Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0305237N: *Medium Range Maritime UAS*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	-	-	15.000	-	15.000	160.900	270.500	271.000	311.000	Continuing	Continuing
2770: *Medium-Range Maritime Unmanned Aerial System*	-	-	15.000	-	15.000	160.900	270.500	271.000	311.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Note: FY11 efforts are budgeted in PE 0305204N, Project Unit 2501 ($26.352M).

MRMUAS Unmanned Aerial Vehicle Joint Military intelligence Program.

The Medium-Range Maritime Unmanned Aerial System (MRMUAS) Unmanned Aerial Vehicle as a program commenced under PE 0305204N. This new PE was established to fund the Technology Development (TD) and Engineering and Manufacturing Development (EMD) phases of the MRMUAS program. The MRMUAS intended to provide persistent, sea-based, airborne, real-time and near-real-time Intelligence, Surveillance, and Reconnaissance data to Maritime and Special Operations Forces. The MRMUAS will be capable of carrying reconfigurable, multi-Intelligence payloads to extended ranges. MRMUAS will launch and recover vertically, making it employable from all air-capable ships, as well as land bases. The MRMUAS will be able to operate within line-of-sight of a ship, similar to the MQ-8 (Fire Scout) Vertical Take-off unmanned Aerial Vehicle, as well as in a remote, split-based mode that will allow take-off and landing from an air-capable ship and control hand-off to a Mission Control Element via Satellite Command for Beyond Line of Sight operations. The MRMUAS will allow communications to relay between supported forces, as well as broadcast payload data to the supported forces. Interoperability will be achieved through the use of a common control station, also used by Fire Scout, with software modifications for the MRMUAS air vehicle and mission systems. The data from the MRMUAS will be provided through standard DoD Command, Control, Communications, Computers, and Intelligence, Surveillance, and Reconnaissance systems and networks. MRMUAS is a potential joint program.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	15.000	-	15.000
Total Adjustments	-	-	15.000	-	15.000
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	15.000	-	15.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305237N: *Medium Range Maritime UAS*

Change Summary Explanation

This is a new PE established with funding for the TD and EMD phases of the MRMUAS program.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305237N: *Medium Range Maritime UAS*	PROJECT 2770: *Medium-Range Maritime Unmanned Aerial System*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2770: *Medium-Range Maritime Unmanned Aerial System*	-	-	15.000	-	15.000	160.900	270.500	271.000	311.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

Note: FY11 efforts are budgeted under PE 0305204N, Project Unit 2501.

A. Mission Description and Budget Item Justification

The Medium-Range Maritime Unmanned Aerial System (MRMUAS) Unmanned Aerial Vehicle as a program commenced under PE 0305204N. This new PE was established to fund the Technology Development (TD) and Engineering and Manufacturing Development (EMD) phases of the MRMUAS program. The MRMUAS intended to provide persistent, sea-based, airborne, real-time and near-real-time Intelligence, Surveillance, and Reconnaissance data to Maritime and Special Operations Forces (SOF). The MRMUAS will be capable of carrying reconfigurable, multi-Intelligence (multi-INT) payloads to extended ranges. MRMUAS will launch and recover vertically, making it employable from all air-capable ships, as well as land bases. The MRMUAS will be able to operate within line-of-sight of a ship, similar to the MQ-8 (Fire Scout) Vertical Take-Off Unmanned Aerial Vehicle , as well as in a remote, split-based mode that will allow take-off and landing from an air-capable ships and control hand-off to a Mission Control Element via Satellite Command for Beyond Line of Sight (BLOS) operations. The MRMUAS will allow communications to relay between supported forces, as well as broadcast payload data to the supported forces. Interoperability will be achieved through the use of a common control station, also used by Fire Scout, with software modifications for the MRMUAS air vehicle and mission systems. The data from the MRMUAS will be provided through standard DoD Command, Control, Communications, Computers, and Intelligence, Surveillance, and Reconnaissance systems and networks. The MRMUAS system will be composed of air vehicles, associated spares and support equipment, multi-INT sensor payloads, and Ground Control Stations. The MRMUAS will support Surface Warfare, Strike Warfare, Information Warfare, Naval Special Warfare, Operations Outside Major Theaters of War, and Overseas Contingency Operations. MRMUAS is a potential joint program.

