Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*				R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*							
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
Total Program Element	12.300	6.280	3.733	0.000	3.733	3.591	8.878	6.175	1.961	Continuing	Continuing
3184: *Regional Maritime Awareness Capability (RMAC)*	0.291	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.982
4011: *Naval Coastal Warfare Surv and C4I Sys*	8.020	6.280	3.733	0.000	3.733	2.643	2.212	1.426	1.487	Continuing	Continuing
9999: *Congressional Adds*	3.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.254
9C86: *Combatant Craft Replacement*	0.000	0.000	0.000	0.000	0.000	0.948	6.666	4.749	0.474	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Naval Coastal Warfare (NCW) community consists of 22 Mobile Inshore Undersea Warfare (MIUW) units and 8 Harbor Defense Command (HDC) units operating Mobile Ashore Support Terminal IIIs (MAST IIIs). NCW also includes 14 Inshore Boat Units (IBU) comprised of 6 small craft (boats) each on which are installed C4I systems . The Mobile Inshore Undersea Warfare - System Upgrade (MIUW-SU), the primary system used by the NCW MIUW Units, is the only land-based and rapidly deployable mobile Navy system with the ability to conduct surface and subsurface surveillance in coastal and littoral areas. The system provides detailed contact information via various C4I systems to the tactical area commander based on radar, visual, thermal, electronic, and underwater acoustic sensor information. Missions supported with the MIUW-SU's are: OCONUS and INCONUS Force Protection, protecting port areas, high value assets, and surveilling the near shore areas. The MAST III is the C4ISR hub for the NCW Commander. MAST IIIs deploy to support Force Protection/Force Security Officer for Commander, Amphibious Group in its Harbor Defense and Coastal Sea Control missions.

In the aftermath of the attack on USS COLE and particularly post 11 SEP, the role, structure, and utilization for the NCW program has changed appreciably and continues to evolve in the face of developing world events. However, the core competencies resident in expeditionary NCW forces to conduct surveillance, C4I and patrol/interdiction have not changed.

NCW remains a specialized force constituted to accomplish specific tasks under specific conditions, but also agile enough to fill emergent and non-traditional roles. Post 11 SEP, NCW Groups and Units have been mobilized to perform force protection missions at different levels in all CinC area of responsibility (AOR)'s and within the continental United States in support of Maritime Homeland Security. This RDT&E exhibit supports the future direction of Naval Coastal Warfare as it is being determined externally by world events and internally by the progress of DoD initiatives to replace Cold War forces and capabilities with 21st century transformational forces and capabilities. NCW forces currently field legacy systems designed to counter more traditional military threats in a two Major Theater War scenario. Future NCW forces will develop into a highly effective, relatively low cost transformational force capable of operating anywhere in the world to perform a spectrum of force

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*

protection missions ranging from full scale port security/harbor defense operations during wartime to short duration point defense of high value units or facilities in operations other than war. This transformational force will be agile, tailorable, and scalable and will use applied technology to quickly detect, deter or interdict potential threats to DoN assets in the littoral environment. Next generation surface and subsurface surveillance systems, as well as enhanced C4I capabilities, are required to meet these operational objectives. These capabilities must be interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.

Sea Eagle is an Advanced Concept Technology Demonstration (ACTD) with USN as lead service and USSOCOM as the Combatant Command sponsor. Sea Eagle will provide integrated and enhanced technologies in order to provide persistent, clandestine, and unattended monitoring of denied and sensitive maritime, littoral, and harbor areas. These sensors and

systems will be deliverable by Special Operational Forces (SOF) and networked in a multi-media (sea, air, land) system of systems approach. Sea Eagle will focus on close access networking, both wireless through air and underwater, to support networked tactical sensors. The special operations warfighter will tactically emplace Sea Eagle systems to provide targeted, tactical information that complements national and theater intelligence assets to enable a layered intelligence collection strategy.

Riverine Force will integrate and employ a variety of surface and air assets, special vehicles, weapons and appropriately trained personnel. Mission assets needed to support the operational capabilities will vary widely dependant on the Host Nations involved. The Riverine Squadron will deploy with inherent, but limited, force protection capabilities. The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle providing enhanced surveillance and reconnaissance capability to Naval Expeditionary Combat Command (NECC) Riverine forces.

