Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0303238N: *Consolidated Afloat Network Ent SVCS(CANES)-MIP*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	9.334	6.602	-	-	-	-	-	-	-	0.000	15.936
9C87: *CANES Integration*	9.334	6.602	-	-	-	-	-	-	-	0.000	15.936

Note

CANES is a Department of the Navy (DoN) efficiency initiative. CANES Military Intelligence Program (MIP) related funding under PE 0303238N investment ends in FY 2012. MIP requirements transition to PE 0303138N beginning in FY 2013.

A. Mission Description and Budget Item Justification

Consolidated Afloat Networks & Enterprise Services (CANES) is a Department of Navy (DoN) Efficiency Initiative and is the Navy's only Program of Record (POR) to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services to operate in the tactical domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks currently under PE 0204163N (LI 3050) Ship Communications Automation, including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network (SubLAN). These legacy afloat network designs are End of Life starting in FY 2012 and CANES will replace these existing, unaffordable, and obsolete networks.

The fundamental goal of CANES is to bring Infrastructure and Platform as a Service (IaaS / PaaS), within which current and future iterations of Tasking, Collection, Processing, Exploitation and Dissemination (TCPED) computing and storage capabilities will reside. CANES will provide complete infrastructure, inclusive of hardware, software, processing, storage and end user devices for Unclassified, Coalition, Secret and SCI for all basic network services (email, web, chat, collaboration) to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers, and Aircraft. In addition, ~36 hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Integrating these applications and systems is accomplished through Application Integration (AI), the engineering process used to evaluate and validate compatibility between the CANES IaaS / PaaS and the Navy-validated applications, systems and services that will utilize the CANES infrastructure and services. Specific programs, such as Distributed Common Ground System - Navy (DCGS-N), Global Command and Control System - Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), and Undersea Warfare Decision Support System (USW-DSS), are dependent on the CANES Common Computing Environment (CCE) to field, host, and sustain their capability because they no longer provide their own hardware. CANES requires that Automated Digital Network System (ADNS)field prior to or concurrently with CANES due to architectural reliance between the two programs.

CANES will field on a rolling four year hardware baseline and a two year software baseline. CANES is based on the overarching concept of reducing the number of afloat networks and providing enhanced efficiency through a single engineering focus on integrated technical solutions. This will allow for streamlined acquisition, contracting test events, and significant lifecycle efficiencies through consolidation of multiple current configuration management baselines, logistics, and training efforts into a unified support structure.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303238N: *Consolidated Afloat Network Ent SVCS(CANES)-MIP*

CANES Military Intelligence Program (MIP) related funding under PE 0303238N investment ends in FY 2012. MIP requirements transition to PE 0303138N beginning in FY 2013.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	8.375	6.602	-	-	-
Current President's Budget	9.334	6.602	-	-	-
Total Adjustments	0.959	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.002	-			
• SBIR/STTR Transfer	-	-			
• Congressional General Reductions Adjustments	-0.043	-	-	-	-

Change Summary Explanation

Funding: CANES Military Intelligence Program (MIP) related funding under PE 0303238N investment ends in FY 2012. MIP requirements transition to PE 0303138N beginning in FY 2013.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303238N: *Consolidated Afloat Network Ent SVCS(CANES)-MIP*	PROJECT 9C87: *CANES Integration*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
9C87: *CANES Integration*	9.334	6.602	-	-	-	-	-	-	-	0.000	15.936
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

CANES is a Department of the Navy (DoN) efficiency initiative. CANES Military Intelligence Program (MIP) related funding under PE 0303238N investment ends in FY12. MIP requirements transition to PE 0303138N beginning in FY13.

A. Mission Description and Budget Item Justification

Consolidated Afloat Networks & Enterprise Services (CANES) is a Department of Navy (DoN) Efficiency Initiative and is the Navy's only Program of Record (POR) to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services to operate in the tactical domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks currently under PE 0204163N (LI 3050) Ship Communications Automation, including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network (SubLAN). These legacy afloat network designs are End of Life starting in FY 2012 and CANES will replace these existing, unaffordable, and obsolete networks.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303238N: *Consolidated Afloat Network Ent SVCS(CANES)-MIP*	PROJECT 9C87: *CANES Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: CANES Integration	9.334	6.602	-
Articles:	0	0	
FY 2011 Accomplishments: Continued development of CANES statutory and regulatory acquisition documentation to achieve Milestone C (MS C). Continued revision of Cost Analysis Requirements Document (CARD) and Life Cycle Cost Estimate (LCCE). Conducted Developmental Testing (DT) and prepared Operational Assessment (OA) event in support of MS C. Continued Engineering and Manufacturing Development (EMD) contract development of platform set 1 and 2 baseline. Developed Request for Proposal for Full Deployment contract and associated source selection activities. Achieved MS B.			
FY 2012 Plans: Complete development of statutory and regulatory acquisition documentation to achieve CANES MS C. Revise CARD and LCCE in support of Navy's Service Cost Position (SCP) for MS C. Conduct OA in support of MS C. Preparation begins for Initial Operational Test and Evaluation (IOT&E) on Unit level platforms to complete operational testing. Continue hosted system integration testing and Application Integration (AI) as they migrate to CANES baseline. Prepare Enterprise Engineering and Certification (E2C) lab for testing on platform set 1 and 2 baselines. Commence Source Selection activities associated with Full Deployment contract and development of platform set 3 and 4 baselines. Achieve MS C.			
Accomplishments/Planned Programs Subtotals	9.334	6.602	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/2915: *CANES*	10.208	96.088	283.628	0.000	283.628	314.812	291.514	351.225	342.807	4,893.728	6,585.187
• OPN/2925: *CANES INTELL*	3.123	72.313	79.427	0.000	79.427	60.666	69.830	56.274	60.338	1,045.823	1,447.794
• RDTE/0303138N: *CANES INTEGRATION*	42.417	24.855	15.415	0.000	15.415	14.847	13.994	13.116	13.329	272.368	455.664

D. Acquisition Strategy

CANES was identified as an ACAT IAM MAIS. Formal program initiation occurred at MS B (2QFY11). The program office is employing a multiple-phase, multiple-award down-select contract strategy to reduce program risks and maintain competition in both design development and production during contract performance. Two competitive contracts have been awarded to design, develop, and deliver all hardware and the associated operating system, virtualization and other commercial software needed to deliver a functional network. As the program accomplishes Engineering and Manufacturing Development (EMD), a down-select will be conducted to choose the best design for Limited Deployment (LD). At the completion of LD, a separate full and open contract will be awarded for Full Deployment (FD).

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303238N: *Consolidated Afloat Network Ent SVCS(CANES)-MIP*	PROJECT 9C87: *CANES Integration*

E. Performance Metrics

Early RDT&E investment and sustainment of dual design contractors through the development phase will save 10-30% of Total Ownership Cost (TOC) over the life cycle of the program. Cost avoidance throughout the life of the program is based on performance gains that are measured (not quantified) by 1) reducing the number of networks through the use of mature, certified, cross domain technologies; 2) reducing the infrastructure footprint and associated costs for hardware afloat; and 3) providing increased capability to meet current and projected warfighter requirements.