Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy	Date: March 2023
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204460M *I Ground/Air Task Oriented Radar (G/ATOR)*

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	522.787	43.761	61.104	92.674	-	92.674	54.414	23.585	16.026	16.347	Continuing	Continuing
9999: *Congressional Adds*	0.000	23.168	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	23.168
9C89: *Marine Ground-Air Radar*	522.787	20.593	61.104	92.674	-	92.674	54.414	23.585	16.026	16.347	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 386

A. Mission Description and Budget Item Justification

The Ground/Air Task Oriented Radar (G/ATOR) is a multi-role, ground-based, expeditionary 3D radar system employed by both the Air Combat Element and Ground Combat Element within the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/Counter Battery capabilities. G/ATOR provides mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles, unmanned aerial systems, rockets, artillery and mortars, and the cueing of air defense weapons. G/ATOR contributes to Littoral Operations in a Contested Environment and Expeditionary Advanced Base Operations by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals and participating in a cooperative engagement network of sensors and shooters. G/ATOR enables integrated fire control (IFC) and provides engage/fire on remote capability. G/ATOR surveillance coverage with IFC will provide unprecedented reach, volume, and precision in the execution of Operational Maneuver From The Sea allowing Naval forces to project and sustain power deep inland. G/ATOR is the primary ground-based sensor for the United States Marine Corps, and is the only air defense/air surveillance radar currently in the Marine Corps inventory.

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	45.221	61.422	52.016	-	52.016
Current President's Budget	43.761	61.104	92.674	-	92.674
Total Adjustments	-1.460	-0.318	40.658	-	40.658
• Congressional General Reductions	-	-0.318			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.460	0.000			
• Program Adjustments	0.000	0.000	54.965	-	54.965
• Rate/Misc Adjustments	0.000	0.000	-14.307	-	-14.307

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy	Date: March 2023
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204460M *I Ground/Air Task Oriented Radar (G/ATOR)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2022	FY 2023
Project: 9999: *Congressional Adds*		
Congressional Add: *AN/TPS-80 G/ATOR Naval Integrated Fire Control*	11.584	0.000
Congressional Add: *AN/TPS-80 G/ATOR Radar Signal Processor Refresh*	11.584	0.000
Congressional Add Subtotals for Project: 9999	23.168	0.000
Congressional Add Totals for all Projects	23.168	0.000

Change Summary Explanation

RDT&E funding increases $31.570M from FY 2023 to FY 2024 in order to continue to support the development and integration of software required to implement the full spectrum of Naval Integrated Fire Control, the development of a new Radar Signal Processor (RSP), replacing a 2007 vintage RSP, the continuation of the Ground Weapons Locating Radar user improvements identified during DT/OT and IOT&E testing, Multi-Domain Radar in a Contested Environment (MuDRaCE), as well as, the initiation of a new Digital Receiver/Exciter (DREX), Mode S, a Radar Tracker Software Enhancement (RTSE), and G/ATOR Block IV (GB4) Air Traffic Control development, while continuing to pursue software capability improvements providing both low, slow, small target detection and non-cooperative target recognition.

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	Project (Number/Name) 9999 / *Congressional Adds*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	23.168	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	23.168
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Ground/Air Task Oriented Radar (G/ATOR) is a critical CMC Force Design program. G/ATOR is a multi-role, ground-based, expeditionary 3D radar system employed by both the Air Combat Element (ACE) and Ground Combat Element (GCE) within the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/Counter Battery capabilities. G/ATOR provides mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles, Unmanned Aerial Systems (UAS), Rockets, Artillery and Mortars, and the cueing of air defense weapons. G/ATOR contributes to Littoral Operations in a Contested Environment (LOCE) and Expeditionary Advanced Base Operations (EABO) by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals and participating in a cooperative engagement network of sensors and shooters. G/ATOR enables integrated fire control (IFC) and provides engage/fire on remote capability. G/ATOR surveillance coverage with IFC will provide unprecedented reach, volume, and precision in the execution of Operational Maneuver From The Sea allowing Naval forces to project and sustain power deep inland. G/ATOR is the primary Ground-Based sensor for the United States Marine Corps and is the only Air Defense/Air Surveillance radar currently in the Marine Corps inventory.