Regional Maritime Awareness Capability (RMAC) - support GWOT by providing other USG Agencies with maritime traffic information that is not currently available. RMAC also provides enhanced regional security, safety, economic stability and environmental protection through shared maritime domain awareness (MDA).

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	12.574	6.307	0.000	0.000	0.000
Current President's Budget	12.300	6.280	3.733	0.000	3.733
Total Adjustments	-0.274	-0.027	3.733	0.000	3.733
• Congressional General Reductions		-0.027			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.274	0.000			
• Program Adjustments	0.000	0.000	3.733	0.000	3.733

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2009	FY 2010
Project: 9999: *Congressional Adds*		
Congressional Add: *Common Expeditionary Force Protection System Archi*	3.989	0.000
Congressional Add Subtotals for Project: 9999	3.989	0.000
Congressional Add Totals for all Projects	3.989	0.000

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3184: *Regional Maritime Awareness Capability (RMAC)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3184: *Regional Maritime Awareness Capability (RMAC)*	0.291	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.982
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Regional Maritime Awareness Capability (RMAC) - support GWOT by providing other USG Agencies with maritime traffic information that is not currently available. RMAC also provides enhanced regional security, safety, economic stability and environmental protection through shared maritime domain awareness (MDA). Capabilities include the ability to detect, track, identify and display information on a cooperative and non-cooperative surface vessels to enable maritime security operations. The Regional Maritime Awareness Capability (RMAC) Joint Capabilities Technology Demonstration (JCTD) is a coordinated Department of Defense (DoD) and Department of State project. The goal of the US European command, as the Combatant Command sponsor for this JCTD, is to establish a maritime domain awareness (MDA) system that can be propagated to allied nations and is compliant with US Navy afloat and expeditionary systems. The RMAC incorporates data models that enable the US Navy to leverage data from indigenous sensors as policy and the situation dictates. The Navy is the sponsoring branch of DoD for the RMAC JCTD because of their vested interest in sensors and surveillance throughout the maritime domain. The RMAC JCTD will demonstrate and, possibly, transition a regional maritime awareness solution set, consisting of sensors and their indigenous processors, communication systems, and software. The initial application of the capability will enable friendly nations in the Gulf of Guinea region to develop
maritime domain awareness in the regional waters, and share their data with each other and US government users (including the US Navy), as authorized by RMAC JCTD coalition partners. This solution set will be equally applicable to local sensor sites, national operations centers, regional coordination centers, and external users. The sensors and
processors include Automated Identification System (AIS), radar, video cameras, and night vision devices. The RMAC JCTD outputs and efficiencies include: surveillance; tracking; correlation and analysis; and multi-national information sharing and collaboration capabilities. The US Navy is directly contributing approximately 17% of the total RMAC JCTD cost. The Navy funding is directed to the performing activities as outlined in the Office of the Secretary of Defense coordinated RMAC JCTD Management Plan via a program element line executed by the Program Executive Officer, Littoral and Mine Warfare's (PEO LMW) Anti-Terrorism Afloat Program Office (PMS 480).

B. Accomplishments/Planned Program ($ in Millions)

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3184: *Regional Maritime Awareness Capability (RMAC)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
DAWDF *FY 2009 Accomplishments:* DAWDF	0.001	0.000	0.000	0.000	0.000
RMAC *FY 2009 Accomplishments:* Develop an increased Maritime Domain Awareness through improved integration with interagency and international partners. Funding provided site survey participation in Nigeria.	0.290	0.000	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals	0.291	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

RMAC performance criteria for the JCTD will be determined jointly by the operational and technical managers as outlined in the Office of the Secretary of Defense RMAC JCTD Management Plan.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4011: *Naval Coastal Warfare Surv and C4I Sys*	8.020	6.280	3.733	0.000	3.733	2.643	2.212	1.426	1.487	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Maritime Expeditionary Security Force (MESF), formerly Naval Coastal Warfare (NCW), consists of two Groups and ten Squadrons; nine regular and one special (Guam). Each squadron is organized by Boat Detachments, Security Detachments and Command and Control (C2) divisions. The C2 Division is comprised of Sensor Detachments (SENSDET)operating the Radar Sonar Surveillance Center (RSSC) and Communications Detachments (COMMSDET) operating the Mobile Ashore Support Terminal (MAST IIIs), each separately funded. The Radar Sonar Surveillance Center (RSSC) is the only land-based and rapidly deployable mobile Navy system with the ability to conduct surface and subsurface surveillance in coastal and littoral areas. The system provides detailed contact information via various C4I systems to the tactical area commander based on radar, visual, thermal, electronic, and underwater acoustic sensor information. Missions supported with the MIUW-RSSCs are: OCONUS and INCONUS Force Protection, protecting port areas, high value assets, and surveilling the near shore areas. The MAST III is the C4ISR hub for the NCW Commander. MAST IIIs deploy to support Force Protection/Force Security Officer for Commander, Amphibious Group in its Harbor Defense and Coastal Sea Control missions.

