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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0101316F I Worldwide Joint Strategic Communications							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	5.876	6.272	10.442	0.000	10.442	18.177	27.284	15.453	2.502	Continuing	Continuing
671820: Strategic Automated Command and Control System	-	5.876	6.272	10.442	0.000	10.442	18.177	27.284	15.453	2.502	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Worldwide Joint Strategic Communication efforts include Nuclear Command, Control, and Communications (NC3) systems to include the Defense Injection Reception Emergency Action Message (EAM) C2 Terminals (DIRECT), Aircrew Alerting Communications Electromagnetic Pulse (AACE), the Strategic Emergency Action Transmission System (SEATS), the Defense Red Switch Network (DRSN), and the Strategic Automated Command and Control System (SACCS). Funding may be used to modernize these, and other, NC3 systems. Funding may also be used for research, testing, validation, certification, configuration management, and assessment of the Air Force NC3 Weapon System.

SACCS is a dedicated, high speed, multi-level secure, data transmission, processing, and display system. SACCS provides the primary non-survivable command and control capability for receiving and disseminating secure Emergency Action Messages (EAM), Force Direction Messages (FDM), Force Status Reporting (FSR), and exchanging information type messages from USSTRATCOM. SACCS provides messages for effective deployment of strategic bombers, reconnaissance aircraft, mobilization aircraft, tanker support aircraft, and the Intercontinental Ballistic Missile (ICBM) force.

SACCS has equipment that has reached its end of life and is no longer repairable due to diminished manufacturing sources and parts obsolescence. This jeopardizes Air Force Global Strike Command's (AFGSC) ability to meet mission requirements as required by Chairman Joint Chief of Staff Nuclear Technical Performance Criteria and Operational Standards (CJCSI 6811.01). In order to mitigate the risk of SACCS inability to operate once the current spares are completely diminished, and ensure the system remains secure against modern/future threats, the Air Force is developing a replacement system.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NC3 weapon system capability. 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.

This program is in Budget Activity 07, 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 years.

