

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7						0305204N TACTICAL UNMANNED AERIAL VEHICLES			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	114.998	119.098	50.185	22.393	15.608	12.671	12.872	13.079	
2478 Tactical Control System	10.771	9.121	9.390	8.919	9.081	9.520	9.666	9.813	
2768 VTUAV	76.470	104.727	32.961	4.088	1.717	1.355	1.374	1.395	
2910 Joint Technology Center/ Sys Integ Lab	1.636	1.664	1.690	1.725	1.759	1.796	1.832	1.871	
3135 USMC VUAV	3.943								
3192 STUAS			6.144	7.661	3.051				
9999 Congressional Adds	22.178	3.586							

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Tactical Control System (TCS): TCS provides interoperability for command and control of the present and future Tactical and Medium Altitude Endurance (MAE) UAVs and their payloads utilized for Intelligence, Surveillance, Reconnaissance, & Target Acquisition (ISR&TA) and combat assessment. Interoperability is achieved through the use of the Tactical Control System (TCS) software in the ground control station (GCS), implementation of NATO (North Atlantic Treaty Organization) Standardization Agreement (STANAG) 4586, and through the use of the Tactical Common Data Link (TCDL). TCS provides connectivity to designated Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems for the Navy Vertical Takeoff and Landing (VTOL) Tactical UAV (VTUAV). TCS and VTUAV will implement NATO STANAG 4586 compliance, and weaponization and plug-and-play functionality. TCS will also be evaluated for future Naval UAVs.

VTUAV (popular name 'Fire Scout') provides real-time and non-real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The baseline VTUAV can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation and battle management (including communications relay). The VTUAV launches and recovers vertically, and can operate from air capable ships, as well as confined area land bases. Other characteristics include autonomous air vehicle launch and recovery, autonomous waypoint navigation with command override capability, and the incorporation of an electro-optical/infrared/laser designator-laser range finder modular mission payload. Interoperability is achieved through the use of the Tactical Control System (TCS) software in the ground control station, and through the use of the Tactical Common Data Link (TCDL). The data from the VTUAV will be provided through standard DoD Command, Control, Communications, Computers and Intelligence Surveillance, and Reconnaissance (C4ISR) system architectures and protocols.

Navy Small Tactical Unmanned Aircraft System (STUAS) / Tier II UAS: STUAS / Tier II UAS will provide persistent Intelligence, Surveillance, and Reconnaissance (ISR) support for tactical level maneuver decisions and unit level force defense/force protection for Navy ships and Marine Corps land forces. This system will fill the ISR capability shortfalls identified by the Navy STUAS and Marine Corps Tier II UAS efforts. Consisting of three air vehicles, one ground control station, three payloads, and associated launch, recovery and support equipment, this system will support the Navy missions, including building the Recognized Maritime Picture, Maritime Security Operations, Maritime Interdiction Operations, and support of Navy units operating from sea/shore in the Global War on Terror (GWOT), and the Marine Corps close range UAS enabling enhanced decision-making and improved integration with ground schemes of maneuver.

Note: STUAS / Tier II UAS is a new start program.

JTC/SIL: The Joint Technology Center/System Integration Laboratory provides experimentation for UAV technology assessment, insertion, demonstration, transfer, as well as simulation and exercise support.

USMC Vertical Unmanned Aerial Vehicle (VUAV): The USMC VUAV will provide the Marine Corps a Tier III UAV supporting Marine Expeditionary Force (MEF) and Joint Task Force (JTF) level commanders with the required speed and survivability to support USMC Expeditionary Maneuver Warfare (EMW) operations. The system will build on Navy VTUAV and Coast Guard Eagle Eye technology.

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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7	R-1 ITEM NOMENCLATURE 0305204N TACTICAL UNMANNED AERIAL VEHICLES	

Congressional Adds.(FY06)

Joint Operational Test Bed System (JOTBS)

JOTBS is an experimental, ground-based control system that is designed to fly, operate and receive data from all the services and individual UAVs from a single interface.

VTUAV (popular name 'Fire Scout') provides real-time and non-real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The baseline VTUAV can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation and battle management (including communications relay). The VTUAV launches and recovers vertically, and can operate from air capable ships, as well as confined area land bases. Other characteristics include autonomous air vehicle launch and recovery, autonomous waypoint navigation with command override capability, and the incorporation of an electro-optical/infrared/laser designator-laser range finder modular mission payload. Interoperability is achieved through the use of the Tactical Control System (TCS) software in the ground control station, and through the use of the Tactical Common Data Link (TCDL). The data from the VTUAV will be provided through standard DoD Command, Control, Communications, Computers and Intelligence Surveillance, and Reconnaissance (C4ISR) system architectures and protocols.

