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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207170F: JHMCS							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	3.095	2.529	2.407	0.000	2.407	2.441	2.476	2.512	2.549	Continuing	Continuing
675226: Joint Helmet Mounted Cueing System	3.095	2.529	2.407	0.000	2.407	2.441	2.476	2.512	2.549	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>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 III, Acquisition Category III (ACAT-III) joint AF/Navy program with the AF as the lead service.</p>											
<p>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&amp;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.</p>											
<p>This program is in budget activity 7 - Operational System Development - modification of existing aircraft.</p>											

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B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	3.183	2.529	0.000	0.000	0.000
Current President's Budget	3.095	2.529	2.407	0.000	2.407
Total Adjustments	-0.088	0.000	2.407	0.000	2.407
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-0.088	0.000	2.407	0.000	2.407
Change Summary Explanation					
The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>				<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
675226: <i>Joint Helmet Mounted Cueing System</i>	3.095	2.529	2.407	0.000	2.407	2.441	2.476	2.512	2.549	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> <p>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.</p> <p>Milestone III was approved in Jan 04, the first Full Rate Production (FRP) contract was awarded May 04, followed by FRP-2 in Jun 05. Continuing activities include, but are not limited to, deficiency resolution; improvements to tooling and test equipment; Electronic Unit obsolescence 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&amp;M); system upgrade studies/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.</p> <p>This program is in budget activity 7 - Operational System Development - because it is a modification of existing aircraft.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
MAJOR THRUST: Continue P3I efforts, software updates and FOT&E						3.095	2.529	2.407	0.000	2.407	
<i>FY 2009 Accomplishments:</i> In FY 2009: Continued 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											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force				<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>		<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>	
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>					
	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<p>integrating the NVCD system. Continued mission support and provide program management to execute P3I and software development efforts.</p> <p><i>FY 2010 Plans:</i> In FY 2010: Continue deficiency resolution, reliability improvements, P3I activities, obsolescence upgrades, analysis/studies, alternate displays implementation, and software updates. Develop and qualify helmet display unit (HDU) durability improvements to increase field availability and reduce 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.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: 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.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>					
Accomplishments/Planned Programs Subtotals	3.095	2.529	2.407	0.000	2.407

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force										<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>				<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE 0604201F: <i>Integrated Avionics Planning and Development (RDT&amp;E, BA 5)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	45.200
• PE 0604012F: <i>JHMCS (RDT&amp;E, BA 5)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.900
<b>D. Acquisition Strategy</b>											
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.											
<b>E. Performance Metrics</b>											
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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force											<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>					<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>				<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>					
<b>Product Development (\$ in Millions)</b>														
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Continue deficiency resolution, R&M improvements, P3I activities, obsolescence upgrades, analysis/ studies, alternate displays implementation, various T&E activities, and software updates. Continue i...	SS/CPAF	Boeing Co St Louis, MO	2.595	2.029	Dec 2010	1.913	Dec 2011	0.000		1.913	Continuing	Continuing	Continuing	
<b>Subtotal</b>			2.595	2.029		1.913		0.000		1.913				
<b>Remarks</b>														
<b>Management Services (\$ in Millions)</b>														
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Program Management and Administration	TM	Various Various	0.500	0.500	Dec 2010	0.494	Dec 2011	0.000		0.494	Continuing	Continuing	Continuing	
<b>Subtotal</b>			0.500	0.500		0.494		0.000		0.494				
<b>Remarks</b>														

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force							<b>DATE:</b> February 2010		
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<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"></div> <div style="width: 20%; text-align: center;"> <b>Total Prior Years Cost</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2010</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 Base</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 OCO</b> </div> <div style="width: 10%; text-align: center;"> <b>FY 2011 Total</b> </div> <div style="width: 10%; text-align: center;"> <b>Cost To Complete</b> </div> <div style="width: 10%; text-align: center;"> <b>Total Cost</b> </div> <div style="width: 10%; text-align: center;"> <b>Target Value of Contract</b> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 25%;"><b>Project Cost Totals</b></div> <div style="width: 20%; text-align: center;">3.095</div> <div style="width: 10%; text-align: center;">2.529</div> <div style="width: 10%; text-align: center;">2.407</div> <div style="width: 10%; text-align: center;">0.000</div> <div style="width: 10%; text-align: center;">2.407</div> <div style="width: 10%;"></div> <div style="width: 10%;"></div> </div>									
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.									

