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Fiscal Year (FY) 2006 Budget Estimates Exhibit R-2, RDT&E Budget Item Justification						Date: February 2005			
Appropriation/Budget Activity Defense Wide RDT&E, BA4				R-1 ITEM NOMENCLATURE J-UCAS Advanced Component and Prototype Development					PE-0604400D8Z
COST (\$ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
J-UCAS PE-0604400D8Z	0.000	217.401	0.000	0.000	0.000	0.000	0.000	0.000	

**A. Mission Description and Budget Item Justification:**

The Joint Unmanned Combat Air Systems (J-UCAS) program is a joint effort to develop and demonstrate unmanned combat capabilities for high-threat Suppression of Enemy of Air Defense (SEAD), Information Operations/ Electronic Attack, Persistent Surveillance/Reconnaissance, and related strike missions within the emerging global command and control architecture for the warfighting community. The J-UCAS program combines and expands the efforts that were previously conducted under the DARPA/Air Force Unmanned Combat Air Vehicle (UCAV) program and the DARPA/Navy Naval UCAV (UCAV-N) program. These efforts were targeted towards service-specific needs, However the Department recognized the potential for significant synergy by combining the programs. The accomplishments and ongoing efforts of the X-45A technology demonstrator, as well as the development of the X-47A demonstrator, are reducing the risk of the “operationalized” demonstration system being developed for a joint operational assessment (OA) planned for the FY 2007-2010 timeframe. The J-UCAS concept incorporates the next generation family of demonstrator air vehicles, together with common subsystems (e.g. sensors, payloads, communications) and a Common Operating System to achieve the system’s diverse mission functionality. These common system elements will maximize mission flexibility and operational versatility, while reducing overall costs and maintaining schedule toward a joint OA. The J-UCAS Office operates in close coordination with Service users and other operational components. The program is focused on demonstrating capabilities that support both Services and enable an operational system development decision by the end of the decade. PE 0604400D8Z is for J-UCAS Advanced Component and Prototype Development. These funds are used for the development of the common systems and technologies as well as the Boeing and Northrop Grumman demonstrator programs. In addition, these funds are used to conduct the joint operational assessment including modeling and simulation and flight testing.

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**B. Program Change Summary:**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Previous President's Budget:	0.000	422.873	667.307	380.105
Current FY2006 President's Budget Submission:	0.000	217.401	0.000	0.000
Adjustments to Appropriated Value:		-205.472	-667.307	-380.105
Congressional Program Reductions:		-205.472		
Congressional Rescissions:				
Congressional Increases:				
Reprogrammings:			-667.307	-380.105
SBIR/STTR Transfers:				
Other:				

**C. Other Program Funding Summary:**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY2009</u>	<u>FY2010</u>
PE 0603400D8Z, OSD	0.000	354.794	0.000	0.000	0.000	0.000	0.000
PE 0603114N, Navy	117.865	0.000	0.000	0.000	0.000	0.000	0.000
PE 0604731F, Air Force	160.551	0.000	0.000	0.000	0.000	0.000	0.000
PE 0207256F, Air Force	2.305	0.000	0.000	0.000	0.000	0.000	0.000
PE 0603285E, DARPA	41.385	0.000	0.000	0.000	0.000	0.000	0.000
PE 0603400F, Air Force	0.000	0.000	77.800	0.000	0.000	0.000	0.000
PE 0604400F, Air Force	0.000	0.000	272.300	400.100	554.100	780.500	955.200

**D. Acquisition Strategy:**

The J-UCAS Advanced Component and Prototype Development acquisition strategy is to advance the work being conducted under PE 0603400D8Z (J-UCAS Advanced Technology Development and Risk Reduction) and prove the operational value of the J-UCAS concept in the joint operational assessment. The J-UCAS program blends the advantages of both the Advanced Technology

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Demonstration (ATD) and the Advanced Concept Technology Demonstration (ACTD) concepts to facilitate rapid development and integration of advanced technologies in an experimental system that addresses operational needs. Using the next generation of demonstrator air vehicle families, together with common subsystems and a Common Operating System, this nontraditional approach also incorporates key acquisition considerations (i.e., user requirements, comprehensive system lifecycle perspective, and rigorous risk mitigation processes) to provide the necessary insights, operational data and identified options for the services to make an informed decision for accelerated acquisition near the end of the decade.

