

UNCLASSIFIED

PE NUMBER: 0604400F

PE TITLE: Joint Unmanned Combat Air System (J-UCAS)

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2006		
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)				PE NUMBER AND TITLE 0604400F Joint Unmanned Combat Air System (J-UCAS)						
Cost (\$ in Millions)		FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost		0.000	227.857	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5058	Unmanned Combat Air Vehicle (UCAV)	0.000	227.857	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Note: In FY06, the Joint Unmanned Combat Air Systems (J-UCAS) program was transferred from the Defense Advanced Research Projects Agency (DARPA) to be a joint Air Force/Navy program. The J-UCAS program is being terminated and \$1,830.5M is being realigned to PE0604402N in FY07-11.										
(U) <u>A. Mission Description and Budget Item Justification</u>										
The Joint Unmanned Combat Air Systems (J-UCAS) is a joint Air Force/Navy Capabilities Demonstration Program (CDP) to mature technologies to investigate the technical feasibility and operational value of unmanned combat air vehicles to provide the capability for high-threat Suppression of Enemy Air Defenses (SEAD), Electronic Attack, Strike/Persistent Ground Attack and carrier based Persistent Intelligence, Surveillance and Reconnaissance (ISR) missions. The program will demonstrate capabilities that support both Services and enable an operational system development decision in the 2012 timeframe.										
The 2005 Quadrennial Defense Review (QDR) of the future force requirements for the United States military recommended termination of the J-UCAS CDP. DoD, IAW this recommendation, is terminating the J-UCAS program in FY07.										
This is a BA 04 program, Advanced Component Development and Prototypes, for development of the common systems and technologies as well as the Boeing and Northrop Grumman demonstrator programs. These funds will also cover the cost of conducting the joint operational assessment, including modeling, simulation, and flight testing.										
(U) <u>B. Program Change Summary (\$ in Millions)</u>										
						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>		
(U) Previous President's Budget							272.300	400.100		
(U) Current PBR/President's Budget						0.000	227.857	0.000		
(U) Total Adjustments						0.000	-44.443			
(U) Congressional Program Reductions							-41.150			
Congressional Rescissions							-3.293			
Congressional Increases										
Reprogrammings										
SBIR/STTR Transfer										
(U) <u>Significant Program Changes:</u>										
As a result of the 2005 QDR, DoD is terminating the J-UCAS program in FY07 and realigning \$1,830.5M in outyear funding to PE0604402N.										
Congressional Program Reductions contains \$-1.150M for Defense-wide Change Proposals.										
R-1 Shopping List - Item No. 58-1 of 58-6										
Exhibit R-2 (PE 0604400F)										

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604400F Joint Unmanned Combat Air System (J-UCAS)

PROJECT NUMBER AND TITLE

5058 Unmanned Combat Air Vehicle (UCAV)

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5058 Unmanned Combat Air Vehicle (UCAV)	0.000	227.857	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

Note: In FY06, the Joint Unmanned Combat Air Systems (J-UCAS) program was transferred from the Defense Advanced Research Projects Agency (DARPA) to be a joint Air Force/Navy program. The J-UCAS program is being terminated and \$1,830.5M in funding is being realigned to PE0604402N in FY07-11.

(U) **A. Mission Description and Budget Item Justification**

The Joint Unmanned Combat Air Systems (J-UCAS) is a joint Air Force/Navy Capabilities Demonstration Program (CDP) to mature technologies to investigate the technical feasibility and operational value of unmanned combat air vehicles to provide the capability for high-threat Suppression of Enemy Air Defenses (SEAD), Electronic Attack, Strike/Persistent Ground Attack and carrier based Persistent Intelligence, Surveillance and Reconnaissance (ISR) missions. The program will demonstrate capabilities that support both Services and enable an operational system development decision in the 2012 timeframe.

The 2005 Quadrennial Defense Review (QDR) of the future force requirements for the United States military recommended termination of the J-UCAS CDP. DoD, IAW this recommendation, is terminating the J-UCAS program in FY07.

This is a BA 04 program, Advanced Component Development and Prototypes, for development of the common systems and technologies as well as the Boeing and Northrop Grumman demonstrator programs. These funds will also cover the cost of conducting the joint operational assessment, including modeling, simulation, and flight testing.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

(U) Continue development of J-UCAS systems, specifically the Boeing and Northrop Grumman demonstrator programs, as well as the common operating system and sensors

(U) Total Cost

FY 2005FY 2006FY 2007

227.857

0.000

0.000

227.857

0.000

(U) **C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2005</u> <u>Actual</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Defense-Wide RDT&E (PE0603400D8Z)	344.344	0.000	0.000	0.000	0.000	0.000	0.000		
(U) Defense-Wide RDT&E (PE0604400D8Z)	210.944	0.000	0.000	0.000	0.000	0.000	0.000		
(U) AF RDT&E (PE0603400F)	0.000	76.691	0.000	0.000	0.000	0.000	0.000		
(U) NAVY RDT&E (PE0604402N)	0.000	0.000	239.000	310.000	369.400	491.100	421.000	Continuing	TBD

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Exhibit R-2a, RDT&E Project Justification

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604400F Joint Unmanned Combat
Air System (J-UCAS)

PROJECT NUMBER AND TITLE

5058 Unmanned Combat Air Vehicle
(UCAV)(U) D. Acquisition Strategy

Not applicable. The J-UCAS program is being terminated in FY07.