Advanced Airship Flying Laboratory Phase II

Capability studies for development of a modernized naval airship featuring contemporary composited, digital flight controls, vectored thrust and remote piloted capabilities that can provide immediate utility for missions requiring heavy lift (logistics and/or sensor suites), long endurance (measured in days vs. hours), and persistent broad-area Intelligence, Surveillance, and Reconnaissance (ISR).

Congressional Adds. (FY07)

Advanced Airship Flying Laboratory

Capability studies for development of a modernized naval airship featuring contemporary composited, digital flight controls, vectored thrust and remote piloted capabilities that can provide immediate utility for missions requiring heavy lift (logistics and/or sensor suites), long endurance (measured in days vs. hours), and persistent broad-area Intelligence, Surveillance, and Reconnaissance (ISR).

UAV Payload-NBC Detection

Naval UAV Payload effort to be used only for the continuation of an industry based research program for light weight low power Nuclear, Chemical and Biological (NBC) sensors and isotope identification techniques utilizing Micro-Electro-Mechanical systems (MEMS) technology and innovative detection devices to identify airborne chemical/biological threats and hazardous materials.

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		February 2007
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7	0305204N TACTICAL UNMANNED AERIAL VEHICLES	

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget:	115.173	115.950	40.510	11.647
Current President's Budget:	<u>114.998</u>	<u>119.098</u>	<u>50.185</u>	<u>22.393</u>
Total Adjustments	-0.175	3.148	9.675	10.746
Summary of Adjustments				
Congressional Reductions	-0.205	-0.452		
Congressional Rescissions				
Congressional Increases		3.600		
Economic Assumptions			-0.093	0.224
Miscellaneous Adjustments	<u>0.030</u>		<u>9.768</u>	<u>10.522</u>
Subtotal	-0.175	3.148	9.675	10.746

Technical:
Not Applicable

Schedule:

VTUAV - Award of 2006 Congressional Add delayed to 1st Quarter 2007 vice 4th Quarter 2006 due to contract negotiations.
MS C moved to 2nd Quarter 2007 vice 1st Quarter 2007 to facilitate the generation of the CPD in accordance with Joint Capabilities Integration & Development System. Lot I LRIP contract award was moved accordingly. Added Coastal Battlefield Reconnaissance and Analysis (COBRA) payload integration effort. Added Full Rate Production (FRP) contract and delivery information.

TCS - added VTUAV LCS Integration and Software Support for VTUAV beginning FY08 to provide clarification of previously planned effort.

STUAS/Tier II UAS - a new start program in FY08.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 2478, Tactical Control System				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2478 Tactical Control System		10.771	9.121	9.390	8.919	9.081	9.520	9.666	9.813
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Tactical Control System (TCS) is developing a standards based system that provides interoperability and commonality for Command and Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) interfaces, and command and control of Navy Unmanned Aerial Vehicles (UAVs), including the Navy Vertical Take-off and Landing Tactical UAV (VTUAV). Interoperability is achieved through the use of the Tactical Control System (TCS) software in the Ground Control Station (GCS), NATO STANAG-4586 compliance, and through the use of the Tactical Common Data Link (TCDL).

TCS and VTUAV will implement NATO STANAG 4586 and plug-and-play functionality. TCS will also be evaluated for future Naval UAVs.

TCS provides a full range of scaleable Unmanned Air System (UAS) capabilities from passive receipt of air vehicle and payload data to full air vehicle and payload command and control. TCS offers the war fighter a common core operating environment to simultaneously receive, process, and disseminate UAV data from different UAS types for reconnaissance, surveillance, and combat assessment.

TCS provides UAS command, control and processing from land and sea based ground control stations. TCS development continues to meet the updated VTUAV Operational Requirements Document (ORD) and add key technologies that will be used by UAS.

TCS maximizes the use of contractor and government off-the shelf hardware and software whenever possible. TCS software is interoperable, and is compliant with the OSD Command and Control, Communications, Intelligence (C3I) Joint Technical Architecture (JTA), and Distributed Common Ground System (DCGS) standards.

B. ACCOMPLISHMENTS / PLANNED PROGRAM

TCS DEVELOPMENT AND INTEGRATION	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	7.360	7.656	7.953	7.582
RDT&E Articles Qty				

Continue TCS integration with VTUAV development. Continue new TCS capabilities to support requirements for Littoral Combat Ship (LCS) integration. Continue TCS NATO STANAG 4586 compliance. Continue TCS Command and Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) interface testing for VTUAV required C4ISR systems. Complete multi-vehicle UAS control through FY2008.

TECHNICAL AND ENGINEERING SERVICES	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	3.411	1.465	1.437	1.337
RDT&E Articles Qty				

Continue government engineering support, contractor support, program support, and travel for the TCS program.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable										

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 2478, Tactical Control System

D. ACQUISITION STRATEGY:

The TCS program continues under the FY04 Congressionally-directed restructure of the program to focus on Navy requirements and standards based on interoperability. Navy requirements for TCS include supporting fielding of the Navy Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) aboard the Littoral Combat Ship (LCS) in 4th Quarter FY08, addition of plug-and-play payloads, and implementation of NATO Standardization Agreement for Standard Interfaces of UAV Control System for NATO UAV Interoperability (STANAG 4586).

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305204N TACTICAL UNMANNED AERIAL VEHICLES				PROJECT NUMBER AND NAME 2478, Tactical Control System						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Award Fees	C/CPAF	RAYTHEON COMPANY, FALLS CHURCH, VA	7.445	.655	11/06	.500	11/07	.400	11/08	1.050	10.050	10.050
Primary Hdw Development	C/CPAF	RAYTHEON COMPANY, FALLS CHURCH, VA	89.400	7.001	11/06	7.453	11/07	7.182	11/08	28.730	139.766	139.766
SUBTOTAL PRODUCT DEVELOPMENT			96.845	7.656		7.953		7.582		29.780	149.816	149.816

Remarks:

SUPPORT												
SUBTOTAL SUPPORT												

Remarks:

TEST & EVALUATION												
Dev Test & Eval	WX	VARIOUS	1.200	.030	11/06	.030	11/07	.030	11/08	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			1.200	.030		.030		.030		Continuing	Continuing	

Remarks:

MANAGEMENT												
Contractor Eng Sup	VARIOUS	VARIOUS	1.235	.500	11/06	.391	11/07	.337	11/08	Continuing	Continuing	
Government Eng Sup	WX	VARIOUS	6.087	.545	11/06	.626	11/07	.580	11/08	Continuing	Continuing	
Program Mgmt Sup	VARIOUS	VARIOUS	2.379	.340	11/06	.340	11/07	.340	11/08	Continuing	Continuing	
Travel	TO	NAVAIR, PAXTUXENT RIVER MD	.048	.050	11/06	.050	11/07	.050	11/08	Continuing	Continuing	
SUBTOTAL MANAGEMENT			9.749	1.435		1.407		1.307		Continuing	Continuing	

Remarks:

Total Cost			107.794	9.121		9.390		8.919		Continuing	Continuing	
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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																							DATE: February 2007													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7								PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES								PROJECT NUMBER AND NAME 2478 Tactical Control System																				
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013							
	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	1	2	3	4				
Acquisition Milestones												★ TCS/VTUAV IOC																								
Requirements Development to support STANAG 4586, Weaponization, and Plug & Play					▶																															
VTUAV LCS Integration													▶																							
Software Support for VTUAV													▶																							
Test & Evaluation Milestones					▶																															
Development Test									▶																											
Operational Test													▶																							
Production Milestones													▶																							
Software Updates													▶																							

R-1 SHOPPING LIST - Item No. 203

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 2768, VTUAV				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2768 VTUAV		76.470	104.727	32.961	4.088	1.717	1.355	1.374	1.395
RDT&E Articles Qty		5*							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

VTUAV (popular name 'Fire Scout') provides real-time and non-real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The baseline VTUAV can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation and battle management (including communications relay). The VTUAV launches and recovers vertically, and can operate from air capable ships, as well as confined area land bases. Other characteristics include autonomous air vehicle launch and recovery, autonomous waypoint navigation with command override capability, and the incorporation of an electro-optical/infrared/laser designator-laser range finder modular mission payload. Interoperability is achieved through the use of the Tactical Control System (TCS) software in the ground control station, and through the use of the Tactical Common Data Link (TCDL). The data from the VTUAV will be provided through standard DoD Command, Control, Communications, Computers and Intelligence Surveillance, and Reconnaissance (C4ISR) system architectures and protocols.

A VTUAV system is comprised of air vehicles, electro-optical/infrared/laser designator-rangefinder payloads, Ground Control Stations (with TCS and TC DL integrated for interoperability), and a UAV Common Automatic Recovery System (UCARS) for automatic take-off and landings, and associated spares and support equipment.

A program to continue development of the VTUAV to meet the Littoral Combat Ship (LCS) mission requirements was initiated in FY04. Engineering and Manufacturing Development (EMD) is continuing in FY08 and will include design activities for system upgrades and TCS integration. Procurement of two EMD MQ-8B Air Vehicles was initiated in FY04, two additional EMD MQ-8B Air Vehicles initiated in FY05, and five EMD MQ-8B Air Vehicles initiated in FY06. As of 15 Dec 06, VTUAV has completed 245 flights, accumulating more than 213 flight hours.

Program funding in FY08-10 includes effort required to integrate the Coastal Battlefield Reconnaissance and Analysis (COBRA) payload, a mine detection sensor, under development by PMS-495.

The Air Vehicle was redesignated from RQ-8B to MQ-8B on 24 June 2005 per letter from HQ USAF/XPPE.

The VTUAV system is scheduled for a 2nd quarter FY07 Milestone C LRIP decision.

The U.S. Army has selected the MQ-8B as their Class IV UAV for the Future Combat System (FCS). Coordination with the U.S. Army FCS Program is on-going to investigate the potential cost savings for both programs where system commonalities and common logistics support can be identified.

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 2768, VTUAV
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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

SD&D - HARDWARE AND SYSTEM DEVELOPMENT	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	58.970	89.994	23.900	3.300
RDT&E Articles Qty	5*			

Continue incremental procurement and integration of EMD MQ-8B Air Vehicles to support the Engineering and Manufacturing Development (EMD) program. Continue to completion EMD of the VTUAV system. Continue combined developmental and operational testing. Integration of the Coastal Battlefield Reconnaissance and Analysis (COBRA) payload. *Two of the five articles initiated in FY06 are funded by a Congressional Add, and identified in project 9999 of this exhibit.

ILS AND TRAINING SYSTEMS	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	4.600	4.450	3.061	
RDT&E Articles Qty				

Continue ILS, technical data, and training system development. Procurement of trainers and spares to support OPEVAL.

DEVELOPMENT TESTING	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	2.500	3.093	1.531	.578
RDT&E Articles Qty				

Complete developmental testing of the VTUAV system. Continue combined developmental and operational testing TECHEVAL and planning for OPEVAL.

ENGINEERING AND TECHNICAL SERVICES	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	10.400	7.190	4.469	.210
RDT&E Articles Qty				

Continue engineering management, program technical management, and management support for the VTUAV system. These include transportation of system assets, fleet introduction team and program office personnel travel, and contract support services. Continue to support system development, system integration and test, and TECHEVAL.

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EXHIBIT R-2a, RDT&E Project Justification

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February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 2768, VTUAV
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C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
APN: 044300: 0305204N VTUAV		37.419	37.687	73.155	73.774	75.979	95.888	102.304	982.895	1,479.101
APN Initial Spares: 060510: 0305204N VTUAV		5.109	1.118	1.875	0.490	0.501	0.767	0.784	90.842	101.486

D. ACQUISITION STRATEGY: Continue with the VTUAV EMD program. Design and develop an improved system initiated in FY04 to support the Littoral Combat Ship Program. Nine EMD MQ-8B Air Vehicles will be procured. A Milestone C LRIP decision is scheduled for 2Q, FY07. A FRP and IOC will follow completion of OPEVAL.

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305204N TACTICAL UNMANNED AERIAL VEHICLES				PROJECT NUMBER AND NAME 2768, VTUAV						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Primary Hdw Development	C/CPFF	NORTHROP GRUMMAN , SAN DIEGO, CA	286.704	89.994	11/06	23.900	11/07	3.300	11/08	2.635	406.533	406.533
SUBTOTAL PRODUCT DEVELOPMENT			286.704	89.994		23.900		3.300		2.635	406.533	406.533

SUPPORT												
Integrated Logistics Sup	Various	VARIOUS	16.223	4.450	11/06	3.061	11/07				23.734	
SUBTOTAL SUPPORT			16.223	4.450		3.061					23.734	

TEST & EVALUATION												
Dev Test & Eval	WX	VARIOUS	5.387	1.546	11/06	.765	11/07	.438	11/08	Continuing	Continuing	
Oper Test & Eval	WX	VARIOUS		1.547	11/06	.766	11/07	.140	11/08	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			5.387	3.093		1.531		.578		Continuing	Continuing	

MANAGEMENT												
Government Eng Sup	WX	Various	21.920	4.957	Various	2.417	Various	.160	Various	Continuing	Continuing	
Program Mgmt Sup	Various	Various	17.639	2.183	Various	2.002	Various			Continuing	Continuing	
Travel	TO	NAVAIR, PAXTUXENT RIVER MD	.617	.050	Various	.050	Various	.050	Various	Continuing	Continuing	
SUBTOTAL MANAGEMENT			40.176	7.190		4.469		.210		Continuing	Continuing	

