

## UNCLASSIFIED

PE NUMBER: 0305116F  
PE TITLE: AERIAL TARGETS

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2006		
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0305116F AERIAL TARGETS						
Cost (\$ in Millions)		FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost		2.909	6.547	5.203	5.297	5.348	5.473	5.567	Continuing	TBD
5136	Target Systems Development	2.909	6.547	5.203	5.297	5.348	5.473	5.567	Continuing	TBD
(U) <b><u>A. Mission Description and Budget Item Justification</u></b>										
Full-scale and subscale targets assure warfighters that weapon systems will perform effectively against real-world enemy fighters and cruise missiles. Aerial targets help adherence to public law Title 10, Section 2366, which requires major systems and munitions programs to conduct survivability and lethality testing before full-rate production. The Aerial Targets program provides drones to satisfy "Live Fire/Lethality" developmental/operational test requirements. Target drones are used to validate operational missile/weapon system effectiveness and fighter operational flight program (OFP) updates. Target drones are also essential for developmental/operational testing for all air-to-air and ground-to-air missiles, and for the F-22A, F-16, F-15, etc., aircraft. The objective is to provide realistic targets for missile testing to enable the development of air defense systems capable of defeating changing airborne threats. This funding improves/updates aerial target systems to ensure aerial targets represent enemy threat airborne systems. This program element also funds development of full-scale/subscale aerial targets and target control systems. Specialized target payload subsystems are developed for requirements such as: missile scoring, electronic attack and infrared (IR) countermeasures, radar and IR signature augmentation, and chaff and flare dispensing systems. In FY07, the Air Force Subscale Aerial Target (AFSAT) program will continue to evaluate product improvement opportunities that will identify areas of needed enhancements to the performance, payload capability, and payload capacity to support growth initiatives that will continue throughout the Future Years Defense Program (FYDP). FY07 will also fund system acquisition and engineering support for studies and analysis of alternatives for the Air Superiority Target which is the planned follow-on full scale target to the QF-4. Funding will also support acquisition planning efforts for the AST program, to include risk reduction and prototyping activities as required, which is planned to begin in FY08.										
This program is in budget activity 7 - RDT&E Operational System Development because it provides aerial targets, target payloads, and target control systems in support of operational and RDT&E testing.										
(U) <b><u>B. Program Change Summary (\$ in Millions)</u></b>										
					FY 2005		FY 2006		FY 2007	
(U)	Previous President's Budget				5.132		6.641		5.241	
(U)	Current PBR/President's Budget				2.909		6.547		5.203	
(U)	Total Adjustments				-2.223		-0.094			
(U)	Congressional Program Reductions									
	Congressional Rescissions				-0.004		-0.094			
	Congressional Increases									
	Reprogrammings				-2.075					
	SBIR/STTR Transfer				-0.144					
(U) <b><u>Significant Program Changes:</u></b>										

R-1 Shopping List - Item No. 185-1 of 185-6

Exhibit R-2 (PE 0305116F)

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## Exhibit R-2a, RDT&amp;E Project Justification

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07 Operational System Development

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PROJECT NUMBER AND TITLE

5136 Target Systems Development

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5136 Target Systems Development	2.909	6.547	5.203	5.297	5.348	5.473	5.567	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

