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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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604604F: Submunitions							
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	1.719	1.784	1.622	0.000	1.622	1.641	1.657	1.643	1.623	Continuing	Continuing
653166: Joint Smart Munitions Test and Evaluation	1.719	1.784	1.622	0.000	1.622	1.641	1.657	1.643	1.623	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>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, (maintained to be signature representative), 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, but not limited to: 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.</p>											
<p>This program is funded in BA5 - System Development and Demonstration (SDD) because it supports development programs prior to full rate production decision.</p>											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0604604F: Submunitions			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	1.725	1.784	0.000	0.000	0.000
Current President's Budget	1.719	1.784	1.622	0.000	1.622
Total Adjustments	-0.006	0.000	1.622	0.000	1.622
• Congressional General Reductions		0.000			
• 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	-0.006	0.000	1.622	0.000	1.622
Change Summary Explanation					
The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604604F: <i>Submunitions</i>				PROJECT 653166: <i>Joint Smart Munitions Test and Evaluation</i>			
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
653166: <i>Joint Smart Munitions Test and Evaluation</i>	1.719	1.784	1.622	0.000	1.622	1.641	1.657	1.643	1.623	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>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, (maintained to be signature representative), 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, but not limited to: 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.</p> <p>This program is funded in BA5 - System Development and Demonstration (SDD) because it supports development programs prior to full rate production decision.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Major Thrust: Continue to develop predictive tools for weapon/target interactions in order to support improvements to mission planning and bomb damage assessment.						0.327	0.103	0.250	0.000	0.250	

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> In FY 2009: Investigated weapon target interactions for very hard structures in response to target solution limitations identified by CENTCOM. Performed sub-scale and full scale tests; from these tests performed a detailed damage assessment to produce damage model.</p> <p><i>FY 2010 Plans:</i> In FY 2010: Study the response of high strength and ultra-high strength concrete. Evaluate the ability to inflict damage through higher impact velocity or larger warheads and produce a list of recommended test events and suggested model improvements.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: Conduct additional sub-scale and full scale test events with high strength and ultra-high strength concrete; use test results to improve damage models.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>						
Major Thrust: Develop, validate, and accredit improved models for target vulnerability and weapons effectiveness in support of Combatant Commands' (CoCOMs) requirements. <i>FY 2009 Accomplishments:</i> In FY 2009: Produced a probability of catastrophic damage model due to impact of multiple fragment to small truck; previous models did not consider cumulative damage. Developed two target geometric models of high value CoCOM targets; collected intelligence data, constructed detailed solid model with accurate representation of all systems and sub-systems, and conducted failure modes analysis to identify critical components for targeting. <i>FY 2010 Plans:</i> In FY 2010: Construct at least two more geometric models based on CoCOMs' requirements.		0.317	0.280	0.325	0.000	0.325

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: In FY 2011: Construct at least two more geometric models based on CoCOMs' requirements.						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
Major Thrust: Provide the DoD community accurate multi-spectral signatures obtained from high-value, signature representative modern threat systems using advanced collection technologies.		0.911	1.344	0.900	0.000	0.900
FY 2009 Accomplishments: In FY 2009: Exploited the I-HAWK, BMP-3 and Taliban fleet.						
FY 2010 Plans: In FY 2010: Exploit 3-4 high value threat systems. Provide signature data from multiple threat systems in various environments using advanced and developmental seeker/sensor technologies.						
FY 2011 Base Plans: In FY 2011: Exploit 3-4 high value threat systems. Provide signature data from multiple threat systems in various environments using advanced and developmental seeker/sensor technologies.						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
Major Thrust: Plan and conduct captive carry flight tests and signature collection for seeker/sensor technology evaluations.		0.164	0.057	0.147	0.000	0.147
FY 2009 Accomplishments: In FY 2009: Installed LADAR instrumentation and began evaluating technology for abilities in camouflage, concealment and deception (CC&D) environments.						

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<p><i>FY 2010 Plans:</i> In FY 2010: Develop ISR calibration capability for purpose of reducing average measurement uncertainty by 50% and reducing data turnaround by 75%.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: Investigate some or all of the following technologies for utility in ISR activities: Hyperspectral Imagery (HIS), shortwave IR and Polarmetric Imaging.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>											
Accomplishments/Planned Programs Subtotals						1.719	1.784	1.622	0.000	1.622	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (16933): <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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.											
E. Performance Metrics											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604604F: Submunitions				PROJECT 653166: Joint Smart Munitions Test and Evaluation					
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
46th Test Wing (46 OG and 46 TW)	TBD/TBD	Conducting Tests and Analysis Eglin AFB, FL	93.900	1.769		1.613		0.000		1.613	Continuing	Continuing	Continuing
Subtotal			93.900	1.769		1.613		0.000		1.613			
Remarks 46th Test Wing is the Program Office which conducts inhouse testing.													
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
46 Test Wing (46 OG)	TBD/TBD	TBD TBD	7.451	0.015		0.009		0.000		0.009	Continuing	Continuing	Continuing
Subtotal			7.451	0.015		0.009		0.000		0.009			
Remarks 46th Test Wing is the Program Office which conducts inhouse testing.													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			101.351	1.784		1.622		0.000		1.622			

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	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks 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
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<p>SCHEDULE</p> <p>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.</p>		

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Target/warhead evaluation/analysis, signature test, captive carry flight tests.	1	2009	4	2011

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