

UNCLASSIFIED

PE NUMBER: 0604012F

PE TITLE: Joint Helmet Mounted Cueing System (JHMCS)

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2004
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604012F Joint Helmet Mounted Cueing System (JHMCS)
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Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	1.753	0.836	2.867	2.896	2.939	3.005	2.994	Continuing	TBD
4789 Joint Helmet Mounted Cueing System (JHMCS)	1.753	0.836	2.867	2.896	2.939	3.005	2.994	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

This joint Air Force/Navy program (Air Force is the lead service) 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. A program restructure was approved in Dec 99 to extend the EMD contract and allow for a second Low Rate Initial Production (LRIP) in FY01 with the Milestone (MS) C [full-rate production (FRP)] decision moved from Sep 00 to Aug 02. A third LRIP was added in FY02 to accelerate the fielding of helmets to meet warfighter requirements. Multi-Service Operational Test and Evaluation (MOT&E) was completed in Sep 02. The system was rated Operationally Effective, Operationally Not Suitable. Delay in completing MOT&E was due to combat configuration changes.

MS C (FRP) was again rescheduled until 2QtrFY04 to facilitate Verification of Correction of Deficiencies (VCD) identified in Operational Test (OT). DT/OT indicated tremendous potential to enhance air-to-ground capability and multi-aircraft data fusion through future software upgrades. Test resolution exploration began in Apr 02 to identify potential upgrades. LRIP 4 was approved Jul 03 in order to continue to provide the warfighter with capability, as well as, avoid a costly production break. A cost reduction analysis team was formed in 1stQtrFY04 and will continue through the remainder of the year to identify potential cost savings. Continued activities include Electronic Unit Software update, preparation for MS C, resolution of deficiencies identified during OT, a night display and tracking/cueing implementation and integration, improvements to R&M, system upgrade studies/analysis, potential issue resolution upon completion of testing/studies, and an improved magnetic mapping process to reduce the life cycle costs of deployed aircraft.

This program is in budget activity 5 - System Design and Development (SDD) because it is completing the development phase.

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604012F Joint Helmet Mounted Cueing System (JHMCS)

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	1.839	0.843	2.875
(U) Current PBR/President's Budget	1.753	0.836	2.867
(U) Total Adjustments	-0.086	-0.007	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.007	
Congressional Increases			
Reprogrammings	-0.030		
SBIR/STTR Transfer	-0.056		

(U) **Significant Program Changes:**

General:

The MOT&E report stated system Operationally Effective, Operationally Not Suitable. Production readiness in support of the first production contract award will occur after MS C (FRP) approval. The MS C (FRP) decision was moved to 2ndQtrFY04 to facilitate correction of VCDs identified in OT and to explore production cost reduction initiatives. LRIP 4 was approved Jul 03 in order to continue to provide the warfighter with capabilities, as well as, avoid a costly production break.

Schedule:

AFPEO/FB approved the program to enter LRIP 2 in May 01 and to start OT&E in Jun 01; LRIP 2 contract award Aug 01; LRIP 3 contract award Nov 02; LRIP 4 contract award Jul 03; MS C (FRP) decision in 2ndQtrFY04; First production contract award in 3rdQtrFY04.

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)				0604012F Joint Helmet Mounted Cueing System (JHMCS)			4789 Joint Helmet Mounted Cueing System (JHMCS)		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4789 Joint Helmet Mounted Cueing System (JHMCS)	1.753	0.836	2.867	2.896	2.939	3.005	2.994	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

This joint Air Force/Navy program (Air Force is the lead service) 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. A program restructure was approved in Dec 99 to extend the EMD contract and allow for a second Low Rate Initial Production (LRIP) in FY01 with the Milestone (MS) C [full-rate production (FRP)] decision moved from Sep 00 to Aug 02. A third LRIP was added in FY02 to accelerate the fielding of helmets to meet warfighter requirements. Multi-Service Operational Test and Evaluation (MOT&E) was completed in Sep 02. The system was rated Operationally Effective, Operationally Not Suitable. Delay in completing MOT&E was due to combat configuration changes.

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This program is in budget activity 5 - System Design and Development (SDD) because it is completing the development phase.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Accomplishments/Planned Program	0.000	0.000	0.000
(U) Continue deficiencies resolution, reliability improvements, P3I activities, and night vision integration	1.419	0.750	1.850
(U) Continue Program Management Support, and Analysis/Studies	0.334	0.086	1.017
(U) Total Cost	1.753	0.836	2.867

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

**0604012F Joint Helmet Mounted
Cueing System (JHMCS)**

PROJECT NUMBER AND TITLE

**4789 Joint Helmet Mounted Cueing
System (JHMCS)****(U) C. Other Program Funding Summary (\$ in Millions)****(U) D. Acquisition Strategy**

