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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0605018F / <i>AF Integrated Personnel and Pay System (AF-IPPS)</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	29.526	22.010	37.901	0.000	37.901	1.126	0.000	0.000	0.000	0.000	90.563
676003: <i>HRM Structural Development</i>	0.000	29.526	22.010	37.901	0.000	37.901	1.126	0.000	0.000	0.000	0.000	90.563
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Program MDAP/MAIS Code: N86

A. Mission Description and Budget Item Justification

The Air Force Integrated Personnel and Pay System (AFIPPS) is a web-enabled, Enterprise Resource Planning (ERP) solution that integrates existing personnel and pay processes into one self-service system. AFIPPS supports how the Air Force owns and operates the Human Resource Management domain and is a component of the AF/A1 digital transformation journey, currently underway. AFIPPS continues the transformation by providing an accurate and single authoritative source of personnel data to ensure timely delivery of pay, entitlements, allowances, and benefits to all Active Duty Air and Space Force, National Guard (ANG), and Reserve (AFRes) components. AFIPPS represents the DAF's commitment to modernize business practices and provide enhanced support to service members and their families by integrating personnel and pay systems. AFIPPS will eliminate DAF reliance on the unsustainable Defense Finance and Accounting System (DFAS) and the Defense Joint Military Pay System (DJMS) for payroll processing and ensures improved auditability of service member pay.

The AFIPPS program directly increases readiness for total force service members, human resources and financial management specialists, and DAF Commanders. AFIPPS will improve the DAF community's experience by allowing members to self-initiate pay/personnel actions, decreasing pay errors, and providing accurate personnel/pay data for leadership decision making. AFIPPS modernizes the existing Military Personnel Data System (MilPDS) and adds pay and leave capability. In Jan 2021, the DAF leveraged a MilPDS self-service capability deployment to verify the baseline system had the infrastructure for the new pay and leave capability in place. The self-service capability allowed DAF Airmen and Guardians to initiate self-registration, validate member data and verify operational performance. AFIPPS will subsume MilPDS and launch its pay and leave capabilities achieving Go-Live in January 2025.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY21 \$0.000M was expended for civilian pay expenses in this program element, and in FY22 \$0.000M is forecasted for civilian pay expenses in this program element.

This requirement supports performance of a full financial audit as required by title 10 U.S.C Chapter 9A, Sec 240-D.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	26.986	22.010	0.000	0.000	0.000
Current President's Budget	29.526	22.010	37.901	0.000	37.901
Total Adjustments	2.540	0.000	37.901	0.000	37.901
• 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	3.375	0.000			
• SBIR/STTR Transfer	-0.835	0.000			
• Other Adjustments	0.000	0.000	37.901	0.000	37.901

Change Summary Explanation

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: AFIPPS - System Integrator Development & Test	28.042	20.052	36.296	0.000	36.296
<p>Description: Acquire and develop the activities that support the acquisition of a personnel/pay capability for DAF personnel across all components (i.e., Active Duty Air and Space Force, ANG, and AFRes). Development initiatives can be divided into 2 objectives: Transactional System development and Reporting System development. The Transactional System references AFIPPS' ability to calculate and transact service member pay. The Reporting System enables service members and functional system users to pull reports and conduct analysis activities. The majority of Transactional System development activities are complete and undergoing Developmental Test & Evaluation (DT&E). These activities primarily drive the AFIPPS critical path. The section below will discuss some recently experienced DT&E obstacles. Subsequent resolution and risk mitigation initiatives reprioritized a few post-deployment Transactional System development activities for incorporation in baseline capability delivery. Reporting System development is on-going and will be likewise tested.</p> <p>The AFIPPS Test and Evaluation Strategy encompasses Developmental Test & Evaluation (DT&E), Operational Test and Evaluation (OT&E), and a Cybersecurity Evaluation (CSE).</p>					

