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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 0804743F / <i>Other Flight Training</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	-	1.281	5.999	2.214	0.000	2.214	2.260	2.302	2.352	2.404	Continuing	Continuing
675304: <i>Aviation Resource Management System (ARMS)</i>	-	1.281	5.999	2.214	0.000	2.214	2.260	2.302	2.352	2.404	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Aviation Resource Management System (ARMS) is the authoritative data source for all aircrew and parachutist management (including flight and jump pay) covering 65,000 Aircrew/Parachutists and used by 2,800 1C0X2 Career Field members with 2.2M transactions per week. The ARMS is a web-based on-line management information system designed to support the base level Director of Operations (DO), aircrew supervisors, and managers. ARMS provides management policies and ensures the status of the Air Force flying programs are available to flying/jump supervisors to make resource allocation decisions. ARMS ensures accurate tracking of flying and ground training programs for each weapon system at each base. ARMS provides accurate and timely aircrew/parachutist information which assists in monitoring, tracking, and scheduling military training required to meet Air Force mission requirements. Additionally, the ARMS manages flying hours for aircrew parachutists world-wide to include USAF, Air Force Reserve Command (AFRC) and the Air National Guard (ANG).

The current ARMS functionality resides at a Defense Information System Agency (DISA) DECC and consists of "5" logical modules to include: Flight, Individual Training, Jumper Aircrew, Resource Tracking, Reports, and System. The sustainment of these capabilities and the introduction of new capabilities follows an agile development process, but the effectiveness of that process is severely limited by the existing production environment. A portion of the ARMS Jumper Aircrew module capabilities are being migrated to a mandated government-approved cloud environment. The cloud environment provides the Continuous Integration and Continuous Deployment (CI/CD) pipeline required to constantly deliver software in an agile framework, following the required DevSecOps methodology. The migration to the cloud environment and the DevSecOps methodology will transform ARMS into a scalable and flexible system capable of meeting all information requirements of the Aviation Resource Management community.

Once the initial cloud ARMS Jumper Aircrew capability is established, all remaining legacy program capabilities and new program requirements will be incorporated into the ARMS product backlog and prioritized for migration/stand-up in the cloud program instance. The ARMS DISA legacy program will sunset, once all capabilities are successfully migrated to the cloud environment.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Other Flight Training weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2022 \$00.000M was expended for civilian pay expenses in this program element, and in FY 2023 \$00.000M 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.

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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.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	1.330	1.999	0.000	0.000	0.000
Current President's Budget	1.281	5.999	2.214	0.000	2.214
Total Adjustments	-0.049	4.000	2.214	0.000	2.214
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	4.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.049	0.000			
• Other Adjustments	0.000	0.000	2.214	0.000	2.214

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 675304: *Aviation Resource Management System (ARMS)*

Congressional Add: *Lifecycle Enhanced Asset Decision Software (LEADS)*

Congressional Add Subtotals for Project: 675304

Congressional Add Totals for all Projects

	FY 2021	FY 2022
	-	4.000
	-	4.000
	-	4.000

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
Title: Aviation Resource Management System (ARMS)	1.281	1.999	2.214
Description: Hardware/software development to update ARMS, adding functionality and system interfaces.			
FY 2022 Plans:			

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Continue migrating legacy ARMS capabilities from DISA platform to Cloud One platform; deliver patches as needed to correct system deficiencies or apply required upgrades; and, continue updates to system design, configuration, test, and training.			
FY 2023 Plans: Continue migrating legacy ARMS capabilities from DISA platform to Cloud One platform; deliver patches as needed to correct system deficiencies or apply required upgrades; and, continue updates to system design, configuration, test, and training.			
FY 2022 to FY 2023 Increase/Decrease Statement: -Funding increase due to transferring capabilities more rapidly from the legacy DISA system to the cloud- hosted system. Funding will also be needed to provide additional contractor support on EPASS to aid in this transfer.			
Accomplishments/Planned Programs Subtotals	1.281	1.999	2.214

	FY 2021	FY 2022
Congressional Add: Lifecycle Enhanced Asset Decision Software (LEADS)	-	4.000
FY 2022 Plans: Contracting and Engineer efforts for LEADS support to facilitate T-38 to T-7 transition. Program will be managed by AETC/A9.		
Congressional Adds Subtotals	-	4.000

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

N/A

Remarks

E. Acquisition Strategy

The ARMS utilizes Agile development methodologies to incrementally develop and field enhancements to the existing system. The ARMS PMO utilizes military programmers for code development/sustainment and government civilians providing program management, engineering, and information technology support. The ARMS PMO has partnered with the USAF Business Enterprise Systems (BES) Directorate's Business Enterprise Systems Programming INnovation (BESPIN) office to acquire contractor resources that are experts at agile software development in a cloud environment. BESPIN has acquired current contractor support via Section 8a direct award using the United States Digital Services guide and templates on agile development which allowed for an agile acquisition.

