



Department of Defense **INSTRUCTION**

NUMBER 3741.01

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Incorporating Change 1, Effective July 15, 2020

DoD CIO

SUBJECT: National Leadership Command Capabilities (NLCC) Configuration Management (CM)

References: See Enclosure 1

1. **PURPOSE.** In accordance with the guidance in DoD Instruction (DoDI) 5025.01 (Reference (a)) and the authority in DoD Directive (DoDD) 5144.02 (Reference (b)), this instruction:

- a. Establishes policy and assigns responsibilities for oversight and management of NLCC configuration reporting and management.
- b. Provides direction to DoD program and functional managers responsible for management of configuration items (CIs) that support national and nuclear command capabilities constituting NLCC systems in accordance with DoDD S-3710.01 (Reference (c)).
- c. Directs CM and reporting for specialized NLCC systems that provide capabilities required to enable national leaders to perform duties and responsibilities in support of declared national essential functions and DoD's primary mission-essential functions as specified in National Security Presidential Directive-51/Homeland Security Presidential Directive-20 (Reference (d)) and in the National Communications Systems Directive 3-10 (Reference (e)).
- d. Provides for improved capability management and development decisions, helping DoD to:
 - (1) Verify the integration of operations, functions, desired capabilities, and engineering in support of Reference (c).
 - (2) Support acquisition of new capabilities that will provide a sustained basis for integrated engineering, modernization, and technology insertion.
 - (3) Adhere to standard architecture development methodologies to ensure interoperability and community understanding.

(4) Develop a baseline systems configuration data repository supported by the NLCC Enterprise Model and establish update requirements.

(5) Review and validate configuration changes and new capability requirements.

2. APPLICABILITY. This instruction applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (referred to collectively in this instruction as the “DoD Components”).

3. POLICY. It is DoD policy that:

a. CM principles and processes will be exercised at all levels of DoD, including the DoD Components’ interaction with industry, and extended to other federal departments and agencies as directed by the President of the United States, based on each stage of the CI life cycle to include requirements, acquisition, programming and budgeting, sustainment, and item disposal for NLCC-related programs of record.

b. The National Leadership Command Capabilities Configuration Management (NLCC CM) function will identify, document, audit, and control the functional and physical characteristics of the system design; track any changes; and provide an audit trail of program design decisions and design modifications.

c. CM of NLCC systems is a mandatory control and management function of DoD Component systems engineering responsibilities as directed in DoDI 5000.02T (Reference (f)).

d. NLCC configuration item data will be made available and accessible, in accordance with classification, compartmentalization, or special handling requirements, in a format compatible with the NLCC Enterprise Model.

e. The National Leadership Command Capabilities Executive Management Board (NLCC EMB) is the principal functional oversight and decision-making forum to address NLCC CM issues and improvements in accordance with Reference (c), DoDD 5105.79 (Reference (g)), and DoDI S-5100.92 (Reference (h)).

4. RESPONSIBILITIES. See Enclosure 2.

5. PROCEDURES. See Enclosure 3.

6. INFORMATION COLLECTION REQUIREMENTS. The National Military Command System (NMCS)-unique CM data provided to the NLCC configuration manager referred to in section 9 of Enclosure 2 of this instruction is exempt from licensing requirements in accordance with Paragraph 4 of Volume 1 of DoD Manual 8910.01 (Reference (i)).

7. RELEASABILITY. **Cleared for public release.** This instruction is available on the Directives Division Website at <https://www.esd.whs.mil/DD/>.

8. SUMMARY OF CHANGE 1. The change to this issuance updates references and organizational titles and removes expiration language in accordance with current Chief Management Officer of the Department of Defense direction.

