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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy **Date:** February 2015

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>					R-1 Program Element (Number/Name) PE 0304231N / <i>Tactical Command System - MIP</i>							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	3.362	2.140	1.011	0.998	-	0.998	1.007	1.037	1.067	1.089	Continuing	Continuing
2009: <i>OSIS Evolutionary Development (OED)</i>	3.362	2.140	1.011	0.998	-	0.998	1.007	1.037	1.067	1.089	Continuing	Continuing

A. Mission Description and Budget Item Justification

Radiant Mercury (RM) is a secure information platform that provides an automated means to sanitize, downgrade, guard, and transliterate formatted data at various classifications, compartments and releasabilities. It enables Combatant Commanders as well as operational commanders, afloat and ashore to disseminate and receive critical operational and intelligence information with coalition and allied forces.

Major Focus Area for FY16: Deliver 6.x and commence RM Version 7.0 development and begin the certification process.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	2.140	1.011	1.007	-	1.007
Current President's Budget	2.140	1.011	0.998	-	0.998
Total Adjustments	-	-	-0.009	-	-0.009
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.009	-	-0.009

Change Summary Explanation

Schedule:

1. Certification Test & Evaluation (CT&E) of Radiant Mercury (RM) Version 5.1 shifted from 3QFY13 to 1Q 2014
2. Delivery of RM Version 5.1 shifted from 4QFY13 to 1Q 2014

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0304231N / <i>Tactical Command System - MIP</i>				Project (Number/Name) 2009 / <i>OSIS Evolutionary Development (OED)</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2009: <i>OSIS Evolutionary Development (OED)</i>	3.362	2.140	1.011	0.998	-	0.998	1.007	1.037	1.067	1.089	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Trusted Information System (TIS) Radiant Mercury (RM) is a system that successfully provides accredited Cross Domain Solutions (CDS) to the Navy, the Department of Defense (DoD), and the Intelligence Community (IC). TIS RM is a critical component of network-centric warfare, supporting joint operations and allied and coalition forces world-wide. The ability to pass sensitive and critical data across security domains and to our allied and coalition partners in a timely fashion can only be met by accredited CDS systems such as RM. RM enables the Navy to operate in a multi-national environment.

TIS RM provides automated, bi-directional sanitization, transliteration and guarding capability for formatted and unformatted data between security enclaves. RM helps ensure critical intelligence is provided quickly to operational decision-makers. TIS RM provides the capability to disseminate information for operating forces worldwide, including the operating forces of key allies in the Pacific, Central and European Command regions. This capability to move all-source intelligence-derived track information into the realm of the operational community significantly improves the situational awareness of tactical operators and planners. Unformatted data is handled by the Information Review Process (IRP). The system provides cross domain services to a wide variety of customers including Combatant Commanders, Air Force (Shared Early Warning program), Army (Blue Force Tracking Program), Missile Defense Agency (MDA), Navy Cyber Defense Operations Command (NCDOC), Naval Modular Automated Communication Systems (NAVMACS), Mobile User Objective Systems (MUOS), Navy (Global Command and Control System - Maritime/J (GCCS-M/J), Automatic Identification System (AIS), Maritime Operations Centers (MOC), Distributed Common Ground System-Navy (DCGS-N), Tactical Ranges (TR), and numerous other DoD and Intelligence agencies.

Major Focus Area for FY16: Deliver RM Version 6.x. Begin development and certification process for RM Version 7.0.

