Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force

Date: May 2017

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 5: System

PE 0604604F I Submunitions

Development & Demonstration (SDD)

COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	2.419	2.503	2.705	0.000	2.705	2.712	2.762	2.810	2.867	Continuing	Continuing
653166: Joint Smart Munitions Test and Evaluation	-	2.419	2.503	2.705	0.000	2.705	2.712	2.762	2.810	2.867	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 (JTCG) who develop the Joint Munitions Effectiveness Manuals (JMEMs), 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 see

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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	2.506	2.503	2.697	0.000	2.697
Current President's Budget	2.419	2.503	2.705	0.000	2.705
Total Adjustments	-0.087	0.000	0.008	0.000	0.008
 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	-0.087	0.000			
Other Adjustments	0.000	0.000	0.008	0.000	0.008

Change Summary Explanation

No significant changes

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Project Chicken Little	2.419	2.503	2.705	0.000	2.705
Description: Provide the DoD community accurate multi-spectral signatures obtained from high-value, signature representative modern threat systems using advanced collection technologies.					
Exploitations typically occur CONUS; however, Project Chicken Little is postured to support OCONUS collections as dictated by mission requirements.					
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.					
Plan and conduct captive carry flight tests and signature collection for seeker/sensor technology evaluations.					
Develop, validate, and accredit improved models for target vulnerability and weapons effectiveness in support of Combatant Commands' (CoCOMs) requirements.					
FY 2016 Accomplishments:					

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force **Date:** May 2017 R-1 Program Element (Number/Name) Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System PE 0604604F I Submunitions Development & Demonstration (SDD) **FY 2018** C. Accomplishments/Planned Programs (\$ in Millions) FY 2018 FY 2018 FY 2016 FY 2017 **Base** OCO Total Exploited 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. 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 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. 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

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effectiveness in support of warfighter requirements.

No OCONUS requirements.

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Assist in obtaining relevant, high value, and emergent threat assets and/or decoys. Ensure the fleet foreign

Develop, validate, and accredit improved computer models to determine target vulnerability and weapons

threat assets remain properly "signature representative" for systems development and testing.

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Date: May 2017

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R-1 Program Element (Number/Name)

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
N/A					10001
FY 2018 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 (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 2018 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	2.419	2.503	2.705	0.000	2.70

D. Other Program Funding Summary (\$ in Millions)

			FY 2018	FY 2018	FY 2018					Cost To	
Line Item	FY 2016	FY 2017	Base	OCO	<u>Total</u>	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Total Cost
 None: N/A 	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 96th Test Wing.

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Performance Metrics		
Please refer to the Performance Base Budget Overview Book for information Force performance goals and most importantly, how they contribute to our mi	on how Air Force resources are applied and how the ssion.	nose resources are contributing to Air

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