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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy	Date: May 2017
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)					PE 0604376M I (U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio							
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
Total Program Element	32.827	3.281	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	36.108
3327: MAGTF EW Aviation Development	27.687	1.654	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	29.341
3371: MAGTF EW Interoperability Development	5.140	1.627	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	6.767

Note

The AN/ALQ-231(V)1 for Rotary Wing aircraft was re-designated AN/ALQ-231(V)3 by Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RD&A)).

A. Mission Description and Budget Item Justification

This program element includes development of Electronic Warfare (EW) systems for the United States Marine Corps (USMC) tactical aircraft, USMC helicopters, unmanned air vehicles, data link vulnerability assessments, precision targeting, United States Navy (USN) and USMC radio frequency jammers, and development and testing of EW devices on emerging platforms to combat emerging threats and emergency contingencies.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

PE 0604376M consolidated to PE 0604270N beginning in FY 2017.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	2.778	0.000	0.000	-	0.000
Current President's Budget	3.281	0.000	0.000	-	0.000
Total Adjustments	0.503	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.547	0.000			
• SBIR/STTR Transfer	-0.044	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000

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<div>Change Summary Explanation</div> <div>Technical: N/A</div> <div>Schedule: N/A</div>		

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604376M I (U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio				Project (Number/Name) 3327 I MAGTF EW Aviation Development			
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
3327: MAGTF EW Aviation Development	27.687	1.654	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	29.341
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

PE 0604376M was consolidated to PE 0604270N beginning in FY 2017 pursuant to Principal Deputy Assistant Secretary of the Navy (Financial Management and Comptroller) (PDASN (FM&C)) memorandum signed 5 December 2014.

A. Mission Description and Budget Item Justification

This project unit supports the United States Marine Corps development of Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) and the various elements of its distributed System of Systems (SoS) that support the Commandant of the Marine Corps' Strategy and Vision 2025 and Joint Vision 2025. The SoS will address MAGTF EW sufficiency gaps in the areas of Electronic Attack, EW Support, and Electronic Protection with a multitude of payloads designed for carriage on a variety of organic MAGTF air and ground assets. Payload development plans follow an adaptable, modular and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational and sustainment cost.

The AN/ALQ-231(V)1 pod is the Fixed-Wing variant of the Intrepid Tiger II pod flown on the AV-8B and F/A-18A-D platforms. The AN/ALQ-231(V)2 will be the variant of the Intrepid Tiger II pod flown on unmanned aerial vehicle (UAV) platforms once integration is complete. The AN/ALQ-231(V)3 is the Rotary-Wing variant of the Intrepid Tiger II pod flown on the AH-1 and UH-1 platforms. As of the PresBud15 submission, the AN/ALQ-231(V)1 was the only approved configuration and nomenclature for the Intrepid Tiger II pod. The re-designation of the ALQ-231 variants occurred with the approval of Rapid Deployment Capability authorization for AN/ALQ-231 on Rotary Wing platforms by the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RD&A)) on January 14, 2014.

Commencing in FY 2017, Intrepid Tiger II efforts are budgeted under PE 0604270N, PU 3327.

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

	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Intrepid Tiger II (AN/ALQ-231)	1.654	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2016 Accomplishments:					
The Intrepid Tiger II (AN/ALQ-231) program continued to mature hardware technology, updated targeting techniques, and corrected identified software discrepancies. Work has continued to identify Intrepid Tiger II based solutions to radar threats in support of the penetrating jammer mission, culminating in the AN/ALQ-231(V)1 BLK X Radar Jammer. Investigated potential for integration of the Intrepid Tiger II capability					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<p>on tilt-rotor and C-130 platforms. Continued research efforts to develop an enabling capability to facilitate Collaborative EW (CEW) through shared organic, national and spaced Electronic Surveillance and coordinated non-kinetic fires (electronic attack) in accordance with spectrum operations objectives by linking Command and Control (C2), operators and sensors across a network interface, and continued to explore uses for Intrepid Tiger II with the Cyber Electronic Warfare Coordination Cell (CEWCC).</p> <p>FY 2017 Plans: N/A</p> <p>FY 2018 Base Plans: N/A</p> <p>FY 2018 OCO Plans: N/A</p>					
Accomplishments/Planned Programs Subtotals	1.654	0.000	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• APN/0587: MAGTF EW for Aviation	7.680	21.976	10.111	-	10.111	11.810	41.694	31.329	34.061	59.337	306.795
Remarks											
D. Acquisition Strategy											
<p>This project unit is part of United States Marine Corps led efforts to ensure Marine Corps requirements are included in the budget process for the Future Year Defense Program and beyond. These efforts include AN/ALQ-231 Intrepid Tiger II(V)1, Intrepid Tiger II(V)2, Intrepid Tiger II(V)3, Collaborative Electronic Warfare (EW)/EW Battle Management, EW Payload, and EW Service Architecture (formerly Collaborative Online Reconnaissance Provider Operationally Responsive Attack Link). These programs are the Marine Corps' initial steps to create systems to distribute EW capability across the battle space.</p>											
E. Performance Metrics											
<p>Successful completion of Intrepid Tiger II(V)3 (AN/ALQ-231) Initial Operational Capability (IOC). Commencement of research into Engineering Change Proposals (ECPs) for capability upgrades for Intrepid Tiger II(V)1 and Intrepid Tiger II(V)3 pods.</p>											

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Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604376M / (U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio				Project (Number/Name) 3371 / MAGTF EW Interoperability Development			
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
3371: MAGTF EW Interoperability Development	5.140	1.627	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	6.767
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note
In FY17 this PU will move into PE 0604270N.

A. Mission Description and Budget Item Justification
This project unit supports the United States Marine Corps Air-Ground interoperability by providing a variety of capabilities through multiple functions of the Software Reprogrammable Payload (SRP) when installed onboard SRP capable aircraft. The spiral development plans allow adaptable, scalable and open architecture philosophy to reduce stove pipe solutions but enable future growth at a reduced operational and sustainment cost.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Software Reprogrammable Payload	1.627	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2016 Accomplishments: Continue integration of the SRP on the United States Marine Corps MV-22 Platform.					
FY 2017 Plans: N/A					
FY 2018 Base Plans: N/A					
FY 2018 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.627	0.000	0.000	0.000	0.000

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

Remarks

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D. Acquisition Strategy

This project unit is part of United States Marine Corps led efforts to ensure Marine Corps requirements are included in the budget process for the Future Year Defense Program and beyond. This effort is for the Software Reprogrammable Payload. This program is part of the Marine Corps initial steps to create a common interoperable system to distribute multiple data types across the battle space through spiral development.

E. Performance Metrics

Successful completion of the Spiral 2 Development and Demonstration onboard MV-22 Test Platform.