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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy **Date:** February 2018

Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0204460M I (U)Ground/Air Task Oriented Radar (G/ATOR)
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COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	298.419	78.860	54.645	45.029	-	45.029	23.927	10.555	12.185	12.336	Continuing	Continuing
9C89: Marine Ground-Air Radar	298.419	78.860	54.645	45.029	-	45.029	23.927	10.555	12.185	12.336	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 radar that replaces five legacy radar systems for the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System (G/ATOR Block 1) and the Ground Counter Fire/Counter Battery (G/ATOR Block 2) capabilities. The G/ATOR replaces the AN/TPS-63 and complements the AN/TPS-59 long range radar and will provide mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles and UAS, and the cueing of air defense weapons. The G/ATOR contributes to the extension of Sea Shield/Sea Strike by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals by 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.

B. Program Change Summary (\$ in Millions)	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>
Previous President's Budget	83.538	54.645	16.406	-	16.406
Current President's Budget	78.860	54.645	45.029	-	45.029
Total Adjustments	-4.678	0.000	28.623	-	28.623
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.149	0.000			
• Program Adjustments	0.000	0.000	29.000	-	29.000
• Rate/Misc Adjustments	0.000	0.000	-0.377	-	-0.377
• Congressional General Reductions Adjustments	-0.029	-	-	-	-
• Congressional Directed Reductions Adjustments	-2.500	-	-	-	-

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Change Summary Explanation RDT&E funding decreases \$9.616M throughout the total G/ATOR program from FY18 to FY19 with the completion of DT1C/OA, DT1D/OA and initiation of DT1E in FY18. Program Management support completely migrates from RDT&E to PMC funding as G/ATOR begins Full Rate Production in FY19. RDT&E funding increase in FY19 from PB18 to PB19 supports software development supporting a Composite Tracking Network (CTN) interface for the GB2 mission profile that will reduce Warfighter Air Surveillance gaps and improvements to the radar emplacement/displacement time.		

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204460M / (U)Ground/Air Task Oriented Radar (G/ATOR)				Project (Number/Name) 9C89 / Marine Ground-Air Radar			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
9C89: Marine Ground-Air Radar	298.419	78.860	54.645	45.029	-	45.029	23.927	10.555	12.185	12.336	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 multi-role, ground-based, expeditionary radar that replaces five legacy radar systems for the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System (G/ATOR Block 1) and the Ground Counter Fire/Counter Battery (G/ATOR Block 2) capabilities. The G/ATOR replaces the AN/TPS-63 and complements the AN/TPS-59 long range radar and will provide mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles and UAS, and the cueing of air defense weapons. The G/ATOR contributes to the extension of Sea Shield/Sea Strike by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals by 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.

RDT&E funding decreases \$9.616M throughout the total G/ATOR program from FY18 to FY19 with the completion of DT1C/OA, DT1D/OA and initiation of DT1E in FY18. Program Management support completely migrates from RDT&E to PMC funding as G/ATOR begins Full Rate Production in FY19. Additional funding was requested in FY19 to provide necessary system enhancements such as radar emplacement/displacement improvements and a Composite Tracking Network (CTN) interface for the GB2 mission profile.

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

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: G/ATOR Contractor Technical, Development Engineering/Block 1	15.765	16.886	18.305	0.000	18.305
Articles:	-	-	-	-	-
FY 2018 Plans: -Continue Program/Technology Protection efforts, Reliability Improvements, Transition to Production and Producibility Enhancements to include Engineering Change Proposals that address corrective actions during DT1C/OA & DT1D/OA testing.					
FY 2019 Base Plans: -Continue Program/Technology Protection efforts, Reliability Improvements to include improving radar emplacement/displacement time thus reducing the warfighter's exposure to potential hostile threats, Transition					