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

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Radiant Mercury (RM)	2.140	1.011	0.998	-	0.998
Articles:	-	-	-	-	-
FY 2014 Accomplishments:					
Completed development of the Radiant Mercury (RM) Version 6.0 baseline to run on SE Linux which removes dependency on proprietary vendor products whose pricing models have had a negative impact on the program. SE Linux allows the program to customize the Operating System (OS) for the RM application, increasing processing speed and improving security. Improved remote configuration management by replacing the current version of Windows with a Lightweight Text Interface for initial configuration control and a web-based interface to					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
configure the system. Free and Open Source Software (FOSS) is used to manage the log, audit reduction, and mission assessment capabilities. Enhanced Message Analysis Generator (MAG) Generic Interface Functionality (MGIF) to take advantage of software and capabilities developed elsewhere within the Navy, DoD, and the Intelligence Communities (IC). Completed certification testing.											
FY 2015 Plans: Deliver RM Version 6.0. Begin the development and certification of RM Version 6.x process which includes Factory Acceptance Testing (FAT), alpha testing, and government testing. FAT will include test procedure development to ensure all systems requirements are tested properly, dry-run testing to ensure the procedures are sufficient, and formal testing which will be witnessed by the government. Alpha testing is conducted by the Independent Verification and Validation (IV&V) team and is separate from the FAT. Upon successful FAT and alpha testing the software is provided to the National Security Agency (NSA) and Defense Intelligence Agency (DIA) government labs for the actual certification and testing event. In parallel to these testing activities, the software will also be provided to RM customers who maintain their own labs.											
FY 2016 Base Plans: Deliver RM Version 6.x. Begin the development and certification of RM Version 7.0 process which includes FAT, alpha testing, and government testing. FAT will include test procedure development to ensure all systems requirements are tested properly, dry-run testing to ensure the procedures are sufficient, and formal testing which will be witnessed by the government. Alpha testing is conducted by the IV&V team and is separate from the FAT. Upon successful FAT and alpha testing the software is provided to the NSA and DIA government labs for the actual certification and testing event. In parallel to these testing activities, the software will also be provided to RM customers who maintain their own labs.											
FY 2016 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals							2.140	1.011	0.998	-	0.998
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/2608: Trusted Information System (TIS)	0.396	0.324	0.284	-	0.284	0.290	0.295	0.302	0.308	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0304231N / <i>Tactical Command System - MIP</i>				Project (Number/Name) 2009 / <i>OSIS Evolutionary Development (OED)</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Complete</u>	<u>Total Cost</u>
Remarks											
D. Acquisition Strategy											
Trusted Information Systems (TIS) Radiant Mercury (RM) provides automated, bi-directional sanitization, transliteration and guarding capability for formatted and unformatted data between security enclaves. RM helps ensure critical Indications and Warning intelligence is provided quickly to operational decision-makers. RM provides certified and accredited Cross Domain capabilities in the Pacific Command (PACOM), Europe Command (EUCOM) and Central Command (CENTCOM), Northern Command (NORTHCOM), Areas of Responsibility (AOR). RM is a fee-for-service program, it receives partial funding from the Navy to cover basic program management and infrastructure costs. The remaining funds needed to keep the program operating are generated from a fee-for-service model which charges customers a Life Cycle Surcharge (LCS) on all new task orders and an Annual User Fee (AUF) on all operational RM systems currently fielded.											
E. Performance Metrics											
Radiant Mercury (RM) provides and develops certified, accredited Cross Domain Solutions (CDS) and transfer capabilities to DoD and Intelligence Community (IC), and provides the capability to disseminate and receive operational and intelligence information for 100% of authorized sites. Complete 100% of certification, system and security testing of RM version (X) for release. Provide the capability to sanitize, downgrade, guard, and transliterate formatted data at various classifications, compartments and releasabilities to combatant and operational commanders, coalition and allied forces at over 420 sites world-wide.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0304231N / Tactical Command System - MIP				Project (Number/Name) 2009 / OSIS Evolutionary Development (OED)					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Software Development	C/CPFF	Lockheed Martin : Denver, CO	2.505	1.552	Dec 2013	0.723	Dec 2014	0.713	Dec 2015	-		0.713	Continuing	Continuing	Continuing
Software Development	C/CPFF	Various : Various	0.000	0.231	Dec 2013	0.092	Dec 2014	0.091	Dec 2015	-		0.091	Continuing	Continuing	Continuing
Subtotal			2.505	1.783		0.815		0.804		-		0.804	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Requirements Analysis	C/CPFF	Various : Various	0.000	-		0.096	Dec 2014	0.095	Dec 2015	-		0.095	Continuing	Continuing	Continuing
Requirements Analysis	C/CPFF	BAH : San Diego, CA	0.614	0.357	Dec 2013	0.100	Dec 2014	0.099	Dec 2015	-		0.099	-	1.170	-
Subtotal			0.614	0.357		0.196		0.194		-		0.194	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Certification Test	WR	SSC LANT : Charleston, SC	0.243	-		-		-		-		-	-	0.243	-
Subtotal			0.243	-		-		-		-		-	-	0.243	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			3.362	2.140		1.011		0.998		-		0.998	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy																	Date: February 2015												
Appropriation/Budget Activity 1319 / 5									R-1 Program Element (Number/Name) PE 0304231N / Tactical Command System - MIP									Project (Number/Name) 2009 / OSIS Evolutionary Development (OED)											
Proj 2009		FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Test & Evaluation																													
Test & Evaluation Milestone - CT&E		Version 5.1 ▲			Version 6.0 ▲					Version 6.x ▲						Version 7.0 ▲						Version 7.x ▲							
Software Deliveries																													
		Version 5.1 ▲				Version 6.0 ▲				Version 6.x ▲								Version 7.0 ▲							Version 7.x ▲				
2016DON - 0304231N - 2009 CT&E of RM Version 5.1 shifted from 3Q 2013 to 1Q 2014 Delivery of RM Version 5.1 shifted from 4Q 2013 to 1Q2014																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0304231N / <i>Tactical Command System - MIP</i>	Project (Number/Name) 2009 / <i>OSIS Evolutionary Development (OED)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2009				
Test & Evaluation: Test & Evaluation Milestone - CT&E: RM Test & Evaluation Milestone - CT&E - RM Version 5.1	1	2014	1	2014
Test & Evaluation: Test & Evaluation Milestone - CT&E: RM Test & Evaluation Milestone - CT&E - RM Version 6.0	4	2014	4	2014
Test & Evaluation: Test & Evaluation Milestone - CT&E: RM Test & Evaluation Milestone - CT&E - RM Version 6.x	1	2016	1	2016
Test & Evaluation: Test & Evaluation Milestone - CT&E: RM Test & Evaluation Milestone - CT&E - RM Version 7.0	4	2017	4	2017
Test & Evaluation: Test & Evaluation Milestone - CT&E: RM Test & Evaluation Milestone - CT&E - RM Version 7.x	4	2019	4	2019
Software Deliveries: RM Software - Delivery of RM Version 5.1	1	2014	1	2014
Software Deliveries: RM Software - Delivery of RM Version 6.0	1	2015	1	2015
Software Deliveries: RM Software - Delivery of RM Version 6.x	2	2016	2	2016
Software Deliveries: RM Software - Delivery of RM Version 7.0	4	2018	4	2018
Software Deliveries: RM Software - Delivery of RM Version 7.x	2	2020	2	2020