OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE
RDT&E/ Defense Wide BA# 4	**0604400D8Z - J-UCAS Advanced Component and Prototype Development**

	Cost ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
	Total Program Element (PE) Cost	210.944	0.000	0.000	0.000	0.000	0.000	0.000
P440	J-UCAS Advanced Component and Prototype Development	210.944	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.

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	217.401	0.000	0.000
Current BES/President's Budget (FY 2007)	210.944	0.000	0.000
Total Adjustments	-6.457	0.000	0.000
Congressional Program Reductions			
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-6.457		
SBIR/STTR Transfer			
Other			

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C. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
PE 0604400F, Air Force	0.000	0.272	0.400	0.554	0.781	0.955	0.000	0.000	2.962
PE 0603400D8Z, OSD	0.355	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.355
PE 0603400F, Air Force	0.000	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.078

Comment:

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 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: Not Applicable.

Schedule Detail (R4a Exhibit)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E/ Defense Wide BA# 4	**0604400D8Z - J-UCAS Advanced Component and Prototype Development**	**0604400D8Z**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Common Systems Development Begins							
X-45A Flight Demonstrations Conclude	2Q						
J-UCAS Demonstrator Development Begins							
Joint Operational Assessment Begins			4Q				

Comment:

OSD RDT&E PROJECT JUSTIFICATION (R2a Exhibit)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E/ Defense Wide BA# 4	**0604400D8Z - J-UCAS Advanced Component and Prototype Development**	**P440**

Cost ($ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
P440	J-UCAS Advanced Component and Prototype Development	210.944	0.000	0.000	0.000	0.000	0.000	0.000

A. Mission Description and Project 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.

B. Accomplishments/Planned Program:

Accomplishment/Planned Program Title	FY 2005	FY 2006	FY 2007
	210.944	0.000	0.000

FY 2005 Accomplishments:

- 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: Not Applicable.

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

OSD RDT&E PROJECT JUSTIFICATION (R2a Exhibit)

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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
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

E. Major Performers Not Applicable.

OSD RDT&E COST ANALYSIS (R3)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY
RDT&E/ Defense Wide BA# 4

PE NUMBER AND TITLE
0604400D8Z - J-UCAS Advanced Component and Prototype Development

PROJECT
P440

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
J-UCAS			0	210944	2-4Q	0		0		0	0	0
Subtotal:			0	210944		0		0		0	0	0

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0									

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0									

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0									

Project Total Cost:			**0**	**210944**		**0**		**0**		**0**	**0**	**0**

Schedule Detail (R4a Exhibit)

Date: February 2006

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E/ Defense Wide BA# 4	**0604400D8Z - J-UCAS Advanced Component and Prototype Development**	**P440**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Common Systems Development Begins							
X-45A Flight Demonstrations Conclude	2Q						
J-UCAS Demonstrator Development Begins							
Joint Operational Assessment Begins			4Q				

Comment: