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EXHIBIT R-2, RDT&E Budget Item Justification							DATE:		
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4							0603261N, TACTICAL AIRBORNE RECONNAISSANCE		
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	3.882	3.944	4.063	4.308	4.324	4.371	4.458	4.548	
2467 UAV CONOPS	3.882	3.944	4.063	4.308	4.324	4.371	4.458	4.548	

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Naval Unmanned Aerial Vehicle (UAV) Strategy employs a family of UAVs to perform tactical, persistent and penetrating Intelligence, Surveillance, and Reconnaissance (ISR) in support of Naval and Joint missions from forward bases/platforms and naval ships.

In support of the Navy's overall UAV strategy, this program develops Concept of Operations (CONOPS) that integrate UAVs into the Chief of Naval Operations (CNO)/Navy Vision of Sea Power 21 (Sea Shield, Sea Strike, Sea Basing, and FORCEnet). By providing fleet input based on current operations with UAVs in a simulated combat environment, this CONOPS development investment is the foundation of how the Carrier Strike Group (CSG) will operate a combined Manned and Unmanned Naval Air Force. Specifically:

- Develops, demonstrates, and evaluates CONOPS, and assesses manning requirements of ship-based tactical UAVs.
 - Leverages and assesses joint utility of Global Hawk Maritime Demonstration (GHMD) System.
 - Demonstrates UAV integration into USN battlespace dominance operations and network centric warfare.
 - Demonstrates UAV integration into USN sensor-to-shooter and Sea Strike.
 - Develops Intelligence, Surveillance, and Reconnaissance (ISR) CONOPS in support of strike, Military Operations Other Than War (MOOTW), Anti-Air Warfare (AAW), and Combat Search and Rescue (CSAR).
 - Demonstrates UAV cross-cueing capability with theater and strategic intelligence sources.
 - Develops Tactics, Techniques, and Procedures for multi- dissimilar UAV control, operations, and data dissemination utilizing NATO STANAG 4586.
 - Conducts studies for UAV task, data management, and Focused Flying efforts.
 - Conducts CONOPS studies, demonstrations, and exercises for data relay, comm relay, time sensitive targets, and weapons employment.
 - Purchase a UAV CONOPS demonstration system to be utilized for CONOPS development, test and evaluation, and expediting technology transition.
- The demonstration system consists of a ground control station, launch and recovery equipment, air vehicles, spares and associated equipment.

B. PROGRAM CHANGE SUMMARY

Previous President's Budget:	3.879	3.959	4.158	4.303
Current President's Budget:	<u>3.882</u>	<u>3.944</u>	<u>4.063</u>	<u>4.308</u>
Total Adjustments	0.003	-0.015	-0.095	0.005
Summary of Adjustments				
Congressional Reductions		-0.015		
Congressional Rescissions				
Congressional Increases	0.003			
Economic Assumptions			-0.015	0.022
Miscellaneous Adjustments			-0.080	-0.017
Subtotal	<u>0.003</u>	<u>-0.015</u>	<u>-0.095</u>	<u>0.005</u>

Schedule:

Comm Relay, targeting, management of multiple UAVs, data management, and other tasks added to clarify scope of CONOPS efforts. UAV CONOPS demonstration system will be purchased to conduct studies, demonstrations, and exercises. CVW-XX Operational Testing reduced to one per FY due to availability of Carrier Strike Group ships and aircraft.

Technical:

Not Applicable

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603261N, TACTICAL AIRBORNE RECONNAISSANCE			PROJECT NUMBER AND NAME 2467 UAV CONOPS				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2467 UAV CONOPS		3.882	3.944	4.063	4.308	4.324	4.371	4.458	4.548
RDT&E Articles Qty				1					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

In support of the Navy's overall UAV strategy, this program develops Concept of Operations (CONOPS) that integrate UAVs into CNO/Navy Vision of Sea Power 21 (Sea Shield, Sea Strike, Sea Basing, and FORCEnet). By providing fleet input based on current operations with UAVs in a simulated combat environment, this CONOPS development investment is the foundation of how the Carrier Strike Group will operate a combined Manned and Unmanned Naval Air Force. Specifically:

- Develops, demonstrates, and evaluates CONOPS, and assesses manning requirements of ship-based tactical UAVs.
- Leverages and assesses joint utility of Global Hawk Maritime Demonstration System .
- Demonstrates UAV integration into USN battlespace dominance operations and network centric warfare.
- Demonstrates UAV integration into USN sensor-to-shooter and Sea Strike.
- Develops Intelligence, Surveillance, and Reconnaissance CONOPS in support of strike, Military Operations Other Than War (MOOTW), Anti-Air Warfare (AAW), Combat Search and Rescue (CSAR).
- Demonstrates UAV cross-cueing capability with theater and strategic intelligence sources.
- Develops Tactics, Techniques, and Procedures for multi-dissimilar UAV control, operations, and data dissemination utilizing NATO STANAG 4586.
- Conducts studies for UAV task, data management, and Focused Flying efforts.
- Conducts CONOPS studies, demonstrations, and exercises for data relay, comm relay, time sensitive targets, and weapons employment.
- Purchase a UAV CONOPS demonstration system to be utilized for CONOPS development, test and evaluation, and expediting technology transition. The demonstration system consists of a ground control station, launch and recovery equipment, air vehicles, spares and associated equipment.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

STUDIES AND DEMONSTRATIONS	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.700	.700	1.787	1.800
RDT&E Articles Qty			1	

Studies and Demonstrations to develop CONOPS for manned-unmanned integration of UAV and aircraft systems. Purchase a UAV CONOPS demonstration system for CONOPS development, test and evaluation, and technology transition.