9. EFFECTIVE DATE. This instruction is effective May 1, 2013.



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DoD Chief Information Officer

Enclosures:

1. Responsibilities
2. Procedures

Glossary

ENCLOSURE 1

REFERENCES

- (a) DoD Instruction 5025.01, "DoD Issuances Program," August 1, 2016, as amended
- (b) DoD Directive 5144.02, "DoD Chief Information Officer (DoD CIO)," November 21, 2014, as amended
- (c) DoD Directive S-3710.01, "(U) National Leadership Command Capability (NLCC)," May 27, 2015
- (d) National Security Presidential Directive 51/ Homeland Security Presidential Directive 20, "National Continuity Policy," May 9, 2007¹
- (e) National Communications System Directive 3-10, (NCSD 3-10)(Revision 1), "(U) Minimum Requirements for Continuity Communications Capabilities," November 7, 2011²
- (f) DoD Instruction 5000.02T, "Operation of the Defense Acquisition System," January 7, 2015, as amended
- (g) DoD Directive 5105.79, "DoD Senior Governance Councils," May 19, 2008
- (h) DoD Instruction S-5100.92, "Defense and National Leadership Command Capability (DNLCC) Governance (U)," May 12, 2009
- (i) DoD Manual 8910.01, Volume 1, "DoD Information Collections Manual: Procedures for DoD Internal Information Collections," June 30, 2014, as amended
- (j) DoD Manual 5200.01, "DoD Information Security Program," February 24, 2012, as amended
- (k) DoD Instruction 5200.48, "Controlled Unclassified Information (CUI)," March 6, 2020
- (l) DoD Instruction 8500.01, "Cybersecurity," March 14, 2014, as amended
- (m) DoD Military Handbook 61A(SE), "Military Handbook Configuration Management Guidance," February 7, 2001

¹<http://georgewbush-whitehouse.archives.gov/news/releases/2007/05/20070509-12.html>

² Authorized individuals can contact Office of the DoD Chief Information Officer at 6000 Defense Pentagon, Room 3B1056 (NLCC), Washington, D.C., 20301-6000 for a copy.

ENCLOSURE 2

RESPONSIBILITIES

1. DoD CHIEF INFORMATION OFFICER (CIO). The DoD CIO:

- a. Oversees the NLCC CM process under the auspices of the NLCC EMB to ensure proper reporting, management, and compliance.
- b. Provides NLCC CM functional oversight, guidance, direction, and management through the National Leadership Command Capability Management Office (NMO).
- c. Ensures validated configuration data is available to support NLCC portfolio management, enterprise architecture development and management, modeling and simulation, and life-cycle program and budget decisions by issuing appropriate guidance and direction.
- d. Oversees the NLCC CM of DoD programs and systems that interface and integrate with other federal departments and agencies, as appropriate.
- e. Ensures the appropriate information assurance measures, consistent with the information security requirements specified in DoD Manual 5200.01 and DoDI 5200.48 (References (j and k)), and in accordance with DoDI 8500.01 (Reference (l)), are in place to protect the aggregation of sensitive NLCC data and oversee DoD Component implementation of those measures.
- f. Establishes and provides guidance for continued development and maintenance of the NLCC Enterprise Model.
- g. Develops organizational relationships and procedures with the White House Military Office to ensure DoD CIO awareness of CM information for Presidential mission systems provided to support the White House Military Office elements.
- h. Develops memorandums of agreement or memorandums of understanding with other federal departments and agencies as appropriate.

2. DIRECTOR, DEFENSE INFORMATION SYSTEMS AGENCY (DISA). Under the authority, direction, and control of the DoD CIO and in addition to the responsibilities in section 8 of this enclosure, the Director, DISA:

- a. Serves as the NLCC Configuration Manager.
- b. Establishes a chartered NLCC CM process to collect and manage configuration changes of NLCC configuration items and raise issues through the NLCC EMB structure as necessary or as directed by the DoD CIO.

c. Manages and maintains the NLCC CM process.

(1) Reviews existing, internal DISA Configuration Management Board processes affecting NLCC-specific systems for consolidation for efficiency and focus.

(2) Establishes a National Leadership Command Capabilities Configuration Control Board (NLCC CCB) process, in coordination with other DoD Components, as appropriate.