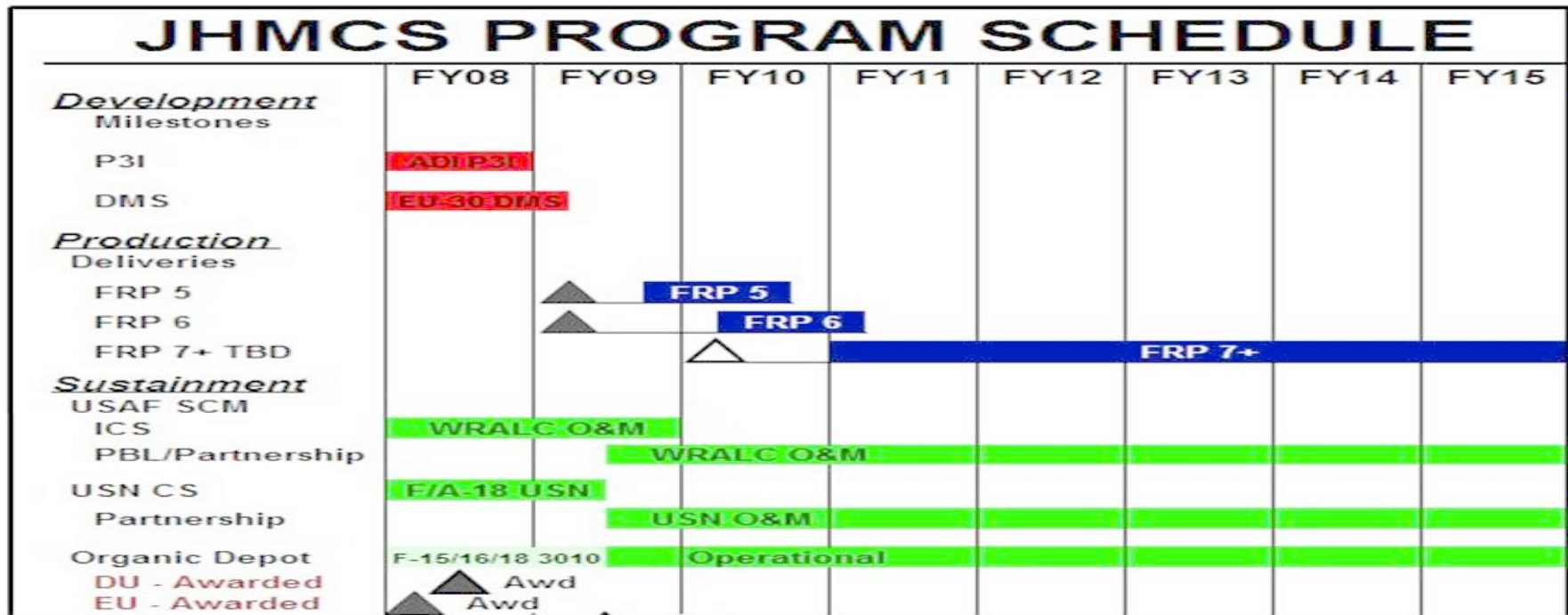
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2011 Air Force</b>		<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>	<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207170F: <i>JHMCS</i>	<b>PROJECT</b> 675226: <i>Joint Helmet Mounted Cueing System</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
FRP-5 Contract Award	1	2009	1	2009
Alternate Displays Implementation Contract Complete	1	2009	1	2009
FRP-6 Contract Award	1	2009	1	2009
FRP-7 Contract Award	1	2010	1	2010
R&M Upgrades increment 1	2	2010	4	2010
FRP-8 Contract Award	1	2011	1	2011
R&M Upgrades increment 2	1	2011	3	2011

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