing an ISR Enterprise way ahead that will emphasize a reach back strategy to provide intelligence products to support deployed ship and shore operations. The Navy will also migrate to a Service Oriented Architecture (SOA) that requires the development, integration, and testing of a Maritime ISR Enterprise capability, development and migration of ISR SOA applications, and development and integration to leverage a Common Computing Environment (CCE) and the Intelligence Community Information Technology Enterprise (IC ITE). Additionally, DCGS-N will become the focal point for migration of Maritime Domain Awareness (MDA) fusion and analysis Maritime Fusion & Analysis (MFAS) tool applications for the Navy.

PE 0305208N: Distributed Common Ground Sys

Navy

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy			Date: May 2017
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / Distributed Common Ground Sys	- , (umber/Name) tributed Common Ground System- GS-N)

Distributed Common Ground System - Navy (DCGS-N) Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. Distributed Common Ground System-Navy (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 improve the use and analysis of sensor and platform data. DCGS-N Increment 2 will be based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases. The first release provides an enhanced Navy Intelligence, Surveillance and Reconnaissance (ISR) enterprise that converges and builds on the DCGS-N Increment 1 and Maritime Domain Awareness Enterprise Nodes; leverages the Defense Intelligence Information Enterprise (DI2E); is compliant with the Common Computing Environment (CCE) and the Intelligence Community Information Technology Enterprise (IC ITE); federates ISR and TCPED workflow and production improving throughout the automation; exploits new and evolving unmanned systems sensor data; provides Multi-Intelligence (Multi-INT) cross-queuing and modular tools. The second release enhances afloat ISR capabilities by providing a set of software centric tools providing Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed

In FY18, DCGS-N Increment 1 will continue supporting development, integration and regression testing required to align with emerging national imagery standards for tech refreshes and End-of-Life Upgrades.

1		FY 2018	FY 2018	FY 2018
FY 2016	FY 2017	Base	oco	Total
1.730	1.637	0.325	0.000	0.325
-	-	-	-	-
	1.730	1.730 1.637	FY 2016 FY 2017 Base 1.730 1.637 0.325	1.730 1.637 0.325 0.000

PE 0305208N: Distributed Common Ground Sys

Navy

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R-1 Line #240

EV 0040 EV 0040 EV 0040

Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May	2017	
Appropriation/Budget Activity 1319 / 7	Project (Number/Name) 2174 I Distributed Common Ground Sy Navy (DCGS-N)					
B. Accomplishments/Planned Programs (\$ in Millions, Article	e Quantities in Each <u>)</u>	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
In FY18, DCGS-N Increment 1 will continue supporting developed to align with emerging national imagery standards for tech refres						
FY 2018 OCO Plans: N/A						

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

			FY 2018	FY 2018	FY 2018					Cost To	
Line Item	FY 2016	FY 2017	Base	OCO	<u>Total</u>	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Total Cost
OPN 2914: Distributed Common	31.809	24.676	13.790	6.392	20.182	13.005	10.995	23.107	16.472	242.100	589.983
Ground System-Navy (DCGS-N)											

Accomplishments/Planned Programs Subtotals

Remarks

Navy

0305208N/2914 is a shared PE with Distributed Common Ground System-Navy (DCGS-N) Increment 1, Increment 2, and Intelligence Carry-On Program (ICOP)

D. Acquisition Strategy

DCGS-N program utilizes 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's Prime Mission Product (PMP) contract.

E. Performance Metrics

DCGS-N Increment 1 Goal: Meet national imagery standards.

DCGS-N Increment 1 Metric: Support development, integration and regression testing required to align with emerging national imagery standards.