(3) Develops and implements a CM process for NLCC programs and systems that interface and integrate with other federal departments and agencies, as appropriate.

d. Works closely with the Chairman of the Joint Chiefs of Staff's NMCS-related working groups and other NLCC-focused forums to collect configuration item data relevant to the NMCS.

e. In coordination with the heads of other DoD Components and in consultation with the heads of other federal departments and agencies, as appropriate, develops and maintains an overarching NLCC CM plan, system interface agreements, memorandums of agreement, and related documentation.

(1) In coordination with the DoD Component heads, provides management guidance on NLCC data standardization and management, data interfaces, data structure, and data requirements.

(2) Provides the processes and procedures for NLCC CM data sharing, retrieval, and maintenance for all NLCC systems to the configuration item level.

f. Develops and validates CM procedures to capture, document, and coordinate an enterprise NLCC baseline CI inventory and make it accessible to program and functional managers.

g. In coordination with the DoD Component configuration managers, provides an initial baseline configuration report for all NLCC systems to the NLCC EMB within 60 calendar days of its completion and an updated baseline configuration report in the second quarter of each fiscal year thereafter.

h. Provides qualified personnel to review all proposed NLCC CM changes for integrity, interoperability, and suitability prior to presentation to the NLCC EMB.

i. In coordination with the other DoD Component heads, develops and maintains a consolidated CM State Summary to provide NLCC situational awareness to the DoD CIO and the NLCC EMB.

j. Assesses, reviews, and makes recommendations to the DoD CIO regarding the interoperability, compatibility, and standardization of NLCC capabilities in accordance with approved requirements.

k. In coordination with the DoD CIO and the Chairman of the Joint Chiefs of Staff, identifies and addresses cross-platform and system configuration issues and optimizes technical performance criteria across platforms and systems.

l. In coordination with the DoD CIO, develops, maintains, and manages the NLCC Enterprise Model and works with the other DoD Components to establish automated, domain-specific data access and retrieval for CM data.

m. In coordination with the other DoD Component heads and the DoD CIO, reviews all proposed requirements for new NLCC capabilities and ensure that configuration items are correctly specified and tracked throughout their life cycle.

3. UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS (USD(AT&L)). In coordination with the DoD CIO, the Under Secretary of Defense for Policy (USD(P)), the Chairman of the Joint Chiefs of Staff, and the Director, DISA, as appropriate, the USD(AT&L):

a. Supports development of CM policy, as part of the systems engineering process, to ensure interoperability, survivability, endurance, reliability, supportability, and maintainability of NLCC systems designated as critical as defined in Reference (c).

b. Ensures that NLCC-related system program managers coordinate with the NLCC Configuration Manager before starting new developments.

c. Briefs the NLCC EMB, through the NLCC SSG, before initiating major development, modifications, and upgrades to NLCC-related systems.

4. UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS (USD(P&R)). In coordination with the DoD CIO, the USD(P&R) works with the NLCC Configuration Manager and facilitates the exchange of Defense Readiness and Reporting System data with the NLCC Enterprise Model.

5. UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE AND SECURITY (USD(I&S)). In coordination with the DoD CIO; the Director, DISA; the Secretaries of the Military Departments; and, as appropriate, the Director of National Intelligence (DNI), the USD(I&S):

a. Makes CM information, related to intelligence, surveillance, and reconnaissance platforms and sensors that support NLCC, accessible to the NLCC Configuration Manager.

b. Coordinates development, modifications, and updates to NLCC or associated systems and informs the NLCC Configuration Manager of these efforts prior to starting development, modifications, and upgrades to the systems.

c. Provides informational and decision briefings to the NLCC SSG and NLCC EMB for their review and concurrence in a timely manner before starting major developments, modifications, and upgrades to NLCC systems.

