

UNCLASSIFIED

PE NUMBER: 0305205F
 PE TITLE: Endurance Unmanned Aerial Vehicles

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 0305205F Endurance Unmanned Aerial Vehicles
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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	0.000	0.000	73.736	0.000	0.000	0.000	0.000	0.000	0.000	200.000
5372 Integrated Sensor IS Structure	0.000	0.000	73.736	0.000	0.000	0.000	0.000	0.000	0.000	200.000

In FY 2010, Project 5372, Integrated Sensor Is Structure, includes new start efforts.

(U) 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.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget			
(U) Current PBR/President's Budget	0.000	0.000	73.736
(U) Total Adjustments	0.000	0.000	
(U) Congressional Program Reductions			
Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			

(U) Significant Program Changes:

This program is currently being developed by DARPA. USAF will cost share development beginning in FY 10 with Program transition from DARPA to the USAF following flight test in FY12.

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 07 Operational System Development							PE NUMBER AND TITLE 0305205F Endurance Unmanned Aerial Vehicles		PROJECT NUMBER AND TITLE 5372 Integrated Sensor IS Structure	
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
5372 Integrated Sensor IS Structure	0.000	0.000	73.736	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		

In FY 2010, Project 5372, Integrated Sensor Is Structure, includes new start efforts.

(U) 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.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Program development and transition from DARPA			73.736
(U)			
(U)			
(U) Total Cost	0.000	0.000	73.736

(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 Complete</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>								
(U) RDT&E DARPA, PE 0603287E	62.900	100.000								162.900
(U) RDT&E DARPA, PE 0603286E			60.000							60.000

Note FY 08 includes FY04-FY08 which had RDT&E DARPA funds in PEs 0603762E, 0603767E, and 0603287E

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PROJECT NUMBER AND TITLE

5372 Integrated Sensor IS Structure

(U) **D. Acquisition Strategy**

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.

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
07 Operational System Development				0305205F Endurance Unmanned Aerial Vehicles					5372 Integrated Sensor IS Structure			
(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>												
Prototype Development	MIPR	DARPA						73.736	Dec-09	55.000	128.736	TBD
Subtotal Product Development			0.000	0.000		0.000		73.736		55.000	128.736	TBD
Remarks:												
(U) <u>Support</u>											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Test & Evaluation</u>											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u>											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	0.000		0.000		73.736		55.000	128.736	TBD

Exhibit R-4, RDT&E Schedule Profile

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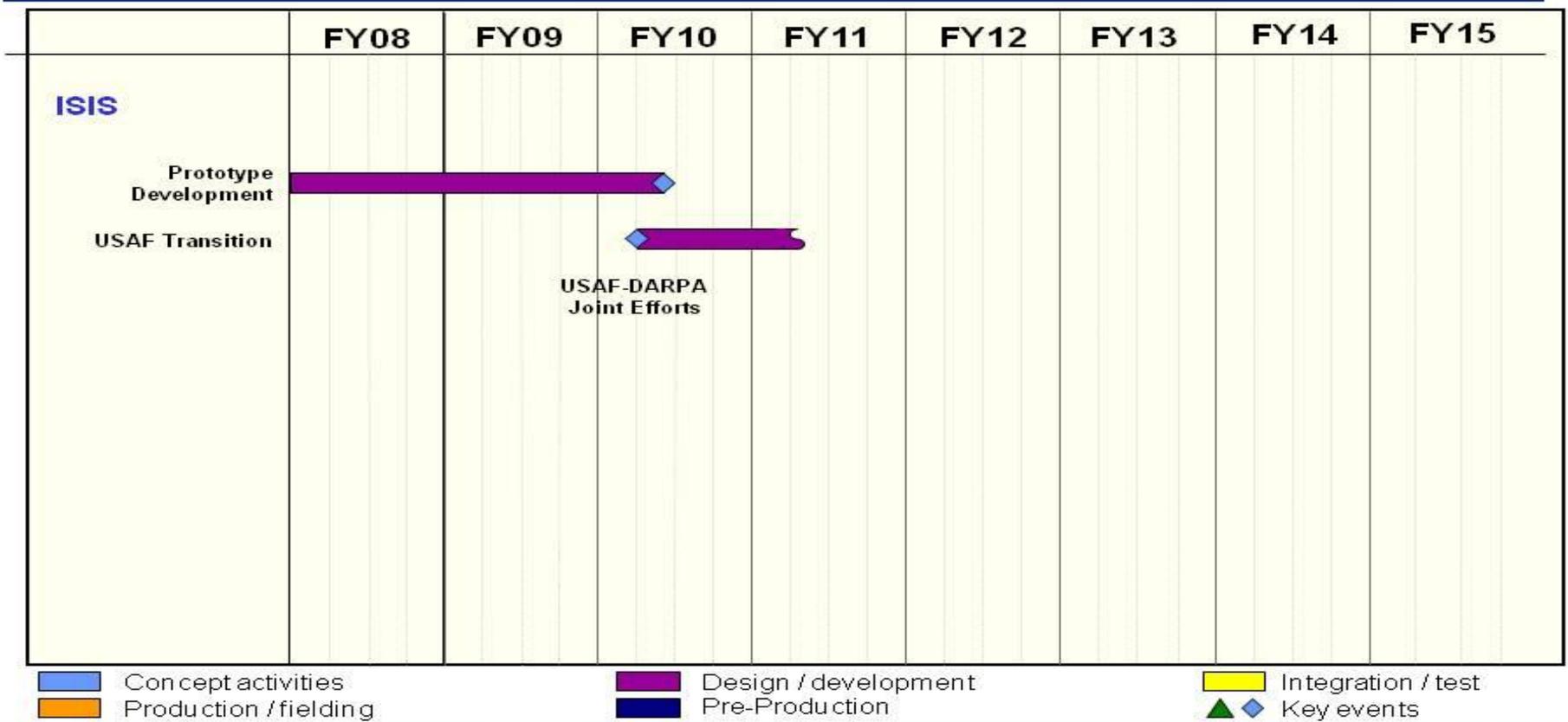
BUDGET ACTIVITY
07 Operational System Development

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 Aerial Vehicles**

PROJECT NUMBER AND TITLE
5372 Integrated Sensor IS Structure



Integrated Sensor Is Structure (ISIS) Endurance UAV PE



PB10 R-Docs

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Exhibit R-4a, RDT&E Schedule Detail

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Aerial Vehicles

PROJECT NUMBER AND TITLE

5372 Integrated Sensor IS Structure

(U) Schedule Profile

FY 2008

FY 2009

FY 2010

(U) Program Transition

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