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / (U)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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
to Production and Producibility Enhancements to include Engineering Change Proposals that address corrective actions during DT1D/OA and DT1E/IOT&E testing. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Funding increases \$1.419M from FY18 to FY19 to improve radar emplacement/displacement time and finalize baseline modifications for Full Rate Production.					
Title: G/ATOR Contractor Technical, Development Engineering/Block 2 Articles:	22.355 -	0.000 -	6.199 -	0.000 -	6.199 -
FY 2018 Plans: N/A FY 2019 Base Plans: -Initiate software development to support a Composite Tracking Network (CTN) interface for the GB2 mission profile. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Funding increases \$6.199M from FY18 to FY19 to initiate software development supporting a Composite Tracking Network (CTN) interface for the GB2 mission profile that will reduce Warfighter Air Surveillance gaps on the battlefield by providing tracks for both enemy aircraft and unmanned aerial vehicles.					
Title: Government Technical Support Articles:	12.350 -	13.751 -	9.095 -	0.000 -	9.095 -
Description: The Government Technical Support Team provides inherently governmental support functions adding depth, breath and expertise not resident in the G/ATOR Program Office. Functions include technical planning, 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, Configuration Management and the coordination necessary to enable a System of Systems interface with other programs, to include AC2SN, CTN & AFATDS, in the "Cue to Slew" kill chain to ensure platform/software compatibility. Technical Team support is					

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / (U)Ground/Air Task Oriented Radar (G/ATOR)	Project (Number/Name) 9C89 / Marine Ground-Air Radar
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
vital during the G/ATOR LRIP System's Production phase as it is the Government's responsibility to ensure that G/ATOR meets Government Performance Specification Verification. FY 2018 Plans: -Continue Government support from the following activities to enable program execution: MITRE; NAVAIR; NSWC Dahlgren; NSWC Crane; NSWC Pt Hueneme; NAWC-AD China Lake; NSWC Indian Head; AIMS; NAWCWD Pt Mugu; DTIC and CECOM. FY 2019 Base Plans: -Continue Government support from the following activities to enable program execution: MITRE; NAVAIR; NSWC Dahlgren; NSWC Crane; NSWC Pt Hueneme; NAWC-AD China Lake; NSWC Indian Head; AIMS; NAWCWD Pt Mugu; DTIC; AC2SN PMO Quantico; AMERDEC Redstone Arsenal and CECOM. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Government Technical Support funding decreases \$4.656M from FY18 to FY19 as developmental and testing efforts are completed to include the completion of DT1C/OA and DT1D/OA testing in FY18.					
Title: G/ATOR: Test and Evaluation <div style="text-align: right;">Articles:</div>	25.140	23.242	11.140	0.000	11.140
FY 2018 Plans: -Complete G/ATOR Block 1 (GB 1) Operational Assessment (OA), G/ATOR Block 2 (GB 2) Development Test (DT1D/OA) and planning for DT1E/IOT&E. -Complete procurement of ammunition (Rockets, Mortars and Artillery) to support DT1E/IOT&E. -Initiate DT1E/IOT&E. FY 2019 Base Plans: -Complete DT1E/IOT&E. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement:	-	-	-	-	-

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

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
T&E funding decreases \$12.102M from FY18 to FY19 with the completion of DT1C/OA, DT1E/OA and initiation of DT1E in FY18.					
Title: G/ATOR: Management Services & Travel	3.250	0.766	0.290	0.000	0.290
Articles:	-	-	-	-	-
FY 2018 Plans: -Continue to support engineering, management & logistics program office support and program office travel in support of system development and development tests DT1D/OA and DT1E tests.					
FY 2019 Base Plans: Provide program office travel in support of system development and DT1E/IOT&E testing.					
FY 2019 OCO Plans: N/A					
FY 2018 to FY 2019 Increase/Decrease Statement: No significant change from FY 2018 to FY 2019.					
Accomplishments/Planned Programs Subtotals	78.860	54.645	45.029	0.000	45.029

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

<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• RDTE/0604504N/0718: <i>AIR CONTROL MATCAL</i>	0.310	11.508	6.438	-	6.438	6.675	3.158	2.676	2.739	Continuing	Continuing
• PMC/7000: <i>INITIAL SPARES-G/ATOR</i>	11.193	16.840	13.018	-	13.018	13.235	13.506	13.805	14.102	Continuing	Continuing
• PMC/4655: <i>GRND/AIR TASK ORIENTED RADAR</i>	122.563	139.167	224.969	-	224.969	273.022	284.592	298.024	19.307	73.943	1,649.522

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 FY14. Development of the Counterfire/Targeting (GB2) capability was

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initiated in FY10 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 Electronic Systems (NGES) was the most cost effective solution. Thus, the GB2 development contract awarded in August FY15.

E. Performance Metrics

- Earned Value Management
- Integrated Master Schedule
- OSD Financial Benchmarks
- Technical Performance Measures
- Probability of Program Success (PoPS) Assessments
- Reliability: Hardware and Software

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Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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			
G/ATOR BLOCK 1 DEVELOPMENT	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	168.950	15.765	Dec 2016	16.886	Dec 2017	18.305	Dec 2018	-		18.305	Continuing	Continuing	Continuing
G/ATOR BLOCK 2 SOFTWARE DEVELOPMENT	C/CPFF	NORTHROP GRUMMAN SYSTEMS CORPORATION : LINTHICUM HEIGHTS, MD	38.408	22.355	Mar 2017	0.000		6.199	Dec 2018	-		6.199	Continuing	Continuing	Continuing
Subtotal			207.358	38.120		16.886		24.504		-		24.504	Continuing	Continuing	N/A

Remarks
 The funding increases \$7.618M from FY18 to FY19 supporting both G/ATOR emplacement/displacement improvements reducing the warfighter's exposure to potential hostile threats and developing the software necessary to support a Composite Tracking Network (CTN) interface for the GB2 mission profile that will reduce Warfighter Air Surveillance gaps on the battlefield by providing tracks for both enemy aircraft and unmanned aerial vehicles. Award dates reflected are the actual obligation date for the first incremental award. The Northrop Grumman Product Development contract is incrementally funded throughout the fiscal year.

Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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			
FFRDC TECHNICAL SUPPORT	FFRDC	MITRE : BOSTON, MA	4.238	1.044	Dec 2016	0.726	Dec 2017	0.726	Dec 2018	-		0.726	Continuing	Continuing	Continuing
NSWC TECHNICAL SUPPORT	WR	NSWC DAHLGREN : DAHLGREN, VA	31.521	7.194	Dec 2016	6.425	Dec 2017	2.016	Dec 2018	-		2.016	Continuing	Continuing	Continuing
NSWC TECHNICAL SUPPORT	WR	NSWC CRANE : CRANE, IN	0.785	0.264	Dec 2016	0.276	Dec 2017	0.278	Dec 2018	-		0.278	Continuing	Continuing	Continuing
NSWC TECHNICAL SUPPORT	WR	NSWC PHD : DAM NECK, VA	2.270	0.650	Dec 2016	0.578	Dec 2017	0.000		-		0.000	Continuing	Continuing	Continuing
NAVAIR TECHNICAL SUPPORT	WR	NAWC AD : CHINA LAKE, CA	0.035	0.020	Dec 2016	0.020	Dec 2017	0.020	Dec 2018	-		0.020	Continuing	Continuing	Continuing

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Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
NAVAIR TECHNICAL SUPPORT	WR	NAVAIR : PAX RIVER, MD	0.000	1.698	Dec 2016	2.761	Dec 2017	1.788	Dec 2018	-		1.788	Continuing	Continuing	Continuing
NSWC TECHNICAL SUPPORT	WR	NWSC-IH : INDIAN HEAD, MD	0.318	0.305	Dec 2016	0.345	Dec 2017	0.350	Dec 2018	-		0.350	Continuing	Continuing	Continuing
AIMS TECHNICAL SUPPORT	WR	AIMS : ROBINS AFB, GA	0.000	0.250	Dec 2016	0.250	Dec 2017	0.255	Dec 2018	-		0.255	Continuing	Continuing	Continuing
NAWCWD TECHNICAL SUPPORT	WR	NAWCWD : PT MUGU, CA	0.212	0.665	Dec 2016	0.675	Dec 2017	0.338	Dec 2018	-		0.338	Continuing	Continuing	Continuing
DTIC TECHNICAL SUPPORT	WR	DTIC : FT BELVOIR, VA	0.140	0.260	Dec 2016	0.280	Dec 2017	0.280	Dec 2018	-		0.280	Continuing	Continuing	Continuing
AFATDS TECHNICAL SUPPORT	WR	CECOM : ABERDEEN, MD	0.000	0.000		1.415	Dec 2017	0.000		-		0.000	Continuing	Continuing	Continuing
AMERDEC TECHNICAL SUPPORT	WR	AMERDEC : REDSTONE ARSENAL , AL	0.000	0.000		0.000		1.049	Dec 2018	-		1.049	0.000	1.049	-
CTN TECHNICAL SUPPORT	WR	AC2SN PMO PEO LS : QUANTICO, VA	0.000	0.000		0.000		1.995	Dec 2018	-		1.995	0.000	1.995	-
Prior Years Cumulative Funding	Various	N/A : N/A	4.089	0.000		0.000		0.000		-		0.000	0.000	4.089	-
Subtotal			43.608	12.350		13.751		9.095		-		9.095	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. The (\$1.049M) increase in AMERDEC Technical Support provides Radar Decoy Engineering/Technical Services and the (\$1.995M) increase in CTN Technical Support provides for G/ATOR/CTN/AC2SN interface efforts in support of the GB2 mission.

Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
PRIME CONTRACTOR TEST SUPPORT	C/CPIF	NORTHROP GRUMMAN SYSTEMS	5.142	3.409	Dec 2016	4.102	Dec 2017	1.876	Dec 2018	-		1.876	Continuing	Continuing	Continuing

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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
		CORPORATION : LINTHICUM HEIGHTS, MD													
TEST SUPPORT	WR	NSWC DAHLGREN : DAHLGREN, VA	2.218	3.120	Dec 2016	3.416	Dec 2017	2.854	Dec 2018	-		2.854	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	MIPR	AMRDEC : REDSTONE ARSENAL, AL	6.616	0.310	Dec 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
TEST SUPPORT	WR	AC2SN PEO LS : QUANTICO, VA	1.000	0.623	Dec 2016	0.595	Dec 2017	0.235	Dec 2018	-		0.235	0.000	2.453	-
TEST SUPPORT	MIPR	JTIC : FT HUACHUCA, AZ	0.248	0.062	Dec 2016	0.117	Dec 2017	0.120	Dec 2018	-		0.120	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	Various	NSWC- FALLBROOK : CRANE, IN	4.417	2.692	Dec 2016	2.884	Dec 2017	0.478	Dec 2018	-		0.478	Continuing	Continuing	Continuing
TEST EVALUATION SUPPORT	C/CPIF	MCOTEA : QUANTICO, VA	1.880	0.080	Apr 2017	0.107	Dec 2017	0.000		-		0.000	Continuing	Continuing	Continuing
TEST SUPPORT	Various	NSWC CORONA : CORONA, CA	2.302	1.456	Dec 2016	1.540	Dec 2017	0.514	Dec 2018	-		0.514	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	Various	NSWC PHD : DAM NECK, VA	4.835	1.897	Dec 2016	1.926	Dec 2017	0.645	Dec 2018	-		0.645	Continuing	Continuing	Continuing
TEST ASSET PROCUREMENT	C/CPFF	MCSC : QUANTICO, VA	2.669	9.221	Dec 2016	1.019	Dec 2017	0.000		-		0.000	0.000	12.909	-
TEST PLANNING/ SUPPORT	WR	JSF PMO : WASHINGTON , DC	0.000	0.000		0.770	Dec 2017	0.675	Dec 2018	-		0.675	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	WR	NAWCWD : PT MUGU, CA	0.000	0.000		0.343	Dec 2017	0.251	Dec 2018	-		0.251	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	WR	NAVSEA/PMR-51 : WASHINGTON, DC	0.000	0.000		0.540	Dec 2017	0.452	Dec 2018	-		0.452	Continuing	Continuing	Continuing
TEST PLANNING/ SUPPORT	WR	NAVAIR : PAX RIVER, MD	0.000	0.000		0.766	Dec 2017	0.676	Dec 2018	-		0.676	Continuing	Continuing	Continuing
TEST OPERATOR SUPPORT	Various	MARFOR : Various	0.942	0.240	Dec 2016	0.250	Dec 2017	0.175	Dec 2018	-		0.175	Continuing	Continuing	Continuing

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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
TEST RANGE SUPPORT	WR	YPG : YUMA, AZ	0.551	0.440	Dec 2016	1.390	Dec 2017	0.695	Dec 2018	-		0.695	Continuing	Continuing	Continuing
TEST RANGE SUPPORT	WR	NAWCWD : PT MUGU, CA	0.000	0.000		1.765	Dec 2017	0.784	Dec 2018	-		0.784	Continuing	Continuing	Continuing
TEST FACILITY SUPPORT	WR	SCSC : WALLOPS IS, MD	0.000	0.465	May 2017	0.372	Dec 2017	0.000		-		0.000	Continuing	Continuing	Continuing
TEST FACILITY SUPPORT	WR	MCAS YUMA : YUMA, AZ	0.000	0.810	May 2017	0.825	Dec 2017	0.420	Dec 2018	-		0.420	0.000	2.055	-
TEST FACILITY SUPPORT	WR	MCAS CPNC : ATLANTIC FIELD, NC	0.000	0.315	May 2017	0.000		0.000		-		0.000	0.000	0.315	-
TEST FACILITY SUPPORT	WR	MCB 29 PALMS : 29 PALMS, CA	0.000	0.000		0.515	Dec 2017	0.290	Dec 2018	-		0.290	Continuing	Continuing	Continuing
Prior Years Cumulative Funding	Various	N/A : N/A	5.381	0.000		0.000		0.000		-		0.000	0.000	5.381	-
Subtotal			38.201	25.140		23.242		11.140		-		11.140	Continuing	Continuing	N/A

Remarks
Overall, the funding decrease of \$12.102M is due to the completion of DT1C/OA and DT1D/OA, as well as, the initiation DT1E during FY18.

Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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	C/FP	MCSC : MCSC - QUANTICO, VA	8.127	2.950	Nov 2016	0.471	Nov 2017	0.000		-		0.000	Continuing	Continuing	Continuing
TRAVEL	Various	MCSC : QUANTICO, VA	1.125	0.300	Sep 2017	0.295	Sep 2018	0.290	Sep 2019	-		0.290	Continuing	Continuing	Continuing
Subtotal			9.252	3.250		0.766		0.290		-		0.290	Continuing	Continuing	N/A

Remarks
The funding decreases of \$0.476M from FY18 to FY19 with the complete migration of \$0.471M program management support from RDT&E to PMC funding as G/ATOR begins Full Rate Production in FY19. Award date for travel reflects the last month of the Fiscal Year.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy								Date: February 2018					
Appropriation/Budget Activity 1319 / 7				R-1 Program Element (Number/Name) PE 0204460M / (U)Ground/Air Task Oriented Radar (G/ATOR)				Project (Number/Name) 9C89 / Marine Ground-Air Radar					
	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	298.419	78.860		54.645		45.029		-		45.029	Continuing	Continuing	N/A

Remarks
 RDT&E funding decreases \$9.616M throughout the total G/ATOR program from FY18 to FY19 with the completion of DT1C/OA, DT1D/OA and initiation of DT1E in FY18. Additionally, Program Management support completely migrates from RDT&E to PMC funding as G/ATOR begins Full Rate Production in FY19.

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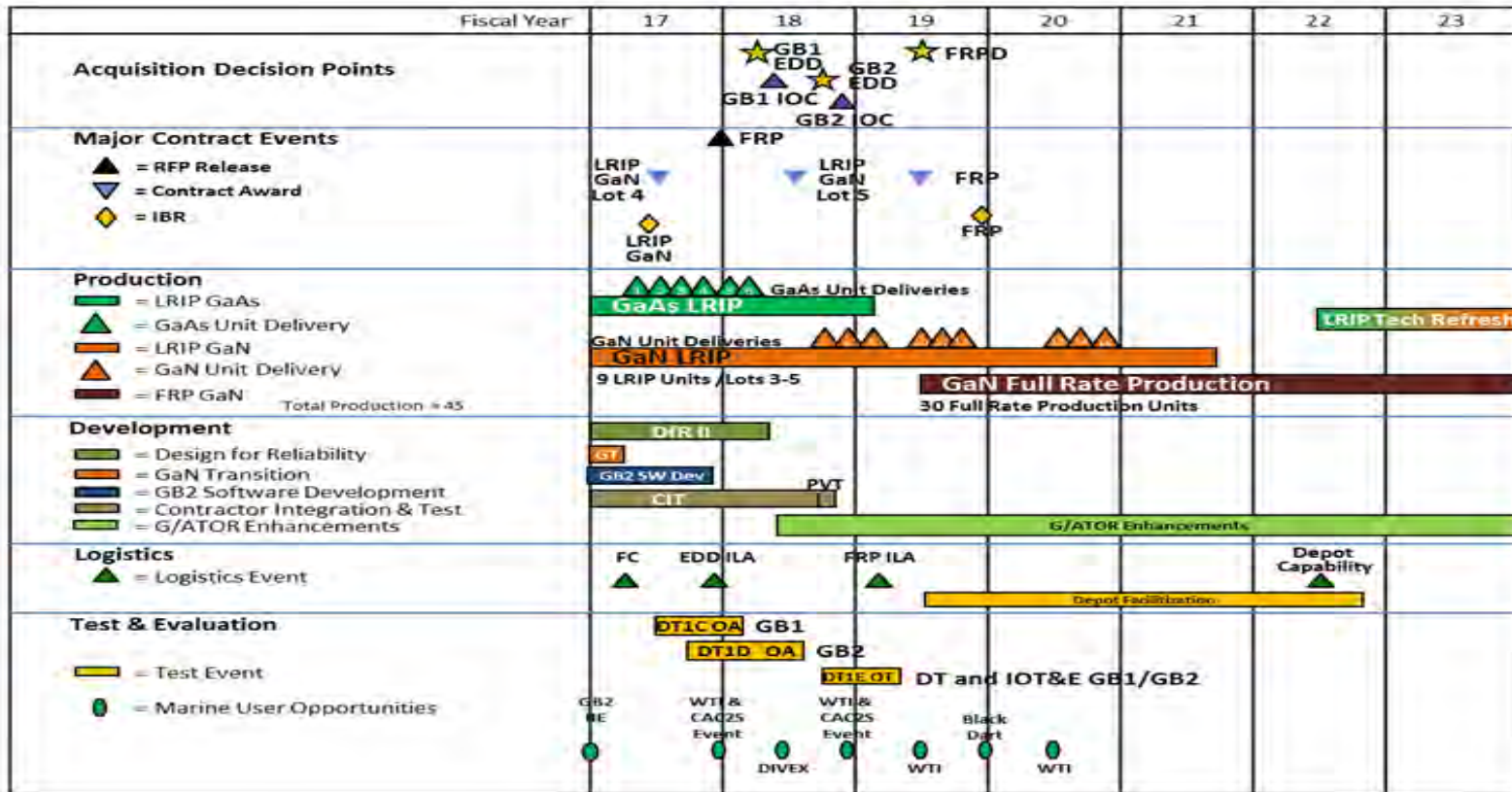
Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity
1319 / 7