Total Cost			348.490	104.727		32.961		4.088		Continuing	Continuing	
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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE: February 2007								
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME																	
RDT&E, N / BA -7					0305204N TACTICAL UNMANNED AERIAL VEHICLES										2768 VTUAV																	
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
Acquisition Milestones							MS C										FRP Decision															
VTUAV EMD	████████████████████																															
COBRA Integration																																
Studies and Analysis																																
Test & Evaluation																																
Production Milestones																																
EMD MQ-8B Air Vehicles																																
LRIP MQ-8B Air Vehicles																																
FRP MQ-8B Air Vehicles																																
Procurement Deliveries																																

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT			PROJECT NUMBER AND NAME				
RDT&E, N / BA-7	0305204N, TACTICAL UNMANNED MARITIME SYS			2768 VTUAV				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Acquisition Milestones								
Milestone C		2Q						
COBRA Integration		3Q-4Q	1Q-4Q	1Q-4Q	1Q-2Q			
Studies & Analysis			3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Initial Operating Capability (IOC)			4Q					
Full Rate Production (FRP)				1Q				
VTUAV EMD (MQ-8B)	1Q-4Q	1Q-4Q	1Q-3Q					
Test & Evaluation Milestones								
DT I	1Q-4Q	1Q-4Q						
Combined DT/OT IIB		4Q	1Q-2Q					
OPEVAL			2Q-4Q					
COBRA T&E					1Q-3Q			
Production Milestones								
3 EMD MQ-8B Air Vehicles	2Q							
2 EMD MQ-8B Air Vehicles (Congressional Plus-Up)		1Q						
4 LRIP I MQ-8B Air Vehicles (APN funded)		2Q						
3 LRIP II MQ-8B Air Vehicles (APN funded)			1Q					
FRP Production Initiated				1Q	1Q	1Q	1Q	1Q
Delivery								
Air Vehicles -- FY04 EMD (2 A/V)	4Q							
Air Vehicles -- FY05 EMD (Congressional Plus-Up 2 A/V))		2Q						
Air Vehicles -- FY06 EMD (3 A/V)		4Q						
Air Vehicles -- FY06 EMD (Congressional Plus-Up 2 A/V))			2Q					
Air Vehicles -- FY07 LRIP (APN funded)(4 A/V)				1Q-3Q				
Air Vehicles -- FY08 LRIP (APN funded)(3 A/V)				3Q-4Q	1Q			
Air Vehicles -- FRP (APN funded)					3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 2910, JOINT TECH CENTER/SYSTEMS INTEG LAB				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2910 JOINT TECH CENTER/SYSTEMS INTEG LAB		1.636	1.664	1.690	1.725	1.759	1.796	1.832	1.871
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Joint Technology Center/Systems Integration Laboratory (JTC/SIL) is a center of technical excellence to support all Unmanned Air Vehicle (UAV) programs within the services. The mission includes Service-specific and Joint Command, Control, Communications, Computers and Intelligence, Surveillance, and Reconnaissance (C4ISR) programs throughout DoD. The JTC/SIL provides a Government test bed for rapid prototyping, technology insertion and transition, systems engineering, modeling/simulation, training and Command and Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) optimization. The cornerstone of its diverse tool set is the Multiple Unified Simulation Environment (MUSE), which is the Department's simulation/training system of choice for ISR systems, sensors, and platforms.

The Services and Warfighting Commanders have a requirement for the capability to train with a system that provides a real-time simulation environment containing multiple intelligence systems that can be integrated with larger force-on-force simulations. The MUSE creates a realistic operational environment which supports the ability to assess military utility, architecture and CONOPS development, Tactics, Techniques, and Procedures (TTP) development and refinement, conduct emerging concepts experimentation, and C4ISR optimization within warfighting exercises and experiments. It is the only simulation system used by the Combat Commanders and Joint Services to support command and battle staff C4ISR training; there is no alternative available to satisfy those requirements.

The MUSE also creates a realistic operational environment that supports an embedded training capability for multiple Program Managers; tools to minimize acquisition and life cycle cost and schedule impacts; the ability to conduct emerging concepts experimentation, future systems exploration, systems integration, and technology insertion; applications for Joint and Service-specific warfighting exercises; and C4ISR optimization.

MUSE is currently in use within all services and unified commands simulating Predator, Global Hawk, Hunter, Shadow 200, and Pioneer UAVs, national and commercial satellite collectors, P-3, and the U-2. During warfighting exercises, the JTC/SIL integrates imagery simulations with associated C4ISR systems to support execution of critical imagery processes. For those assets normally not available for training, the JTC/SIL provides surrogate systems and interfaces. Distributed training environments, virtually linking participants from various locations worldwide, are routinely supported within the MUSE architecture. The MUSE is also used as a mission rehearsal tool for current on going military combat operations.

