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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604604F / <i>Submunitions</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	2.543	2.506	2.503	0.000	2.503	2.697	2.711	2.761	2.810	Continuing	Continuing
653166: <i>Joint Smart Munitions Test and Evaluation</i>	-	2.543	2.506	2.503	0.000	2.503	2.697	2.711	2.761	2.810	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project Chicken Little (PCL) continues providing superior rapid reaction signature exploitation capabilities for use on both the traditional and the asymmetrical battlefield. PCL delivers vital one-of-a-kind research, development, test and evaluation (RDT&E) expertise directly to the warfighter, capability developer, and allied/coalition forces.

From its inception in 1985, PCL constantly advances the state-of-the-art for developmental smart munitions, seekers/sensors and their platforms. PCL also focuses its capability against today's networked weapons, emerging weapon concepts, and helps develop innovative targeting technologies to be employed against a wide variety of vehicle targets, theater air defense units, and an extensive array of associated equipment.

Combat systems and support equipment exhibit physical characteristics (i.e. signatures) and present certain vulnerabilities, which can be exploited by various targeting technologies leading to the elimination or incapacitation of the threat through the application of force (e.g. smart munitions or directed energy) or application of intelligence, surveillance, reconnaissance (ISR) methods. PCL collects physical, functional, and signature attributes of real foreign threat systems and related equipment; these data feed high-fidelity models used to predict detection, classification, vulnerability and effectiveness performance for ISR sensor and weapon system design. PCL collects high resolution signature data using a variety of ground, air, and space-based sensors against both new and existing (obtained, sustained, and maintained to be signature representative) foreign targets; with and without the presence of camouflage, concealment, and deception materials; and operated using enemy tactics/CONOPS. The resulting highly reliable, realistic data directly supports munitions/targeting development programs and helps mitigate overall acquisition risk. PCL serves as a major focal point for joint signature exploitation, collection, and dissemination amongst the DoD and intelligence community (IC). PCL is a prime contributor in the time critical process to rapidly exploit, assess, and determine US and allied weapon/targeting performance against high value targets. Customers include: the major Defense and Service Intelligence Centers, all Services, the Joint Technical Coordinating Group (JTTCG) who develop the Joint Munitions Effectiveness Manuals (JMEm)s, Combatant Commands, AF Major Commands, US Air Force Weapons School curriculum support, and others. Current projects include, but are 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 the testing of multiple seekers, sensors, and targeting technologies in representative environments against COCOM/MAJCOM/IC high value targets.

The FY2017 funding request was reduced by \$.163M to account for the availability of prior year execution balances.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	2.543	2.506	2.691	0.000	2.691
Current President's Budget	2.543	2.506	2.503	0.000	2.503
Total Adjustments	0.000	0.000	-0.188	0.000	-0.188
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-0.188	0.000	-0.188

Change Summary Explanation

No significant changes

C. Accomplishments/Planned Programs (\$ in Millions)

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>Title: Project Chicken Little</p> <p>Description: Provide the DoD community accurate multi-spectral signatures obtained from high-value, signature representative modern threat systems using advanced collection technologies.</p> <p>Exploitations typically occur CONUS; however, Project Chicken Little is postured to support OCONUS collections as dictated by mission requirements.</p> <p>A critical underpinning of the System Exploitation major thrust area, Sensor Week, occurs in even years and provides a unique air, ground, and National Technical Means (NTM) demonstration/validation of candidate Seeker/Sensor/ISR technologies.</p> <p>Plan and conduct captive carry flight tests and signature collection for seeker/sensor technology evaluations.</p> <p>Develop, validate, and accredit improved models for target vulnerability and weapons effectiveness in support of Combatant Commands' (CoCOMs) requirements.</p> <p>FY 2015 Accomplishments:</p>	2.543	2.506	2.503	0.000	2.503