JHMCS is an ACAT III joint USAF/USN program (USAF - executive service). The development contract structure is a Cost Plus Award Fee (CPAF). The CPAF contract is through Boeing - St. Louis for development and integration into the F-15 and F/A-18 aircraft. All other aircraft integration will be handled by the respective platform prime contractors. All major contracts awarded after full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
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(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>												
Boeing Company	CPAF		15.622	1.419	Nov-97	0.750		1.850		Continuing	TBD	
Subtotal Product Development			15.622	1.419		0.750		1.850		Continuing	TBD	0.000
Remarks:												
(U) <u>Support</u>												
Various	Various		0.501	0.334		0.086		1.017		Continuing	TBD	
Subtotal Support			0.501	0.334		0.086		1.017		Continuing	TBD	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Various	Various		0.588								0.000	0.588
Subtotal Test & Evaluation			0.588	0.000		0.000		0.000			0.000	0.588
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000			0.000	0.000
Remarks:												
(U) Total Cost			16.711	1.753		0.836		2.867		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

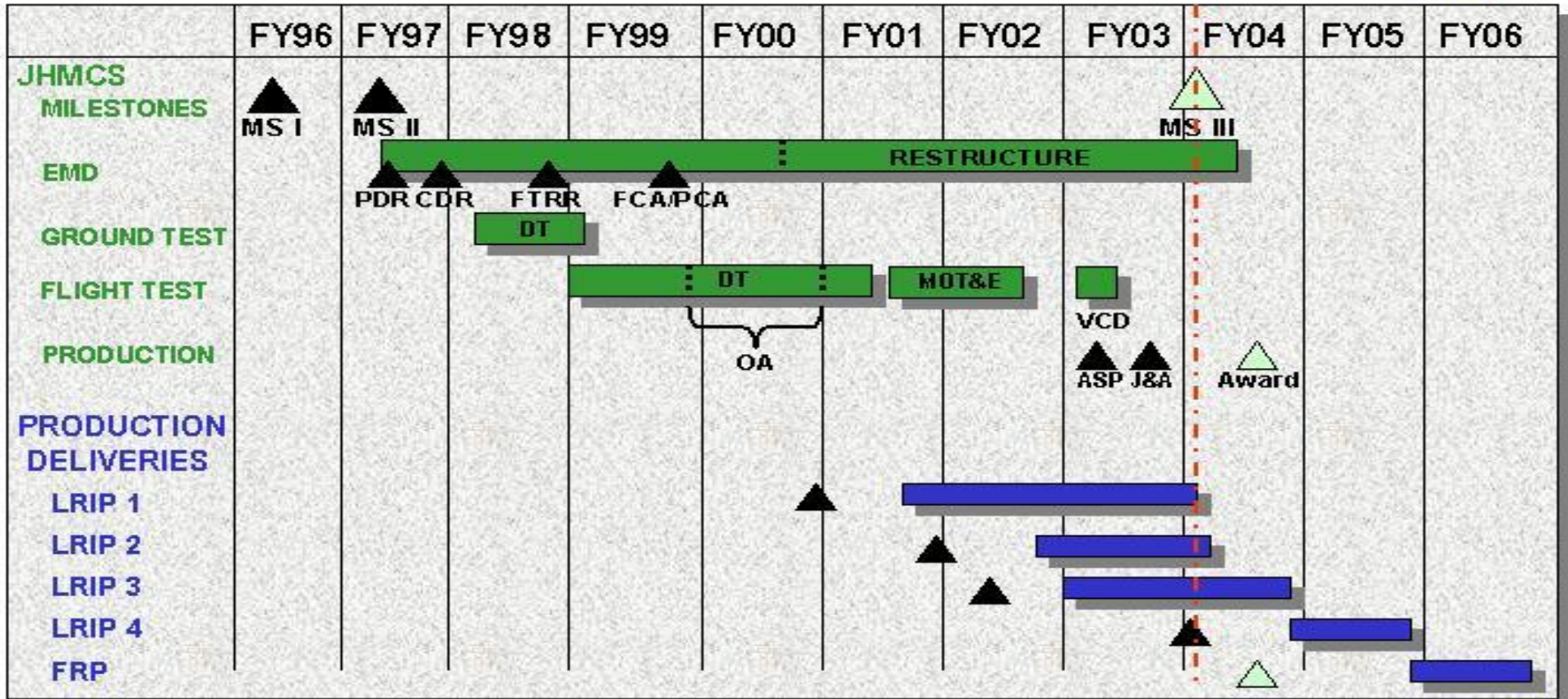
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05 System Development and Demonstration (SDD)

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0604012F Joint Helmet Mounted
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JHMCS BASELINE SCHEDULE



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2004
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604012F Joint Helmet Mounted Cueing System (JHMCS)	PROJECT NUMBER AND TITLE 4789 Joint Helmet Mounted Cueing System (JHMCS)
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <u>Schedule Profile</u>			
(U) Full Rate Production (FRP) decision (MS C)		2Q	
(U) LRIP 4 Contract Award		2Q	
(U) Start R&M Fixes/Software Updates		2Q	
(U) Completion of Cost Reduction Analysis		2Q	
(U) FRP-1 Contract Award		3Q	
(U) Technology Insertion		3Q	
(U) Start system Upgrade Studies			1Q