Additionally, the JTC/SIL supports a range of materiel developers, integrating prototypes and trainers into the C4ISR and training environments of supported units. The Tactical UAV (TUAV) ground station developed by the JTC/SIL includes an embedded MUSE trainer, and is planned to be incorporated into the VTUAV Ground Control Station (GCS). Interim training capabilities for the Tactical Exploitation System (TES) are currently employed in the joint exercises.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

MUSE DEVELOPMENT	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.796	.824	.830	.851
RDT&E Articles Qty				

MUSE Development - Initial development of VTUAV model, continued Common Trainer for current platforms, continue to provide C4ISR simulation support to major exercises and demonstrations, complete integration of Tactical Exploitation of National Capabilities (TENCAP) simulation into PC-based MUSE, complete development of virtual Signals Intelligence (SIGINT) platform, continue development of Laser Designator capability, continue upgrade for National Space Assets Enhancements, continue C4I Enhancements, continue initial Fixed Target Damage simulation.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 2910, JOINT TECH CENTER/SYSTEMS INTEG LAB

ENGINEERING AND MAINTENANCE ACTIVITIES	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.500	.500	.500	.500
RDT&E Articles Qty				

Maintenance, Licenses and Equipment Purchases includes the day-to-day maintenance of lab equipment, license maintenance and license renewals from vendors for individual pieces of equipment, purchases of equipment to support the MUSE, and purchases to upgrade the MUSE capability.

PROGRAM MANAGEMENT SUPPORT	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.340	.340	.360	.374
RDT&E Articles Qty				

Laboratory Sustainment includes government management, contracts administration, cost accounting, configuration management, administrative support of the lab, MUSE architecture development, property management/accountability, and procurement of equipment.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable										

D. ACQUISITION STRATEGY:
Not Applicable

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305204N TACTICAL UNMANNED AERIAL VEHICLES				PROJECT NUMBER AND NAME 2910, JOINT TECH CENTER/SYSTEMS INTEG LAB						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Primary Hdw Development	MIPR	USA AV M, REDSTONE ARSENAL AL	4.294	.824	11/06	.830	11/07	.851	11/08	Continuing	Continuing	
SUBTOTAL PRODUCT DEVELOPMENT			4.294	.824		.830		.851		Continuing	Continuing	

Remarks:

SUPPORT												
Develop Support Equip	MIPR	USA AV M, REDSTONE ARSENAL AL	2.900	.500	11/06	.500	11/07	.500	11/08	Continuing	Continuing	
SUBTOTAL SUPPORT			2.900	.500		.500		.500		Continuing	Continuing	

Remarks:

TEST & EVALUATION												
SUBTOTAL TEST & EVALUATION												

MANAGEMENT												
Government Eng Sup	MIPR	USA AV M, REDSTONE ARSENAL AL	1.600	.340	11/06	.360	11/07	.374	11/08	Continuing	Continuing	
SUBTOTAL MANAGEMENT			1.600	.340		.360		.374		Continuing	Continuing	

Remarks:

Total Cost			8.794	1.664		1.690		1.725		Continuing	Continuing	
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Remarks:

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE: February 2007								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7								PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES								PROJECT NUMBER AND NAME 2910 Joint Technology Center/Systems Integration Lab																
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
Acquisition Milestones																																
Test & Evaluation Milestones																																
Provide MUSE Support to UAV developers																																

R-1 SHOPPING LIST - Item No. 203

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 3135, USMC VUAV				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3135 USMC VUAV		3.943							
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The USMC Vertical Unmanned Aerial Vehicle (VUAV) will provide the Marine Corps a Tier III UAV supporting Marine Expeditionary Force (MEF) and Joint Task Force (JTF) level commanders with the required speed and survivability to support USMC Expeditionary Maneuver Warfare (EMW) operations. The system will build on Navy Vertical Takeoff and Landing Tactical UAV and Coast Guard Eagle Eye technology. FY06 funds supported an Analysis of Alternatives (AoA) for a subsequent acquisition program.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

ANALYSIS OF ALTERNATIVES (AOA)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	3.943			
RDT&E Articles Qty				