Due to an FY 2022 Congressional add, RDT&E funding decreases by $23.168M from FY 2022 to FY 2023. FY 2022 funding initiates the development and integration of software required to implement the full spectrum of Naval Integrated Fire Control (NIFC) and the development of a new Radar Signal Processor (RSP), replacing a 2007 vintage RSP.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023
Congressional Add: AN/TPS-80 G/ATOR Naval Integrated Fire Control ***FY 2022 Accomplishments:*** Initiates the first year of software development necessary for all G/ATOR systems to fully integrate Naval Integrated Fire Control (NIFC). ***FY 2023 Plans:*** N/A	11.584	0.000
Congressional Add: AN/TPS-80 G/ATOR Radar Signal Processor Refresh ***FY 2022 Accomplishments:*** Initiates the first year of development necessary to replace the current 2007-era Radar Signal Processor (RSP). ***FY 2023 Plans:*** N/A	11.584	0.000
Congressional Adds Subtotals	23.168	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9999 / *Congressional Adds*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Ground/Air Task Oriented Radar (G/ATOR) acquisition strategy for both Naval Integrated Fire Control (NIFC) and the replacement of a 2007 vintage Radar Signal Processor (RSP) is to award these capability enhancements/improvements as task orders on the Northrup Grumman Mission Systems Sustainment Engineering and Logistics Support (SELS) contract, initially awarded 1Q FY 2021.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9999 / *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NAVAL INTEGRATED FIRE CONTROL	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	0.000	10.009	Nov 2022	0.000		0.000		-		0.000	0.000	10.009	-
RADAR SIGNAL PROCESSOR REFRESH	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	0.000	9.994	Nov 2022	0.000		0.000		-		0.000	0.000	9.994	-
		Subtotal	0.000	20.003		0.000		0.000		-		0.000	0.000	20.003	N/A

Remarks

Product Development funding decreases $20.835M from FY 2022 to FY 2023 due to a Congressional add. FY 2022 funds initiate the development and integration software required to implement the full spectrum of Naval Integrated Fire Control (NIFC) and the development of a new Radar Signal Processor (RSP), replacing a 2007 vintage RSP.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSWC TECHNICAL SUPPORT	WR	NSWC DAHLGREN : DAHLGREN, VA	0.000	1.712	May 2022	0.000		0.000		-		0.000	0.000	1.712	-
		Subtotal	0.000	1.712		0.000		0.000		-		0.000	0.000	1.712	N/A

Remarks

Government Technical Support funding decreases $1.712M from FY 2022 to FY 2023 due to a Congressional add. FY 2022 funds initiate development and integration of software required to implement the full spectrum of NIFC and the development of a new RSP.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9999 / *Congressional Adds*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	N/A : N/A	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
		Subtotal	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCSC MANAGEMENT SERVICES	Various	MCSC : QUANTICO, VA	0.000	1.378	Aug 2022	0.000		0.000		-		0.000	0.000	1.378	-
TRAVEL	Various	MCSC : QUANTICO, VA	0.000	0.075	May 2022	0.000		0.000		-		0.000	0.000	0.075	-
		Subtotal	0.000	1.453		0.000		0.000		-		0.000	0.000	1.453	N/A

Remarks

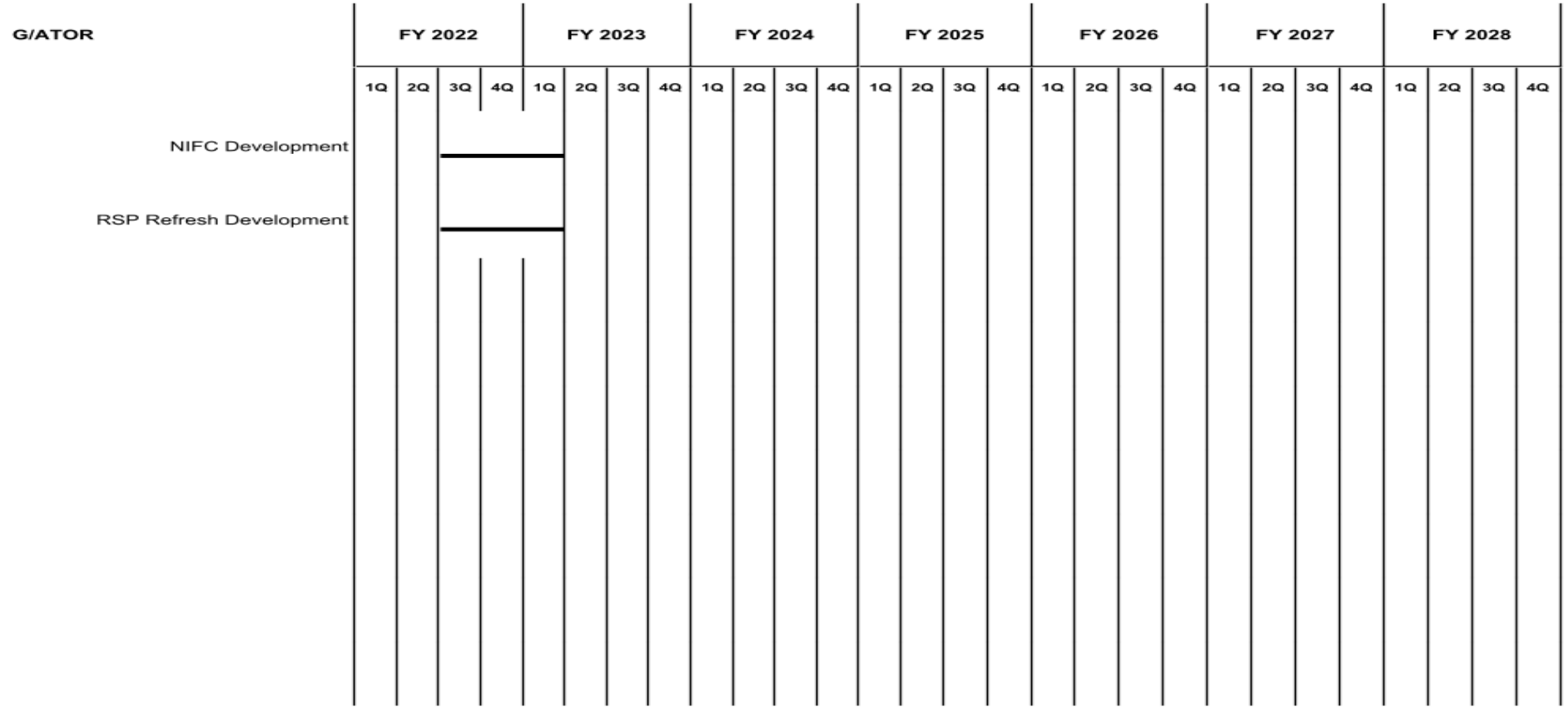
Program Office travel funding and management services decreases by $1.453M from FY 2022 to FY 2023 due to a Congressional add. FY 2022 funding supports the implementation of NIFC and RSP Refresh development.

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	23.168		0.000		0.000		-		0.000	0.000	23.168	N/A

Remarks

Due to an FY 2022 congressional add, RDT&E funding decreases by $23.168M from FY 2022 to FY 2023. FY 2022 funds initiate development and integration of software required to implement the full spectrum of Naval Integrated Fire Control (NIFC) and development of a new Radar Signal Processor (RSP), replacing a 2007 vintage RSP.

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9999 / *Congressional Adds*



2024DON - 0204460M - 9999

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
G/ATOR				
NIFC Development: Initiate Naval Integrated Fire Control Development	3	2022	1	2023
RSP Refresh Development: Initiate Radar Signal Processor Refresh Development	3	2022	1	2023

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	Project (Number/Name) 9C89 / *Marine Ground-Air Radar*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
9C89: *Marine Ground-Air Radar*	522.787	20.593	61.104	92.674	-	92.674	54.414	23.585	16.026	16.347	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 386

A. Mission Description and Budget Item Justification

The Ground/Air Task Oriented Radar (G/ATOR) is a critical CMC Force Design program. G/ATOR is a multi-role, ground-based, expeditionary 3D radar system employed by both the Air Combat Element (ACE) and Ground Combat Element (GCE) within the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/Counter Battery capabilities. G/ATOR provides mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles, Unmanned Aerial Systems (UAS), Rockets, Artillery and Mortars, and the cueing of air defense weapons. G/ATOR contributes to Littoral Operations in a Contested Environment (LOCE) and Expeditionary Advanced Base Operations (EABO) by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals and participating in a cooperative engagement network of sensors and shooters. G/ATOR enables integrated fire control (IFC) and provides engage/fire on remote capability. G/ATOR surveillance coverage with IFC will provide unprecedented reach, volume, and precision in the execution of Operational Maneuver from The Sea allowing Naval forces to project and sustain power deep inland. G/ATOR is the primary Ground-Based sensor for the United States Marine Corps and is the only Air Defense/Air Surveillance radar currently in the Marine Corps inventory.

