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PE NUMBER: 0604604F
 PE TITLE: Submunitions

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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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 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	1.970	1.725	1.784	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
3166 Joint Smart Munitions Test and Evaluation	1.970	1.725	1.784	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

Project 3166, Joint Smart Munitions Test and Evaluation Program (aka Project Chicken Little), provides best value research, development, test and evaluation (RDT&E) support to 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 systems exhibit physical characteristics (i.e., signatures), as well as certain vulnerabilities, which may be exploited by smart weapons in order to eliminate or incapacitate these systems. Chicken Little collects physical and functional attributes of actual foreign threat systems to construct high-fidelity models for use in vulnerability assessments (i.e. evaluating the effectiveness of munitions against system vulnerabilities). Chicken Little also collects signature data with a variety of sensors on foreign targets, both with and without the presence of countermeasures or camouflage; the resulting highly reliable, realistic performance data is used to support smart munitions development by defining lethality and sensor requirements to aid in acquisition decision points. The project serves as a major focal point for joint target signature collection and dissemination for development and exploitation purposes. Customers include: the major Defense and Service Intelligence Centers, all Services, the Joint Technical Coordinating Group (JTCG) who develop the Joint Munitions Effectiveness Manuals (JMEmS), 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 multiple seekers and sensors against realistic targets in various environments.

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

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	1.976	1.730	1.837
(U) Current PBR/President's Budget	1.970	1.725	1.784
(U) Total Adjustments	-0.006	-0.005	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.005	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer	-0.006		
(U) <u>Significant Program Changes:</u>			
None			

Exhibit R-2a, RDT&E Project Justification

DATE

May 2009

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		
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
3166 Joint Smart Munitions Test and Evaluation	1.970	1.725	1.784	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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

Project 3166, Joint Smart Munitions Test and Evaluation Program (aka Project Chicken Little), provides best value research, development, test and evaluation (RDT&E) support to 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 systems exhibit physical characteristics (i.e., signatures), as well as certain vulnerabilities, which may be exploited by smart weapons in order to eliminate or incapacitate these systems. Chicken Little collects physical and functional attributes of actual foreign threat systems to construct high-fidelity models for use in vulnerability assessments (i.e. evaluating the effectiveness of munitions against system vulnerabilities). Chicken Little also collects signature data with a variety of sensors on foreign targets, both with and without the presence of countermeasures or camouflage; the resulting highly reliable, realistic performance data is used to support smart munitions development by defining lethality and sensor requirements to aid in acquisition decision points. The project serves as a major focal point for joint target signature collection and dissemination for development and exploitation purposes. Customers include: the major Defense and Service Intelligence Centers, all Services, the Joint Technical Coordinating Group (JTCG) who develop the Joint Munitions Effectiveness Manuals (JMEMs), 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 multiple seekers and sensors against realistic targets in various environments.

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

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Continue weapon effectiveness evaluation and weaponization studies	0.082	0.072	0.264
(U) Develop, validate, and accredit improved models and simulation for assessment of alternatives and force on force studies	0.082	0.072	0.150
(U) Increase utility of lethality/vulnerability and signature database through addition of modern threat systems and secure datalink	0.700	0.613	0.250
(U) Plan and conduct captive carry flight tests and signature collection for seeker/sensor evaluations and algorithm development	0.646	0.566	0.720
(U) Characterize performance of advanced and programmable warheads to access potential for increasing lethality of weapons	0.230	0.201	0.250
(U) Perform vulnerability analysis of upgraded/advanced Suppression of Enemy Air Defense (SEAD) and Advanced Hardened Targets (AHT)	0.230	0.201	0.150

(U)

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

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3166 Joint Smart Munitions Test and Evaluation

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

(U) Total Cost

FY 2008

FY 2009

FY 2010

1.970

1.725

1.784

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

FY 2008

FY 2009

FY 2010

FY 2011

FY 2012

FY 2013

FY 2014

FY 2015

Cost to

Total Cost

Actual

Estimate

Estimate

Estimate

Estimate

Estimate

Estimate

Estimate

Complete

(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 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) Support</u>												
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:	CPIF = Cost Plus Incentive Fee; FFP = Firm Fixed Price											
<u>(U) Test & Evaluation</u>												
46th Test Wing (46 OG and 46 TW)	N/A	Conducting Tests and Analysis, Eglin AFB, FL	90.220	1.970		1.687	N/A	1.745		Continuing	TBD	TBD
Subtotal Test & Evaluation			90.220	1.970		1.687		1.745		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		7.442			0.038	N/A	0.039	N/A	Continuing	TBD	TBD
Subtotal Management			7.442	0.000		0.038		0.039		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) Total Cost</u>			97.662	1.970		1.725		1.784		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

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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

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 May 2009
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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
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(U) <u>Schedule Profile</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Target/warhead evaluation/analysis, signature test, captive carry flight tests	1-4Q	1-4Q	1-4Q