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604400F Joint Unmanned Combat
Air System (J-UCAS)

PROJECT NUMBER AND TITLE

5058 Unmanned Combat Air Vehicle
(UCAV)

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
X-45; Common Operating System	Section 845, OTA Agreement	Boeing Co, St. Louis, MO				98.650					98.650	
X-47; Common Operating System	Section 845, OTA Agreement	Northrop Grumman, El Segundo, CA				87.797					87.797	
Common Operating System Integrator/Broker	Section 845, OTA Agreement	Johns Hopkins University Applied Physics Lab, Laurel Md.				5.310					5.310	
Common Systems & Technologies	Multiple	Various									0.000	
Subtotal Product Development			0.000	0.000		191.757		0.000		0.000	191.757	0.000
Remarks:												
(U) <u>Support</u>												
Other Gov't Costs						26.720					26.720	
Subtotal Support			0.000	0.000		26.720		0.000		0.000	26.720	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Gov't Test		AFFTC, Edwards AFB				5.020					5.020	
Gov't Test		Patuxent River, Lakehurst				4.360					4.360	
Subtotal Test & Evaluation			0.000	0.000		9.380		0.000		0.000	9.380	0.000
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	0.000		227.857		0.000		0.000	227.857	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE February 2006
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0604400F Joint Unmanned Combat Air System (J-UCAS)	PROJECT NUMBER AND TITLE 5058 Unmanned Combat Air Vehicle (UCAV)
<p>N/A -- These funds cover the development of the common systems and technologies as well as the Boeing and Northrop Grumman demonstrator programs. In addition, these funds cover the cost of conducting the joint operational assessment, including modeling, simulation, and flight testing.</p>		

Project 5058

R-1 Shopping List - Item No. 58-5 of 58-6

Exhibit R-4 (PE 0604400F)

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604400F Joint Unmanned Combat
Air System (J-UCAS)

PROJECT NUMBER AND TITLE

5058 Unmanned Combat Air Vehicle
(UCAV)(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) X-45A Flight Demonstrations Conclude

4Q

(U) Common Operating System Build 1 Begin

4Q

(U) Common Operating System Build 0 Complete

1Q

(U) X-47B Critical Design Review Complete

3Q

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TERMINATION OF INVESTMENT-RELATED PROGRAMS

FY 2007 President's Budget

(Dollars in Millions)

PE	BPAC	APPN	FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
			COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY
0604400F	645058	3600	0.000	0	227.857	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0

Effort Title

Unmanned Combat Air Vehicle (UCAV)

Program Description

The Joint Unmanned Combat Air Systems (J-UCAS) is a joint Air Force/Navy Capabilities Demonstration Program (CDP) to mature technologies to investigate the technical feasibility and operational value of unmanned combat air vehicles to provide the capability for high-threat Suppression of Enemy Air Defenses (SEAD), Electronic Attack, Strike/Persistent Ground Attack and carrier based Persistent Intelligence, Surveillance and Reconnaissance (ISR) missions. The program will demonstrate capabilities that support both Services and enable an operational system development decision in the 2012 timeframe.

Status to Date

First flight of the X-45A took place in May 2002. In March 2004 the X-45A successfully completed an inert GPS-guided bomb demonstration and went on to demonstrate a multi-vehicle flight test in August 2004. In December 2004 the X-45A successfully demonstrated a beyond line-of-sight SATCOM handoff and a multi-vehicle taxi demonstration. The X-45A demonstration program, which included 63 test flights and 63.4 flight hours, was successfully completed in August 2005. The X-45C passed mid-term design review in December 2003, the first X-45C airframe was jig loaded in June 2004 and the Final Design Review was completed in July 2005. The first flight of the X-47A occurred in February 2003. The X-47B preliminary design review was held in March 2005 and technical baseline review occurred in October 2005.

Rationale for Termination

The 2005 Quadrennial Defense Review (QDR) of the future force requirements for the United States military recommended termination of the Joint Unmanned Combat Air Systems (J-UCAS) Capability Demonstration Program. The Department of Defense is focusing its resources on delivering required capabilities to combatant commanders and the J-UCAS CDP does not directly deliver a combat capability. Accordingly, the Department will focus on specific areas of the overall joint capabilities portfolio to deliver capability to the warfighter. The Department of the Air Force will focus resources on delivering a new long-range strike capability. The Department of the Navy will conduct an aircraft carrier demonstration of a low-observable unmanned combat air system.