RDT&E funding increases $31.570M from FY 2023 to FY 2024 in order to continue to support the development and integration of software required to implement the full spectrum of Naval Integrated Fire Control, the development of a new Radar Signal Processor (RSP), replacing a 2007 vintage RSP, the continuation of the Ground Weapons Locating Radar user improvements identified during DT/OT and IOT&E testing, Multi-Domain Radar in a Contested Environment (MuDRaCE), as well as, the initiation of a new Digital Receiver/Exciter (DREX), Mode S, a Radar Tracker Software Enhancement (RTSE), and G/ATOR Block IV (GB4) Air Traffic Control development, while continuing to pursue software capability improvements providing both low, slow, small (LSS) target detection and non-cooperative target recognition (NCTR).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: G/ATOR Contractor Technical, Development Engineering/Block 1 (GB1)	12.629	41.065	61.255	0.000	61.255
Articles:	-	-	-	-	-
FY 2023 Plans: - Completes RSP Development. - Continues Electronic Protection, Cyber Protection & Systems Security efforts, as well as, NCTR and LSS Target Detection software development. - Continues the development and integration of software to implement NIFC.					
FY 2024 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Initiates the development of a new Digital Exciter/Receiver (DREX). - Initiates Mode S development. - Initiates the development of a Radar Tracker Software Enhancement (RTSE). - Will continue Electronic Protection, Cyber Protection & Systems Security efforts, as well as, NCTR and LSS Target Detection software development. - Will continue the development and integration of software to implement NIFC. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** G/ATOR Contractor Technical, Development Engineering Block 1 (GB1) funding increases from FY 2023 to FY 2024 to enhance both Radar and Force Survivability in a Peer/Near-Peer Competitor environment through the development and integration of software required to implement the full spectrum of NIFC, the development of a Radar Tracker Software Enhancement, Mode S and a new DREX, that are all necessary to implement Warfighter desired USMC Force Design 2030 capability enhancements.					
Title: G/ATOR Contractor Technical, Development Engineering/Block 2 (GB2)	0.000	2.897	3.129	0.000	3.129
Articles:	-	-	-	-	-
FY 2023 Plans: - Initiates the development of specific user enhancements for GB2 software in order to improve the operator's situational awareness, tracker performance refinements and allow for a quick assessment of the radar's state of operations and performance. ***FY 2024 Base Plans:*** - Continues the development of specific user enhancements for GB2 software in order to improve the operator's situational awareness, tracker performance refinements and allow for a quick assessment of the radar's state of operations and performance. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:***					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
G/ATOR Contractor Technical, Development Engineering Block 2 funding increases from FY 2023 to FY 2024 in order to continue enhancements to GB2 software that were identified during DT, OA and IOT&E.					
Title: G/ATOR Contractor Technical, Development Engineering/Block 4 (GB4) ***Articles:*** ***Description:*** A 2007 Marine Corps senior leadership decision directed the AN/TPS-80 would replace the Air Traffic Navigation Integration and Coordination System (ATNAVICS) as the Marine Corps' Airport Surveillance RADAR (ASR) for Air Traffic Control (ATC). ***FY 2023 Plans:*** N/A ***FY 2024 Base Plans:*** Initiates G/ATOR ATC development. RDT&E funds will begin development of the software baseline, update CAC2S/CTN interface, and address the ATC FAA certification for use within the National Airspace System (NAS). ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Funding increases from FY23 to FY24 to initiate development of the software baseline, update CAC2S/CTN interface, and address the ATC FAA certification for use within the NAS.	0.000 -	0.000 -	12.009 -	0.000 -	12.009 -
Title: Multi-Domain Radar in a Contested Environment (MuDRaCE) ***Articles:*** ***FY 2023 Plans:*** - Initiates the development of adaptive layers for C2 integration and for near and far range passive detection and air surveillance in spectrum dense environments. ***FY 2024 Base Plans:*** - Will continue the development of adaptive layers for C2 integration and for Near Range and Far Range passive detection and air surveillance in spectrum dense environments. ***FY 2024 OCO Plans:***	0.000 -	4.962 -	3.005 -	0.000 -	3.005 -

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** MuDRaCE is a Future Naval Capability (FNC) that transitioned from the Office of Naval Research (ONR) in FY 2023. MuDRaCE decreases from FY 2023 to FY 2024 in order to continue to enhance Radar and Force Survivability in a Peer/Near-Peer Competitor environment by allowing for aviation ground command and control agencies to minimize probability of detection through signature management.					
Title: Government Technical Support	4.968	8.112	9.005	0.000	9.005
Articles:	-	-	-	-	-
Description: The Government Technical Support Team provides primarily inherent governmental support functions, including Federally Funded Research and Development Centers (FFRDCs), adding depth, breadth, and expertise not resident in the G/ATOR Program Office. Functions include technical planning as well as execution and analysis across multi-disciplinary competencies to include: Systems Architecture, Radar Software Engineering, Radar Systems Engineering, Radar Decoy Engineering, Cyber Security/Information Assurance, Human Systems Integration, Safety, Program Protection and Configuration Management. It also includes the coordination necessary to enable a System of Systems interface with other programs in the "Cue to Slew" kill chain such as Air Command and Control and Sensor Netting (AC2SN), Composite Tracking Network (CTN) & Advanced Field Artillery Tactical Data System (AFATDS), Naval Integration Fire Control (NIFC) as well as, providing passive detection and air surveillance in spectrum dense enviroments via Multi-Domain Radar in a Contested Environment (MuDRaCE), ultimately ensuring platform/software compatibility. Technical Team support is vital during the both the G/ATOR System's Production phase and for the USMC Force Design capability enhancements, as it is the Government's responsibility to ensure that G/ATOR meets Government Performance Specification Verification.					
FY 2023 Plans: - Continues Government support from the following activities to enable program execution: MITRE; NAVAIR; NSWC Dahlgren; NSWC Crane; NAWC-AD China Lake; AIMS and DTIC. - Initiates Government support from NIWC Atlantic in support of MuDRaCE program execution.					
FY 2024 Base Plans: - Will continue Government support from the following activities to enable program execution: MITRE; NIWC Atlantic, NSWC Dahlgren; NSWC Crane; NAWC-AD China Lake; AIMS and DTIC.					
FY 2024 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Government Technical Support funding increases from FY 2023 to FY 2024 as G/ATOR continues to enhance Radar and Force Survivability in a Peer/Near-Peer Competitor environment with the initiation of RTSE, Mode S, a new DREX and GB4 development, as well as, the continued development of GB2 User Improvements, NIFC, LSS Targets, NCTR and MuDRaCE.					
Title: G/ATOR: Management Services & Travel	0.275	1.978	2.084	0.000	2.084
Articles:	-	-	-	-	-
FY 2023 Plans: - Continues to provide program office travel in support of system development and management services related to engineering test events. - Continues RDT&E related engineering, management, logistics program office support and travel for RSP Refresh, LSS Targets, NCTR and NIFC. - Initiates MuDRaCE transition. ***FY 2024 Base Plans:*** - Will continue to provide program office travel in support of system development and management services related to engineering test events. - Will continue RDT&E related engineering, management, logistics program office support and travel for LSS Targets, NCTR, NIFC and MuDRaCE. - Will initiate RDT&E related engineering, management, logistics program office support and travel for RTSE, Mode S, DREX and GB4. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Program Office travel funding and management services increases from FY 2023 to FY 2024 in order to continue to support the development of both Radar and Force Survivability capabilities needed in a Peer/Near-Peer Competitor environment.					
Title: G/ATOR: Test and Evaluation	2.721	2.090	2.187	0.000	2.187
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
FY 2023 Plans: - Continues to conduct improved software capability and survivability related engineering testing focusing on Electronic Protection, Cyber Protection and Systems Security. ***FY 2024 Base Plans:*** - Will continue to conduct improved software capability and survivability related engineering testing focusing on Electronic Protection, Cyber Protection and Systems Security. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** G/ATOR Test and Evaluation funding increases from FY 2023 to FY 2024 as G/ATOR continues to enhance both Radar and Force Survivability capabilities needed in a Peer/Near-Peer Competitor environment.					
Accomplishments/Planned Programs Subtotals	20.593	61.104	92.674	0.000	92.674