R-1 Program Element (Number/Name)
PE 0204460M / (U)Ground/Air Task
Oriented Radar (G/ATOR)

Project (Number/Name)
9C89 / Marine Ground-Air Radar



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / (U)Ground/Air Task Oriented Radar (G/ATOR)	Project (Number/Name) 9C89 / Marine Ground-Air Radar

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 9C89				
Gallium Arsenide (GaAs) Radar: GB1 Developmental Test (DT1C)	2	2017	4	2017
Gallium Arsenide (GaAs) Radar: GB1 Operational Assessment (OA)	4	2017	1	2018
Gallium Arsenide (GaAs) Radar: GB1 Radar IOC	2	2017	2	2018
Gallium Arsenide (GaAs) Radar: LRIP Tech Refresh	3	2022	4	2022
Gallium Nitride (GaN) Radar: GaN Transition	1	2017	1	2017
Gallium Nitride (GaN) Radar: LRIP Lot 4 Contract Award	2	2017	2	2017
Gallium Nitride (GaN) Radar: GB1/GB2 Developmental Test (DT1E)	3	2018	1	2019
Gallium Nitride (GaN) Radar: GaN PVT	4	2018	4	2018
Gallium Nitride (GaN) Radar: GB1/GB2 IOTE	1	2019	2	2019
Gallium Nitride (GaN) Radar: LRIP Lot 5 Contract Award	3	2018	3	2018
Gallium Nitride (GaN) Radar: FRPD	3	2019	3	2019
Gallium Nitride (GaN) Radar: FRP	3	2019	4	2022
Gallium Nitride (GaN) Radar: LRIP Tech Refresh	3	2022	4	2022
Ground Weapons Locating Radar (GWLR): GB2 Software Development	1	2017	4	2017
Ground Weapons Locating Radar (GWLR): GB2 Developmental Test (DT1D)	4	2017	1	2018
Ground Weapons Locating Radar (GWLR): GB2 Operatonal Assessment (OA)	2	2018	3	2018
Ground Weapons Locating Radar (GWLR): GB2 IOC	4	2018	4	2018
Development: Design for Reliability II	1	2017	2	2018
Development: G/ATOR Enhancements	3	2018	4	2023
Logistics: Fielding Conference	2	2017	2	2017
Logistics: Early Deployment Decision Independent Logistics Assessment (ILA)	4	2017	4	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy **Date:** February 2018

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204460M / (U)Ground/Air Task Oriented Radar (G/ATOR)	Project (Number/Name) 9C89 / Marine Ground-Air Radar
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Logistics: FRP ILA	1	2019	1	2019
Logistics: Depot Facilitzation (LRU Repair & IROAN)	3	2019	4	2022
Logistics: Depot IROAN Capability	3	2022	3	2022

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