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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 0604402N, UNMANNED COMBAT AIR VEHICLE (UCAV)		
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost		99.622	161.665	273.617	417.512	406.231	219.963	306.585
3178 UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)		99.622	161.665	273.617	376.114	347.749	150.677	135.419
3191 UCAS TECHNOLOGY MATURATION					41.398	58.482	69.286	171.166

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

The 2005 Quadrennial Defense Review (QDR), published February 2006, the FY07 President's Budget and USD (AT&L), supported direction to restructure the J-UCAS program and fund a new Navy UCAS program in its place. The Navy was directed to demonstrate carrier operations of a Low Observable (LO) Unmanned Combat Air System. This direction forms the foundation of the Navy's UCAS demonstration (Navy UCAS-D) program.

The purpose of the Navy UCAS-D program is to conduct carrier demonstrations of unmanned combat air system with Low Observable (LO) planform(s). The UCAS-D will be structured to match program resources to United States Navy (USN) objectives/constraints with the goals of identifying and maturing critical technologies and reducing the risk of carrier integration of a UCAS. The research and development data developed will support a follow-on acquisition milestone decision. System Development & Demonstration (SDD) funding is not covered, nor described in this exhibit.

The Navy UCAS-D is comprised of a LO planform Air Vehicle Segment and a Mission Control Segment (MCS). The Navy UCAS will be designed for autonomous launch and recovery as well as operations in the Carrier Control Area (CCA). The scope of the Navy UCAS-D effort includes design, development, integration, and validation of an unmanned, LO planform Air Vehicle Segment and MCS in the landbased and shipboard environments. Additional evaluations will be conducted to investigate MCS interfaces with shipboard systems such as primary flight control (PRI-FLY) displays, Landing Safety Officer (LSO) displays, and Carrier Air Traffic Control Center (CATCC) stations.

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B. PROGRAM CHANGE SUMMARY

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget:	0.000	239.163	310.212	369.617
Current President's Budget:	<u>0.000</u>	<u>99.622</u>	<u>161.665</u>	<u>273.617</u>
Total Adjustments	0.000	-139.541	-148.547	-96.000
Summary of Adjustments				
Congressional Reductions		-139.163		
Congressional Rescissions				
Congressional Undistributed Reductions		-0.378		
Congressional Increases				
Economic Assumptions			1.023	2.267
Miscellaneous Adjustments			<u>-149.570</u>	<u>-98.267</u>
Subtotal	0.000	-139.541	-148.547	-96.000

Schedule: Re-phasing in the budget profile in fiscal years 2007 through 2011 has shifted the entire UCAS program to a FY2013 completion vice FY2011. The revised schedule reflects a refinement in planned activities and program requirements to achieve the capability to conduct carrier demonstrations of unmanned combat air systems with Low Observable (LO) platform(s).

Technical: Not Applicable

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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 0604402N, UNMANNED COMBAT AIR VEHICLE (UCAV) ADV CP/P			PROJECT NUMBER AND NAME 3178, UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3178 UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)			99.622	161.665	273.617	376.114	347.749	150.677	135.419
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Navy UCAS-D program is an Advanced Development effort, designed to conduct shipboard demonstration and risk reduction. The Navy UCAS-D system includes an unmanned LO planform Air Vehicle Segment and Mission Control Segment (MCS). The Navy UCAS-D system will be designed for autonomous launch and recovery as well as operations in the Carrier Control Area. The scope of the Navy UCAS-D effort includes design, development, integration and validation of an unmanned, LO planform Air Vehicle Segment and MCS in the landbased and shipboard environments. Additional evaluations will be conducted to investigate MCS interfaces with shipboard systems such as primary flight control (PRI-FLY) displays, Landing Safety Officer (LSO) displays and Carrier Air Traffic Control Center (CATCC) stations. As a research and development demonstration effort, SDD funding is not covered or described in this exhibit.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Product Development	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		92.325	149.082	261.707
RDT&E Articles Qty				

The primary effort in the Navy UCAS-D program is design, development, integration and validation of hardware/software leading to a Carrier Demonstration of an unmanned, LO planform UCAS system no later than FY13. Effort includes: design, development, integration, and validation of the Navy UCAS-D system, integration of Government Furnished Equipment (GFE), and development of internal/external interface documents. In addition, design and development of hardware/software to support Automated Air Refueling (AAR) will be conducted. Shipboard evaluation of the Navy UCAS-D system includes integration of the UCAS-D system with shipboard systems such as primary flight control (PRI-FLY) displays, Landing Safety Officer (LSO) displays and Carrier Air Traffic Control Center (CATCC) stations. Shipboard research and development efforts include establishment and evaluation of launch/recovery envelopes.

Management	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		6.892	7.383	7.910
RDT&E Articles Qty				

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

Test and Evaluation Support	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		.405	5.200	4.000
RDT&E Articles Qty				

Perform test and evaluation of Navy UCAS-D system. Efforts include detailed test and evaluation plan development, test site facility preparation, system integration, ground and flight test execution and reporting, and carrier at sea test planning.