PE 0305208N: Distributed Common Ground Sys

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R-1 Line #240

1.730

1.637

0.325

0.000

0.325

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)
PE 0305208N / Distributed Common
Ground Sys

Project (Number/Name)
2174 / Distributed Common Ground System-Navy (DCGS-N)

Product Developmen	nt (\$ in M	illions)		FY 2	2016	FY 2	2017		FY 2018 FY 2018 Base OCO		FY 2018 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	Total Cost	Target Value of Contract
Product Development Prior Years	Various	Various : Various	77.345	0.000		0.000		0.000		-		0.000	0.000	77.345	-
Systems Engineering	WR	SSC LANT : Charleston, SC	11.942	0.200	Nov 2015	0.181	Nov 2016	0.150	Nov 2017	-		0.150	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	SETA SAIC : Columbia, MD	9.210	0.000		0.000		0.000		-		0.000	0.000	9.210	-
Systems Engineering	WR	SSC PAC : San Diego, CA	11.027	0.000		0.000		0.000		-		0.000	0.000	11.027	-
Integration Assembly & Test	C/CPFF	BAE : Rancho Bernardo, CA	0.000	0.600	Nov 2015	0.000		0.000		-		0.000	0.000	0.600	-
Integration Assembly & Test	WR	SSC PAC : San Diego, CA	0.000	0.150	Nov 2015	0.100	Nov 2016	0.000		-		0.000	0.000	0.250	-
Integration Assembly & Test	C/CPFF	NSWC China Lake : China Lake, CA	0.000	0.000		0.600	Jun 2017	0.100	Nov 2017	-		0.100	0.000	0.700	-
Primary Hardware Development	WR	SSC PAC : San Diego, CA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	-
Software Development	C/CPFF	BAE : Rancho Bernardo, CA	2.460	0.000		0.000		0.000		-		0.000	0.000	2.460	-
Software Development	WR	SSC PAC : San Diego, CA	7.625	0.000		0.000		0.000		-		0.000	0.000	7.625	-
Licenses	WR	SSC PAC : San Diego, CA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
Government Technical Oversight (Dev)	WR	SSC LANT : Charleston, SC	0.000	0.200	Nov 2015	0.191	Nov 2016	0.075	Nov 2017	-		0.075	0.000	0.466	-
		Subtotal	121.209	1.150		1.072		0.325		-		0.325	-	-	-

Support (\$ in Million	Support (\$ in Millions)			FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	Total Cost	Target Value of Contract
Support Prior Years	Various	Various : Various	35.073	0.000		0.000		0.000		-		0.000	0.000	35.073	-

PE 0305208N: Distributed Common Ground Sys Navy UNCLASSIFIED
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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0305208N / Distributed Common

Ground Sys

Date: May 2017

Project (Number/Name)

2174 I Distributed Common Ground System-

Navy (DCGS-N)

Support (\$ in Millions	lillions)			FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Development Support	C/CPFF	SETA SAIC : Columbia, MD	4.281	0.000		0.000		0.000		-		0.000	0.000	4.281	-
Development Support	WR	SSC LANT : Charleston, SC	1.480	0.200	Nov 2015	0.185	Nov 2016	0.000		-		0.000	0.000	1.865	-
Development Support	WR	SSC PAC : San Diego, CA	1.200	0.000		0.000		0.000		-		0.000	0.000	1.200	-
Integrated Logistics Support	WR	SSC PAC : San Diego, CA	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	-
Integrated Logistics Support	C/CPFF	SETA SAIC : Columbia, MD	1.450	0.000		0.000		0.000		-		0.000	0.000	1.450	-
Configuration Management	WR	SSC PAC : San Diego, CA	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	-
		Subtotal	45.384	0.200		0.185		0.000		-		0.000	0.000	45.769	-

Test and Evaluation	(\$ in Milli	ons)	FY 2016			2016 FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	Total Cost	Target Value of Contract
Test & Evaluation Prior Years	Various	Various : Various	19.103	0.000		0.000		0.000		-		0.000	0.000	19.103	_
Developmental Test & Evaluation	WR	SSC LANT : Charleston, SC	2.447	0.300	Nov 2015	0.300	Nov 2016	0.000		-		0.000	0.000	3.047	-
Operational Test & Evaluation	C/CPFF	COTF : Norfolk, VA	0.120	0.000		0.000		0.000		-		0.000	0.000	0.120	-
Developmental Test & Evaluation	WR	SSC PAC : San Diego, CA	3.500	0.000		0.000		0.000		-		0.000	0.000	3.500	-
Developmental Test & Evaluation	C/CPFF	COTF : Norfolk, VA	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	-
		Subtotal	25.870	0.300		0.300		0.000		-		0.000	0.000	26.470	-