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B. Program Change Summary (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget		6.042	6.272	6.285	0.000	6.285
Current President's Budget		5.876	6.272	10.442	0.000	10.442
Total Adjustments		-0.166	0.000	4.157	0.000	4.157
• 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		0.205	0.000			
• SBIR/STTR Transfer		-0.371	0.000			
• Other Adjustments		0.000	0.000	4.157	0.000	4.157
Change Summary Explanation FY 2019 Increase, updated Program Office Estimate for migration to the Navy Automated Message Store and Forward (NOVA) System (\$4.157M).						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2017	FY 2018	FY 2019
Title: SACCS Replacement				5.876	6.272	10.442
Description: Design and develop replacement Strategic Automated Command Control System (SACCS). Replaces all SACCS network components with the Navy Automated Message Store and Forward (NOVA) System. Removing the Message Processing Server at Offutt AFB, NE. New equipment mitigates cybersecurity issues, improves Mean Time Between Failure rates, reliability, availability, improves user interface, decreases annual sustainment costs, addresses Diminishing Manufacturing Sources and Material Shortages and obsolescence challenges, and meets Chairman Joint Chiefs of Staff Nuclear Technical Performance Criteria and Operational Standards (CJCSI 6811.01).						
FY 2018 Plans:						
- Enter Milestone B						
- Procure EMD hardware and COTS software						
- Conduct preliminary testing on COTS hardware, ensure products meeting cybersecurity needs						
- Conduct logical analysis of developed system requirements to ensure proper relationship between all derived requirements						
- Begin EMD system design and software development for core message processor, the HAC/RMPE adapter, and end user terminals						
- Continue Phase II of the Depot Source Repair (DSOR) Process						
- Begin tailoring cybersecurity controls and overlays to ensure RMF controls are incorporated into system design						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018
- Continue working towards completing Critical Design Review (CDR) FY 2019 Plans: - Continue software development of the core message processor, the HAC/RMPE adapter, and the end user terminal software - Continue EMD system design up to Critical Design Review (CDR) (ensure critical supportability aspects including materiel availability, reducing the logistics footprint, incorporating cybersecurity and program protection measures in the design) - Finalize system/subsystem specifications, interface control documents, software requirements specifications and drawing package - Complete CDR - Develop RFP for Missile Procedure Training contractors - Begin missile procedure trainer development FY 2018 to FY 2019 Increase/Decrease Statement: Funds for continuing EMD effort.			
Accomplishments/Planned Programs Subtotals		5.876	6.272
D. Other Program Funding Summary (\$ in Millions)			
Line Item	FY 2017	FY 2018	FY 2019 Base FY 2019 OCO FY 2019 Total
• OPAF 03 PE 0101316F: <i>Strategic Command and Control (833140)</i>	0.246	6.497	3.000 - 3.000
			FY 2020 FY 2021 FY 2022 FY 2023
			3.973 1.514 1.537 0.260
			Cost To Complete Continuing
			Total Cost Continuing
Remarks			
E. Acquisition Strategy			
Programmed funds continue to leverage technology development and architecture analysis conducted as part of MS B activities. Development activities transition to the 309 SMXG as the organic design agent.			
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 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0101316F / <i>Worldwide Joint Strategic Communications</i>						Project (Number/Name) 671820 / <i>Strategic Automated Command and Control System</i>			
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
SACCS-R TMRR	SS/CPFF	Northrop Grumman : Layton, UT	-	0.868	Sep 2017	0.200	Dec 2017	-		-		-	Continuing	Continuing	-
SACCS-R TMRR Organic	PO	OO-ALC : Hill AFB, UT	-	3.548	May 2017	3.783	Jan 2018	-		-		-	Continuing	Continuing	-
SACCS-R EMD Organic	PO	OO-ALC : Hill AFB, UT	-	-		-		6.200	Nov 2018	-		6.200	Continuing	Continuing	-
SACCS-R EMD	SS/TBD	Northrop Grumman : Layton, UT	-	-		-		1.043	Nov 2018	-		1.043	Continuing	Continuing	-
Subtotal			-	4.416		3.983		7.243		-		7.243	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
SACCS-R Engineering Development	Various	Various : Various	-	0.326	Dec 2017	-		0.829	Nov 2018	-		0.829	Continuing	Continuing	-
Subtotal			-	0.326		-		0.829		-		0.829	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
SACCS-R Development Test & Evaluation	Various	Various : Various	-	0.113	Dec 2017	-		0.627	Feb 2019	-		0.627	Continuing	Continuing	-
Subtotal			-	0.113		-		0.627		-		0.627	Continuing	Continuing	N/A

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Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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	
SACCS-R Program Management Administration	Various	Various : Various, NV	-	0.037	Apr 2017	2.289	Jan 2018	0.820	Nov 2018	-		0.820	Continuing	Continuing	-	
SACCS-R Integration Support	C/FFP	BAE Systems, Inc. : Hill AFB, UT	-	0.984	Feb 2017	-		0.923	Nov 2018	-		0.923	Continuing	Continuing	-	
Subtotal			-	1.021		2.289		1.743		-		1.743	Continuing	Continuing	N/A	

Remarks
 Costs and services in support of program office management and administration processes such as: program oversight, resource justification, budget and programming, milestone and scheduling--PMA costs.

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	5.876	6.272	10.442	-	10.442	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force			Date: February 2018		
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	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
<i>Strategic Automated Command and Control System</i>																												
SACCS-R Technology Maturation/Risk Reduction																												
SACCS-R PDR (Sep 2017)																												
SACCS-R Milestone B (Feb 2018)																												
SACCS-R Engineering and Manufacturing Development																												
SACCS-R CDR (Mar 2019)																												
SACCS-R Milestone C (Oct 2020)																												
SACCS-R Production and Deployment																												
SACCS-R Full Operational Capability (FOC)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force			Date: February 2018
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Strategic Automated Command and Control System</i>				
SACCS-R Technology Maturation/Risk Reduction	1	2017	1	2018
SACCS-R PDR (Sep 2017)	4	2017	4	2017
SACCS-R Milestone B (Feb 2018)	2	2018	2	2018
SACCS-R Engineering and Manufacturing Development	2	2018	4	2020
SACCS-R CDR (Mar 2019)	2	2019	2	2019
SACCS-R Milestone C (Oct 2020)	1	2021	1	2021
SACCS-R Production and Deployment	1	2021	3	2022
SACCS-R Full Operational Capability (FOC)	2	2022	2	2022