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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  
Not Applicable

D. ACQUISITION STRATEGY: In December 2005, the Department directed funding of the Navy Unmanned Combat Air System (Navy UCAS) Program. The primary goal is risk reduction for carrier integration and maturation of critical technologies, while developing the critical data necessary to support a potential follow on acquisition milestone decision. The Navy UCAS program will transition JUCAS technologies and designs developed under DARPA/USAF Other Transaction Agreements, toward the demonstration of a carrier based unmanned combat air system. The UCAS-D effort will focus on designing, developing, and evaluating the core capabilities which safely demonstrate carrier interoperability. Primary hardware development for the UCAS-D effort will be performed under a FAR-based, cost plus incentive fee-type contract competitively awarded to a single contractor. Source Selection is ongoing.

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Exhibit R-3 Cost Analysis (page 1)										DATE:					
APPROPRIATION/BUDGET ACTIVITY										PROGRAM ELEMENT			PROJECT NUMBER AND NAME		
RDT&E,N / BA-7										0604402N, UNMANNED COMBAT AIR VEHICLE (UCAV) ADV CP/PROTO DEV			3178, UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)		
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															
Air Ship Integration	WX	NAWCAD, PATUXENT RIVER MD		3.260	Nov 2006	4.300	Nov 2007	5.050	Nov 2008	16.200	28.810				
Air Ship Integration	C-CPIF	VARIOUS		6.246	Dec 2006	9.600	Dec 2007	6.500	Dec 2008	16.000	38.346	38.346			
Automated Aerial Refueling	MIPR	AFRL/VAFB, DAYTON OH		2.500	Nov 2006						2.500				
Primary Hdw Development	OTA	MCDONNELL DOUGLAS CORP, SAINT LOUIS		20.711	Oct 2006						20.711	20.711			
Primary Hdw Development	OTA	NORTHROP GRUMMAN SYSTEMS CORPORATIO		36.375	Oct 2006						36.375	36.375			
Primary Hdw Development	C-CPIF	TBD		18.259	Jul 2007	128.216	Nov 2007	239.657	Nov 2008	864.419	1,250.551	1,250.551			
Systems Eng	WX	VARIOUS		4.825	Nov 2006	5.965	Nov 2007	8.500	Nov 2008	37.500	56.790				
SUBTOTAL PRODUCT DEVELOPMENT				92.175		148.081		259.707		934.119	1,434.082				

Remarks:

SUPPORT												
Integrated Logistics Sup	WX	NAWCAD, PATUXENT RIVER MD		.150	Nov 2006	1.000	Nov 2007	2.000	Nov 2008	8.750	11.900	
SUBTOTAL SUPPORT				.150		1.000		2.000		8.750	11.900	

Remarks:

TEST & EVALUATION												
Dev Test & Eval	WX	NAWCAD, PATUXENT RIVER MD		.405	Nov 2006	5.200	Nov 2007	4.000	Nov 2008	34.100	43.705	
SUBTOTAL TEST & EVALUATION				.405		5.200		4.000		34.100	43.705	

Remarks:

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APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7			PROGRAM ELEMENT 0604402N, UNMANNED COMBAT AIR VEHICLE (UCAV) ADV CP/PROTO DEV				PROJECT NUMBER AND NAME 3178, UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)					

MANAGEMENT												
Contractor Eng Sup	C-CPIF	VARIOUS		.100	Jun 2007	.100	Nov 2007	.100	Nov 2008	.400	.700	.700
Government Eng Sup	WX	NAWCAD, PATUXENT RIVER MD		3.000	Nov 2006	1.500	Nov 2007	1.650	Nov 2008	6.000	12.150	
Government Eng Sup	WX	NAWCWD, CHINA LAKE CA		.100	Nov 2006						.100	
Program Mgmt Support	C-CPIF	VARIOUS		1.747	Jun 2007	3.600	Nov 2007	3.770	Nov 2008	16.350	25.467	25.467
Program Mgmt Support	WX	NAWCAD, PATUXENT RIVER MD		1.845	Nov 2006	2.074	Nov 2007	2.270	Nov 2008	9.760	15.949	
Program Mgmt Support	WX	NAWCWD, CHINA LAKE CA		.100	Nov 2006	.110	Nov 2007	.120	Nov 2008	.480	.810	
SUBTOTAL MANAGEMENT				6.892		7.384		7.910		32.990	55.176	

Remarks:

Total Cost				99.622		161.665		273.617		1,009.959	1,544.863	
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Remarks:

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												0604402N, UNMANNED COMBAT AIR VEHICLE (UCAV) ADV CP/PROT								3178, UNMANNED COMBAT AIR SYSTEM CV-DEMO (UCAS-D)												
Fiscal Year	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 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
CV Demo Program	Northrop--JUCAS																															
	Boeing--JUCAS																															
					RFP △				CA △																							
CV Demo Contract																																
Air Vehicle	A/C Development & Integration																															
	Land Based Testing																															
	Ship Based Testing																															
MCS Integration (Ship Interface)	Requirements Development				SCD Phase II Dev (TEMPALT)								Int test				Cert				CV Install											
	Precision Navigation (PGPS)																															
	ADMACS Block II Integration																															