In response to a Special Operations Forces (SOF) urgent need and Initial Capability Document that is endorsed by US Central Command, request for a sea based medium range, persistent ISR unmanned air system, Office of the Secretary of Defense (OSD) evaluated options to meet this urgent requirement. This resulted in OSD directing the Navy to upgrade Fire Scout for increased endurance, procure additional aircraft and modify 12 additional ships in the Fiscal Year Defense Plan, to support multiple orbits through FY18, and to initiate a new start MRMUAS follow-on program. MRMUAS will provide the long term capability for the BLOS SOF and Navy Missions.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Product Development	-	-	7.320
Articles:			0
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305237N: *Medium Range Maritime UAS*	PROJECT 2770: *Medium-Range Maritime Unmanned Aerial System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Complete MRMUAS Analysis of Alternatives (AoA) and brief results. Continue drafting/updating of MRMUAS Concept of Operations (CONOPS). Coordinate with AoA and Trade Studies to incorporate latest concepts. Continue execution of up to five (5) studies and analysis contracts in support of MRMUAS concept refinement. Data received from these contracts will be used to support AoA analyses and drafting of initial Key Performance Parameters/Key System Attributes for the MRMUAS Capability Development Document.			
Title: Management Services ***Articles:*** ***FY 2012 Plans:*** Continue engineering management, program technical management, and management support for the MRMUAS system. Continue preparation of Milestone A required documentation. Prepare TD contract Request for Proposal and Source Selection Plan. Conduct TD Contract Source Selection. Continue program office personnel travel and contract support services.	-	-	7.680 0
Accomplishments/Planned Programs Subtotals	-	-	15.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• RDTEN, 0603123N: *MRUAS*	0.000	0.000	18.823	0.000	18.823	19.143	19.460	0.000	0.000	0.000	57.426
• RDTEN, 0305204N: *MEMUAS*	0.000	26.352	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26.352

D. Acquisition Strategy

Initiated industry trade studies and AOA under FY11 MEMUAS funding.
Conduct full and open competition for up to five (5) Trade Studies and analysis contracts with potential MRMUAS vendors. A full and open competition will be conducted to select two (2) vendors for participation in the TD and prototyping phase contracts. At the conclusion of the TD phase, there will be a down select for the single EMD phase contract.

E. Performance Metrics

Successful completion of AoA. Successful completion of Trade Studies. Successful development of draft CONOPS. Successful TD phase.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305237N: *Medium Range Maritime UAS*	PROJECT 2770: *Medium-Range Maritime Unmanned Aerial System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Analysis of Alternatives Support	SS/FFP	Systems Planning and Analysis:Alexandria, VA	-	-		1.110	Mar 2012	-		1.110	0.000	1.110	1.110
Analysis of Alternatives	WR	NAWCAD:Patuxent River, MD	-	-		1.330	Jan 2012	-		1.330	0.000	1.330	
CONOPS Development	TBD	TBD:TBD	-	-		0.440	Mar 2012	-		0.440	0.000	0.440	
Study Contracts (Up to 5)	TBD	TBD:TBD	-	-		4.440	May 2012	-		4.440	0.000	4.440	
		Subtotal	-	-		7.320		-		7.320	0.000	7.320	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	-	-		4.880	Jan 2012	-		4.880	0.000	4.880	
Program Management Support	Various	Various:Various	-	-		2.570	Jan 2012	-		2.570	0.000	2.570	
Travel	WR	NAWCAD:Patuxent River, MD	-	-		0.230	Jan 2012	-		0.230	0.000	0.230	
		Subtotal	-	-		7.680		-		7.680	0.000	7.680	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		15.000		-		15.000	0.000	15.000	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305237N: *Medium Range Maritime UAS*	**PROJECT** 2770: *Medium-Range Maritime Unmanned Aerial System*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305237N: *Medium Range Maritime UAS*	**PROJECT** 2770: *Medium-Range Maritime Unmanned Aerial System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MRMUAS				
Acquisition Milestones: Milestones: Gate 1	2	2011	2	2011
Acquisition Milestones: Milestones: Material Development Decision (MDD)	3	2011	3	2011
Acquisition Milestones: Milestones: Milestone A (MS A)	1	2013	1	2013
Acquisition Milestones: Milestones: Gate 2	2	2012	2	2012
Acquisition Milestones: Milestones: Gate 3B	3	2014	3	2014
Acquisition Milestones: Milestones: Gate 3A	4	2012	4	2012
Acquisition Milestones: Milestones: Gate 4/5	1	2015	1	2015
Acquisition Milestones: Milestones: Milestone B (MS B)	3	2015	3	2015
System Engineering Development: Analysis of Alternatives: Analysis of Alternatives (AOA)	2	2011	2	2012
System Engineering Development: Concept Design Studies: Concept Design (CD)	3	2011	4	2012
System Engineering Development: Prototype Phase: Prototype Phase	1	2013	4	2015
System Engineering Development: Reviews: System Requirements Review (SRR)	3	2013	3	2013
System Engineering Development: Reviews: System Functional Review (SFR)	2	2014	2	2014
System Engineering Development: Reviews: Preliminary Design Review (PDR)	1	2015	1	2015
System Engineering Development: Reviews: Critical Design Review (CDR)	1	2016	1	2016
Test & Evaluation (T&E): Development Test: Development Test (DT)	1	2015	4	2016
Test & Evaluation (T&E): Reviews: Test Readiness Review (TRR)	4	2014	4	2014
Test & Evaluation (T&E): Reviews:	1	2010	1	2010