PE 0305208N: Distributed Common Ground Sys Navy UNCLASSIFIED
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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy		Date: May 2017
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 7	PE 0305208N I Distributed Common	2174 I Distributed Common Ground System-
	Ground Sys	Navy (DCGS-N)

lanagement Services (\$ in Millions)			FY 2018 FY 2016 FY 2017 Base		FY 2		FY 2018 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
Management Services Prior Years	Various	Various : Various	3.374	0.000		0.000		0.000		-		0.000	0.000	3.374	-
Travel	Allot	SPAWAR : San Diego, CA	0.839	0.000		0.000		0.000		-		0.000	0.000	0.839	-
Government Engineering Support	WR	SSC LANT : Charleston, SC	1.484	0.080	Nov 2015	0.080	Nov 2016	0.000		-		0.000	0.000	1.644	-
Program Management Support	C/CPFF	PSS BAH : San Diego, CA	5.321	0.000		0.000		0.000		-		0.000	0.000	5.321	-
		Subtotal	11.018	0.080		0.080		0.000		-		0.000	0.000	11.178	-

	Prior Years	FY 2	016	FY 2	2017	FY 2 Ba	2018 se	FY 2018 OCO	FY 2018 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	203.481	1.730		1.637		0.325		-	0.325	-	-	-

Remarks

PE 0305208N: *Distributed Common Ground Sys* Navy

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Exhibit R-4, RDT&E Sched		3 Navy			1	Date: May 2				
Appropriation/Budget Activ 319 / 7	vity			rram Element (Num 208N <i>I Distributed C</i> Sys		Project (Number/Name) 2174 I Distributed Common Ground System Navy (DCGS-N)				
CLASSIFICATION:										
EXHIBIT R4, Schedule Profile	DATE:									
	Mar-17									
APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBER AND	NAME								
RDT&E, N / BA-7	2174 Distributed Common	Ground System - Navy (DCG	S-N)							
Fiscal Year 2174 DCGS-N	2016	2017	2018	2019	2020	2021	2022			
	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			
Production										
DCGS-N Increments 1 Tech Refresh	FOL/ECP/FC As Req	FOL/ECP/FC As Req	FOL/ECP/FC As Req	FOL/ECP/FC As Req	FOL/ECP/FC As Req	FOL/ECP/FC As Req				

PE 0305208N: *Distributed Common Ground Sys* Navy

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy			Date: May 2017
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / Distributed Common Ground Sys	- , (umber/Name) tributed Common Ground System- GS-N)

Schedule Details

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 2174					
DCGS-N Inc 1 Tech Refresh	1	2016	4	2021	

Exhibit R-2A, RDT&E Project Ju			Date: May	2017									
Appropriation/Budget Activity 1319 / 7						, , , , , ,					umber/Name) tributed Common Ground System Inc 2		
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
2227: Distributed Common Ground System (DCGS-N) Inc 2	0.000	21.419	42.934	45.825	-	45.825	47.851	42.019	36.053	37.873	80.800	354.774	
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-			

Project MDAP/MAIS Code: M464

Note

Navy

Cost-To-Complete reflects Distributed Common Ground System - Navy (DCGS-N) Increment 2 only. DCGS-N Increment 2 reflects Department of Navy Component Cost Position (CCP).

A. Mission Description and Budget Item Justification

DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities and integrate TCPED capabilities to improve the use and analysis of sensor and platform data. DCGS-N Increment 2 will be based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases. The first release provides an enhanced Navy ISR enterprise that converges and builds on the DCGS-N Increment 1 and Maritime Domain Awareness Enterprise Nodes; leverages the Defense Intelligence Information Enterprise (DI2E); is compliant with the Common Computing Environment (CCE) and the Intelligence Community Information Technology Enterprise (IC ITE); federates ISR and TCPED workflow and production improving throughout the automation; exploits new and evolving unmanned systems sensor data; provides Multi-Intelligence (Multi-INT) cross-queuing and modular tools. The second release enhances afloat ISR capabilities by providing a set of software centric tools providing Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. Follow-on releases will be developed based on Fleet requirements.

