

ARCHIVED REPORT

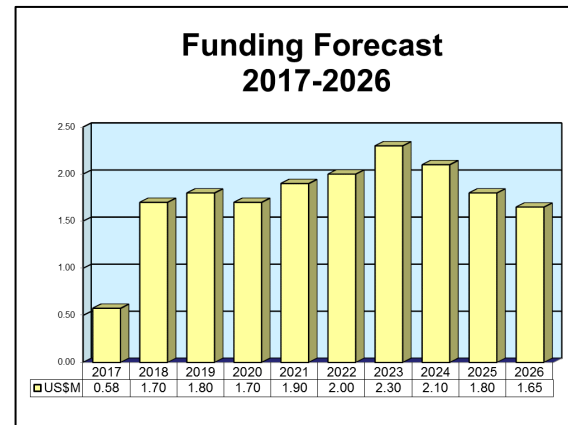
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National Military Command System (NMCS)

Outlook

- Renewed upward spending in FY18 budget for NMCS
- Funding is expected to peak in 2023
- Forecast International estimates that the U.S. DISA will spend about \$17.53 million on the NMCS Command Center Engineering project and R&D activities over the next decade



Orientation

Description. The National Military Command System (NMCS) program is a research and development effort of the U.S. Department of Defense. The U.S. Defense Information Systems Agency (DISA) manages the NMCS program, which provides command and control capabilities to both the National Command Authorities and the Joint Chiefs of Staff.

Sponsor

U.S. Department of Defense
Defense Information Systems Agency
Washington, DC
(Overall program management)

Status. Ongoing research and development.

Application. Command and control.

Contractors

Contractor(s) not selected or not disclosed.

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

National Military Command System (NMCS)

Technical Data

The National Military Command System (NMCS), operated by the chairman of the Joint Chiefs of Staff, provides the president, the secretary of defense, and other national senior leaders with the ability to maintain situational and operational awareness and command and control of military forces in all crisis and/or national emergency contingencies.

PE#0302016K, National Military Command System, funds all NMCS research and development activities. This program element currently consists of one project: Project S32 - NMCS Command Center Engineering. The NMCS Engineering project provides engineering solutions to help ensure that components and facilities satisfy operational requirements, including emergency messaging, situational awareness, crisis action, and information management.

More specifically, the NMCS Engineering project focuses on the implementation of collaborative tools in crisis operations areas; the integration of backup storage and the recovery of voice, video, and data across the continental United States to support key leaders; and the transition of nuclear command and control to Internet Protocol-based networks. Project work also focuses on the migration of data and voice networks to next-generation satellites, the implementation of modern cryptological devices, and the utilization of wireless networking to support warning systems and situational awareness. In addition, the NMCS Engineering project continues to develop engineering and test plans toward the installation of hardware and software systems.

National Military Command System (NMCS)



NMCS is a U.S. DISA Program

Source: U.S. DISA

National Military Command System (NMCS)

Program Review

Project S32 executed the initial fielding of the NMCS IRM portal and Master Reference Guide in FY05-FY06. After initial fielding, the project continued design work on the NMCS IRM portal and the guide.

During the same timeframe, Project S32 conducted technical insertion evaluations that carried out engineering analyses toward NMCS component system modernization under the SRIP. It also provided configuration management for NMCS facilities.

IN FY07, Project S32 continued design of the NMCS IRM portal (adding a NIPRNet portal to the already existing SIPRNet portal); performed technical insertion evaluations and engineering analyses, along with the design of NMCS component system upgrades under the SRIP; and engaged in configuration management of NMCS facilities. These activities continued through FY13.

In FY09, Project S32 performed the following NMCS activities: engineering concept development, requirements definition and calibration, technical specifications development, and proof-of-concept demonstrations.

Also in FY09, Project S32 evaluated and/or upgraded the following NMCS: the Missile Warning System, the Enhanced Pentagon Capability configurations at three sites, and the UHF Emergency Network installation at Site R.

In FY10, Project S32 provided the NMCS command centers with the ability to monitor air traffic across the entire North American continent. In addition, the project modernized the cryptologic architectures used in NMCS per the direction of the National Security Agency. In FY11, Project S32 installed and tested new radios and antennas for the Ultra-High-Frequency Emergency Network system.

In FY12, Project S32 continued making upgrades to the Super High-Frequency communications network. The project also worked on installing the modernized Enhanced Pentagon Capability (EPC) switch architecture. In FY13, Project S32 worked on maintaining the Primary Command Center (PCC) Toolkit Expansion database and the analytic tools that accompany it. In addition, the project conducted technical evaluations toward implementing Nuclear Command and Control (NC2) over Internet Protocol (IP).