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• RDTE/0604504N/0718: *AIR CONTROL MATCALS*	3.108	3.020	1.063	-	1.063	0.878	0.938	0.998	1.059	Continuing	Continuing
• PMC/7000: *INITIAL SPARES-G/ATOR*	13.609	14.422	14.802	-	14.802	15.118	15.387	15.665	15.978	Continuing	Continuing
• PMC/4655: *GROUND/AIR TASK ORIENTED RADAR*	339.369	365.943	66.291	-	66.291	72.141	55.026	56.529	57.660	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Ground/Air Task Oriented Radar (G/ATOR) is a multi-role, ground-based, expeditionary radar that replaces five legacy radar systems and provides the USMC Air Defense and Air Surveillance (AD/AS) (G/ATOR Block 1), Counterfire/Targeting (G/ATOR Block 2), and Air Traffic Control (G/ATOR Block 4) capability. The AD/AS (GB1) development effort was competitively awarded in 2007 and completed Milestone C in FY 2014. GB1 achieved Initial Operational Capability (IOC) in March 2018. Development of the Counterfire/Targeting (GB2) capability was initiated in FY 2010 with a RFI to industry, followed by a Business Case Analysis (BCA) to select the most cost-effective procurement strategy. The results of the BCA indicated that a sole source contract to Northrup Grumman Mission Systems (NGMS) was the most cost-effective solution. Thus, the GB2 development contract awarded in August FY 2015. GB2 achieved IOC in February 2019. The strategy for GB4 is

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

to begin development in FY 2024 through FY 2025 with testing in FY 2026. The Full Rate Production (FRP) Contract with NGMS awarded in June 2019. FRP Lot 5 (Congressional Add) contract award is planned for Sept 2023. G/ATOR enhancements include a three-phased Electronic Protection, Cyber Protection and Systems Security effort, Radar Emplacement/Displacement improvements, G/ATOR Tactical Target Generators (Decoys), Low-Slow-Small (LSS) Target Detection, Non-Cooperative Target Recognition (NCTR), Naval Integrated Fire Control (NIFC), GB2 User Enhancements, Communications Modernization, Long Range Radar (LRR) Kits, replacement of a 2007 vintage Radar Signal Processor (RSP), the implementation of Multi-Domain Radar in a Contested environment (MuDRaCE), and the initiation of a Radar Tracker Software Enhancement (RTSE), Mode S, Digital Receiver/Exciter (DREX) and GB4 development, which are all necessary to increase both G/ATOR's and the Fleet Marine Force's survivability in a Peer/Near-Peer competitor environment. In order to improve G/ATOR's reliability and sustainability, the implementation of a Pallet Communications Support Processor (PCSP) Engineering Change Order (ECO) has been cut-in to FRP Lots 3 and 4, along with the retrofit of the remaining 29 Radar Systems. With the exception of MuDRaCE, these capability enhancements/ improvements will be awarded as task orders on the Northrup Grumman Mission Systems Sustainment Engineering and Logistics Support (SELS) contract, awarded 1Q FY 2021, that will support the continued development of G/ATOR capability enhancements and the deployment, sustainment and maintenance of delivered G/ATOR systems. A follow-on SELS II Contract is planned for 1Q FY 2026 through 4Q FY 2030. Post FY 2023, RSP Refresh continued development and procurement will be funded using America's Mid-Band Initiative Team (ABMIT) 5G funding.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR Block 1 (GB1)	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	253.133	12.629	Dec 2021	41.065	Dec 2022	61.255	Dec 2023	-		61.255	Continuing	Continuing	Continuing
G/ATOR Block 2 (GB2)	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	67.895	0.000		2.897	Jan 2023	3.129	Jan 2024	-		3.129	Continuing	Continuing	Continuing
G/ATOR Block 4 (GB4)	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	0.000	0.000		0.000		12.009	Jan 2024	-		12.009	Continuing	Continuing	Continuing
MuDRaCE	TBD	TBD : TBD	0.000	0.000		4.962	Feb 2023	3.005	Feb 2024	-		3.005	Continuing	Continuing	Continuing
		Subtotal	321.028	12.629		48.924		79.398		-		79.398	Continuing	Continuing	N/A

