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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					PE 0604003F I Advanced Battle Management System (ABMS)							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	0.000	27.883	35.611	0.000	35.611	51.104	164.964	218.771	177.089	Continuing	Continuing
67411L: Advanced Battle Management System	-	0.000	27.883	35.611	0.000	35.611	51.104	164.964	218.771	177.089	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Advanced Battle Management System (ABMS) is a family of systems construct that provides battle management and command and control capability by networking, ingesting, fusing, and prioritizing data from disaggregated sensors. ABMS is not a single program of record but a capability that is provided by multiple integrated systems and programs and will be horizontally managed by the ABMS Architect. ABMS will develop sensors, battle management and command and control systems, and communications through a three phased strategy. Funding in this program element will be used for execution of efforts under the ABMS Architect Activities: sensor development, prototyping and risk reduction, architecture analysis, development and management of open architecture standards, Phase 1 and Phase 2 bridge capabilities, and Phase 3 development. Funding may be used to fund other programs within the ABMS architecture.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver ABMS. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, and 0605898F.

As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	27.883	35.611	0.000	35.611
Total Adjustments	0.000	27.883	35.611	0.000	35.611
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	27.883			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	35.611	0.000	35.611
C. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: ABMS Architect Tasks	-	27.883	35.611	0.000	35.611
Description: Funds ABMS major tasks overseen and integrated by the ABMS Architect. Tasks and activities include: ABMS GMTI radar development, architecture analysis and design, development and management of open architecture standards, ABMS Phase 1 and Phase 2 bridge capabilities, and ABMS Phase 3 development.					
FY 2019 Plans: ABMS GMTI radar development, mode development and management, and sensor standard maturation.					
FY 2020 Base Plans: Continue major tasks overseen and integrated by the ABMS Architect. Tasks and activities include: ABMS GMTI radar development, architecture analysis and design, development and management of open architecture standards, ABMS Phase 1 and Phase 2 bridge capabilities, and ABMS Phase 3 development.					
FY 2020 OCO Plans: TBD					
FY 2019 to FY 2020 Increase/Decrease Statement: Funding increased due to FY20 being the first year service-programmed funding will be executed for ABMS. FY19 funds were a Congressional Add.					
Accomplishments/Planned Programs Subtotals	-	27.883	35.611	0.000	35.611

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D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy The Advanced Battle Management System (ABMS) will provide capability through existing programs of record and their respective contracts and agreements. ABMS is not a single program of record, but many programs that are horizontally integrated by a single lead Architect. Program execution (cost, schedule, performance) is vertically managed by program executive officers and their respective program offices. Funding for programs that are directly or indirectly supporting ABMS will be executed through existing program elements. ABMS may execute funding from this program element to supplement supporting programs, or fully fund discrete components of ABMS specific technologies.		
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0604003F / Advanced Battle Management System (ABMS)				Project (Number/Name) 67411L / Advanced Battle Management System					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Architect Activities	Various	Various : TBD	-	-		-		35.611		-		35.611	Continuing	Continuing	-
ABMS GMTI Radar Development	TBD	Not specified. : TBD	-	-		27.883		-		-		-	Continuing	Continuing	-
Subtotal			-	-		27.883		35.611		-		35.611	Continuing	Continuing	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		27.883		35.611		-		35.611	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force										Date: February 2019									
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	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
ABMS Development																												
ABMS GMTI Radar Development																												
ABMS Architect Activities																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force		Date: February 2019
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0604003F / Advanced Battle Management System (ABMS)	Project (Number/Name) 67411L / Advanced Battle Management System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ABMS Development				
ABMS GMTI Radar Development	3	2019	4	2021
ABMS Architect Activities	2	2020	4	2024