In FY14, Project S32 continued to maintain the PCC Toolkit. The project also worked on implementing a new missile warning system across the Primary Command Centers. In FY15, Project S32 continued to maintain the PCC Toolkit. The project also worked on modernizing and integrating NMCS capabilities (e.g., transmission platforms, data interfaces, security, and graphical user interfaces).

In FY16, Project S32 continued to maintain the NMCS Reference Guide and the PCC Toolkit to help ensure expanded collaboration and information sharing. The project also continued providing technical evaluations and strategies for implementing "Nuclear Command and Control over IP into other National Leadership Command Capability (NLCC)-enabling programs."

In FY17, Project S32 continued to focus on improving collaborative services and integrating new transport mediums that facilitate C3 services. In FY18, Project S32 is expected to focus on improving collaborative services and integrating new transport mediums that facilitate C3 services. The project will also integrate applicable parts of the NMCS project into the NLCC portfolio.

National Military Command System (NMCS)

Funding

		U.S. FUNDING					
		FY16	FY16	FY17	FY17	FY18	FY18
		<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>
RDT&E (U.S. DISA)							
PE#0302016K, NMCS		-	094	-	0.58	-	1.86
		FY19	FY19	FY20	FY20	FY21	FY21
		<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>	<u>QTY</u>	<u>AMT</u>
RDT&E (U.S. DISA)							
PE#0302016K, NMCS		-	1.82	-	1.86	-	1.87

All \$ are in millions.

Source: U.S. Defense Information Systems Agency FY17 RDT&E budget document

Contracts/Orders & Options

No contract information regarding the National Military Command System program has been disclosed.

Timetable

<u>Year</u>	<u>Major Development</u>
1960	Concept and advanced planning
1964	Interim NMCS operational
1965	Enlarged NMCS operational
1967	Installation of NEACP VLF/LF ADP equipment
1971	National Military Command Center (NMCC) ADP upgraded
1974	First Advanced Airborne National Command Post aircraft delivered
1984	HEMP improvements developed
1990	Worldwide threats in relation to NMCS re-evaluated
FY95	Start of transition of old NMCC C2 to new NMCC
FY96	Joint Take Force workstation prototype enhancements
FY97	Complete engineering for transition to new NMCC
FY98	Examination of U.S./Israeli ABL/THEL programs
FY99	Project Z60 Support to Defense Support Activity disestablished
FY00	Migration of NMCS to DII COE
FY01	Project S32 conducts NMCC technical insertion evaluations
FY03	Project S32 designs the NMCS IRM portal
FY04	Project S32 designs the NMCS Master Reference Guide
FY05	Project S32 executes initial fielding of NMCS IRM portal and Master Reference Guide
FY06	Project S32 continues fielding the NMCS IRM portal and Master Reference Guide
FY07	Project S32 provides configuration management for NMCS and facilities
FY08	Project S32 continues designing NMCS IRM portal
FY09	Project S32 provides engineering concept development for NMCS
FY10	Project S32 modernizes NMCS cryptologic architectures
FY11	Project S32 installs and tests new radios and antennas for the Ultra-High-Frequency Emergency Network system
FY12	Project S32 continues upgrading the Super High-Frequency communications network
FY13-16	Project S32 works on maintaining the PCC Toolkit
FY17	Project S32 focuses on the improvement of collaborative services and the integration of new transport mediums that facilitate C3 services
FY18	Project S32 will focus on the improvement of collaborative services, and the integration of new transport mediums that facilitate C3 services

National Military Command System (NMCS)

Worldwide Distribution/Inventories

The NMCS is a U.S. Department of Defense program.

Forecast Rationale

The National Military Command System (NMCS) program is a research and development effort of the U.S. Department of Defense.

The NMCS provides command and control capabilities to both the National Command Authorities and the Joint Chiefs of Staff. The U.S. Defense Information Systems Agency (DISA) manages the NMCS program.

Forecast International estimates that DISA will spend over \$9 million on its NMCS program over the next

10-plus years. Spending on the NMCS program is being propelled by the Pentagon's desire to continually modernize the command and control capabilities of the NMCS.

According to FY18 budget documents, planned funding for the NMCS will be slightly higher than it was for FY17. This may indicate some new interest in the program. Forecast International expects program funding to be relatively sparse in the beginning of the decade and to peak later in the decade.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR RDT&E FUNDING (in millions US\$)												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
MFR Varies												
NATIONAL MILITARY COMMAND SYSTEM Military <> United States <> Department of Defense												
	200.37	.58	1.70	1.80	1.70	1.90	2.00	2.30	2.10	1.80	1.65	17.53
Total	200.37	.58	1.70	1.80	1.70	1.90	2.00	2.30	2.10	1.80	1.65	17.53