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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0207170F: <i>JHMCS</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.445	2.407	1.436	-	1.436	1.469	1.505	1.541	1.587	Continuing	Continuing
675226: <i>Joint Helmet Mounted Cueing System</i>	2.445	2.407	1.436	-	1.436	1.469	1.505	1.541	1.587	Continuing	Continuing

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.

JHMCS is a Post Milestone C, Acquisition Category III (ACAT-III) joint AF/Navy program with the AF as the lead service. Program is in full rate production (FRP). Continuing activities include 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; platform integration; improvements to Reliability and Maintainability (R&M); system upgrade studies and analysis; other obsolescence upgrades; improved magnetic mapping processes to reduce maintenance manhours/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 because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	2.529	2.407	2.441	-	2.441
Current President's Budget	2.445	2.407	1.436	-	1.436
Total Adjustments	-0.084	-	-1.005	-	-1.005
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.073	-			
• Other Adjustments	-0.011	-	-1.005	-	-1.005

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<p><u>Change Summary Explanation</u> FY12 - reduction of \$1M for higher Air Force priorities</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207170F: JHMCS				PROJECT 675226: Joint Helmet Mounted Cueing System			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675226: Joint Helmet Mounted Cueing System	2.445	2.407	1.436	-	1.436	1.469	1.505	1.541	1.587	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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.

JHMCS is a Post Milestone C, Acquisition Category III (ACAT-III) joint AF/Navy program with the AF as the lead service. Program is in full rate production (FRP). Continuing activities include 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; platform integration; improvements to Reliability and Maintainability (R&M); system upgrade studies and analysis; other obsolescence upgrades; improved magnetic mapping processes to reduce maintenance manhours/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 because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Product Development	2.445	2.407	1.436	-	1.436
Description: Continue P3I efforts, software updates, FOT&E, and program management/support.					
FY 2010 Accomplishments: Continued deficiency resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/ studies, alternate displays implementation, and software updates. Developed and qualified helmet display unit (HDU) durability improvements to increase field availability and reduce spare costs. Continued incorporating night vision capabilities into JHMCS by testing and integrating the NVCD system. Continued mission support and provide program management to execute P3I and software development efforts.					
FY 2011 Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue deficiency resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/studies, alternate displays implementation, and software updates. Develop and qualify an improvement for the lower helmet vehicle interface (LHVI) to reduce connector pin damage, increase field availability, and reduce repair and spare costs. Continue incorporating night vision capabilities into JHMCS by testing and integrating the NVCD system. Continue mission support and provide program management to execute P3I and software development efforts. <i>FY 2012 Base Plans:</i> Continue deficiency resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/studies, some deficiency reporting, alternate displays implementation, and software updates. Continue mission support and provide program management to execute studies. <i>FY 2012 OCO Plans:</i>					
Accomplishments/Planned Programs Subtotals	2.445	2.407	1.436	-	1.436

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0604201F: <i>Integrated Avionics Planning and Development (RDT&E, BA 5)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• PE 0604012F: <i>JHMCS (RDT&E, BA 5)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

JHMCS is an ACAT III joint USAF/USN program with AF as lead 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 is being developed.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207170F: JHMCS				PROJECT 675226: Joint Helmet Mounted Cueing System					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Continue deficiency resolution, R&M improvements, P3I activities, obsolescence upgrades, analysis/ studies, alternate displays implementation, various T&E activities,and software updates. Co...	SS/CPAF	Boeing Co:St Louis, MO	1.945	1.913	Dec 2011	0.946	Dec 2012	-		0.946	Continuing	Continuing	TBD
Subtotal			1.945	1.913		0.946		-		0.946			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management and Administration	C/Various	Various:Various,	0.500	0.494	Dec 2011	0.490	Dec 2012	-		0.490	Continuing	Continuing	TBD
Subtotal			0.500	0.494		0.490		-		0.490			

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				Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals				2.445	2.407		1.436		-		1.436			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
R&M Upgrades Increment 1	2	2010	4	2010
R&M Upgrades Increment 2	1	2011	3	2011

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