CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	
	Februa	ry 2006					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMEN	CLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY	Y / BA-4			0603261N Tactica	Airborne Reconna	issance	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	6.383	3.879	3.959	4.158	4.303	4.352	4.402
2467 UAV CONOPS	6.383	3.879	3.959	4.158	4.303	4.352	4.402

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Department of the Navy leadership is committed to Naval Unmanned Aerial Vehicles (UAVs) and to procuring an operational UAV capability as soon as possible. The Naval UAV Strategy employs a family of UAVs to perform tactical, persistent and penetrating Intelligence, Survelliance, 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.
- Supports development of Joint UAV CONOPS through Intelligence, Surveillance, and Reconnaissance (ISR) Time Sensitive Operations Joint Test and Evaluation (JTE).
- Develops 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.
- Develop Tactics, Techniques, and Procedures for multi- dissimilar UAV control, operations, and data dissemination utilizing NATO STANAG 4586.

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:	
						Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY							
RDT&E, N / BA-4	0603261N Tactical	Airborne Reconna	issance	2467 UAV CONOF	PS		
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
2467 UAV CONOPS Research	6.383	3.879	3.959	4.158	4.303	4.352	4.402
RDT&E Articles Qty- Not Applicable							·

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.
- Supports development of Joint UAV CONOPS through ISR Time Sensitive Operations Joint Test and Evaluation (JTE).
- 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.
 - Develop Tactics, Techniques, and Procedures for multi-dissimilar UAV control, operations, and data dissemination utilizing NATO STANAG 4586.

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA-4	0603261N Tactical Airborne Reconnaissance	2467 UAV CONOPS	

B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.150	0.700	0.700
RDT&E Articles Quantity			

Studies and Demonstrations to develop CONOPS for manned-unmanned integration of UAV and aircraft systems.

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.300		
RDT&E Articles Quantity			

Completed JTE UAV Support. Joint UAV's (JUAV) in Time Sensitive Operations (TSO) final report and additional documents completed April 2005.

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.312	0.950	0.950
RDT&E Articles Quantity			

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

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-4	0603261N Tactical Airborne Reconnaissance	2467 UAV CONOPS	

B. Accomplishments/Planned Program (Cont.)

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.276	1.345	1.425
RDT&E Articles Quantity			

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

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.345	0.884	0.884
RDT&E Articles Quantity			

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

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

XHIBIT R-2a, RDT&E Project Justification				DATE:	
					February 2006
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	R AND NAME		PROJECT NUMBER AND NAME	
RDT&E, N / BA-4	0603261N Tactical Airborne Rec	0603261N Tactical Airborne Reconnaissance 24			
C. PROGRAM CHANGE SUMMARY:					
Funding:	FY 2005	FY 2006	FY 2007		
Previous President's Budget:	6.386	3.938	3.950		
Current BES / President's Budget	6.383	3.879	3.959		
Total Adjustments	-0.003	-0.059	0.009		
Summary of Adjustments					
Congressional Reductions					
Congressional Rescissions					
Congressional Undistributed Reductio		-0.041			
Congressional Increases	0.002				
Economic Assumptions		-0.018	0.023		
Miscellaneous			-0.014		
Subtotal	-0.003	-0.059	0.009		
Schedule:					
Scriedule.					
Schedule reflects current planning through FY2011	. Resource constraints and higher pri	orities necessita	ted the elimina	tion of Desert Rescue activities.	
Technical:					
Not Applicable					
. тост фриоцию					

R-1 SHOPPING LIST - Item No. 34

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 5 of 12)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E	Project Justification							DATE:			
										February 2006	
APPROPRIATION/BUDGET		PROGRAM E	LEMENT NUM	BER AND NAM	ME	PROJECT NU	IMBER AND N	IAME			
RDT&E, N /	BA-4	0603261N Ta	0603261N Tactical Airborne Reconnaissance			2467 UAV CO	NOPS				
D. OTHER PROGRA	AM FUNDING SUMMARY:										
Line Item No. & N	<u>Name</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost	
Not Applicable											
E. ACQUISITION STRA	ATEGY:										
Not Applicable											

R-1 SHOPPING LIST - Item No. 34

CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pa	ge 1)									February 200	06	
APPROPRIATION/BUDGET ACTIV		PROGRAM I	ELEMENT			PROJECT NU	JMBER AND N	NAME				
RDT&E, N / BA-4		0603261N Ta	actical Airborne	Reconnaissand	ce	2467 UAV CC	NOPS					
Cost Categories		Performing	Total		FY 05		FY 06		FY 07			
	Method & Type	Activity & Location	PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date	FY 07 Cost	Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	,
Ancillary Hardware Development											0.000	,
Aircraft Integration											0.000	,
Shipboard Integration	Various	Various		0.796	02/05	1.045	02/06	1.125	11/06	Continuing	Continuing	j
Ship Suitability											0.000)
Systems Engineering Test Tool	WX	NAWCAD, Pax River, MD		0.362	09/05	0.300	02/06	0.300	12/06		0.962	1
Training Development											0.000)
Licenses											0.000)
Tooling											0.000)
GFE											0.000)
Award Fees											0.000)
Subtotal Product Development			0.000	1.158	3	1.345	;	1.425		Continuing	Continuing	,
Remarks:												

Development Support	WX	NSAWC, Fallon, NV	9.671	1.150	12/04	0.550	12/05	0.550	11/06	Continuing	Continuing	
Software Interoperability	C/CPFF	Raytheon, Falls Church, Va		1.450	03/05	0.800	02/06	0.800	12/06	0.000	3.050	3.050
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses	WX	NAWCWD, China Lake,CA				0.150	02/06	0.150	11/06	Continuing	Continuing	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			9.671	2.600		1.500		1.500		Continuing	Continuing	