Remarks

G/ATOR Product Development funding increases from FY 2023 to FY 2024 in order to continue to develop Warfighter desired USMC Force Design Capability enhancements, that include NIFC, GB2 User Improvements, LSS Targets, NCTR and MuDRaCE, as well as, the initiation of RTSE, Mode S, DREX and GB4 development which are all necessary for Radar and Force Survivability in a Peer/Near-Peer Competitor environment. GB4 equates to G/ATOR Air Traffic Control (ATC) development. For ATC, RDT&E funds will begin development of the software baseline, update CAC2S/CTN interface, and address the ATC FAA certification for use within the National Airspace System (NAS).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC TECHNICAL SUPPORT	FFRDC	MITRE : BOSTON, MA	9.105	1.155	Dec 2021	1.154	Dec 2022	1.212	Dec 2023	-		1.212	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	Project (Number/Name) 9C89 / *Marine Ground-Air Radar*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSWC TECHNICAL SUPPORT	WR	NSWC DAHLGREN : DAHLGREN, VA	50.185	1.244	Dec 2021	3.252	Dec 2022	4.065	Dec 2023	-		4.065	Continuing	Continuing	Continuing
NSWC TECHNICAL SUPPORT	WR	NSWC CRANE : CRANE, IN	5.583	1.277	Dec 2021	1.274	Dec 2022	1.593	Dec 2023	-		1.593	Continuing	Continuing	Continuing
NAVAIR TECHNICAL SUPPORT	WR	NAWC AD : CHINA LAKE, CA	0.135	0.020	Dec 2021	0.020	Dec 2022	0.025	Dec 2023	-		0.025	Continuing	Continuing	Continuing
NAVAIR TECHNICAL SUPPORT	WR	NAVAIR : PAX RIVER, MD	6.104	0.740	Dec 2021	0.639	Dec 2022	0.000		-		0.000	Continuing	Continuing	Continuing
AIMS TECHNICAL SUPPORT	WR	AIMS : ROBINS AFB, GA	1.271	0.252	Dec 2021	0.244	Dec 2022	0.250	Dec 2023	-		0.250	Continuing	Continuing	Continuing
DTIC TECHNICAL SUPPORT	WR	DTIC : FT BELVOIR, VA	1.644	0.280	Dec 2021	0.262	Dec 2022	0.276	Dec 2023	-		0.276	Continuing	Continuing	Continuing
NIWC TECHNICAL SUPPORT	WR	NIWC LANT : NORTH CHARLESTON, SC	0.000	0.000		1.267	Dec 2022	1.584	Dec 2023	-		1.584	0.000	2.851	-
Prior Years Cumulative Funding	Various	N/A : N/A	22.670	0.000		0.000		0.000		-		0.000	0.000	22.670	-
		Subtotal	96.697	4.968		8.112		9.005		-		9.005	Continuing	Continuing	N/A

Remarks

Award dates reflected are the actual obligation date for the first incremental award. Most activities, excluding MITRE, are incrementally funded throughout the fiscal year. Government Technical Support funding increases from FY 2023 to FY 2024 as G/ATOR continues to enhance Radar and Force Survivability in a Peer/Near-Peer Competitor environment with the continued development of NIFC, GB2 User Improvements, LSS Targets, NCTR, MuDRaCE and the initiation of RTSE, Mode S, DREX and GB4 development.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION :	18.770	0.783	Dec 2021	0.626	Dec 2022	0.657	Dec 2023	-		0.657	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	Project (Number/Name) 9C89 / *Marine Ground-Air Radar*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		LINTHICUM HEIGHTS, MD													
Developmental Test & Evaluation (DT&E)	WR	NSWC DAHLGREN : DAHLGREN, VA	12.153	0.260	Dec 2021	0.253	Dec 2022	0.266	Dec 2023	-		0.266	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	NSWC-FALLBROOK : CPEN, CA	10.372	0.215	Dec 2021	0.207	Dec 2022	0.217	Dec 2023	-		0.217	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	NSWC CRANE : CRANE, IN	2.185	0.255	Dec 2021	0.228	Dec 2022	0.239	Dec 2023	-		0.239	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	NSWC CORONA : CORONA, CA	8.268	0.199	Dec 2021	0.122	Dec 2022	0.128	Dec 2023	-		0.128	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	NSWC PHD : DAM NECK, VA	7.022	0.204	Dec 2021	0.157	Dec 2022	0.165	Dec 2023	-		0.165	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	MARFOR : Various	1.882	0.105	Dec 2021	0.102	Dec 2022	0.100	Dec 2023	-		0.100	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	SCSC : WALLOPS IS, MD	0.630	0.200	Jan 2022	0.197	Jan 2023	0.207	Jan 2024	-		0.207	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	WSMR : OTERO, NM	0.000	0.250	Jan 2022	0.198	Jan 2023	0.208	Jan 2024	-		0.208	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DUGWAY AFB : DUGWAY, AZ	0.000	0.250	Jan 2022	0.000	Jan 2023	0.000		-		0.000	0.000	0.250	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	N/A : N/A	2.513	0.000		0.000		0.000		-		0.000	0.000	2.513	-
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	Various	N/A : N/A	28.366	0.000		0.000		0.000		-		0.000	0.000	28.366	-
		Subtotal	92.161	2.721		2.090		2.187		-		2.187	Continuing	Continuing	N/A