Conduct studies and analysis, government engineering support, and program management support for the USMC VUAV program.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 3192 STUAS			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3192 STUAS			6.144	7.661	3.051			
RDT&E Articles Qty			1					
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Navy Small Tactical Unmanned Aircraft System (STUAS) / Tier II UAS</p> <p>The Navy Small Tactical Unmanned Aircraft System (STUAS) / Tier II UAS will provide persistent Intelligence, Surveillance, and Reconnaissance (ISR) support for tactical level maneuver decisions and unit level force defense/force protection for Navy ships and Marine Corps land forces. This system will fill the ISR capability shortfalls identified by the Navy Small Tactical Unmanned Aircraft System (STUAS) and Marine Corps Tier II UAS efforts. Consisting of three air vehicles, one ground control station, three payloads, and associated launch, recovery and support equipment, this system will support the Navy missions, including building the Recognized Maritime Picture, Maritime Security Operations, Maritime Interdiction Operations, and support of Navy units operating from sea/shore in the Global War on Terrorism (GWOT), and the Marine Corps close range UAS, enabling enhanced decision-making and improved integration with ground schemes of maneuver.</p> <p>The STUAS and Tier II UAS program is a combined program, and funded through separate USN and USMC Program Elements. USMC RD TEN funding is located in PE 0206313M, R-1 #186.</p> <p>Note: STUAS / Tier II UAS is a new start program.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 3192 STUAS		
B. Accomplishments/Planned Program				
SD&D DEVELOPMENT	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost			4.600	5.600
RDT&E Articles Quantity			1	
<p>Award contract to initiate the System Development Demonstration (SDD) efforts for the STUAS / Tier II UAS program. The Prime System Contractor will be responsible for overall system development and performance as well as associated management, engineering and logistics activities.</p>				
ENGINEERING AND TECHNICAL SERVICES	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost			1.544	2.061
RDT&E Articles Quantity				
<p>Government Technical Engineering Support, Logistics Support, Contractor Support Services, Program Management Support and travel.</p>				

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 3192 STUAS				
C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	To <u>Complete</u>	Total <u>Cost</u>
APN: 044400 STUAS				21.242	25.099	24.859	24.511	13.548		109.259
APN: Initial Spares: 060510 STUAS				1.038	1.300	1.328	0.056	0.057		3.779
OPN: 4272 STUAS Support Equipment				8.575	8.575	4.542	4.029	4.016		29.737
PMC: BLI 464000, Tier II UAS				13.486	20.305	9.513	18.858	15.757		Continuing
RDT&E,N: 0206313M, Proj C2273 Tier II UAS			5.742	7.076	9.642	5.15	3.378	1.865		Continuing
D. ACQUISITION STRATEGY:										
Conduct an open competition for the fulfillment of this requirement. Milestone B decision is scheduled for 2Q, FY08. Milestone C and LRIP decision is scheduled for 3Q, FY09. FRP is scheduled for 3Q, FY10, and IOC in 4Q, FY10.										

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305204N TACTICAL UNMANNED AERIAL VEHICLES				PROJECT NUMBER AND NAME 3192 STUAS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Primary Hardware Development	CPFF	TBD				4.600	2/08	5.600	11/08	1.500	11.700	11.700
SUBTOTAL PRODUCT DEVELOPMENT						4.600		5.600		1.500	11.700	11.700

Remarks:

SUPPORT												
SUBTOTAL SUPPORT												
Integrated Logistics Support	WX	TBD				.250	12/07	.250	11/08	Continuing	Continuing	
SUBTOTAL SUPPORT						.250		.250		.000	.000	

Remarks:

TEST & EVALUATION												
Dev Test & Eval	TBD	TBD						.502	11/08	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION								.502		Continuing	Continuing	

Remarks:

MANAGEMENT												
Government Eng Sup	WX	NAWCAD Pax River MD				.603	12/07	.624	11/08	Continuing	Continuing	
Program Mgmt Sup	TBD	VARIOUS				.656	01/08	.650	12/08	Continuing	Continuing	
Travel	TO	NAVAIR, PAXTUXENT RIVER MD				.035	10/07	.035	10/08	Continuing	Continuing	
SUBTOTAL MANAGEMENT						1.294		1.309		Continuing	Continuing	

Remarks:

Total Cost						6.144		7.661		Continuing	Continuing	
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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																				DATE: February 2007												
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7								PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES								PROJECT NUMBER AND NAME 3192 STUAS																
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
Acquisition Milestones										△ MS B					△ MS C				△ FRP	☆ IOC												
Contracting Activities							△ RFP			△ CA					△ LRIP Option				△ FRP I Option				△ FRP II Option				△ FRP III Option				△ FRP IV CA	
EDM Deliveries												△ 1																				
Systems Engineering Activities										△ CDR					△ PRR																	
Test & Evaluation Milestones											△ TRR			△	△	△		△	△	△												
Production Milestones																																
LRIP																																
FRP																																
Production System Deliveries																																