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>DT&E consists of two test series: Component Verification and Integration (CV&I) and Qualification Test and Evaluation (QT&E). CV&I is performed primarily by the system integrator and observed by Government stakeholders. QT&E, on the other hand, is performed primarily by numerous Government stakeholders. The test activities accomplished within this thrust align within the CV&I test series.</p> <p>Recent CV&I initiatives uncovered integration issues with pay data retrieval from legacy systems. The DAF resolved with numerous software update and data conversion solutions. Root cause investigation revealed additional risk in both the configuration management plan and the planned software regression testing. The activities discussed below reflect the additional test and integration initiatives to effectively manage risk.</p> <p>CSE is performed primarily by Government Stakeholders; however, this thrust includes some system integrator-led activities.</p> <p>FY 2022 Plans: Conduct activities to develop, test, and deliver system. Activities include but are not limited to the following: (Note: All test activities fall within the CV&I test series of DT&E)</p> <ul style="list-style-type: none"> - Continue Reporting System development - Conduct additional Transactional System development activities based on recent statutory mandates - Continue requirements operability testing to validate system meets functional and technical requirements - Continue data management evaluation testing to validate legacy system data accurately converts to AFIPPS - Continue DoDAF architectures in support of interoperability certification - Perform change management activities in support of limited deployment release - Update contract and acquisition documentation to support AFIPPS strategy and Limited Deployment Authority to Proceed (ATP) approval - Continue AF information technology efforts and studies (e.g. Common Computing Environment, FIAR/FISCAM audit support, etc.) to ensure AFIPPS is fully integrated into AF and DoD enterprise networks, databases, and information systems upon deployment - Continue to maintain the required AFIPPS computing environments (e.g. development, test and production) with DISA <p>FY 2023 Base Plans: (Note: Unless otherwise noted, all test activities fall within the CV&I test series of DT&E)</p>					

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C. Accomplishments/Planned Programs (\$ in Millions)					
<ul style="list-style-type: none"> - Will complete Reporting System development - Will complete Requirements Operability Testing (validates system meets functional and technical requirements) - Will continue Data Management Evaluation Testing to validate legacy system data accurately converts to AFIPPS - Will conduct Payroll Integrated Baseline Regression Testing to validate payroll system functionality when integrated with completed additional development initiatives - Will conduct Payroll Reconciliation Testing to validate that AFIPPS correctly calculates payroll (originally planned for accomplishment late-FY21; reprioritized to resolve urgent data conversion issues) - Will conduct Performance Evaluation Testing to validate system can handle required bandwidth, load and stress. - Will conduct cybersecurity vulnerability scans on code; will update code as required (aligned within the Cybersecurity Evaluation (CSE)) - Will complete DoDAF architectures in support of interoperability certification - Will continue change management activities in support of limited deployment release - Will update contract and acquisition documentation to support the Limited Deployment Authority to Proceed (ATP) approval - Will continue AF information technology efforts and studies (e.g. Common Computing Environment, FIAR/ FISCAM audit support, etc.) to ensure AFIPPS is fully integrated into AF & DoD enterprise networks, databases, and information systems upon deployment - Will continue to maintain the required AFIPPS computing environments (e.g. development, test and production) with DISA <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Funding increased to complete Reporting System Development as well as to support extended and reprioritized developmental test activities to prevent additional integration issues and reduce risk.</p>					
Title: AFIPPS - Government-Performed Test and Evaluation					
Description: The AFIPPS Test and Evaluation Strategy encompasses Developmental Test & Evaluation (DT&E), Operational Test and Evaluation (OT&E), and a Cybersecurity Evaluation (CSE).					
	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
	1.484	1.958	1.605	0.000	1.605