6. DIRECTOR, NATIONAL SECURITY AGENCY/CHIEF, CENTRAL SECURITY SERVICE (DIRNSA/CHCSS). Under the authority, direction, and control of the USD(I&S), in addition to the responsibilities in section 8 of this enclosure and in coordination with the DoD CIO, the USD(P), the Chairman of the Joint Chiefs of Staff, the other DoD Component heads, the Director, DISA, and, as appropriate, the DNI, the DIRNSA/CHCSS:

a. Develops the requirements and standards for an NLCC controlled interface framework and provides the NLCC Configuration Manager with appropriate standards and performance metrics for hardware, software, unique services, etc., to ensure interoperability, integrity, and security assurance for the controlled interface framework.

b. Develops a robust cryptographic modernization data capture and management capability to help ensure NLCC cryptographic hardware and software items meet demanding and dynamic sustainment and modernization requirements.

c. Ensures the cryptographic modernization database will be available to the NLCC Enterprise Model to track all NLCC-related systems and capabilities.

7. ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE AND GLOBAL SECURITY (ASD(HD&GS)). Under the authority, direction, and control of the USD(P), in coordination with the DoD CIO, the DoD Component heads, and the Director, DISA, and in addition to the responsibilities in section 8 of this enclosure, the ASD(HD&GS) identifies appropriate configuration requirements that support the defense support of civil authorities and continuity mission areas.

8. DoD COMPONENT HEADS AND THE ASD(HD&GS). The DoD Component heads and the ASD(HD&GS):

a. Direct program managers and functional item managers to use a common CM approach to establish and control product attributes and technical baselines across the total system life cycle in accordance with Reference (f).

b. Direct program managers to identify, document, audit, and control the functional and physical characteristics of the system designs; track any changes; and provide an audit trail of program design decisions and design modifications in accordance with Reference (f).

c. Coordinate with the NLCC Configuration Manager for CM reporting requirements for any mission platform, system, application, or communications activity that performs functions specific to NLCC or affects NLCC interoperability and functionality.

d. Require program managers and functional item managers to identify configuration item databases pertinent to NLCC systems and make those databases accessible to the NLCC Configuration Manager for either automated data capture or direct report.

e. Ensure that all new or extant industry contracts include provisions that require the contractor to provide U.S. Government access to all contractor-managed CM data pertinent to NLCC systems or that impact NLCC interoperability and functionality.

f. Review all proposed CM changes, specific to their functional areas of responsibility, that have an impact on NLCC interoperability and functionality.

g. Review NLCC system configuration database accuracy at least annually in each fiscal year second quarter and report any discrepancies immediately to the NLCC Configuration Manager.

h. Participate in the NLCC CCB process to be established and chaired by the Director, DISA, as the NLCC Configuration Manager.

9. CHAIRMAN OF THE JOINT CHIEFS OF STAFF. In coordination with the DoD CIO, the Director, DISA, and the Secretaries of the Military Departments and in addition to the responsibilities in section 8 of this enclosure, the Chairman of the Joint Chiefs of Staff provides NMCS-unique CM data to the NLCC Configuration Manager and reports chronic readiness issues that affect NLCC to the NLCC EMB in accordance with Reference (h).

10. COMMANDER, UNITED STATES ELEMENT NORAD (CDRUSELMNORAD /COMMANDER, UNITED STATES NORTHERN COMMAND (CDRUSNORTHCOM)). In coordination with the Director, DISA, and the other DoD Component heads and in addition to the responsibilities in section 8 of this enclosure, the CDRUSELMNORAD /CDRUSNORTHCOM identifies appropriate configuration items that support defense support of civil authorities, continuity, and national security and emergency preparedness systems.

11. COMMANDER, UNITED STATES STRATEGIC COMMAND (CDRUSSTRATCOM). In coordination with CDRUSNORTHCOM, the Director, DISA, and the other DoD Component heads and in addition to the responsibilities in section 8 of this enclosure, the

CDRUSSTRATCOM identifies appropriate configuration items that support the NLCC mission, including nuclear, integrated tactical warning and attack assessment systems and capabilities, global strike, cyber, integrated missile defense, and elements of DoD continuity capabilities, working with the appropriate Joint Functional Component Commander, where appropriate.