Remarks

Award dates reflected are the actual obligation date for the first incremental award. G/ATOR Test and Evaluation funding increases from FY 2023 to FY 2024 as G/ATOR continues to enhance both Radar and Force Survivability capabilities needed in a Peer/Near-Peer Competitor environment.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TRAVEL	Various	MCSC : QUANTICO, VA	2.290	0.275	Sep 2022	0.350	Sep 2023	0.375	Sep 2024	-		0.375	Continuing	Continuing	Continuing
MCSC MANAGEMENT SERVICES	Various	MCSC : MCSC - QUANTICO, VA	10.611	0.000		1.628	Feb 2023	1.709	Feb 2024	-		1.709	Continuing	Continuing	Continuing
		Subtotal	12.901	0.275		1.978		2.084		-		2.084	Continuing	Continuing	N/A

Remarks

Program Office travel funding and management services increases from FY 2022 to FY 2023 to continue to develop Warfighter desired USMC Force Design Capability enhancements, that include NIFC, GB2 User Improvements, LSS Targets, NCTR, MuDRaCE and the initiation of RTSE, Mode S and GB4 development.

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	522.787	20.593		61.104		92.674		-		92.674	Continuing	Continuing	N/A

Remarks

Overall, RDT&E funding increases from FY 2023 to FY 2024 to continue to develop Warfighter desired USMC Force Design Capability enhancements, that include NIFC, GB2 User Improvements, LSS Targets, NCTR and MuDRaCE, as well as, the initiation of RTSE, Mode S and GB4 development, which are all necessary for Radar and Force Survivability in a Peer/Near-Peer Competitor environment.

