

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2008
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604604F Submunitions
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Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	8.304	1.976	1.730	1.837	1.700	1.728	1.762	Continuing	TBD
3166 Joint Smart Munitions Test and Evaluation	8.304	1.976	1.730	1.837	1.700	1.728	1.762	Continuing	TBD

The FY03 National Defense Authorization Act language directed Test & Evaluation (T&E) centers to charge only direct costs beginning in FY06. This resulted in a zero balance transfer (ZBT) of funding over the FYDP from the customer accounts (for indirect test costs) to T&E support, PE 65807F. For this PE, the T&E funding alignment begins in FY08, resulting in the funding difference between FY07 and the following years.

(U) A. Mission Description and Budget Item Justification

Project 3166 (aka Project Chicken Little) is a joint program that provides best value research, development, test and evaluation (RDT&E) support for developmental smart munitions and related emerging weapons technologies employed against a wide variety of vehicle targets, Theater Air Defense units, and other foreign ground-based systems. Combat related systems exhibit certain vulnerabilities that make them susceptible to incapacitation or destruction. In addition, all systems exhibit particular physical characteristics (called signatures) that smart weapons exploit to recognize and target these systems. Chicken Little collects the physical and functional attributes of actual foreign threat systems for construction of high-fidelity models used for vulnerability assessments (the evaluation of the effectiveness of a munitions against these system vulnerabilities). Chicken Little then collects these foreign targets' signatures in realistic environments with a variety of sensors and in the presence of countermeasures or camouflage. The resulting highly reliable, realistic performance data are used to support development of smart munitions by defining lethality and sensor requirements and supporting acquisition decision points. The project provides a major focal point for joint Air Force and other Services' target signature collection and dissemination for development and exploitation purposes. Customers include the major Defense and Service Intelligence Centers, all the Services, the Joint Technical Coordinating Group (JTTCG) who develop the Joint Munitions Effectiveness Manuals, the Combatant Commands, US Air Force Weapons School curriculum support, and others. Current projects include target signature exploitation, target geometric modeling (for identifying vulnerabilities), improving air capabilities against protected structures (specifically hard and deeply buried targets), and testing of a variety of seekers and sensors against realistic targets in various environments. Further projects include: Tools for Target Modeling; Analytical Method for Predicting Component Failure; Conversion of JTTCG Targets to Support Signature Modeling; Electromagnetic Pulse Characterization and Effectiveness; directed energy applications; and others.

This program is funded in BA5 - System Development and Demonstration (SDD) because it supports development programs prior to full rate production decision.

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0604604F Submunitions

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	8.327	1.988	1.750
(U) Current PBR/President's Budget	8.304	1.976	1.730
(U) Total Adjustments	-0.023	-0.012	
(U) Congressional Program Reductions	0.000		
Congressional Rescissions	0.000	-0.012	
Congressional Increases	0.000		
Reprogrammings	0.000		
SBIR/STTR Transfer	-0.023		
(U) <u>Significant Program Changes:</u>			
None			

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604604F Submunitions			PROJECT NUMBER AND TITLE 3166 Joint Smart Munitions Test and Evaluation		
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
3166 Joint Smart Munitions Test and Evaluation	8.304	1.976	1.730	1.837	1.700	1.728	1.762	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continue weapon effectiveness evaluation and weaponization studies	0.647	0.082	0.072
(U) Develop, validate, and accredit improved models and simulation for assessment of alternatives and force on force studies	0.672	0.082	0.072
(U) Increase utility of lethality/vulnerability and signature database through addition of modern threat systems and secure datalink	1.794	0.706	0.618
(U) Plan and conduct captive carry flight tests and signature collection for seeker/sensor evaluations and algorithm development	1.174	0.646	0.566
(U) Characterize performance of advanced and programmable warheads to access potential for increasing lethality of weapons	0.722	0.230	0.201
(U) Perform vulnerability analysis of upgraded/advanced Suppression of Enemy Air Defense (SEAD) and Advanced	0.712	0.230	0.201

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3166 Joint Smart Munitions Test and Evaluation

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Hardened Targets (AHT)			
(U) Virtual Teleoperation for Unmanned Aerial Vehicle	2.583	0.000	0.000
(U) Total Cost	8.304	1.976	1.730

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

	<u>FY 2007</u>	<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>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) None									

(U) **D. Acquisition Strategy**

Funds are executed organically in support of test and evaluation activities including studies, analyses, flight tests, model building and simulation. Almost all of the work is performed in-house by the 46th Test Wing.

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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				
05 System Development and Demonstration (SDD)				0604604F Submunitions					3166 Joint Smart Munitions Test and Evaluation				
(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 2007 Cost</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Support</u> Macaulay Brown/ANSTEC	FFP	Technical Analysis and Test Support, Eglin AFB, FL	1.886	0.000	N/A	0.000	N/A	0.000	N/A	0.000	1.886	1.886	
Eglin Range O&M Contract	CPIF	Maintenance, Western Test Range, NV	0.791	0.180	Jan-07	0.000	N/A	0.000	N/A	0.000	0.971	0.891	
Subtotal Support			2.677	0.180		0.000		0.000		0.000	2.857	2.777	
Remarks:	CPIF = Cost Plus Incentive Fee; FFP = Firm Fixed Price												
(U) <u>Test & Evaluation</u> Sverdrup	CPIF	Technical Analysis and Test Support, Eglin AFB, FL	11.749	0.000	N/A	0.000	N/A	0.000	N/A	0.000	11.749	11.749	
46th Test Wing (46 OG and 46 TW)	N/A	Conducting Tests and Analysis, Eglin AFB, FL	84.836	5.493	N/A	1.936	N/A	1.692	N/A	Continuing	TBD	TBD	
AFRL and University of Iowa (Virtual Teleoperation for Unmanned Aerial Vehicle)	N/A	AFRL, Wright Patterson AFB, OH (Most work performed by University of Iowa)	0.000	2.586	N/A	0.000	N/A	0.000	N/A	0.000	2.586	TBD	
Subtotal Test & Evaluation			96.585	8.079		1.936		1.692		Continuing	TBD	TBD	
Remarks:	46th Test Wing is the Program Office which conducts inhouse testing. Contract type and award date is N/A.												
(U) <u>Management</u> 46 Test Wing (46 OG)	N/A		7.199	0.045	N/A	0.040		0.038	N/A	Continuing	TBD	TBD	
Subtotal Management			7.199	0.045		0.040		0.038		Continuing	TBD	TBD	
Remarks:	46th Test Wing is the Program Office which conducts inhouse testing. Contract type and award date is N/A.												
(U) Total Cost			106.461	8.304		1.976		1.730		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

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05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604604F Submunitions

PROJECT NUMBER AND TITLE

3166 Joint Smart Munitions Test and Evaluation

SCHEDULE

Project 3166, Joint Smart Munition Test and Evaluation program (project Chicken Little) does not execute in accordance with established acquisition milestones. Chicken Little is a continuing test effort: Target/warhead evaluation/analysis, signature tests, and captive carry flight tests are ongoing throughout the year and continue through the FYDP. The type of activities is given in Section B. The timing, duration, and level of effort is decided at the annual Steering Committee meetings.

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2008
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(U) <u>Schedule Profile</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Target/warhead evaluation/analysis, signature test, captive carry flight tests	1-4Q	1-4Q	1-4Q