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>DT&E comprises two test series: Component Verification and Integration (CV&I) and Qualification Test and Evaluation (QT&E). CV&I is performed primarily by the system integrator and observed by Government stakeholders. QT&E activities, on the other hand, are performed primarily by numerous Government stakeholders. CV&I activities within this thrust focus on pre-test planning and post-test analysis. This thrust includes all QT&E activities.</p> <p>The DAF recently restructured the OT&E Strategy as well as the deployment schedule based on OSD(DOT&E) recommendations to better address system performance risks. Instead of a single Initial Operational Test & Evaluation (IOT&E) event following Go-Live, the DAF will conduct an Operational Assessment ahead of a January 2025 Go-Live Limited Deployment. IOT&E will take place thereafter once all interfaces have deployed. This thrust includes all OT&E activities.</p> <p>The CSE activities accomplished within this thrust are performed primarily by Government Stakeholders.</p> <p>FY 2022 Plans:</p> <ul style="list-style-type: none"> - Conduct planning for reconciliation testing to validate AFIPPS produces the same payroll result as the legacy system (DJMS). - Conduct planning for both the Payroll and Human Resources Integrated Baseline Regression Tests (IBRT) to validate functional capability after implementing new development initiatives to the system. - Analyze Requirements Operability Test (ROT) results to validate the system meets functional and technical requirements. <p>FY 2023 Base Plans:</p> <p>(Note: Unless otherwise depicted, all test events aligned within CV&I)</p> <ul style="list-style-type: none"> - Will continue analyzing Requirements Operability Test (ROT) results to validate system meets functional and technical requirements. - Will analyze Payroll Integrated Baseline Regression Test (IBRT) results to validate functional capability given recent development. - Will conduct Human Resources IBRT to validate human resources functional capability when combined with pay/leave capability. - Will analyze Reconciliation Test results to validate AFIPPS produced the same payroll result as the legacy system (DJMS). 					

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Will analyze Performance Evaluation Test results to validate system performance maintained during periods of high load and stress. - Will conduct a Test Readiness Review in preparation for transition to the QT&E test series. - Will conduct a System Operability Evaluation (SOE) to validate system meets critical technical parameters and key performance parameters (QT&E) - Will conduct Cooperative Vulnerability Identification testing in which a team of cybersecurity specialists will assess AFIPPS' design (aligned with the Cybersecurity Evaluation)					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: Funding decreased to due to a decrease in government-performed test activities.					
Accomplishments/Planned Programs Subtotals	29.526	22.010	37.901	0.000	37.901

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 03 834410: <i>INTEGRATED PERSONNEL AND PAY SYSTEM</i>	0.000	15.240	0.000	-	0.000	-	-	-	-	0.000	15.240

Remarks

E. Acquisition Strategy

The AFIPPS acquisition strategy focuses on expanding the fielded AF Military Personnel Data System (MilPDS) by integrating pay and leave capabilities. MilPDS is implemented using the commercial Oracle ERP E-Business Suite (EBS). The AFIPPS program configures/develops the pay module of EBS and ensures the system is fully integrated and deployed. The primary system integrator contract includes pay system development, test, and deployment. The development activities are fully coordinated and integrated with the on-going operation and sustainment of MilPDS.

AFIPPS is implementing agile principles to the maximum extent practical during the software development effort. The AFIPPS program includes two major releases:

First, the program leveraged a MilPDS self-service capability deployment to ensure infrastructure for pay and leave capability is in place. The self-service capability deployed in Jan 2021, allowing the AF community to initiate self-registration, validate member data, and verify operational performance.