As stated in the Maritime Expeditionary Security Force (MESF) CONOPS dated 11 April 2007: The MESF organization will be established through realignment of the Naval Coastal Warfare (NCW) organizations (NCW Squadrons, Mobile Inshore Undersea Warfare Units, Inshore Boat Units, Mobile Security Squadrons, Mobile Security Detachments, Embarked
Security Detachments, and Embarked Security Teams) into the MESF structure. Further realignment will result in the integration of intelligence, VBSS, and additional waterborne and security detachments to support new mission capability and provide additional NCC / JFMCC capacity. In addition to enhancing readiness of the current force, MESF will deploy adaptive force packages (AFPs) tailored for the specific missions to achieve greater efficiency and combat readiness than the current NCW force. By establishing a professional warfare community and dedicated Maritime Expeditionary Security Force capable of meeting the full range of security requirements, MESF closes a critical gap essential to full mission readiness for MSO. MESF provides a structure that establishes a single integrated maritime security force with one standard for training, certification, employment, and tactics, techniques, and procedures (TTP).
This funding supports the future direction of the MESF as it is being determined externally by world events and internally by the progress of DoD initiatives to replace Cold War forces and capabilities with 21st century transformational forces and capabilities. The associated developmental efforts will ultimately transition into an adaptive force package Navy Expeditionary Security System (NESS). MESF forces currently field legacy systems designed to counter more traditional military threats in

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

a two Major Theater War scenario. Future MESF units will develop into a highly effective, relatively low cost transformational force capable of operating anywhere in the world to perform
a spectrum of force protection missions ranging from full scale port security/harbor defense operations during wartime to short duration point defense of high value units or facilities in operations other than war. This transformational force will be agile, tailorable, and scalable and will use applied technology to quickly detect, deter or interdict potential threats to DoN assets in the littoral environment. Next generation surface and subsurface surveillance systems, as well as enhanced C4I capabilities, are required to meet these operational objectives. These capabilities must be interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.

The Tactically Integrated Sensors (TIS) software constitutes an upgrade to the MAST-RSSC and is being executed as a separate Abbreviated Acquisition Program. The AAP will
enable the deployment of a currently fielded Program of Record (POR) combat system (AN/SQQ-34C) known as Tactically Integrated Sensors (TIS) to the MESF units. TIS system restores the acoustic surveillance capability that has been eroded from the current RSSC suite. Additionally, future mult-spectal technologies are being looked at as
enabling capabilities to expand the situational awareness of the littoral region, providing additional tactical decision aids to the local area commander.

This funding supports the Identity Dominance System (IDS) as key enabler in support of the Joint Personnel Identity (JPI) program. OPNAV N857 conducted the NCW CBA and MES ICD. MESF forces have a mobile security mission that requires methodologies, procedures, equipment and the communications capacity to identify individuals who represent a
potential threat as a means to deter and eliminate individuals from conducting asymmetric/non-traditional attacks upon friendly forces, high value assets and coastal areas that NCW is charged with protecting. The Vessel Boarding Search and Seizure (VBSS) teams conducting Expanded Maritime Interception Operations also have a similar requirement
to identify individuals. The development of a device to support identity functions is captured in the Identity Dominance System Capability Development Document (IDS CDD). IDS will be used in the following environments: aboard ship and ashore in ports, the littorals and extended inland field environments worldwide. IDS will be employed in
maritime and very austere ashore environments and carried by individuals who are part of ship boarding parties and dismounted patrols. These mission and environmental demands dictate a portable, lightweight, rugged, and reliable system with intuitive and user friendly features. IDS biometric modalities may differ by mission profile,
requiring the authoritative response to the On-Scene Commander/Boarding Officer on whether to detain or further investigate an individual of interest.