Full-scale and subscale targets assure warfighters that weapon systems will perform effectively against real-world enemy fighters and cruise missiles. Aerial targets help adherence to public law Title 10, Section 2366, which requires major systems and munitions programs to conduct survivability and lethality testing before full-rate production. The Aerial Targets program provides drones to satisfy "Live Fire/Lethality" developmental/operational test requirements. Target drones are used to validate operational missile/weapon system effectiveness and fighter operational flight program (OFP) updates. Target drones are also essential for developmental/operational testing for all air-to-air and ground-to-air missiles, and for the F-22A, F-16, F-15, etc., aircraft. The objective is to provide realistic targets for missile testing to enable the development of air defense systems capable of defeating changing airborne threats. This funding improves/updates aerial target systems to ensure aerial targets represent enemy threat airborne systems. This program element also funds development of full-scale/subscale aerial targets and target control systems. Specialized target payload subsystems are developed for requirements such as: missile scoring, electronic attack and infrared (IR) countermeasures, radar and IR signature augmentation, and chaff and flare dispensing systems. In FY07, the Air Force Subscale Aerial Target (AFSAT) program will continue to evaluate product improvement opportunities that will identify areas of needed enhancements to the performance, payload capability, and payload capacity to support growth initiatives that will continue throughout the Future Years Defense Program (FYDP). FY07 will also fund system acquisition and engineering support for studies and analysis of alternatives for the Air Superiority Target which is the planned follow-on full scale target to the QF-4. Funding will also support acquisition planning efforts for the AST program, to include risk reduction and prototyping activities as required, which is planned to begin in FY08.

This program is in budget activity 7 - RDT&E Operational System Development because it provides aerial targets, target payloads, and target control systems in support of operational and RDT&E testing.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue Aerial Targets basic operating support.	0.718	0.750	0.803
(U) Continue system acquisition and engineering support to include studies, upgrades for the target control system, the weapon scoring system, payload systems and other aerial targets support systems	1.500	1.256	0.400
(U) Complete Air Superiority Target analysis of alternatives and initiate acquisition planning activities that support risk reduction (to include prototyping as required)		2.000	1.500
(U) Continue product improvement program for the Air Force Subscale Aerial Target (AFSAT) program to include payload and propulsion improvements, radar augmentation, and other objective requirements/enhancements	0.691	2.541	2.500
(U) Total Cost	2.909	6.547	5.203

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) PE35116F: Appn: Aircraft Procurement, AF(APAF), Program Title: Aerial Targets	72.558	81.805	82.042	84.479	89.391	91.551	92.589	Continuing	TBD
(U) Initial Spares	0.397	0.471	0.488	0.502	0.518	0.532	0.538	Continuing	TBD
(U) Munitions	3.322	3.569	3.833	3.944	4.101	4.207	4.262	Continuing	TBD
(U) Electronic Attack Pods	0.000	4.926	5.497	5.499	5.141	5.380	5.552	Continuing	TBD

(U) D. Acquisition Strategy

The acquisition strategy is competitive, with cost plus and fixed price contracts.

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
Composite Engineering Inc.	CPFF			0.691	Feb-05	2.541	Apr-06	2.500	Nov-06		5.732	
TBD - AST Analysis of Alternatives	TBD					2.000	Feb-06	1.500			3.500	
Subtotal Product Development			0.000	0.691		4.541		4.000		0.000	9.232	0.000
Remarks:		Spiral Development Program for the BQM-167A (AFSAT) subscale program										
(U) <u>Support</u>												
Mission Support	Various	Various		0.718		0.750		0.803			2.271	
Subtotal Support			0.000	0.718		0.750		0.803		0.000	2.271	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u>												
System Acq and Engineering Support	Various	Various		1.500		1.256		0.400			3.156	
Subtotal Management			0.000	1.500		1.256		0.400		0.000	3.156	0.000
Remarks:												
(U) Total Cost			0.000	2.909		6.547		5.203		0.000	14.659	0.000

## Exhibit R-4, RDT&amp;E Schedule Profile

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# BQM-167A Spiral Development Roadmap

	FY07				FY08				FY09			
	1	2	3	4	1	2	3	4	1	2	3	4
EA Internalization		▲				▲						
Performance Enhancements						▲						
Aero Mod Enhancements		▲				▲						
Simultaneous ALE-47/DLQ-9 Operations						▲			▲			
Radar Augmentation		▲				▲						
Combo IR/RCS Pod						▲		▲				

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Exhibit R-4a, RDT&E Schedule Detail

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(U) Schedule Profile

FY 2005

FY 2006

FY 2007

(U) EA Internalization Modification for the BQM-167A

2Q

(U) BQM-167A Performance Enhancements

2Q

(U) Simultaneous ALE-47/DLQ-9 Operations for BQM-167A

2Q

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