In FY18, DCGS-N Increment 2 will complete development of Fleet Capability Release 1 (FCR-1); conduct an In Progress Test Review, and integrated test of the FCR-1 build including rigorous cyber security testing. The program will begin planning for FCR-2 including developing the Requirements Definition Package, preparing for the Build Technical Review, and Build Decision. DGCS-N Increment 2 will begin Passive Targeting Efforts leveraging Office of Naval Research (ONR) Electromagnetic Battle Management (EMBM) Future Naval Capabilities (FNC) to network and fuse passive targeting data.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: DCGS-N Increment 2	21.419	42.934	45.825	0.000	45.825
Articles	: -	-	1	-	1

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy			Date: May	2017			
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/ PE 0305208N / Distributed Comm Ground Sys		Project (Number/Name) 2227 I Distributed Common Ground (DCGS-N) Inc 2				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantitie	s in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
FY 2016 Accomplishments: Distributed Common Ground System - Navy (DCGS-N) Increment 2 comple Counsel (JROC) review and approval of the Information System Capability I The program successfully completed Milestone A (MS A), Development Rec Review, and Milestone B (MS B). Program successfully completed demonst (FCR-0) in support of the Program Executive Officer, Command, Control, Co Intelligence (PEO C4I) prototype.	Development Document (IS CDD). quest For Proposal (RFP) Decision ration of Fleet Capability Release-0						
FY 2017 Plans: DCGS-N Increment 2 begins integration and development of Fleet Capabilities center on integrating Maritime Domain Awareness capabilities into DCGS-N efforts include maritime object of interest track data management, correlation maritime objects of interest, recognition of patterns of life from maritime object automate collection target area prediction; all with rigorous cyber security er capability. DCGS-N Increment 2 will award the Enterprise Integration Contra capacity requirements of the Government Lead Systems Integrator for the reintegration and of FCR-2 and beyond.	I Increment 2. Other development n of limited data sources to ects of interest historical data, mbedded into each facet of the act to fulfill the capability and						
PY 2018 Base Plans: DCGS-N Increment 2 will complete development of FCR-1 which comprises Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) enterprise and analytics and synchronize the Common Intelligence Picture across the Increment 2 system will support future test events. DCGS-N Increment 2 will Qualification Testing (EQT). At the conclusion of development of FCR-1 the Test Review and integrated test of the of the FCR-1 build including rigorous in a Fielding Technical Review to support the FCR-1 Fielding Decision Review efforts include maritime object of interest track data management, correlation objects of interest, recognition of patterns of life from maritime objects of intercollection target area prediction; all with rigorous cyber security embedded in DCGS-N Increment 2 will continue to develop a standard software baseline (FoS). DCGS-N will begin development and integration efforts to fuse ISR& disseminated by ISR systems with other intelligence data and automatically systems to support kinetic and non-kinetic fires and more effective exploitation.	te and will contain enterprise data Fleet. This portion of the DCGS-N I develop 1 unit for Environmental program will conduct an In Progress cyber security testing culminating ew in FY19. Other development n of limited data sources to maritime erest historical data, automate into each facet of the capability. for the DCGS Family of Systems T data collected, exploited and provide to shipboard combat						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy			Date: May 2017
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305208N / Distributed Common Ground Sys	- , (umber/Name) tributed Common Ground System Inc 2

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
ISR systems will play key roles in enabling the national-to-tactical integration necessary for an integrated maritime targeting capability in support of kinetic and non-kinetic fires. DCGS-N Increment 2 will begin planning for FCR-2 including approval of the Requirements Definition Package, Build Technical Review, and Build Decision. DCGS-N Increment 2 will begin establishing Electromagnetic Battle Management (EMBM) Future Naval Capabilities (FNC) to network and fuse passive targeting data. Passive Targeting efforts include the transition to cloud architecture, development and enhancement of data models to ensure interoperability and compatibility with Intelligence Community (IC) and the install and test of developed capabilities. Distributed Common Ground System-Navy (DCGS-N) Increment 2 will continue to develop statutory/regulatory acquisition and training documentation as required.					
FY 2018 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	21.419	42.934	45.825	0.000	45.825