**E. Performance Metrics:**

2Q FY 2006 Delivery of 'Build 0', Basic Services Build of the Common Operating System (COS).

2Q FY 2007 Delivery of 'Build 1', Single Ship Build of the Common Operating System (COS).

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Fiscal Year (FY) 2006 Budget Estimates Exhibit R-2a, RDT&E Budget Item Justification						Date: February 2005		
APPROPRIATION/BUDGET ACTIVITY DEFENSE WIDE RDT&E BA 4				R-1 ITEM NOMENCLATURE PE-0604400D8Z J-UCAS Advanced Component and Prototype Development				
COST (\$ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
J-UCAS PE-0604400D8Z	0.000	217.401	0.000	0.000	0.000	0.000	0.000	0.000

**A. Mission Description and Budget Item Justification:**

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**B. Accomplishments/Planned Program**

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	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort/Subtotal Cost	0.000	217.401	0.000	0.000

Planned Program:

- Continue development of J-UCAS systems, specifically the Boeing and Northrop Grumman demonstrator programs as well as the common operating system and sensors.
- Prepare for joint Operational Assessment (OA).

**C. Other Program Funding Summary:**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
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**D. Acquisition Strategy:**

The J-UCAS Advanced Component and Prototype Development acquisition strategy is to build on the work being conducted under PE 0603400D8Z (J-UCAS Advanced Technology Development and Risk Reduction) and prove the operational value of the J-UCAS concept in the joint operational assessment. The J-UCAS program blends the advantages of both the Advanced Technology Demonstration (ATD) and the Advanced Concept Technology Demonstration (ACTD) concepts to facilitate rapid development and integration of advanced technologies in an experimental system that addresses operational needs. Using the next generation of demonstrator air vehicle families, together with common subsystems and a Common Operating System, this nontraditional approach also incorporates key acquisition considerations (i.e., user requirements, comprehensive system lifecycle perspective, and rigorous risk mitigation processes) to provide the necessary insights, operational data and identified options for the services to make an informed decision for accelerated acquisition near the end of the decade.

**E. Major Performers:**

The Boeing Company, St. Louis, MO

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The Boeing Company, Seattle, WA  
 Northrop Grumman Corporation, El Segundo, CA  
 Northrop Grumman Corporation, Rancho Bernardo, CA  
 Northrop Grumman Corporation, Palmdale, CA  
 Lockheed Martin, Palmdale, CA  
 The John Hopkins University, Baltimore, MD

Exhibit R-4, Schedule Profile																											Date: February 2005																								
Appropriation/Budget Activity DEFENSE WIDE RDT&E/B.A. 4													Program Element Number and Name PE 0604400D8Z – J-UCAS Advanced Component and Prototype Development										Project Number and Name J-UCAS																												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011																						
	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																			
X-45A Demonstrations																																																			
J-UCAS Demonstrator Development	➔																																																		
Common Systems Development		➔																																																	
Joint Operational Assessment																								➔																											

R-4 Schedule Profile – Item No. 20-3 of 20-4

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Exhibit R-4a, Schedule Detail		Date: February 2005							
Appropriation/Budget Activity	Program Element Number and Name								
DEFENSE WIDE RDT&E/B.A. 4	PE 0604400D8Z – J-UCAS Advanced Component and Prototype Development								
		FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Common Systems Development Begins		3Q							
X-45A Flight Demonstrations Conclude			2Q						
J-UCAS Demonstrator Development Begins		1Q							
Joint Operational Assessment Begins					4Q				

**R-4a Schedule Profile - Item No. 20-4 of 20-4**