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>Exploited high value threat systems. Provided signature data from multiple threat systems in various environments using advanced and developmental seeker/sensor technologies. Conducted planning sessions for FY16 Sensor Week (SW).</p> <p>Exploited the signatures of ISR targets; conducted rapid reaction performance analysis & evaluations in support of COCOM/MAJCOM immediate/urgent warfighter needs; optimized current project methods to support ISR testing.</p> <p>Assisted in obtaining relevant, high value, and emergent threat assets and/or decoys. Ensured the fleet foreign threat assets remain properly "signature representative" for systems development and testing.</p> <p>Developed, validated, and accredited improved computer models to determine target vulnerability and weapons effectiveness in support of warfighter requirements.</p> <p>FY 2016 Plans: Exploit high value threat systems (typically 4 per year). Provide signature data from multiple threat systems in various environments using advanced and developmental seeker/sensor technologies. Conduct Sensor Week (SW), providing a singularly unique forum for joint service demonstration of developmental and operational seekers/sensors/ISR assets against a wide array of US, coalition, and foreign national ground targets.</p> <p>Exploit the signatures of ISR targets; conduct rapid reaction performance analysis & evaluations in support of COCOM/MAJCOM immediate/urgent warfighter needs; optimize current project methods to support ISR testing</p> <p>No OCONUS requirements.</p> <p>Assist in obtaining relevant, high value, and emergent threat assets and/or decoys. Ensure the fleet foreign threat assets remain properly "signature representative" for systems development and testing.</p> <p>Develop, validate, and accredit improved computer models to determine target vulnerability and weapons effectiveness in support of warfighter requirements.</p> <p>FY 2017 Base Plans: Exploit high value threat systems (typically 4 per year). Provide signature data from multiple threat systems in various environments using advanced and developmental seeker/sensor technologies. Conduct Sensor Week</p>					

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
(SW), providing a singularly unique forum for joint service demonstration of developmental and operational seekers/sensors/ISR assets against a wide array of US, coalition, and foreign national ground targets. Exploit the signatures of ISR targets; conduct rapid reaction performance analysis & evaluations in support of COCOM/MAJCOM immediate/urgent warfighter needs; optimize current project methods to support ISR testing No OCONUS requirements. Assist in obtaining relevant, high value, and emergent threat assets and/or decoys. Ensure the fleet foreign threat assets remain properly "signature representative" for systems development and testing. Develop, validate, and accredit improved computer models to determine target vulnerability and weapons effectiveness in support of warfighter requirements. FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	2.543	2.506	2.503	0.000	2.503

D. Other Program Funding Summary (\$ in Millions)												
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• None: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-

Remarks

E. Acquisition Strategy

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

F. 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 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604604F / <i>Submunitions</i>	Project (Number/Name) 653166 / <i>Joint Smart Munitions Test and Evaluation</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal				-		-		-		-		-	-	-	-

Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
46th Test Wing	PO	Keeping Fleet Relevant : TBD	-	0.800	Nov 2014	0.800	Nov 2015	0.800	Nov 2016	0.000		0.800	Continuing	Continuing	-
Subtotal				-		0.800		0.800		0.000		0.800	-	-	-

Remarks
Fleet relevance addresses the acquisition of new and emerging threat vehicles, acquisition of high fidelity decoys, and sustainment of fleet signature quality.

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
46th Test Wing (46 OG and 46 TW)	MIPR	Conducting Tests and Analysis : Eglin AFB, FL	-	1.688	Nov 2014	1.651	Nov 2015	1.648	Nov 2016	0.000		1.648	Continuing	Continuing	TBD
Subtotal				-		1.688		1.648		0.000		1.648	-	-	-

Remarks
46th Test Wing is the Program Office which conducts inhouse testing.

Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
46 Test Wing (46 OG)	MIPR	46TS/OGEE : Eglin, FL	-	0.055	Nov 2014	0.055	Nov 2015	0.055	Nov 2016	0.000		0.055	Continuing	Continuing	TBD
Subtotal				-		0.055		0.055		0.000		0.055	-	-	-

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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
46th Test Wing is the Program Office which conducts inhouse testing.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.543	2.506	2.503	0.000	2.503	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force		Date: February 2016
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Target/warhead evaluation/analysis, signature test, captive carry flight tests.	[REDACTED]																											
FY16 Sensor Week	[REDACTED]																											
FY18 Sensor Week	[REDACTED]																											
FY20 Sensor Week	[REDACTED]																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force		Date: February 2016
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Target/warhead evaluation/analysis, signature test, captive carry flight tests.	1	2015	4	2021
FY16 Sensor Week	3	2016	3	2016
FY18 Sensor Week	3	2018	3	2018
FY20 Sensor Week	3	2020	3	2020