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

			FY 2018	FY 2018	FY 2018					Cost To	
<u>Line Item</u>	FY 2016	FY 2017	Base	OCO	<u>Total</u>	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Total Cost
OPN 2914: Distributed Common	31.809	24.676	13.790	6.392	20.182	13.005	10.995	23.107	16.472	242.100	589.983
Ground System-Navy (DCGS-N)											

Remarks

0305208N/2914 is a shared PE with Distributed Common Ground System - Navy (DCGS-N) Increment 1, Increment 2, and Intelligence Carry-On Program (ICOP).

D. Acquisition Strategy

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

E. Performance Metrics

DCGS-N Increment 2 Goal: Support afloat forces through a robust enterprise Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) capability, satisfying maritime needs for processing, exploitation, and dissemination.

DCGS-N Increment 2 Metric: Complete development of Fleet Capability Release 1 (FCR-1) and begin development of FCR 2.

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Navy

Appropriation/Budget Activity

1319*I* 7

R-1 Program Element (Number/Name)

PE 0305208N / Distributed Common Ground Sys

Project (Number/Name)

2227 I Distributed Common Ground System

Date: May 2017

(DCGS-N) Inc 2

Product Developme	nt (\$ in M	illions)		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	Total Cost	Target Value of Contract
Integration Assembly & Test	WR	SSC PAC : San Diego, CA	0.000	5.239	Oct 2015	8.871	Oct 2016	36.382	Oct 2017	-		36.382	0.000	50.492	-
Primary Hardware Development	WR	SSC PAC : San Diego, CA	0.000	2.833	Oct 2015	8.648	Oct 2016	2.735	Oct 2017	-		2.735	0.000	14.216	-
Software Development	WR	SSC PAC : San Diego, CA	0.000	8.723	Oct 2015	19.329	Oct 2016	0.000		-		0.000	0.000	28.052	-
Integration Assembly & Test	C/CPFF	Unknown : Unknown	0.000	0.000		0.000		0.125	Jul 2018	-		0.125	204.637	204.762	-
Software Development	WR	SSC LANT : Charleston, SC	0.000	0.504	Oct 2015	1.131	Oct 2016	0.000		-		0.000	0.000	1.635	-
Government Technical Oversite (Dev)	WR	SSC LANT : Charleston, SC	0.000	0.126	Oct 2015	0.283	Oct 2016	1.030	Oct 2017	-		1.030	0.000	1.439	-
		Subtotal	0.000	17.425		38.262		40.272		-		40.272	204.637	300.596	-

Support (\$ in Million	ıs)			FY 2	2016	FY 2	2017	FY 2 Ba	2018 ise	FY 2		FY 2018 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	Total Cost	Target Value of Contract
Development Support	C/CPFF	SETA SAIC : Columbia, MD	0.000	0.600	Dec 2015	0.688	Dec 2016	1.205	Dec 2017	-		1.205	0.000	2.493	-
Development Support	WR	SSC LANT : Charleston, SC	0.000	0.150	Oct 2015	0.150	Oct 2016	0.120	Oct 2017	-		0.120	13.622	14.042	-
Integrated Logistics Support	WR	SSC LANT : Charleston, SC	0.000	0.250	Oct 2015	0.250	Oct 2016	0.000		-		0.000	0.000	0.500	-
Integrated Logistics Support	C/CPFF	SETA SAIC : Columbia, MD	0.000	0.720	Dec 2015	0.825	Dec 2016	1.065	Dec 2017	-		1.065	0.000	2.610	-
		Subtotal	0.000	1.720		1.913		2.390		-		2.390	13.622	19.645	-