The initial ARMS cloud capability will be fielded in FY22 and the updated ARMS Training Management module will be fielded to legacy ARMS in FY22. Once the Jump module capability is established in Cloud One, migration efforts will begin to transition all legacy ARMS capabilities to the Cloud One environment. Changes to the legacy baseline will be limited to patches, vulnerability mitigation, and required capability implementations during the migration. Legacy ARMS will be linked to the Cloud

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R-1 Program Element (Number/Name)
PE 0804743F / *Other Flight Training*

One instance throughout the migration effort. This will ensure users a seamless single sign-on application with underlying capabilities existing in both legacy DISA and Cloud One.

The rate of migration capability is limited by the funding profile. With additional funding, the ARMS PMO could employ multiple agile teams with subject matter experts to work either on the same module faster or in parallel on separate modules. The ARMS PMO will have to maintain the legacy system during the entire transition to the cloud systems. A cost savings will be realized in the out years once the legacy system is decommissioned.

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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 0804743F / Other Flight Training	Project (Number/Name) 675304 / Aviation Resource Management System (ARMS)
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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			
LEADS Development	C/TBD	Not specified. : TBD	-	-		4.000	Sep 2022	-		-		-	Continuing	Continuing	-
ARMS BESPIN FEARLESS	SS/FFP	Fearless Solution LLC : Baltimore, MD	-	0.050	Mar 2021	-		0.050		-		0.050	Continuing	Continuing	10.000
Subtotal			-	0.050		4.000		0.050		-		0.050	Continuing	Continuing	N/A

Remarks
ARMS INCREMENT I INCLUDES BUILDS I AND II. ARMS BUILD I AND II ARE NOW LISTED SEPARATELY.

Support (\$ 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			
ARMS Architecture Contract Support	C/FFP	Copper River Information Technology, LLC : Anchorage, AK	-	0.018	Sep 2021	-		0.030		-		0.030	Continuing	Continuing	-
ARMS C&A SUPPORT III	C/FFP	OASIS : Lexington, MA	-	0.159	Apr 2021	0.845	Apr 2022	0.170		-		0.170	Continuing	Continuing	-
ARMS CONFIGURATION MANAGER	C/FFP	OASIS : Lexington, MA	-	0.130	Apr 2021	0.180	Apr 2022	0.150		-		0.150	Continuing	Continuing	-
ARMS SYSTEM ADMIN III	C/FFP	OASIS : Lexington, MA	-	0.161	Apr 2021	0.215	Apr 2022	0.220		-		0.220	Continuing	Continuing	-
ARMS CIE SUPPORT	C/FFP	TBD : TBD	-	0.227	Apr 2021	0.230	Apr 2022	0.235		-		0.235	Continuing	Continuing	-
ARMS INTEGRATION SUPPORT	C/FFP	Not specified. : TBD	-	0.163	Apr 2021	0.185	Apr 2022	0.190		-		0.190	Continuing	Continuing	-
ARMS Program Assessment	SS/FFP	TM Capture : Maxwell AFB-Gunter Annex, AL	-	0.065	Feb 2021	-		-		-		-	Continuing	Continuing	0.325
Subtotal			-	0.923		1.655		0.995		-		0.995	Continuing	Continuing	N/A

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Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0804743F / Other Flight Training				675304 / Aviation Resource Management System (ARMS)							
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ARMS Test Support	C/FFP	GSA : Maxwell AFB-Gunter Annex, AL	-	0.056	Apr 2021	0.074	Apr 2022	0.150		-		0.150	Continuing	Continuing	0.260
ARMS TEST MANAGER	C/CPAF	OASIS : Lexington, MA	-	0.059	Apr 2021	0.170	Apr 2022	0.175		-		0.175	Continuing	Continuing	-
Subtotal			-	0.115		0.244		0.325		-		0.325	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ARMS PSC Other Govt Costs	C/TBD	TBD : TBD	-	0.193	Apr 2021	0.100	Jan 2022	0.844		-		0.844	Continuing	Continuing	-
Subtotal			-	0.193		0.100		0.844		-		0.844	Continuing	Continuing	N/A
Project Cost Totals			-	1.281		5.999		2.214		-		2.214	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
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FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

ARMS EXHIBIT R-4	
Advisory and Assistance Services Contract	[REDACTED]
ARMS Program Assessment	[REDACTED]
ARMS Cloud Development/Migration	[REDACTED]
Cloud Development - Jump module	[REDACTED]
Field - Jump Module	[REDACTED]
Cloud Development Resources module	[REDACTED]
Field Resources module multiple releases	[REDACTED]
Cloud Development Flight module	[REDACTED]
Field Flight module multiple releases	[REDACTED]
Cloud development Training module	[REDACTED]
Field Training module multiple releases	[REDACTED]

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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
ARMS EXHIBIT R-4				
Advisory and Assistance Services Contract	1	2022	4	2027
ARMS Program Assessment	1	2022	4	2027
ARMS Cloud Development/Migration	2	2022	4	2025
Cloud Development - Jump module	3	2022	4	2022
Field - Jump Module	3	2022	4	2022
Cloud Development Resources module	4	2023	4	2023
Field Resources module multiple releases	4	2023	4	2024
Cloud Development Flight module	1	2023	4	2024
Field Flight module multiple releases	2	2023	4	2024
Cloud development Training module	1	2024	4	2027
Field Training module multiple releases	2	2024	4	2025