Riverine Force will integrate and employ a variety of surface and air assets, special vehicles, weapons and appropriately trained personnel. Mission assets needed to support

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

the operational capabilities will vary widely dependant on the Host Nations involved. The Riverine Squadron will deploy with inherent, but limited, force protection capabilities. The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle providing enhanced surveillance and reconnaissance capability to Naval Expeditionary Combat Command (NECC) Riverine forces.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MESF (Formerly NCW) Upgrades	3.440	2.498	0.877	0.000	0.877

FY 2009 Accomplishments:

MESF Upgrades - Research and develop next generation NCW surveillance and C4I systems capabilities, to include new or improved Tactical Command and Control system, Electronic Systems Management, Under-Sea surveillance, Acoustic tracking of surface contacts, Data Fusion, Autonomous Sensors, Small Craft Situational Awareness/Combat ID, improved IR cameras, auto detect and track software, and improved data recording technologies. The next generation capabilities are based on the requirements in the Maritime Expeditionary Security Initial Capability Document (MES ICD). The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle will provide enhanced surveillance and reconnaissance capability to Naval Expeditionary Combat Command (NECC) Riverine forces. MUSCL will be developed, tested, and delivered (3 systems) to NECC Forces.

FY 2010 Plans:

MESF Upgrades - Research and develop next generation NCW surveillance and C4I systems capabilities, to include new or improved Tactical Command and Control system, Electronic Systems Management, Under-Sea surveillance, Acoustic tracking of surface contacts, Data Fusion, Autonomous Sensors, Small Craft Situational Awareness/Combat ID, improved IR cameras, auto detect and track software, and improved data recording technologies. The next generation capabilities are based on the requirements in the Maritime Expeditionary Security Initial Capability Document (MES ICD). The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle will provide enhanced surveillance and reconnaissance capability to Naval

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Expeditionary Combat Command (NECC) Riverine forces. MUSCL will be developed, tested, and delivered (3 systems) to NECC Forces. Continues development of the Tactically Integrated Sensors, Abbreviated Acquisition Program (TIS AAP) to modify and transition an ASW combat system software tool to the MESF Forces. Provide system engineering and software/system integration activities with next generation C4ISR systems and sensors with a specific focus on the transition of the Improved Imaging Technology (IIT) Future Naval Capability sensor systems. The IIT FNC supports the MESF role in Maritime Domain Awareness and is a capability need for the Integrated Swimmer Defense program. Provides program management support to transition next generation MESF capabilities based on the Maritime Expeditionary Security Initial Capabilities Document (MES ICD). *FY 2011 Base Plans:* MESF Upgrades - Continue research and development efforts to integrate emerging C4I technologies into Mess units. Efforts will focus on improved satellite communications, integration with the next generation of naval networks and improvements to network security applications. The next generation capabilities are based on the requirements in the Maritime Expeditionary Security Initial Capability Document (MES ICD).					
DAWDF *FY 2009 Accomplishments:* DAWDF	0.040	0.000	0.000	0.000	0.000
Identity Dominance System *FY 2009 Accomplishments:* Identity Dominance System - Program Management acquisition preparations for a Milestone B for the IDS program of record. Additional efforts will focus on the systems engineering and hardware/software development of the Identity Dominance System device.	4.540	3.782	2.856	0.000	2.856

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Identity Dominance System - Program Management acquisition preparations for a Milestone C for the IDS program of record and the design and development of the IDS device. Additional efforts will focus on systems engineering and hardware/software integration of the Identity Dominance System device. *FY 2011 Base Plans:* Identity Dominance System - Program Management acquisition preparations for a Milestone C for the IDS program of record and continued development of the IDS hardware and software. Additional efforts will focus on developmental and operational testing of the Identity Dominance System system in preparation for Full Rate Production.					
Accomplishments/Planned Programs Subtotals	8.020	6.280	3.733	0.000	3.733

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0203422N/8I20: *Maritime Expeditionary Security Force*	16.404	5.307	5.317	0.000	5.317	7.850	7.970	10.231	10.308	0.000	63.387
• 0208147N/8128I: *Physical Security Equipment*	0.030	0.030	1.830	0.000	1.830	3.158	3.186	3.186	3.186	0.000	14.606

