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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	2.989	3.045	3.091	0.000	3.091	3.155	3.211	3.267	3.327	Continuing	Continuing
653166: <i>Joint Smart Munitions Test and Evaluation</i>	-	2.989	3.045	3.091	0.000	3.091	3.155	3.211	3.267	3.327	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/Concept of Operations (CONOPS). The resulting highly reliable, realistic data directly support munitions/targeting development programs and helps mitigate overall acquisition risk. PCL serves as a major focal point for joint signature exploitation, collection, and dissemination within the DoD. 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 (JTCCG) who develop the Joint Munitions Effectiveness Manuals (JMEm), 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 Combatant Command/Major Command/Intelligence Community high value targets.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Chicken Little capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F.

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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.

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	2.990	3.045	3.096	0.000	3.096
Current President's Budget	2.989	3.045	3.091	0.000	3.091
Total Adjustments	-0.001	0.000	-0.005	0.000	-0.005
• 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	-0.001	0.000	-0.005	0.000	-0.005

Change Summary Explanation

N/A

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
<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 every two years and provides a unique air and ground 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>	2.989	3.045	3.091

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
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<p>FY 2020 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.</p> <p>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 Combatant Command/Major Command immediate/urgent warfighter needs, and 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 2021 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.</p> <p>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; capture and catalog multi-spectral signatures on asymmetric threat Unmanned Aerial Systems (UAS).</p> <p>Assist in obtaining relevant, high value, and emergent threat assets and/or decoys. Ensure the</p>			
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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
fleet foreign threat assets remain properly "signature representative" for systems development and testing.			
Develop, validate, and accredit improved computer vulnerability and weapons effectiveness in support of warfighter requirements.			
<i>FY 2020 to FY 2021 Increase/Decrease Statement:</i> Funding increased due to inflation fluctuation.			
Accomplishments/Planned Programs Subtotals	2.989	3.045	3.091

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

N/A

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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Air Force **Date:** February 2020

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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Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Maintain Test Asset Relevancy	PO	Various : Las Vegas, NV	-	0.800	Nov 2018	0.800	Nov 2019	0.800	Nov 2020	-		0.800	Continuing	Continuing	0.800
Subtotal			-	0.800		0.800		0.800		-		0.800	Continuing	Continuing	N/A

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 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Conduct Test and Analysis	MIPR	96th Test Wing : Eglin AFB, FL	-	2.134	Nov 2018	2.190	Nov 2019	2.236	Nov 2020	-		2.236	Continuing	Continuing	-
Subtotal			-	2.134		2.190		2.236		-		2.236	Continuing	Continuing	N/A

Remarks
96th Test Wing (96 CTG, 46 TS) is the Program Office which conducts inhouse testing.

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Management Services	MIPR	46TS/TGBB : Eglin, FL	-	0.055	Nov 2018	0.055	Nov 2019	0.055	Nov 2020	-		0.055	Continuing	Continuing	-
Subtotal			-	0.055		0.055		0.055		-		0.055	Continuing	Continuing	N/A

Remarks
96th Test Wing (96 CTG, 46 TS) is the Program Office which conducts in house testing.

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.989	3.045	3.091	-	3.091	Continuing	Continuing	N/A

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	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Air Force		Date: February 2020
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Project Chicken Little; JMT&E</i>				
Target/warhead evaluation/analysis, signature test, captive carry flight tests.	1	2019	4	2025
FY18 Sensor Week	1	2019	3	2019
FY20 Sensor Week	3	2020	3	2021
FY22 Sensor Week	3	2022	3	2023
FY24 Sensor Week	3	2024	3	2025