

# UNCLASSIFIED

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 0305205F: Endurance Unmanned Aerial Vehicles							
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	0.000	48.736	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
675372: Integrated Sensor IS Structure	0.000	48.736	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	200.000
A. Mission Description and Budget Item Justification											
This PE will focus USAF efforts on long endurance UAVs. Efforts can include airships and more standard aircraft structures. The USAF plan is to develop technologies which will allow days of endurance as well as their associated sensors and communications suites.											
The Integrated Sensor Is Structure (ISIS) Program is developing a radar of unprecedented proportions that is fully integrated into a station-keeping stratospheric airship. The ISIS will support the nation's need for persistent wide-area surveillance, tracking, and engagement of all time-critical air and ground targets. Automated surveillance and tracking includes all air targets to the radar horizon of 600 km and all ground targets to a range of 300 km. The radar aperture also provides track data and other communications directly to users in-theater. The system is expected to be launched from CONUS locations with a multi-year operational life. No support personnel or facilities are required in-theater. Efforts will include work on the ground station and the corresponding Processing, Exploitation, and Dissemination (PED) connectivity.											
Funds in any Project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning.											
This program is categorized as Budget Activity 7 because it provides for development of technologies and capabilities in support of operational system development.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0305205F: Endurance Unmanned Aerial Vehicles			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	73.736	0.000	0.000	0.000
Current President's Budget	0.000	48.736	0.000	0.000	0.000
Total Adjustments	0.000	-25.000	0.000	0.000	0.000
• Congressional General Reductions		-25.000			
• 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	0.000	0.000	0.000	0.000	0.000
Change Summary Explanation					
In FY10, Congress reduced program funding by \$25.0M.					
This program is currently being developed by DARPA. USAF will cost share development beginning in FY 10.					

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Exhibit R-2A, RDT&E Project 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 0305205F: Endurance Unmanned Aerial Vehicles				PROJECT 675372: Integrated Sensor IS Structure			
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
675372: Integrated Sensor IS Structure	0.000	48.736	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	200.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
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Funds in any Project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning.											
This program is categorized as Budget Activity 7 because it provides for development of technologies and capabilities in support of operational system development.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Major Thrust: Program development.						0.000	48.736	0.000	0.000	0.000	
FY 2009 Accomplishments: In FY 2009: N/A.											

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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 0305205F: <i>Endurance Unmanned Aerial Vehicles</i>			<b>PROJECT</b> 675372: <i>Integrated Sensor IS Structure</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><i>FY 2010 Plans:</i> In FY 2010: conduct studies on enabling technologies; provide Air Force share of program development costs.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: N/A.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>											
Accomplishments/Planned Programs Subtotals						0.000	48.736	0.000	0.000	0.000	
<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 0603287E: <i>DARPA (RDT&amp;E)</i>	100.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
• PE 0603286E: <i>DARPA (RDT&amp;E)</i>	0.000	60.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>D. Acquisition Strategy</b>											
<p>The funding for the ISIS AF/DARPA effort will further efforts already underway by DARPA towards the flight demo of the technology. These efforts include work on the actual skin development and testing of the hull material, radar design/development (s/w, electronics, etc), propulsion and power systems, design of the ground station, antenna design/production calibration systems, and integration of the radar into the hull structure. Acquisition strategy varies by contract. When possible, contracts are awarded under full and open competition.</p>											
<b>E. Performance Metrics</b>											
<p>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.</p>											

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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 0305205F: <i>Endurance Unmanned Aerial Vehicles</i>				<b>PROJECT</b> 675372: <i>Integrated Sensor IS Structure</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>
Prototype Development	MIPR	DARPA TBD	0.000	48.736	Feb 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	48.736		0.000		0.000		0.000			
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			0.000	48.736		0.000		0.000		0.000			
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: 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**

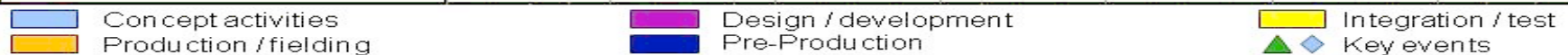
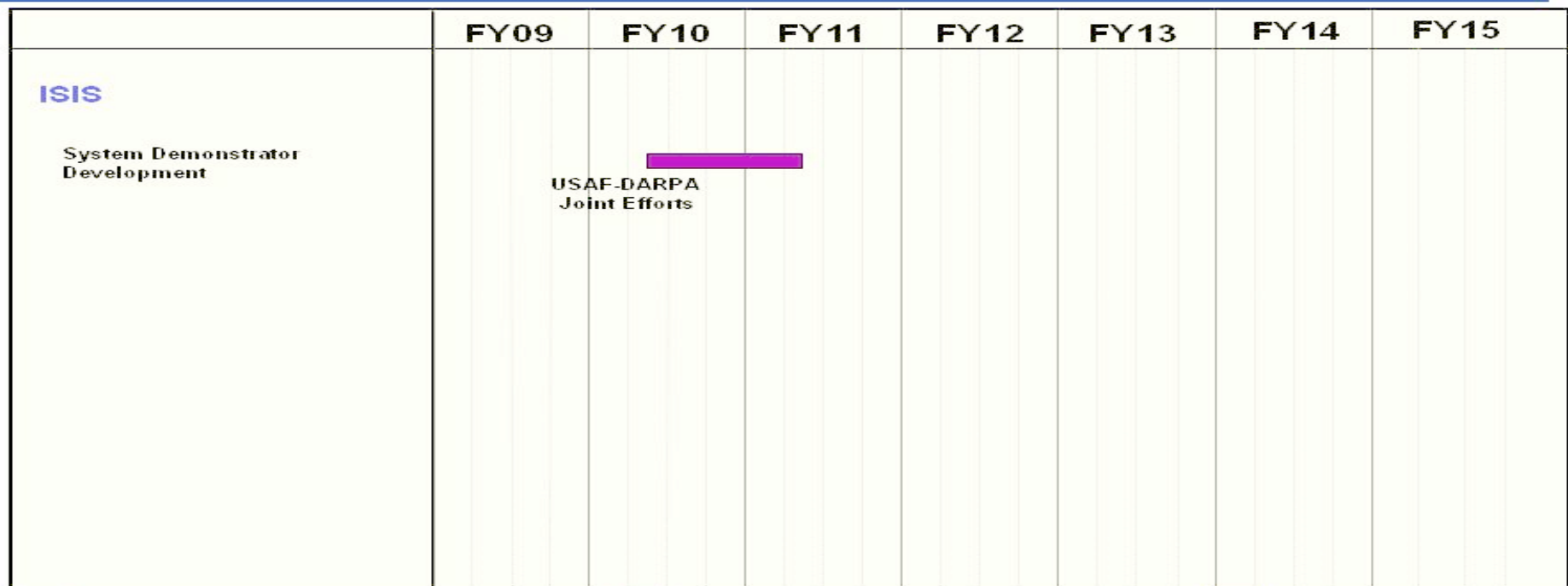
PE 0305205F: Endurance Unmanned Aerial Vehicles

**PROJECT**

675372: Integrated Sensor IS Structure



## Integrated Sensor Is Structure (ISIS) Endurance UAV PE



PB11 R-Docs

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010	
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Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
USAF and DARPA system demonstrator development	2	2010	2	2011

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