D. Acquisition Strategy

MESF (formerly NCW) - There are ten (10) MESF MAST III systems and twenty (20) MIUW-RSSC systems. The Naval Coastal Warfare systems, the Mobile Ashore Support Terminal (MAST III) and the MIUW Radar Sonar Surveillance Center (RSSC) AN/TSQ-108A(V)4 MOD 2 require the production of Engineering Change Packages (ECPs) for the purposes of technology
refresh and to mitigate the impact of obsolescent components. This issue supports the development and testing of the ECP kits as well as the procurement of material of initial kits involved in testing. For the MAST III systems - AN/USC-60 baseband equipment upgrades and GCCS-M upgrades. Timeplex are no longer supported and will need to be replaced with Promina multiplexers. For the MIUW systems - The key effort in FY10 is to provide an IP connectivity path using 1) VSAT for short ops

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

requiring quick set ups using commercial SATCOM and 2) USC-67 (triband SHF) for longer ops using MILSATCOM. This IP capability is required because Navy legacy circuits that MIUW relies on (i.e. OTCIXS, CUDIXS, Fleet Broadcast) are being ceased in FY11 and transitioning to IP circuits (i.e. DMS Proxy, Assured IP). GCCS-M upgrades from 3.x to 4.x (or Maritime Tactical Services) will be required as 3.x will not be supported after FY10.

IDS - The fundamental purpose of the IDS program is to provide the Navy and Marine Corps with an integrated and ruggedized capability to employ individual-oriented identity information in the conduct of maritime and expeditionary operations. Fieldable prototypes in response to the CENTCOM JUONS were evaluated in limited user assessments and
under stringent to meet Naval operational effectiveness and suitability. Additionally, a market survey conducted and concluded that no COTS or GOTS systems could meet the requirements in the IDS/JPI(V)1 program is planned to enter System Demonstration (SD) at Milestone B in 2QTR FY10, and the SD phase is planned to culminate in a Milestone C
decision in 4th QTR FY11. The SBIR process was executed in a Phase I initiative as a risk mitigation step to enable the EMD Phase II process in developmental testing, design refinement, production representative level articles for evaluation/selection, and logistical support preparations to formulate the production decision (MS C) in FY11.
Production will be accomplished via a prime contractor to be selected during a competitive contracting process.

E. Performance Metrics

MESF: Successfully complete Preliminary Design Review (PDR), Critical Design Review (CDR) and Physical Configuration Audit (PCA) for Tactically Integrated Sensor (TIS).

IDS: Conduct Milestone reviews in order to successfully achieve Mileston B and C. Successfully achieve IOC.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Product Development ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	C/CPFF	SSC CH SSC SAN DIEGO	0.100	0.000		0.000		0.000		0.000	0.000	0.100	Continuing
Hardware/Software Development	WR	NSWC DAHLGREN DAHLGREN	1.800	1.250	Feb 2010	0.200	Feb 2011	0.000		0.200	0.000	3.250	Continuing
Hardware/Software Development	WR	NSWC CRANE CRANE	0.500	0.250	Feb 2010	0.150	Feb 2011	0.000		0.150	0.000	0.900	Continuing
Systems Engineering1	C/CPFF	SSC CH SSC SAN DIEGO	0.547	0.000		0.000		0.000		0.000	0.000	0.547	Continuing
Systems Engineering2	WR	SSC CH SSC SAN DIEGO	0.300	0.300	Feb 2010	0.150	Feb 2011	0.000		0.150	0.000	0.750	Continuing
Systems Engineering3	WR	NUWC KEYPORT	0.400	0.300	Feb 2010	0.150	Feb 2011	0.000		0.150	0.000	0.850	Continuing
Systems Engineering4	WR	NSMRL Not Specified	0.100	0.000		0.000		0.000		0.000	0.000	0.100	Continuing
Systems Engineering5	C/CPFF	SSC SD SAN DIEGO	6.647	0.000		0.000		0.000		0.000	0.000	6.647	Continuing
Systems Engineering6	WR	NSWC DAHLGREN	1.800	0.500	Feb 2010	0.150	Feb 2011	0.000		0.150	0.000	2.450	Continuing
Systems Engineering7	WR	NUWC NEWPORT	0.000	0.000		0.080	Feb 2011	0.000		0.080	0.000	0.080	Continuing
Training Development	WR	SSC CH SSC SAN DIEGO	0.301	0.100	Feb 2010	0.000		0.000		0.000	0.000	0.401	Continuing
Test Integration	WR	NUWC KEYPORT	0.819	0.000		0.000		0.000		0.000	0.000	0.819	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*	