SHIPBOARD CONOPS	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.345	1.410	1.241	1.281
RDT&E Articles Qty				

Shipboard CONOPS - Conduct CONOPS studies, demonstrations, and exercises for data relay, comm relay, time sensitive targets, and weapons employment. Assess manning requirements of ship based tactical UAV to identify manpower reduction opportunities.

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ENGINEERING AND PROGRAM SUPPORT	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.887	.884	.910	1.012
RDT&E Articles Qty				

Government engineering support, program office travel and contract support services.

NATO STANAG 4586 AND INTEROPERABILITY	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.950	.950	.125	.215
RDT&E Articles Qty				

Develop standards-based NATO STANAG 4586 tool and validation capability to certify interoperability compliance. Conduct CONOPS studies for multiple, dissimilar UAV interoperability. Conduct studies for UAV task, data management and focused flying efforts.

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-4			PROGRAM ELEMENT 0603261N, TACTICAL AIRBORNE RECONNAISSANCE				PROJECT NUMBER AND NAME 2467 UAV CONOPS					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s 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												
Ship Integration	VARIOUS	VARIOUS	1.841	.845	Nov 2006	1.000	Nov 2007	1.000	Nov 2008	Continuing	Continuing	
Systems Engineering Test Tool	WX	NAWCAD, PATUXENT RIVER MD	.664	.580	Nov 2006	.241	Nov 2007	.281	Nov 2008	Continuing	Continuing	
SUBTOTAL PRODUCT DEVELOPMENT			2.505	1.425		1.241		1.281		Continuing	Continuing	

Remarks:

SUPPORT												
Development/Demo Support	WX	VARIOUS	11.371	.400	Dec 2006	.600	Dec 2007	.700	Dec 2008	Continuing	Continuing	
Software Development	C/CPFF	RAYTHEON COMPANY FALLS CHURCH VA	2.250	.785	Dec 2006					4.094	8.894	8.894
Studies & Analysis	WX	NAWCAD, PATUXENT RIVER MD		.150	Dec 2006	.500	Dec 2007	.500		Continuing	Continuing	
Studies, Demo & Analysis	WX	NAWCAD, CHINA LAKE CA	.150	.150	Dec 2006	.687	Dec 2007	.600	Dec 2008	Continuing	Continuing	
SUBTOTAL SUPPORT			13.771	1.485		1.787		1.800		Continuing	Continuing	

Remarks:

TEST & EVALUATION												
Interoperability Testing	VARIOUS	VARIOUS	.650	.150	Dec 2006	.125	Dec 2007	.215	Dec 2008	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			.650	.150		.125		.215		Continuing	Continuing	

Remarks:

MANAGEMENT												
Government Eng Sup	VARIOUS	VARIOUS	1.934	.300	Dec 2006	.477	Dec 2007	.611	Dec 2008	Continuing	Continuing	
Program Management Support	VARIOUS	VARIOUS	.588	.484	Dec 2006	.333	Dec 2007	.301	Dec 2008	Continuing	Continuing	
Travel	TO	NAVAIR HQ, PATUXENT RIVER MD	.188	.100	Oct 2006	.100	Oct 2007	.100	Oct 2008	Continuing	Continuing	
SUBTOTAL MANAGEMENT			2.710	.884		.910		1.012		Continuing	Continuing	

Remarks:

Total Cost			19.636	3.944		4.094		4.308		Continuing	Continuing	
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Remarks:

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EXHIBIT R4, Schedule Profile																								DATE: February 2007																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4								PROGRAM ELEMENT NUMBER AND NAME 0603261N Tactical Airborne Reconnaissance								PROJECT NUMBER AND NAME 2467 UAV CONOPS																								
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								
Tactics Development and Evaluation					▲ Comm Relay ▲																																			
					▲ Time Sensitive Targets / Target Update ▲																																			
									▲ Communication / Datalink management of multiple, dissimilar UAVs ▲																															
									▲ Task / Data Management / Focused Flying Studies ▲																															
																	▲ Standards Based Interoperability ▲																							
																					▲ Shipboard CONOPS ▲																			
Test & Evaluation Milestones	▲ UAV/CAS				▲ CVW-XX				▲ CVW-XX				▲ CVW-XX				▲ CVW-XX				▲ CVW-XX				▲ CVW-XX				▲ CVW-XX											
	Operational Test																																							
Demo System Delivery									▲																															

R-1 SHOPPING LIST - Item No. 31

