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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army										Date: May 2017			
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0607138A I Fixed Wing Product Improvement Program								
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	-	1.105	0.796	9.981	-	9.981	2.234	1.772	2.298	2.365	Continuing	Continuing	
ES5: Fixed Wing Product Improvement Program	-	1.105	0.796	9.981	-	9.981	2.234	1.772	2.298	2.365	Continuing	Continuing	

## Note

Prior funding for this program was received on Program Element 0203744A Project D18. This is not a new start.

## A. Mission Description and Budget Item Justification

The budget line provides for Fixed Wing (FW) fielded fleet Non-Recurring Engineering (NRE), development of supplemental type certificates (STC) and associated developmental testing, and integration of all Army fixed wing aircraft to provide Communications, Navigation and Surveillance (CNS), Aircraft Survivability Equipment (ASE), and Department of Defense (DoD) mandated safety equipment to meet current and evolving international and Army standards. As requirements for new avionics equipment continue, aircraft delays and airspace exclusions are likely for aircraft not properly equipped. Upgrade of communication and aircraft modifications will assure worldwide deployability for those required to deploy. This budget line will also provide funding for studies, evaluations and Analysis of Alternatives to support emerging Army fixed wing requirements for product improvements to support the FW fleet.

In accordance with the Office of the Secretary of Defense (OSD) Director of Operational Test and Evaluation (DOT&E) Working Oversight List (dated 26 Jun 15), the Fixed Wing Utility Aircraft (FUA) Program will be required to undergo both Live Fire Testing and Operational Testing. This budget line provides funding for development of the FUA Test and Evaluation Master Plan (TEMP), the execution of FUA Live Fire Test & Evaluation (LFT&E) including necessary hardware, and FUA Operational Testing including execution of Initial Operational Test & Evaluation.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	1.151	0.796	0.894	-	0.894
Current President's Budget	1.105	0.796	9.981	-	9.981
Total Adjustments	-0.046	0.000	9.087	-	9.087
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.046	0.000	9.087	-	9.087

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Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0607138A / Fixed Wing Product Improvement Program				Project (Number/Name) ES5 / Fixed Wing Product Improvement Program			
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
ES5: Fixed Wing Product Improvement Program	-	1.105	0.796	9.981	-	9.981	2.234	1.772	2.298	2.365	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

## Note

Funding for this Program Element (PE) was previously on PE 0203744A Project D18 - Aircraft Modifications/Product Improvement Programs

## A. Mission Description and Budget Item Justification

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In accordance with the Office of the Secretary of Defense (OSD) Director of Operational Test and Evaluation (DOT&E) Working Oversight List (dated 26 Jun 15), the Fixed Wing Utility Aircraft (FUA) Program will be required to undergo both Live Fire Testing and Operational Testing. This budget line provides funding for development of the FUA Test and Evaluation Master Plan (TEMP), the execution of FUA Live Fire Test & Evaluation (LFT&E) including necessary hardware, and FUA Operational Testing including execution of Initial Operational Test & Evaluation.

## B. Accomplishments/Planned Programs (\$ in Millions)

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Non-recurring Engineering	1.036	-	-
<b>Description:</b> Non-recurring engineering efforts provide improved performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment.			
<b>FY 2016 Accomplishments:</b> Non-recurring engineering efforts provide improved performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment.			
<b>Title:</b> Program Management (PM)	0.069	-	0.594
<b>Description:</b> PM Fixed Wing (FW)			
<b>FY 2016 Accomplishments:</b>			

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B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018	
Supported Test Planning											
FY 2018 Plans: PM Fixed Wing (FW)											
Title: Test And Evaluation								-	0.796	9.387	
Description: Contractor hardware support for LFT&E on Fixed Wing Utility Aircraft (FUA).											
FY 2017 Plans: Funding provides for LFT&E hardware materials on FUA. The LFT&E hardware materials consist of Structural Wing, Engine, Propeller, Fuselage, Wing Iron Bird, Hydraulic System, Dry Bay Fire Suppression System, and ESOS System.											
FY 2018 Plans: FY18 funding supports FUA Developmental Test (DT) Production Qualification, planning/execution for Live Fire Test and Evaluation (LFT&E) for FUA and LFT&E hardware materials consisting of Structural Wing, Engine, Propeller, Fuselage, Wing Iron Bird, Hydraulic System, Dry Bay Fire Suppression System, and ESOS System. PQT includes electromagnetic environmental effects (E3), handling qualities, Safety of Flight (SOF), human factors, cyber security, AIMS certification, ASE, interoperability and COM/NAV to support final airworthiness release (AWR) for Phase 4 Initial Operational T&E (IOT&E).											
Accomplishments/Planned Programs Subtotals								1.105	0.796	9.981	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• A11300: Utility F/W Aircraft	0.879	58.046	75.115	-	75.115	97.517	133.195	100.045	101.396	Continuing	Continuing
• AA0270: Utility/ Cargo Airplane Mods	16.166	17.526	57.737	-	57.737	25.082	15.470	14.692	16.909	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The US Army Fixed Wing acquisition and modernization strategy leverages commercial derivative aircraft through the use of supplemental type certificates (STC) and associated testing and includes cockpit modernization for civil and tactical upgrades of military unique equipment and integration of Mission Equipment Packages (MEP). Cockpit modernization upgrades include items such as dual Flight Management Systems, Terrain Area Warning Systems, transponder, Mode S/5 transponders, Satellite Communications, Traffic Alert and Collision Avoidance II, Flight Data Recorders, Cockpit Voice Recorders, communication radios, military Global Positioning System (GPS), Wide Area Augmentation System/ Localizer Performance with Vertical Guidance, Automatic Dependence Surveillance Broadcast (ADS-B) Out, M-code GPS, Blue Force Tracker, and Smart books.											

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E. Performance Metrics N/A		