

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207170F JHMCS
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	4.244	3.183	2.529	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5226 Joint Helmet Mounted Cueing System	4.244	3.183	2.529	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The Joint Helmet Mounted Cueing System (JHMCS) develops a helmet display system capable of depicting aircraft heading data, pilot's viewing perspective, target indication tracking/cueing, and other information on the aircrew visor to enhance pilot situational awareness. This display allows the pilot to quickly align platform sensors and weapons on targets, and engage threats using high off-boresight (HOBS) weapons such as the AIM-9X. This joint AF/Navy program (AF is lead service) is an Acquisition Category (ACAT) III program.

Program is in full rate production (FRP). Continuing activities include, but are not limited to, deficiency resolution; improvements to tooling and test equipment; Electronic Unit (EU) obsolescence/Diminishing Manufacturing Sources (DMS) redesign; a systems engineering approach for implementing alternate displays; improvements to integrate night vision cueing display (NVCD); software updates; integration; improvements to Reliability and Maintainability (R&M); system upgrade studies and analysis; other obsolescence upgrades; improved magnetic mapping processes to reduce maintenance manhours and life cycle costs; and efforts to support the transition to Performance Based Logistics Partnership (PBL/P) and depot activation.

This program is in budget activity 7 - Operational System Development - modification of existing aircraft.

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	5.304	3.192	2.572
(U) Current PBR/President's Budget	4.244	3.183	2.529
(U) Total Adjustments	-1.060	-0.009	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.009	
Congressional Increases			
Reprogrammings	-1.060		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
None.			

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207170F JHMCS				PROJECT NUMBER AND TITLE 5226 Joint Helmet Mounted Cueing System			
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total	
5226 Joint Helmet Mounted Cueing System	4.244	3.183	2.529	0.000	0.000	0.000	0.000	0.000	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

The Joint Helmet Mounted Cueing System (JHMCS) develops a helmet display system capable of depicting aircraft heading data, pilot's viewing perspective, target indication tracking/cueing, and other information on the aircrew visor to enhance pilot situational awareness. This display allows the pilot to quickly align platform sensors and weapons on targets, and engage threats using high off-boresight (HOBS) weapons such as the AIM-9X. This joint AF/Navy program (AF is lead service) is an Acquisition Category (ACAT) III program.

Program is in full rate production (FRP). Continuing activities include, but are not limited to, deficiency resolution; improvements to tooling and test equipment; Electronic Unit (EU) obsolescence/Diminishing Manufacturing Sources (DMS) redesign; a systems engineering approach for implementing alternate displays; improvements to integrate night vision cueing display (NVCD); software updates; integration; improvements to Reliability and Maintainability (R&M); system upgrade studies and analysis; other obsolescence upgrades; improved magnetic mapping processes to reduce maintenance manhours and life cycle costs; and efforts to support the transition to Performance Based Logistics Partnership (PBL/P) and depot activation.

This program is in budget activity 7 - Operational System Development - modification of existing aircraft.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Continue deficiency resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/studies, alternate displays implementation, support for PBL/Depot line, and software updates. Continue incorporating night vision capabilities into JHMCS by testing and integrating the NVCD system.	3.744	2.683	2.029
(U) Program Management and Support	0.500	0.500	0.500
(U) Total Cost	4.244	3.183	2.529

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) RDT&E, BA 5, PE 0604201F, Integrated Avionics Planning and Development										45.200
(U) RDT&E, BA 5, PE 0604012F, JHMCS										17.900

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BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207170F JHMCS

PROJECT NUMBER AND TITLE

5226 Joint Helmet Mounted Cueing System

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

Note: Prior to FY01 JHMCS was funded as part of PE 0604201F. Funding from FY01-FY06 is in PE 0604012F.

(U) **D. Acquisition Strategy**

JHMCS is an ACAT III joint USAF/USN program (USAF - executive service). The development contract was Cost Plus Award Fee (CPAF) through Boeing - St. Louis for development/integration on the F-15, F-16, and F/A-18 aircraft. All other aircraft integration will be handled by the respective platform prime contractors. Follow-on contracts are a mixture of CPAF and Firm Fixed Price (FFP). Currently, a transition from Interim Contractor Support (ICS) to a WRALC Mission Support Division (MSD) funded support posture is being worked. Also, an organic depot partnership and PBL/P opportunities are being explored.

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207170F JHMCS	PROJECT NUMBER AND TITLE 5226 Joint Helmet Mounted Cueing System
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<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>(U) Product Development</u> Continue deficiencies resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/studies, alternate displays implementation, various T&E activities, and software updates. Continue incorporating night vision capabilities into JHMCS by testing and integrating the NVCD system. Subtotal Product Development Remarks:	SS, CPAF	Boeing Co. St Louis, MO	0.000	3.744		2.683		2.029		Continuing	TBD	TBD
<u>(U) Management</u> Program Management and Administration Subtotal Management Remarks:	C, T&M	Various	0.000	0.500		0.500		0.500		Continuing	TBD	TBD
<u>(U) Total Cost</u>			0.000	4.244		3.183		2.529		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

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JHMCS PROGRAM SCHEDULE

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Development Milestones								
P3I	ADI P3I							
DMS	EU-30 DMS							
Production Deliveries								
FRP 5		▲	FRP 5					
FRP 6		▲	FRP 6					
FRP 7+ TBD			△	FRP 7+				
Sustainment								
USAF SCM								
ICS	WRALC O&M							
PBL/Partnership		WRALC O&M						
USN CS	F/A-18 USN							
Partnership		USN O&M						
Organic Depot	F-15/16/18 3010		Operational					
DU - Awarded	▲	▲ Awd						
EU - Awarded	▲	▲ Awd						
Cables			△ Awd					

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Exhibit R-4 (PE 0207170F)

Project 5226

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Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Schedule Profile			
(U) FRP-5 Contract Award		1Q	
(U) Alternate Displays Implementation Contract Complete		1Q	
(U) FRP-6 Contract Award		1Q	
(U) R&M Updates			2-3Q