Product Development ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Integration	WR	NSWC CRANE	0.200	0.000		0.000		0.000		0.000	0.000	0.200	Continuing
		Subtotal	13.514	2.700		0.880		0.000		0.880	0.000	17.094	

Remarks

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Data	WR	SSC CH/SSC SD SSC SAN DIEGO	0.200	0.101	Feb 2010	0.080	Feb 2011	0.000		0.080	0.000	0.381	Continuing
Technical Data	WR	NSWC CRANE	0.250	0.000		0.000		0.000		0.000	0.000	0.250	Continuing
Technical Data	WR	NUWC KEYPORT	0.150	0.050	Feb 2010	0.050	Feb 2011	0.000		0.050	0.000	0.250	Continuing
Technical Data	MIPR	Coast Guard Not Specified	0.175	0.000		0.000		0.000		0.000	0.000	0.175	Continuing
Technical Data	WR	NSWC DAHLGREN	0.000	0.000		0.175	Feb 2011	0.000		0.175	0.000	0.175	Continuing
Test Planning	WR	NUWC KEYPORT	0.100	0.000		0.100	Feb 2011	0.000		0.100	0.000	0.200	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Support ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning	WR	NSWC CRANE	0.250	0.000		0.100	Feb 2011	0.000		0.100	0.000	0.350	Continuing
Test Planning	WR	SSC CH/ SSC SAN DIEGO	0.100	0.000		0.100	Feb 2011	0.000		0.100	0.000	0.200	Continuing
Test Planning - Non-Lethal	WR	NSWC DAHLGREN	0.500	0.000		0.250	Feb 2011	0.000		0.250	0.000	0.750	Continuing
Test Planning - IDS	WR	NSWC DAHLGREN	0.000	0.300	Feb 2010	0.150	Feb 2011	0.000		0.150	0.000	0.450	Continuing
		Subtotal	1.725	0.451		1.005		0.000		1.005	0.000	3.181	

Remarks

Management Services ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	SSC CH SSC SAN DIEGO	0.032	0.079	Feb 2010	0.100	Feb 2011	0.000		0.100	0.000	0.211	Continuing
Program Management Support	WR	NUWC KEYPORT	0.100	0.000		0.000		0.000		0.000	0.000	0.100	Continuing
Program Management Support	WR	NSWC DAHLGREN	0.942	1.000	Feb 2010	1.000	Feb 2011	0.000		1.000	0.000	2.942	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Management Services ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	NSWC CRANE	0.302	0.100	Feb 2010	0.160	Feb 2011	0.000		0.160	0.000	0.562	Continuing
Program Management Support	C/Various	Various Various	0.000	1.920	Feb 2010	0.558	Feb 2011	0.000		0.558	0.000	2.478	Continuing
Travel	C/Various	Various Various	0.025	0.030	Feb 2010	0.030	Feb 2011	0.000		0.030	0.000	0.085	Continuing
DAWDF	C/TBD	Not Specified Not Specified	0.040	0.000		0.000		0.000		0.000	0.000	0.040	Continuing
		Subtotal	1.441	3.129		1.848		0.000		1.848	0.000	6.418	

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.680	6.280		3.733		0.000		3.733	0.000	26.693	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*	**PROJECT** 4011: *Naval Coastal Warfare Surv and C4I Sys*

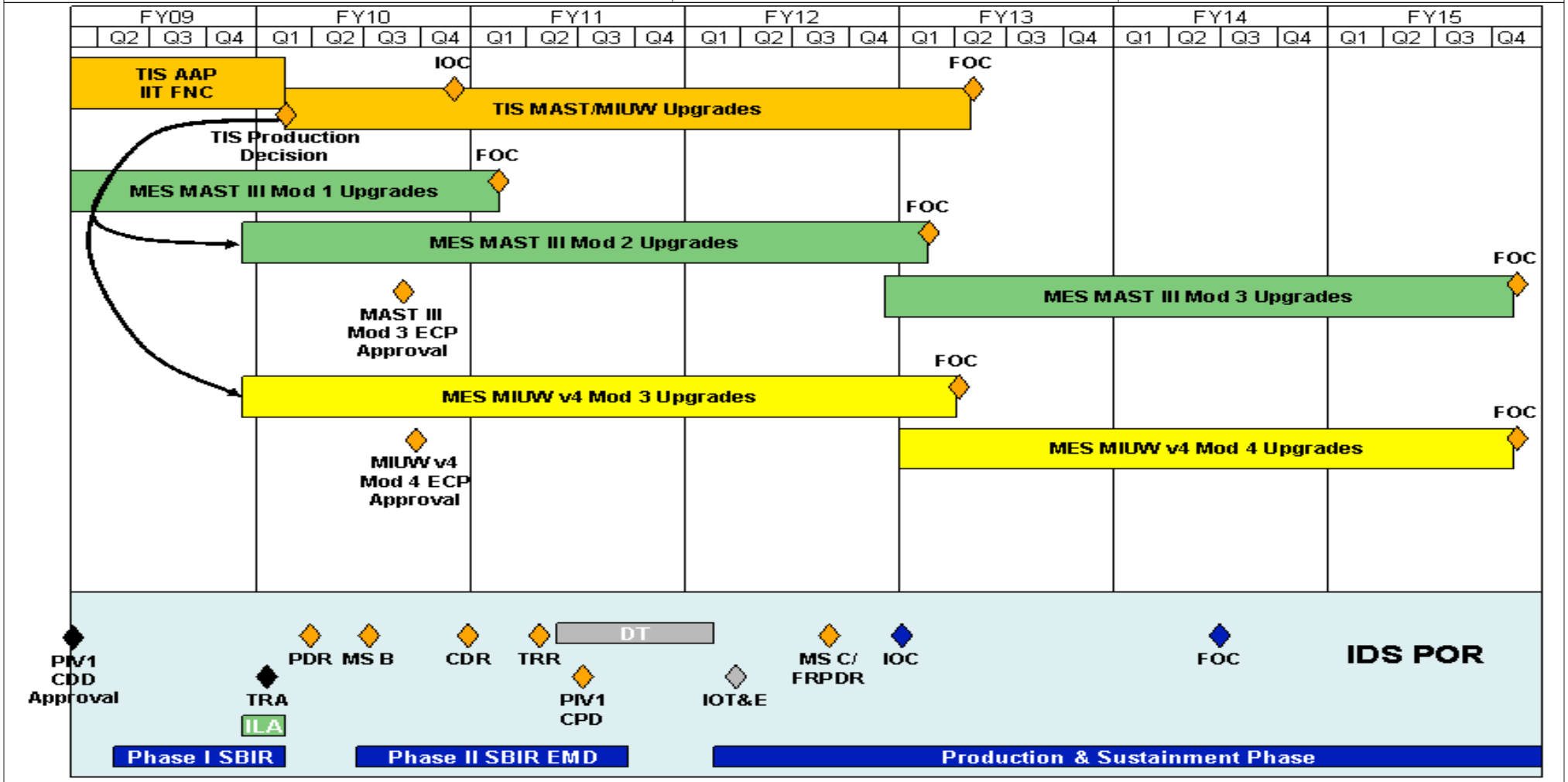

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Schedule Details

	Start		End	
Event	Quarter	Year	Quarter	Year
IDS ILA	1	2010	1	2010
IDS TRA	1	2010	1	2010
IDS PDR	2	2010	2	2010
IDS MILESTONE B	2	2010	2	2010
IDS CDR	4	2010	4	2010
IDS TRR	2	2011	2	2011
IDS DT	2	2011	1	2012
IDS CPD	3	2011	3	2011
IDS IOT&E	2	2012	2	2012
IDS MILESTONE C	3	2012	3	2012
IDS FRP DR	3	2012	3	2012
IDS IOC	4	2012	4	2012
IDS FOC	3	2014	4	2014
TIS AAP PRODUCTION DECISION	1	2010	1	2010
TIS AAP IOC	4	2010	4	2010
TIS AAP FOC	2	2013	2	2013
MIUW v4 MOD 3 ECP FOC	2	2013	2	2013
MIUW v4 MOD 3 UPGRADES	4	2009	1	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*	**PROJECT** 4011: *Naval Coastal Warfare Surv and C4I Sys*

