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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 0301112F I Nuclear Planning and Execution System (NPES)							
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	0.000	3.926	4.371	29.620	0.000	29.620	35.010	31.978	14.344	25.632	Continuing	Continuing
673768: Nuclear Planning and Execution System (NPES)	0.000	3.926	4.371	29.620	0.000	29.620	35.010	31.978	14.344	25.632	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

United States Strategic Command (USSTRATCOM) conducts global operations in partnership with other combatant commands, services and U.S. government agencies to deter and detect strategic attacks against the United States. USSTRATCOM is responsible for command of U.S. nuclear capabilities, space operations, global surveillance and reconnaissance, intelligence, communications, computers, global missile defense and combatting weapons of mass destruction. To enable completion of these missions, it is recapitalizing the Nuclear Planning and Execution System (NPES). NPES is a Chairman, Joint Chiefs of Staff system for nuclear operations and fulfillment of Nuclear Command and Control (NC2) responsibilities. NPES supports national strategic deterrence by providing a host of NC2 execution activities as well as contingency and crisis action planning capabilities to selected joint and combatant command staffs. NPES is operated by USSTRATCOM and other specified users performing missions to deter and dissuade threats, and, when directed, defeat adversaries.

The NPES system has evolved from several single-purpose command and control systems over the past 30 years and has reached a point where it requires recapitalization to meet national and strategic objectives and to comply with future concepts of operation. Additionally, recapitalization is needed to improve cybersecurity, system effectiveness, and supportability. Recapitalization will also seek to lower the total cost of ownership and sustainment. The recapitalization program will use proven/mature software engineering, technologies, and design tenets to provide a modern, secure, interoperable and reliable Nuclear Command and Control (NC2) software capability.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NPES 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 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
Previous President's Budget		4.060	4.371	17.043	0.000	17.043	
Current President's Budget		3.926	4.371	29.620	0.000	29.620	
Total Adjustments		-0.134	0.000	12.577	0.000	12.577	
• 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		0.000	0.000				
• SBIR/STTR Transfer		0.000	0.000				
• Other Adjustments		-0.134	0.000	12.577	0.000	12.577	
Change Summary Explanation							
Funding for FY19-23 was increased to accelerate the schedule and decrease overall program costs.							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2017	FY 2018	FY 2019
Title: Nuclear Planning and Execution System (NPES) Modernization					3.926	4.371	29.620
Description: - The NPES program will use proven and mature software engineering, technologies, and design tenets to provide a modern, secure, interoperable and reliable Nuclear Command and Control (NC2) capability for USSTRATCOM and other users as appropriate.							
- It will update and/or replace existing system software and improve reliability and sustainability.							
- It will also seek to reduce total ownership cost.							
FY 2018 Plans:							
Risk reduction activities will evaluate interface prototypes and source selection.							
- Evaluate graphical user interface prototype							
- Generate program milestone decision products and artifacts							
- Conduct technical studies and analyses in support of software design development							
FY 2019 Plans:							
-FY19 will be the first year of Development and Fielding (D&F).							

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C. Accomplishments/Planned Programs (\$ in Millions)							FY 2017	FY 2018	FY 2019		
-The NPES recap developer will be producing operational software code (Agile Development) based on a product backlog of requirements prioritized by the user's representative and participation by the NPES user community. The developer will produce Modular Open Systems Architecture (MOSA) software for early delivery to users. <i>FY 2018 to FY 2019 Increase/Decrease Statement:</i> Funding for FY19 was increased to accelerate NPES schedule.											
Accomplishments/Planned Programs Subtotals							3.926	4.371	29.620		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• OPAF 03 Line Item 833140: <i>Strategic Command and Control</i>	-	2.330	2.278	-	2.278	2.317	2.359	2.401	2.444	Continuing	Continuing
Remarks											
In FY18, PE 0303255F, Service Support to STRATCOM-C4, Project 833140, partial funding was transferred to PE 0301112F, Nuclear Planning and Execution (NPES), for better transparency.											
E. Acquisition Strategy											
NPES will develop, test, and field a renewed Nuclear Command and Control (NC2) capability for combatant commanders using an evolutionary (Spirals) acquisition approach with development contracts that are negotiated and awarded in a competitive environment. Additionally, select government agencies will be used to conduct relevant analyses and provide other required support.											
The Air Force Life Cycle Management Center at Hanscom AFB, (AFLCMC/HB) and the 55th CONS at Offutt AFB will be the contracting authorities for NPES and provide necessary program management, contracts, legal, and financial management support.											
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 0301112F / Nuclear Planning and Execution System (NPES)				Project (Number/Name) 673768 / Nuclear Planning and Execution System (NPES)					
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
Pre Milestone B Risk Reduction	Various	NSWCDD : Offutt AFB, NE	-	2.039	Nov 2016	1.445	Nov 2017	0.000		-		0.000	Continuing	Continuing	-
Primary Development	Various	NSWCDD : Offutt AFB, NE	-	-		-		24.115	Nov 2018	-		24.115	Continuing	Continuing	-
Development Suites & Infrastructure	C/TBD	NSWCDD : Offutt AFB, NE	-	-		-		2.000	Jun 2019	-		2.000	Continuing	Continuing	-
Subtotal			-	2.039		1.445		26.115		-		26.115	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
Technical Engineering Services	Various	Various : Offutt AFB, NE	-	0.981	Jan 2017	1.841	Jan 2018	2.000	Jan 2019	-		2.000	Continuing	Continuing	-
Subtotal			-	0.981		1.841		2.000		-		2.000	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
T&E	Various	Various : Offutt AFB, NE	-	-		0.054	Jul 2018	0.474	Nov 2018	-		0.474	Continuing	Continuing	-
Subtotal			-	-		0.054		0.474		-		0.474	Continuing	Continuing	N/A
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
Program Management Administration	Various	Various : Offutt AFB, NE	-	0.906	Jan 2017	1.031	Feb 2018	1.031	Feb 2019	-		1.031	Continuing	Continuing	-
Subtotal			-	0.906		1.031		1.031		-		1.031	Continuing	Continuing	N/A

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		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		-	3.926	4.371		29.620		-		29.620	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
NPES																												
Pre Milestone B Risk Reduction Analyses																												
Development SOW Release																												
Milestone B Decision (Sep 2018)																												
IOC Development and Test																												
FOC Development and Test																												
Post IOC Enhancements																												

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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
NPES				
Pre Milestone B Risk Reduction Analyses	1	2017	4	2018
Development SOW Release	2	2018	4	2018
Milestone B Decision (Sep 2018)	4	2018	4	2018
IOC Development and Test	1	2019	4	2020
FOC Development and Test	2	2021	3	2021
Post IOC Enhancements	4	2021	3	2022