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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605126N *I (U)Joint Theater Air and Missile Defense Org*							
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	0.000	6.799	2.998	0.141	-	0.141	0.048	0.000	0.000	0.000	0.000	9.986
3307: *Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)*	0.000	6.799	2.998	0.141	-	0.141	0.048	0.000	0.000	0.000	0.000	9.986

A. Mission Description and Budget Item Justification

Maritime Integrated Air and Missile Defense (IAMD) Planning System (MIPS) is an automated air and missile defense planning tool that supports the Joint Force Maritime Component Commander at the Operational Level of War (OLW) by automatically and optimally allocating and stationing ships in support of Ballistic Missile Defense (BMD) and Anti-Air Warfare (AAW). MIPS contains United States Army Patriot and Terminal High Altitude Air Defense (THAAD) models to ensure synergistic allocation and positioning of maritime units in relation to other joint units, providing optimized mutual defense for selected defended assets against selected BMD and AAW threats. MIPS completed developing significantly improved inorganic Ballistic Missile Defense planning capabilities through the incorporation of Long Range Surveillance and Training, Cued Engagement, and Launch on Tactical Digital Information Links (TADIL) planning functionality. In FY2015, MIPS began development to deliver an automated planning capability for Naval Integrated Fire Control-Counter Air (NIFC-CA) operations, incorporating the Naval Positioning Assessment Tool (NPAT) to assist in aviation asset placement, bottom contours will be added to refine the areas of ship positioning during the planning process, and adding the Cooperative Engagement Capability (CEC) stationing planning capability.

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	6.995	2.998	0.140	-	0.140
Current President's Budget	6.799	2.998	0.141	-	0.141
Total Adjustments	-0.196	0.000	0.001	-	0.001
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.196	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.001	-	0.001

Change Summary Explanation

FY 2016 funding request was reduced by $0.196M for Fund and Rate adjustments.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy			Date: May 2017
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605126N / *(U)Joint Theater Air and Missile Defense Org*	Project (Number/Name) 3307 / *Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)*	

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
3307: *Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)*	0.000	6.799	2.998	0.141	-	0.141	0.048	0.000	0.000	0.000	0.000	9.986
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Maritime Integrated Air and Missile Defense (IAMD) Planning System (MIPS) is an automated air and missile defense planning tool that supports the Joint Force Maritime Component Commander at the Operational Level of War (OLW) by automatically and optimally allocating and stationing ships in support of Ballistic Missile Defense (BMD) and Anti-Air Warfare (AAW). MIPS contains United States Army Patriot and Terminal High Altitude Air Defense (THAAD) models to ensure synergistic allocation and positioning of maritime units in relation to other joint units, providing optimized mutual defense for selected defended assets against selected BMD and AAW threats. MIPS completed developing significantly improved inorganic Ballistic Missile Defense planning capabilities through the incorporation of Long Range Surveillance and Training, Cued Engagement, and Launch on Tactical Digital Information Links (TADIL) planning functionality. In FY2015, MIPS began development to deliver an automated planning capability for Naval Integrated Fire Control-Counter Air (NIFC-CA) operations, incorporating the Naval Positioning Assessment Tool (NPAT) to assist in aviation asset placement, bottom contours will be added to refine the areas of ship positioning during the planning process, and adding the Cooperative Engagement Capability (CEC) stationing planning capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Systems Engineering	6.799	2.998	0.141	0.000	0.141
Articles:	-	-	-	-	-
FY 2016 Accomplishments: Funding increased from FY2015 supported the development of the MIPS competitive contract and commenced development of Phase 2, Increment I update to MIPS includes development of Cooperative Engagement Capability (CEC) stationing, Bottom Contours, and NIFC-CA planning capability by performing the following: - Received required Government Furnished Information (GFI) to update the MIPS modeling to consider bottom contours, incorporate CEC capability in planning and NIFC-CA requirements. - Allocated the requirements for Bottom Contours, CEC Stationing, and NIFC-CA to the MIPS system elements and determined the areas impacted and requiring development.					
FY 2017 Plans: - Conduct Preliminary Design Review (PDR) to ensure the development and risks were properly managed. - Initiate and complete the development of technical detailed design. - Conduct Critical Design Review (CDR) to ensure the development and risks are properly managed.					

Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy		Date: May 2017
Appropriation/Budget Activity 1319 / 6	**R-1 Program Element (Number/Name)** PE 0605126N / *(U)Joint Theater Air and Missile Defense Org*	**Project (Number/Name)** 3307 / *Maritime Integrated Air and Missile Defense (IAMD) Processing Sys (MIPS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
- Conduct Test Readiness Review (TRR) to ensure the development and risks are properly managed. - Test and Evaluation Master Plan (TEMP) Approval. ***FY 2018 Base Plans:*** - Conduct acceptance testing, Development Test (DT) and perform testing planning for Initial Operational Test & Evaluation (IOT&E) in FY2018. ***FY 2018 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	6.799	2.998	0.141	0.000	0.141

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

ACAT III designation granted February 2011.
The MIPS Capabilities Development Document (CDD) signed and approved 4QTRFY2016.

Contracts:
MIPS RDT&E FY15-FY17

E. Performance Metrics

FY16:
- Continued development of first increment NIFC-CA planning capability, Bottom Contours, and CEC stationing model updates.
- Continued to conduct DT and Operational Test (OT) resulting in actual fielded the Cued engagement, Long Range Surveillance and Tracking (LRS&T) planning capability.
- Continued Technical Information Meetings (TIMs) as needed to explore and resolve emergent design and requirement issues.

FY17:
- Complete system development and prepare for IOT&E occurring in FY2018.

FY18:
- Perform independent government testing including IOT&E.