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
MIUW v4 ECP APPROVAL	4	2010	4	2010
MIUW v4 MODE 4 UPGRADES	1	2013	4	2015
MIUW v4 MOD 4 FOC	4	2015	4	2015
MAST III MOD 1 UPGRADES	1	2009	1	2011
MAST III MOD 1 FOC	1	2011	1	2011
MAST III MOD 2 UPGRADES	4	2009	1	2013
MAST III MOD 2 FOC	1	2013	1	2013
MAST III MOD 3 UPGRADES	4	2012	4	2015
MAST III MOD 3 ECP APPROVAL	3	2010	3	2010
MAST III MOD 3 FOC	4	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: *Congressional Adds*	3.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.254
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Congressional Interest Items not included in other Projects.

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010
Congressional Add: Common Expeditionary Force Protection System Archi *FY 2009 Accomplishments:* Common Expeditionary Force Protection System - Development of common Expeditionary Force Protection System Architecture (CEFPSA) to provide command and control decision support for the Integrated Swimmer Defense System (ISD). CEFPSA is the integrating backbone for the various sensors and data feeds required for ISD. CEFPSA technology is also flexible enough to meet Navy Expeditionary Combat Command (NECC) land-based force protection mission requirements.	3.989	0.000
Congressional Adds Subtotals	3.989	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*	**PROJECT** 9999: *Congressional Adds*

E. Performance Metrics

Successfully provide command and control data to meet Navy Expeditionary Combat Command (NECC) land-based force protection missions.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9C86: *Combatant Craft Replacement*	0.000	0.000	0.000	0.000	0.000	0.948	6.666	4.749	0.474	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Combatant Craft Replacements will provide second generation Riverine Multi Mission Craft that will replace in-service Riverine Patrol Boats (RPBs) and Riverine Assault Boats (RABs). Combatant Craft replacements will: conduct inland waterway patrol and interdiction to preserve the rivers for friendly use as lines of communications; deny the use of rivers and waterways to waterborne and immediate shore sited hostile forces by barrier and interdiction operations; and, with augmentation of ground and air forces, locate and destroy hostile forces within a riparian area. Specific mission and capabilities will be identified in an NECC developed/OPNAV N85 approved Initial Capabilities Document (ICD). RDT&E funding will fund feasibility studies and procurement of mock-ups and prototype craft to demonstrate capabilities prior to production craft procurement.

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Acquisition of RDT&E funded mockup and prototype craft for testing to be accomplished using "tailored" GSA procurements in accordance with a PMS325G approved/ OPNAV N85 endorsed Riverine Combatant Craft Replacement Acquisition Strategy.

E. Performance Metrics

Successfully demonstrate system and prototype functionality to support approved Initial Capabilities Document (ICD).

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy		**DATE:** February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*	**PROJECT** 9C86: *Combatant Craft Replacement*

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE August 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTEN/BA 5	0604230N / Warfare Support System	9C86 Combatant Craft Replacement

Fiscal Year	2009				2010				2011				2012				2013				2014				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Combatant Craft Feasibility Study Award (s)													△															
Combatant Craft Mockup Award																△												
Combatant Craft Study Report (s)																△												
Combatant Craft Mockup Delivery																		△										
Prototype Craft Contract Awards																			△									
Prototype Craft Deliveries																							△					
Craft Test and Evaluation																								△	△			
Evaluation/ Selection of Craft for Production																										△		

R-1 Line Item No	CLASSIFICATION:	EXHIBIT R-4
PAGE 5 of 6	UNCLASSIFIED	SCHEDULE PROFILE

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604230N: *Warfare Support System*	**PROJECT** 9C86: *Combatant Craft Replacement*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Combatant Craft Feasilibty Study(ies) Award	1	2012	1	2012
Combatant Craft Mockup Award	4	2012	4	2012
Combatant Craft Study Report(s)	4	2012	4	2012
Combatant Craft Mockup Delivery	2	2013	2	2013
Combatant Craft Prototype Awards	3	2013	3	2013
Combatant Craft Prototype Deliveries	3	2014	3	2014
Craft Test and Evaluation	4	2014	1	2015
Selection of Craft for Production	2	2015	2	2015