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

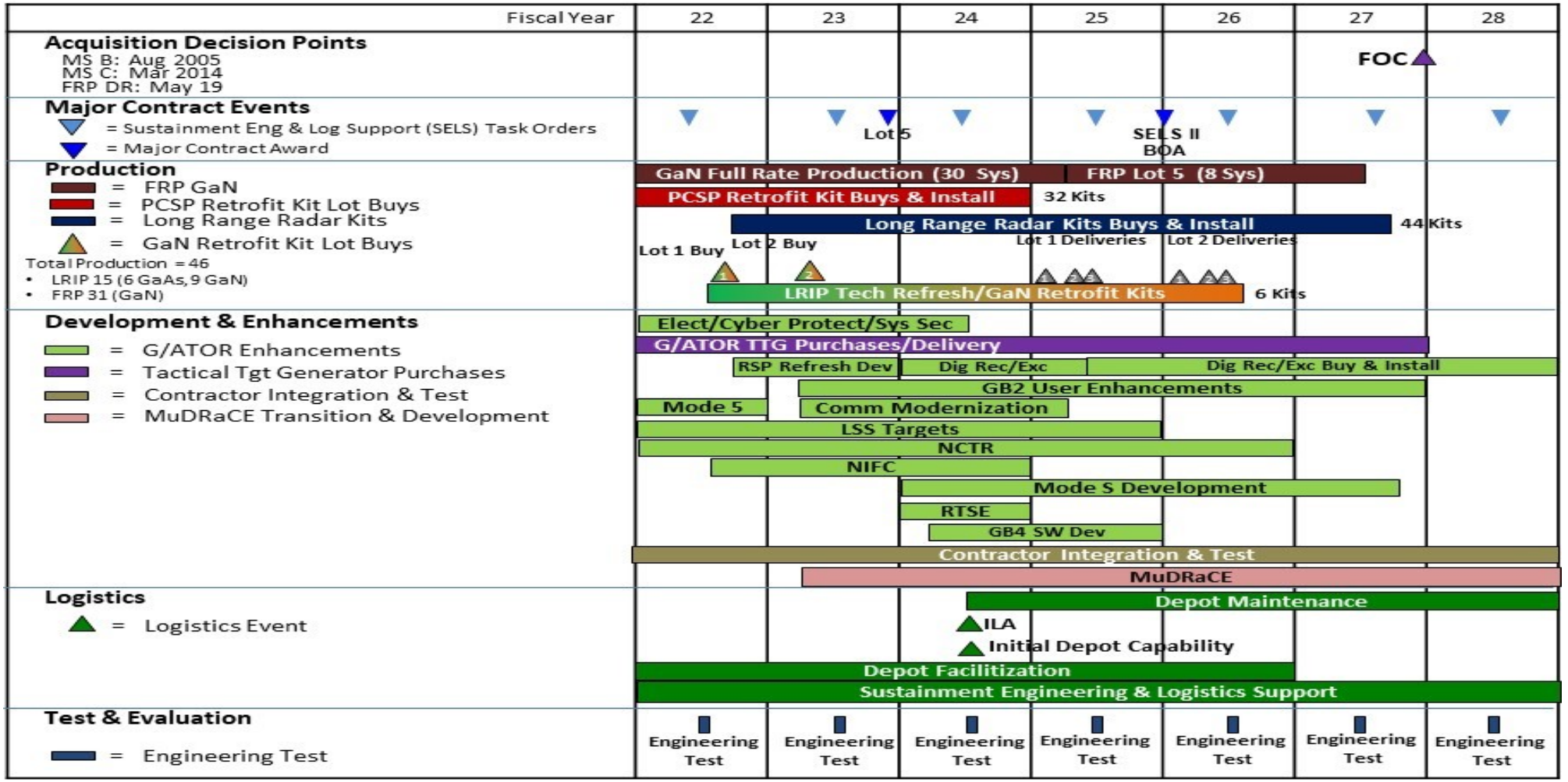


Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9C89				
Gallium Nitride (GaN) Radar: Gallium Nitride (GaN) Retrofit Kit Procurement Lot 1	3	2022	3	2022
Gallium Nitride (GaN) Radar: Gallium Nitride (GaN) Retrofit Kit Procurement Lot 2	2	2023	2	2023
Gallium Nitride (GaN) Radar: GaN Retrofit Kits Lot 1 Deliveries	1	2025	2	2025
Gallium Nitride (GaN) Radar: GaN Retrofit Kits Lot 2 Deliveries	1	2026	2	2026
Gallium Nitride (GaN) Radar: LRIP Tech Refresh	3	2022	3	2026
Gallium Nitride (GaN) Radar: GaN FRP	1	2022	2	2025
Gallium Nitride (GaN) Radar: Engineering Test 6	3	2022	3	2022
Gallium Nitride (GaN) Radar: Engineering Test 7	3	2023	3	2023
Gallium Nitride (GaN) Radar: PCSP Retrofit Kits Buys & Installs	1	2022	4	2024
Gallium Nitride (GaN) Radar: Long Range Radar Kits Buys & Installs	4	2022	3	2027
Gallium Nitride (GaN) Radar: Engineering Test 8	3	2024	3	2024
Gallium Nitride (GaN) Radar: Full Operational Capability (FOC)	4	2027	4	2027
Gallium Nitride (GaN) Radar: Engineering Test 9	3	2025	3	2025
Gallium Nitride (GaN) Radar: Engineering Test 10	3	2026	3	2026
Gallium Nitride (GaN) Radar: Engineering Test 11	3	2027	3	2027
Gallium Nitride (GaN) Radar: Engineering Test 12	3	2028	3	2028
FRP Lot 5 Radar: FRP Lot 5 Contract Award	4	2023	4	2023
FRP Lot 5 Radar: FRP Lot 5 Radar Production	2	2025	3	2027
Enhancements: Electronic/Cyber Protection & System Security	1	2022	2	2024
Enhancements: GB1 Tactical Target Generator Procurements/Deliveries	1	2022	4	2025
Enhancements: GB2 Tactical Target Generator Procurements/Deliveries	3	2025	2	2027

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204460M / *Ground/Air Task Oriented Radar (G/ATOR)*	**Project (Number/Name)** 9C89 / *Marine Ground-Air Radar*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Enhancements: GB2 User Enhancements	2	2023	4	2027
Enhancements: RSP Refresh Development	3	2022	4	2023
Enhancements: Digital Receiver/Exciter (DREX) Development	1	2024	2	2025
Enhancements: Digital Receiver/Exciter (DREX) Procurement and Installation	3	2025	4	2028
Enhancements: Comm Modernization	2	2023	1	2025
Enhancements: Mode 5 Development	1	2022	4	2022
Enhancements: Low, Slow, Small (LSS) Targets	1	2022	4	2025
Enhancements: Non-Cooperative Target Recognition (NCTR)	1	2022	4	2026
Enhancements: Naval Integrated Fire Control (NIFC)	3	2022	4	2024
Enhancements: Mode S Development	1	2024	3	2027
Enhancements: Contractor Integration & Test	1	2022	4	2028
Enhancements: MuDRaCE	2	2023	4	2028
Enhancements: Radar Tracker Software Enhancement (RTSE)	1	2024	4	2024
Enhancements: G/ATOR Block IV (GB4) Software Development	2	2024	4	2025
Logistics: Depot Facilitization (LRU Repair & IROAN)	1	2022	4	2026
Logistics: Sustainment Engineering and Logistics Support (SELS) Contract	1	2022	4	2025
Logistics: SELS II Contract	1	2026	4	2028
Logistics: ILA	3	2024	3	2024
Logistics: Initial Depot IROAN Capability	3	2024	3	2024
Logistics: Depot Maintenance	3	2024	4	2028