Remarks:

CLASSIFICATION:

								DATE:								
Exhibit R-3 Cost Analysis (pag	e 2)									February 200	06					
APPROPRIATION/BUDGET ACTIV	ITY	PROGRAM I	ELEMENT			PROJECT NUMBER AND NAME										
RDT&E, N / BA-4		0603261N Ta	actical Airborne	Reconnaissand	e	2467 UAV CONOPS										
Cost Categories	Contract	Performing	Total		FY 05		FY 06		FY 07							
	Method	Activity &	PY s	FY 05	Award		Award	FY 07	Award	Cost to		Target Value				
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete		of Contract				
Developmental Test & Evaluation	Various	Various		0.300	12/04	-					0.300					
Operational Test & Evaluation			ļ								0.000					
Live Fire Test & Evaluation											0.000					
Interoperability Testing	Various	Various		0.500	12/04	0.150	01/06	0.150	11/06	Continuing	Continuing					
Tooling											0.000					
GFE											0.000					
Award Fees											0.000					
Subtotal T&E			0.000	0.800		0.150		0.150)	Continuing	Continuing					
Contractor Engineering Support											0.000					
Government Engineering Support	Various	Various		1.480	12/04	0.454	11/05	0.454	11/06	Continuing	Continuing					
Program Management Support	Various	Various	0.040	0.257	12/04	0.330	11/05	0.330	11/06	Continuing	Continuing					
Travel	TO	NAVAIR-HQ, Pax River, MD		0.088	12/04	0.100	11/05	0.100	11/06	Continuing	Continuing					
Transportation											0.000					
SBIR Assessment											0.000					
Subtotal Management			0.040	1.825		0.884		0.884	ļ.	Continuing	Continuing					
Remarks:																
Total Cost			9.711	6.383		3.879	_	3.959		Continuing	Continuing					
Remarks:																

R-1 SHOPPING LIST - Item No. 34

CLASSIFICATION:

Test & Evaluation Milestones Operational Test Operational Test CAG 12 CAG 9 UAVICAS UAVICAS UAVICAS UAVICAS CVW-XX CVW-X	EXHIBIT R4, Schedule F	Profile																				DATE:	:						
Princial Year 2005 2006 2007 2008 2009 2010 2011	A DDD ODDIATION/DUDOFT	A O T I V	TV			IDDO			TAIT AI	LIMPE	D AND	N N I A N A						IDDO I	FOT N	II INADE	-D ANI	D NIA MI		l	Febru	ary 2	2006		
Fiscal Year 2005 2006 2007 2008 2009 2010 2011		ACTIVI	ΙY										E									D NAMI	E						
Fixed Year 1 2 3 4 1 1 2 3 4 1 1 2	RDTGE, IV / DIX-4					00032			MIDOIII	C RCCO								2407			,								
Acquisition Milestones CAG-11 CAG-12 CAG-12 CAG-12 CAG-10 CAG-10 CAG-12 CAG-10	Fiscal Year		20	05		2006					2007			2008				20	09			201	10		2011				
Test & Evaluation Milestones Operational Test Planning Schedule) CAG 9 CAG 10 CAG 1		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 Shipboard CONOPS CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-10	Acquisition Milestones																												
Tactics Development and Evaluation Shipboard CONOPS CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-10																													
Tactics Development and Evaluation Shipboard CONOPS CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-10																													
Tactics Development and Evaluation Shipboard CONOPS CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-10																													
Tactics Development and Evaluation Shipboard CONOPS CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-11 CAG-10																													
Operational Test (Planning Schedule) CAG 12 CAG-10 CAG 9 CAG-10 CAG 12 CVW-XX	Test & Evaluation Milestones	C	AG-11				UAV/0		UAV/C	CAS CVW-X	ΧX	CVW-Z	XX	C/				VW-X	$\times \wedge$	XX	С	VW-XX	$I \wedge$		XX V		CVW-2		/w-xx
Standards Based Interoperability Shipboard CONOPS	Operational Test (Planning Schedule)	CAG	9			 10 		Λ		$ \wedge $		ΧX	cvw-z	l XX CVW	-xx			XX 		cvw-2	lcvw-					CVW-Z	XX 	CVW-X	XX X
Standards Based Interoperability Shipboard CONOPS	Tastics Davelonment																												
Entitie D. D. D. D. D. D. L.	and Evaluation	Standards Based Interoperability								1																			
Fullified D. ROTEN Guillant New Audification																													
Fullified D. ROTEN Guillant New Audification		Shinhoard CONOPS																											
Exhibit R-2. RDTEN Budget Item Justification																													
LAHIDIL IV-Z. NOTEN DIQUE HERI JUSTINIZATUR																				Evhil	hit P	2 BD	TENE	uda	t Itor	n luc	tifica	tion	

UNCLASSIPPEDLIST - Item No.

(Exhibit R-2, page 9 of 12)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE:		
						February 200	6
APPROPRIATION/BUDGET ACTIVITY	PROGRAM EI	LEMENT			-		
RDT&E,N / BA-4	0603261N Tact	tical Airborne Re	2467 UAV CO	NOPS			
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
							_
Carrier Air Wing Test & Evaluation							
CAG-9	1Q						
CAG 11	2Q						
CAG 12	3Q						
CAG-10	4Q						
UAV/Close Air Support (CAS)		2Q-4Q					
CVW-XX			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Tactics Development & Evaluation:							
Standards Based Interoperability	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Shipboard CONOPS	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
			Itam Na	24			

R-1 SHOPPING LIST - Item No.

34

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 10 of 12)