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<p>Next, pay/leave capability was organized into stories then incorporated into work packages to be developed in three week sprints. Each work package was developed and tested by the integrated user/developer team on multiple pre-production environments.</p> <p>After completing initial development, the DAF will execute an extensive Test and Evaluation Strategy encompassing Development Test & Evaluation (DT&E), Operational Test & Evaluation (OT&E), and a Cybersecurity Evaluation (CSE).</p> <p>DT&E will verify AFIPPS meets specifications and will validate system functionality and associated business processes relative to current payroll and leave systems. System performance will be re-verified upon integration with the existing MilPDS baseline. It is divided into two test series, Component Verification & Integration and Qualification Test & Evaluation (QT&E). Both the system integrator and Government stakeholders accomplish DT&E activities.</p> <p>The DAF will then conduct OT&E. The OT&E strategy recently changed from a single Initial Operational Test & Evaluation (IOT&E) event following Go-Live to a two-phased approach. The revision was based on OSD(DOT&E) recommendations to better address system performance risks. Phase 1 comprises an Operational Assessment to determine operational effectiveness and suitability prior to Go-Live. AFIPPS pay/leave capability will then be delivered in January 2025 in a single release to all Active Duty Air and Space Force, National Guard (ANG), and Reserve (AFRes) components. (Note: The legacy systems within the existing pay/leave process have a significant interdependency such that incrementally decommissioning systems is not feasible. Therefore, while the program implements agile methodologies, the DAF will conduct only one pay/leave capability release.) This Limited Deployment will be executed with a semi-automated interface with the Defense Enterprise Accounting and Management System (DEAMS). (Note: the development actions DEAMS requires to interface with AFIPPS are independent of the AFIPPS program.) After the fully-automated DEAMS interface deploys, Phase 2 will comprise an IOT&E event to further validate system efficacy.</p> <p>The CSE comprises five test events which take place in parallel with DT&E and OT&E. The evaluation culminates in an Assessment & Authorization (A&A), which will evaluate AFIPPS' information system policies, security controls, documented vulnerabilities, etc. Thus far, the DAF has completed one of five test events.</p> <p>After successfully completing all test initiatives, the DAF will declare the system fully deployed and transition to the Capability Support Phase.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0605018F / AF Integrated Personnel and Pay System (AF-IPPS)	Project (Number/Name) 676003 / HRM Structural Development
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
AFIPPS Prime Software Developmental Efforts	C/CPAF	ACCENTURE FEDERAL SVCS : ARLINGTON, VA	0.000	11.788	Feb 2021	8.411	Jan 2022	18.716	Oct 2022	-		18.716	0.000	38.915	75.900
AFIPPS Application Hosting Environment	MIPR	DISA EIS : Pensacola, FL	0.000	4.668	Nov 2020	5.288	Nov 2021	5.667	Oct 2022	-		5.667	0.000	15.623	15.623
AFIPPS COTs Licenses	Various	Various : Various	0.000	4.701	Apr 2021	0.495	Apr 2022	1.009	Apr 2023	-		1.009	0.000	6.205	7.263
AFIPPS Oracle EBS Subject Matter Experts	C/T&M	DLT SOLUTIONS, LLC : HERNDON, VA	0.000	0.167	Apr 2021	-		-		-		-	0.000	0.167	0.797
AFIPPS Financial Improvement and Audit Readiness (FIAR)	C/FP	Various : Various	0.000	0.250	Aug 2021	0.000	Aug 2022	0.255	Aug 2023	-		0.255	0.000	0.505	0.505
AFIPPS Direct Mission Support (Other)	Various	Various : Various	0.000	2.630	Mar 2021	3.900	Jan 2022	4.115	Mar 2023	-		4.115	0.000	10.645	10.645
Subtotal			0.000	24.204		18.094		29.762		-		29.762	0.000	72.060	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
AFIPPS Government-Performed Test & Evaluation Activities (Conduct Testing - LDTO/JTIC)	MIPR	Various : Various	0.000	0.432	Feb 2021	0.278	Nov 2021	0.300	Nov 2022	-		0.300	0.000	1.010	1.066
AFIPPS Government-Performed Test & Evaluation Activities (Test Contract Support)	C/CPIF	DTSI : San Antonio, TX	0.000	1.052	May 2021	1.680	Jan 2022	1.305	Oct 2022	-		1.305	0.000	4.037	4.337
Subtotal			0.000	1.484		1.958		1.605		-		1.605	0.000	5.047	N/A

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Integrated Personnel and Pay System</i>				
Prime Development and Integration (Transactional System)	1	2021	2	2021
Additional Development Activities (Transactional/Reporting)	3	2021	1	2024
System Integrator Developmental Test (CV&I)	2	2021	4	2023
Government Integrated Test and Evaluation Activities (DT&E, OT&E)	2	2021	1	2026
Cybersecurity Evaluation (CSE)	1	2021	4	2025
Limited Deployment Authority to Proceed	4	2024	4	2024
Limited Deployment / Go-Live	1	2025	1	2025
Full Deployment Decision / Capability Support Authority to Proceed	1	2026	1	2026

Note

Component Verification and Integration (CV&I)
 Developmental Test & Evaluation (DT&E)
 Operational Test and Evaluation (OT&E)