12. COMMANDER, UNITED STATES CYBER COMMAND (CDRUSCYBERCOM). Under the authority, direction, and control of the CDRUSSTRATCOM and in addition to the responsibilities in section 8 of this enclosure, the CDRUSCYBERCOM:

a. Coordinates with the DoD CIO, the Director, DISA, and other NLCC-supporting components to provide architecture and systems assessment capability relative to configuration and vulnerability management information to be used in a data strategy model for all systems that support the NLCC.

b. Provides timely and accurate monitoring of NLCC systems to identify and track changes made to the NLCC architecture to ensure baseline measures are maintained at precise and discernable levels.

c. In coordination with all NLCC-supporting organizations, publishes and maintains situational awareness of NLCC readiness levels relative to ongoing CM efforts supporting the national leadership required capabilities.

13. COMMANDER, UNITED STATES TRANSPORTATION COMMAND (CDRUSTRANSCOM). In coordination with the Director, DISA, and the other DoD Component heads and in addition to the responsibilities in section 8 of this enclosure, the CDRUSTRANSCOM identifies appropriate configuration items to support mission support systems and functions necessary for continuity and very important person special airlift mission aircraft that support national senior leaders.

ENCLOSURE 3

PROCEDURES

1. NLCC CM PROCESS

a. This instruction is not intended to prescribe or change the current standards on CM, but articulates a process by which NLCC systems will benefit from closer adherence to CM principles and accepted practices. Program managers will use a CM approach in accordance with Reference (f).

b. The NLCC CM process identifies and documents the physical and functional characteristics of NLCC structures, systems, networks, items, and components and ensures that changes to these characteristics are properly analyzed, developed, approved, implemented, verified, and recorded.

c. The NLCC CM process addresses NLCC CM activities applicable to all phases, including item planning, process implementation, performance measurement, and retirement.

d. NLCC CM consists of, at a minimum, four primary CM activities as contained in DoD Military Handbook 61A(SE) (Reference (m)):

(1) Configuration Identification. Provides the foundation for all other CM activities by providing approved configuration documentation for functional and physical characteristics.

(2) Configuration Control. Manages the change environment for NLCC supporting systems and ensures only approved changes are implemented.

(3) Configuration Status Accounting. Provides visibility into the status and configuration derived from the other CM activities.

(4) Configuration Verification and Audit. Validation activity that verifies the documentation set that establishes confidence in the product baseline.

e. NLCC CM also includes consideration of:

(1) Documents that define the performance, functional, and physical attributes of an NLCC configuration item as well as other documents used for training, operation, and maintenance of an NLCC configuration item.

(2) Associated and interfacing items used for training, operation, or maintenance of an NLCC configuration item.

(3) Data management, particularly the management of digital data, which is an essential prerequisite to the performance of CM. CM data management tools and methods and resources necessary to support change management (including change audit trail data), configuration status accounting, and archival storage and retrieval of CIs are important functions of the NLCC Enterprise Model and toolset.

f. The NLCC CM process seeks to ensure that:

(1) The configuration of the NLCC system is documented.

(2) Changes made to the item in the course of development, production, and operation, are beneficial and are effected without adverse consequences.

(3) Changes are managed until incorporated in all affected items.

2. NLCC CCB. The NLCC CCB will:

a. Be composed of operational, technical, and programmatic representatives who approve or disapprove proposed engineering changes to, or deviations from, the approved configuration baseline of a product.

b. Ensure that NLCC hardware, software, and firmware remain current; that the costs for change are appropriate and controlled; and that the NLCC is responsive to the needs of the stakeholders.

3. NLCC CM GOVERNANCE. The NLCC EMB structure, including the EMB SSG and subordinate working groups, will provide oversight and governance of the NLCC CM process to:

a. Review, prioritize, and approve DoD-supported NLCC user technical and performance standards and requirements.

b. Monitor the functional status of NLCC platforms, systems, and infrastructure.

c. Coordinate and monitor corrective actions and ensure interoperability and configuration control of NLCC platforms, systems, and capabilities and compliance with established technical and performance standards.

d. Review, track, and approve long-range modernization plans and ensure that CM is being addressed appropriately.

e. Review and track NLCC resources and resource requirements and provide programmatic recommendations to evolving capability development initiatives.