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REMARK: Schedule shown above reflects only Navy portion of STUAS/Tier II UAS funding.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES			PROJECT NUMBER AND NAME 9999 Congressional Adds			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999 Congressional Adds	22.178	3.586						
RDT&E Articles Qty	2*							
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Congressional Adds.</p> <p>Joint Operational Test Bed System (JOTBS) The Joint Operational Test Bed System is an experimental, ground-based control system that is designed to fly, operate and receive data from all the services; individual UAVs from a single interface.</p> <p>Fire Scout RQ-8B (MQ-8B) The Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) was designed to provide real-time intelligence, surveillance and reconnaissance data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The VTUAV can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation, and battle management (including communications relay). The VTUAV launches and recovers vertically and can operate from all air capable ships as well as confined area land bases. Other characteristics include autonomous air vehicle launch and recovery, autonomous waypoint navigation with command override capability, and the ability to incorporate Electro-Optical/Infrared/Laser Designator-Laser Range Finder modular mission payload. Interoperability is achieved through the use of the Tactical Control System (TCS) software in the ground control station, through implementation of NATO Standardization Agreement (STANAG) 4586 and through the use of the Tactical Common Data Link (TCDL). The data from the VTUAV will be provided through standard DoD Command, Control, Communications, Computers and Intelligence Surveillance, and Reconnaissance (C4ISR) system architectures and protocols.</p> <p>A program to continue development of the VTUAV to meet the Littoral Combat Ship (LCS) mission requirements was initiated in FY04. Engineering and Manufacturing Development (EMD) is continuing in FY07 and will include design activities for system upgrades, and TCS integration. Fabrication of the RQ-8A LRIP 1 system was completed in FY03. Procurement of two EMD MQ-8B Air Vehicles was initiated in FY04, two additional EMD MQ-8B Air Vehicles initiated in FY05, and five EMD MQ-8B Air Vehicles will be initiated in FY06. Two of the five articles initiated in FY06 are funded by this Congressional plus-up, and identified in this exhibit.</p> <p>* These quantities are also reflected in project 2768 for display purposes. The total quantity in FY06 is 5 air vehicles.</p> <p>Advanced Airship Flying Laboratory Phase II Capability studies for development of a modernized naval airship featuring contemporary composited, digital flight controls, vectored thrust and remote piloted capabilities that can provide immediate utility for missions requiring heavy lift (logistics and/or sensor suites), long endurance (measured in days vs. hours), and persistent broad-area Intelligence, Surveillance, and Reconnaissance(ISR).</p>								

R-1 SHOPPING LIST 203

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-7	R-1 ITEM NOMENCLATURE 0305204N TACTICAL UNMANNED AERIAL VEHICLES	
<p>Congressional Adds.</p> <p>Advanced Airship Flying Laboratory Capability studies for development of a modernized naval airship featuring contemporary composited, digital flight controls, vectored thrust and remote piloted capabilities that can provide immediate utility for missions requiring heavy lift (logistics and/or sensor suites), long endurance (measured in days vs. hours), and persistent broad-area Intelligence, Surveillance, and Reconnaissance (ISR).</p> <p>UAV Payload-NBC Detection Naval UAV Payload effort to be used only for the continuation of an industry based research program for light weight low power Nuclear, Chemical and Biological (NBC) sensors and isotope identification techniques Utilizing Micro-Electro-Mechanical systems (MEMS) technology and innovative detection devices to identify airborne chemical/biological threats and hazardous materials.</p> <p>UAS Tactical Control System Open Architecture This initiative includes the open systems migration of unique military standard sensors, electronics, and software system components to lower cost/higher performance commercial equivalent capabilities.</p>		

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 9999 Congressional Adds		
B. Accomplishments/Planned Program				
2478C JOTBS ACTIVITIES	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.957			
RDT&E Articles Quantity				
Joint Operational test bed systems. JOTBS enhancements and support of UAV experimentation.				
2768C SD&D ACTIVITIES	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	16.757			
RDT&E Articles Quantity	2			
Fire Scout RQ-8B (MQ-8B): Procurement, development, and integration of VTUAV EMD MQ-8B Air Vehicles to support the Engineering and Manufacturing Development (EMD) program.				
9650C ADVANCED AIRSHIP LAB ACTIVITIES	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.464	0.996		
RDT&E Articles Quantity				
Advanced airship flying laboratory Phase II. Continue the development of new technologies to advance modern airships, such as digital automated flight controls, bow thrusters, and heavy fuel engines. Government Engineering Support, contractor support services, and travel.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305204N TACTICAL UNMANNED AERIAL VEHICLES	PROJECT NUMBER AND NAME 9999 Congressional Adds		
B. Accomplishments/Planned Program Continued:				
9B02 NBC Payload Detection	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost		1.594		
RDT&E Articles Quantity				
Develop an NBC Payload Detection for Small Tactical UAV. Develop integration and test plans for the NBC Payload. Execute the flight test program and report results. Government Engineering Support, contractor support services, and travel.				
9B03 TCS Open Architecture	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost		0.996		
RDT&E Articles Quantity				
Develop and accelerate Open Architecture Technology Insertion solution . Government Engineering Support, contractor support services, and travel.				

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