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Exhibit R-3, RDT&E	Project C	ost Analysis: FY 2	018 Navy	/								Date:	May 2017	,	
Appropriation/Budge 1319 / 7	et Activity	1					ogram Ele 5208N / E / Sys				2227 / [(Number Distributed -N) Inc 2	r/ Name) d Common	Ground	' System
Test and Evaluation	(\$ in Milli	ons)		FY 2	2016	FY 2	2017		2018 ise		2018 CO	FY 2018 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	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC LANT : Charleston, SC	0.000	0.250	Oct 2015	0.287	Oct 2016	0.910	Oct 2017	-		0.910	15.416	16.863	-
Developmental Test & Evaluation	WR	SSC PAC : San Diego, CA	0.000	0.800	Oct 2015	0.917	Oct 2016	0.500	Oct 2017	-		0.500	0.000	2.217	-
Developmental Test & Evaluation	C/CPFF	COTF : Norfolk, VA	0.000	0.200	Nov 2015	0.386	Nov 2016	0.200	Nov 2017	-		0.200	0.000	0.786	-
		Subtotal	0.000	1.250		1.590		1.610		-		1.610	15.416	19.866	-
Management Service	es (\$ in M	illions)		FY 2	2016	FY 2	2017		2018 ise		2018 CO	FY 2018 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	Total Cost	Target Value of Contract
Travel	Allot	SPAWAR : San Diego, CA	0.000	0.100	Nov 2015	0.206	Nov 2016	0.240	Nov 2017	-		0.240	0.000	0.546	-
Government Engineering Support	WR	SSC LANT : Charleston, SC	0.000	0.154	Nov 2015	0.154	Nov 2016	0.388	Nov 2017	-		0.388	0.000	0.696	-
Program Management Support	C/CPFF	PSS BAH : San Diego, CA	0.000	0.270	Nov 2015	0.309	Nov 2016	0.400	Nov 2017	-		0.400	0.000	0.979	-
Program Management Support	WR	SSC LANT : Charleston, SC	0.000	0.300	Oct 2015	0.300	Oct 2016	0.300	Oct 2017	-		0.300	8.847	9.747	-
Program Management Support	WR	SSC PAC : San Diego, CA	0.000	0.200	Oct 2015	0.200	Oct 2016	0.225	Oct 2017	-		0.225	0.000	0.625	-
		Subtotal	0.000	1.024		1.169		1.553		-		1.553	8.847	12.593	-
			Prior Years	FY 2	2016	FY :	2017		2018 ise		2018 CO	FY 2018 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	0.000	21.419		42.934		45.825				45.825	242.522	352.700	İ

Remarks

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XHIBIT R4, Schedule Profile	DATE																											_
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RDT&E, N / BA-7	2227	Distribu	ited Cor	mmon (round:	System	– Navy	(DCGS	S-N)																			
Fiscal Year	2016	5			2017				2018				2019				2020				2021				2022			_
227 DCGS-N	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
Acquisition Milestones	In	e 2 MS		Inc 2 M FCR 1								\Diamond	F	Inc 2 CR 1 F	D I		F	Inc 2 CR 2 F	P		ı	Inc 2 FCR 3 F	D	Inc 2 FDDR		Ir	oc 2 4 FD	
CGS-N Increment 2		Inc 2 CCP	Decis	opment sion Re-	RFP view				,	Inc 2 FCR 2 I	1	enterpri ntegrati Contrac	on	Inc FCR	2				Inc 2 R 4 BD			I:	ne 2 R 5 BD					
Prototype Phase	+	\vdash						\vdash		\vdash	\vdash											\vdash				$\overline{}$	\dashv	_
CGS-N Increment 2	D PEC	CGS-N C4I Pr	Inc 2																									
System Development	\top			1		DC	GS-N I	ne 2 FC	R 1		$\overline{}$				Ļ													_
DCGS-N Increment 2											DC	GS-N In	e 2 FC	R2 >	DCG	iS-N In	e 2 FCF	R 3 >	DCC	iS-N In	e 2 FC	R 4					.	
Test & Evaluation Milestones	+	+-						_															DCG	S-N Inc	2 FCR	5		_
rident Warrior / Empire Challenge		TW/Fo	oS Inc 2	! 		TW/F	S Inc 2	 - 		TW/Fe	S Inc 2			TW/Fo	S Inc 2			TW/Fe	S Inc 2			TW/Fo	S Inc 2			TW/FoS	Inc 2	
OCGS-N Increment 2																					\Diamond	\Diamond						
evelopment and Operational Test											DCGS	-N INC	2	1	DCGS-N	N INC :	2		DCGS	i	Inc 2 DT&E	Inc 2 IOT&	E	D	CGS-N	INC 2		
Production	+	_								FC	CR 1 Int	ergated	Test	FCF	2 Inte	grated 7	Test	FC	R 3 Into	egration	Test	$\vdash \vdash$	-	FCR	4 Integr	rated Te	st	_
DCGS-N Increment 2																												
	İ	İ						İ		İ	İ												İ	İ	Inc 2 S	Systems	İ	