4. NLCC ENTERPRISE MODEL. The NLCC Enterprise Model is a process that contains and manages all of the architectural and configuration data for the NLCC.

a. NLCC systems and their relationships for both the as-is and to-be baselines will be controlled in the same integrated architecture.

b. The NLCC Enterprise Model will be used to create a common enterprise environment to develop and coordinate architectures, models, simulations, and common standards, and to perform advanced business functions based on authoritative data.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

ASD(HD&GS)	Assistant Secretary of Defense for Homeland Defense and Global Security
CDRUSNORTHCOM	Commander, United States Northern Command
CDRUSCYBERCOM	Commander, United States Cyber Command
CDRUSELMNORAD	Commander, United States Element NORAD
CDRUSSTRATCOM	Commander, United States Strategic Command
CDRUSTRANSCOM	Commander, United States Transportation Command
CI	configuration item
CIO	Chief Information Officer
CM	configuration management
DIRNSA/CHCSS	Director, National Security Agency/Chief, Central Security Service
DISA	Defense Information Systems Agency
DNI	Director of National Intelligence
DoDD	DoD directive
DoDI	DoD instruction
NLCC	National Leadership Command Capabilities
NLCC CCB	National Leadership Command Capabilities Configuration Control Board
NLCC CM	National Leadership Command Capabilities Configuration Management
NLCC EMB	National Leadership Command Capabilities Executive Management Board
NLCC SSG	National Leadership Command Capabilities Senior Steering Group
NMCS	National Military Command System
NMO	National Leadership Command Capability Management Office

USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USD(I&S)	Under Secretary of Defense for Intelligence and Security
USD(P)	Under Secretary of Defense for Policy
USD(P&R)	Under Secretary of Defense for Personnel and Readiness

PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purposes of this instruction.

CI. Defined in Reference (m).

CM. Defined in Reference (m).

configuration. Defined in Reference (m).

configuration audit. Defined in Reference (m).

configuration baseline (baseline). Defined in Reference (m).

configuration control. Defined in Reference (m).

configuration control board. Defined in Reference (m).

configuration documentation. Defined in Reference (m).

configuration identification. Defined in Reference (m).

continuity. An uninterrupted ability to provide services and support, while maintaining organizational viability, before, during, and after an event.

critical NLCC systems. Classified definition contained in Reference (c).

deviation. Defined in Reference (m).

national leadership. When directed to provide DoD command capability support, national leadership includes, but is not limited to, the President of the United States, Vice President of the United States, Secretary of Defense, Secretary of State, Secretary of Homeland Security, Director of National Intelligence, Secretary of the Treasury, Attorney General, Deputy Secretary of Defense, Chairman of the Joint Chiefs of Staff, Combatant Commanders, and leadership's immediate senior advisors, as appropriate; and select other federal departments and agencies when providing continuity of government communications.

NLCC. A capability encompassing the entirety of the DoD command, control, communications, computer, intelligence, surveillance, and reconnaissance systems and services that provides national leadership, regardless of location and environment, with diverse and assured access to integrated, accurate, and timely data, information, intelligence, communications, services, situational awareness, and warnings and indications from which planning and decision-making activities can be initiated, executed, and monitored. This capability includes appropriate interagency contributions as agreed to.

NLCC EMB. A board established as a functional oversight committee responsible for vetting issues pertaining to the NLCC to one of DoD's senior Governance Councils, the Deputy's Management Advisory Group. The DoD CIO-chaired NLCC EMB is to provide advocacy, policy, guidance, direction, and oversight to ensure that the NLCC provides the information integration and robust national and nuclear command, control, and communications capabilities required by DoD and national leaders regardless of location or environment.

NLCC systems. Defined in Reference (c).

NMO. An office that provides oversight and management of the DoD nuclear command and control capability and to support Defense and other national senior leaders and decision makers with a measurable improvement in command, collaboration, coordination, and communications capabilities regardless of location, mode of transportation, or environment.