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy			Date: May 2017
Appropriation/Budget Activity 1319 / 7	, ,	- , (umber/Name) tributed Common Ground System Inc 2

Schedule Details

	Sta	End			
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 2227					
Trident Warrior/DCGS Family of Systems Inc 2 2016	2	2016	3	2016	
Trident Warrior/DCGS Family of Systems Inc 2 2017	2	2017	3	2017	
Trident Warrior/DCGS Family of Systems Inc 2 2018	2	2018	3	2018	
Trident Warrior/DCGS Family of Systems Inc 2 2019	2	2019	3	2019	
Trident Warrior/DCGS Family of Systems Inc 2 2020	2	2020	3	2020	
DCGS-N Inc 2 FCR-1 Development	1	2017	2	2018	
DCGS-N Inc 2 FCR-2 Development	2	2018	2	2019	
DCGS-N Inc 2 FCR-3 Development	2	2019	2	2020	
DCGS-N Inc 2 Release 1 Build Decision (MS B)	4	2016	4	2016	
DCGS-N Inc 2 Procurement	1	2020	4	2022	
DCGS-N Inc 2 FCR-1 Fielding Decision	2	2019	2	2019	
DCGS-N Inc 2 FCR-2 Build Decision	2	2018	2	2018	
DCGS-N Inc 2 FCR-3 Build Decision	2	2019	2	2019	
DCGS-N Inc 2 IOT&E	2	2021	2	2021	
DCGS-N Inc 2 FCR-2 Fielding Decision	2	2020	2	2020	
DCGS-N Inc 2 FCR-3 Fielding Decision	2	2021	2	2021	
DCGS-N Inc 2 FCR-0 PEO C4I Prototype	1	2016	3	2016	
DCGS-N Inc 2 FCR-1 Integrated Test	3	2018	4	2018	
DCGS-N Inc 2 FCR-2 Integrated Test	3	2019	4	2019	
DCGS-N Inc 2 FCR-3 Integrated Test	3	2020	4	2020	
DCGS-N Inc 2 FCR-4 Development	2	2020	2	2021	

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Navy Date: May 2017					
· · · ·	R-1 Program Element (Number/Name) PE 0305208N / Distributed Common Ground Sys	,	umber/Name) tributed Common Ground System Inc 2		

	Sta	Start				
Events by Sub Project	Quarter	Year	Quarter	Year		
DCGS-N Inc 2 FCR-4 Build Decision	3	2020	3	2020		
DCGS-N Inc 2 TEMP	4	2016	4	2016		
DCGS-N Inc 2 IS-CDD	2	2016	2	2016		
DCGS-N Inc 2 DEV RFP Decision	4	2016	4	2016		
DCGS-N Inc 2 CCP	2	2016	2	2016		
DCGS-N Inc 2 FDDR	4	2021	4	2021		
DCGS-N Inc 2 FCR-5 Build Decision	3	2021	3	2021		
DCGS-N Inc 2 FCR-5 Development	2	2021	2	2022		
DCGS-N Inc 2 MS A	2	2016	2	2016		
DCGS-N Inc 2 DT&E	1	2021	1	2021		
Trident Warrior/DCGS Family of Systems Inc 2 2021	2	2021	3	2021		
Trident Warrior/DCGS Family of Systems Inc 2 2022	2	2022	3	2022		
DCGS-N Inc 2 FCR-4 Integrated Test	1	2022	2	2022		
Enterprise Integration Contract	4	2018	4	2018		
DCGS-N Inc 2 FCR-4 Fielding Decision	3	2022	3	2022		