



The Honorable Thad Cochran
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Pursuant to section 1052 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66), enclosed is the Annual Report on the Activities of the Council on Oversight of the National Leadership Command, Control, and Communications System (NLC3S).

The report from the Council on Oversight of the NLC3S captures the Council's actions in 2016 and the activities it proposes to undertake during Future Years Defense Program 2018–2022. Based on Council actions during the last year, we have continued to allocate significant additional resources toward addressing NLC3S gaps and deficiencies. The NC3 enterprise remains capable of fulfilling current operational requirements. However, risk to the NC3 enterprise is rapidly increasing. Continued budgetary support is required to modernize aging systems and architecture to ensure the enterprise remains safe, secure, and reliable.

We appreciate your continued concern for our men and women in uniform. An identical letter is being sent to the other congressional defense committees.

A handwritten signature in black ink, appearing to read "P. Selva", is positioned above the typed name.

Paul J. Selva
General, U.S. Air Force
Vice Chairman of the Joint Chiefs of Staff

A handwritten signature in black ink, appearing to read "E. Lord", is positioned above the typed name.

Ellen M. Lord
Under Secretary of Defense
for Acquisition, Technology,
and Logistics

Enclosure:
As stated

cc:
The Honorable Patrick J. Leahy
Ranking Member



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The Honorable William M. "Mac" Thornberry
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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Ellen M. Lord
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Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member

~~UNCLASSIFIED When Separated From Classified Enclosure~~
~~SECRET//NOFORN~~



The Honorable Rodney P. Frelinghuysen
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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Vice Chairman of the Joint Chiefs of Staff

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Ellen M. Lord
Under Secretary of Defense
for Acquisition, Technology,
and Logistics

Enclosure:
As stated

cc:
The Honorable Nita M. Lowey
Ranking Member



The Honorable John McCain
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

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Ellen M. Lord
Under Secretary of Defense
for Acquisition, Technology,
and Logistics

Enclosure:
As stated

cc:
The Honorable Jack Reed
Ranking Member

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Department of Defense

(U) Annual Report to Congress on the Activities of the Council on Oversight of the National Leadership Command, Control, and Communications System



The estimated cost of this report or study for the Department of Defense (DoD) is approximately \$23,000 in fiscal years 2016–2017. This includes \$17,000 in expenses and \$6,750 in DoD labor.
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Report to the Congressional Defense Committees
as Required by H.R. 3304, Public Law 113-66

~~Derived From Multiple Sources~~
~~Declassify On: 6 April 2042~~

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(U) INTRODUCTION

(U) The "National Defense Authorization Act (NDAA) for Fiscal Year 2014, H.R. 3304, Public Law 113-66," in section 1052, amends Chapter 7 of title 10, United States Code, to add section 171a. This new section establishes within the Department of Defense a "Council on Oversight of the National Leadership Command, Control, and Communications System" (NLC3S). NDAA section 1052 also requires (as amended by NDAA for Fiscal Year 2017) that "During the period preceding January 31, 2021, at the same time each year that the budget of the President is submitted to Congress pursuant to section 1105(a) of title 31, and from time to time after such period at the discretion of the Council, the Council shall submit to the congressional defense committees a report on the activities of the Council. Each report shall include the following:

- (1) (U) A description and assessment of the activities of the Council during the previous fiscal year.*
- (2) (U) A description of the activities proposed to be undertaken by the Council during the period covered by the current future-years defense program under section 221 of this title.*
- (3) (U) Any changes to the requirements of the command, control, and communications system for the national leadership of the United States made during the previous year, along with an explanation for why the changes were made and a description of the effects of the changes to the capability of the system.*
- (4) (U) A breakdown of each program element in such budget that relates to the system, including how such program element relates to the operation and sustainment, research and development, procurement, or other activity of the system."*
- (5) (U) An assessment of the readiness of the command, control, and communications system for the national leadership of the United States and of each layer of the system, as that relates to nuclear command, control, and communications.*

(U) The Department submits the following report in response to that request.

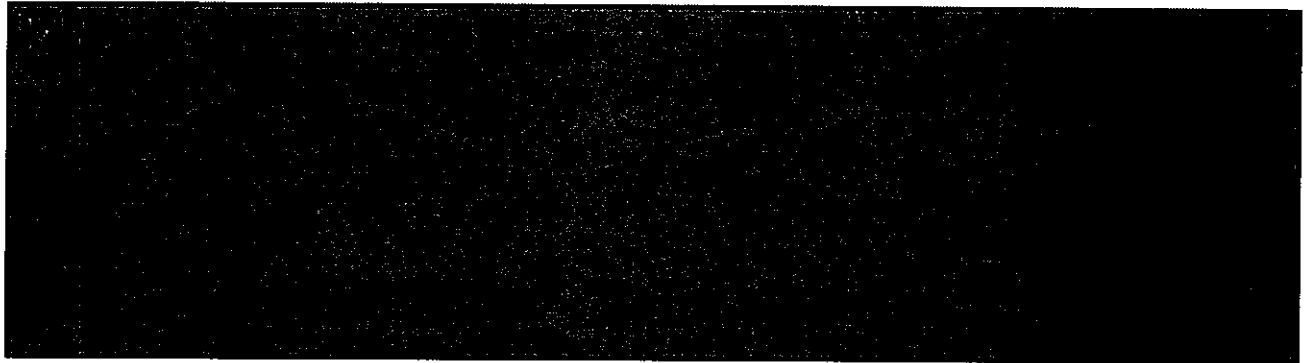
I. (U) ACTIVITIES OF THE COUNCIL DURING CALENDAR YEAR (CY) 2016

A. (U) GENERAL. In CY 2016, the Council convened five in-person/video teleconference meetings in performance of specified NLC3S¹ responsibilities.

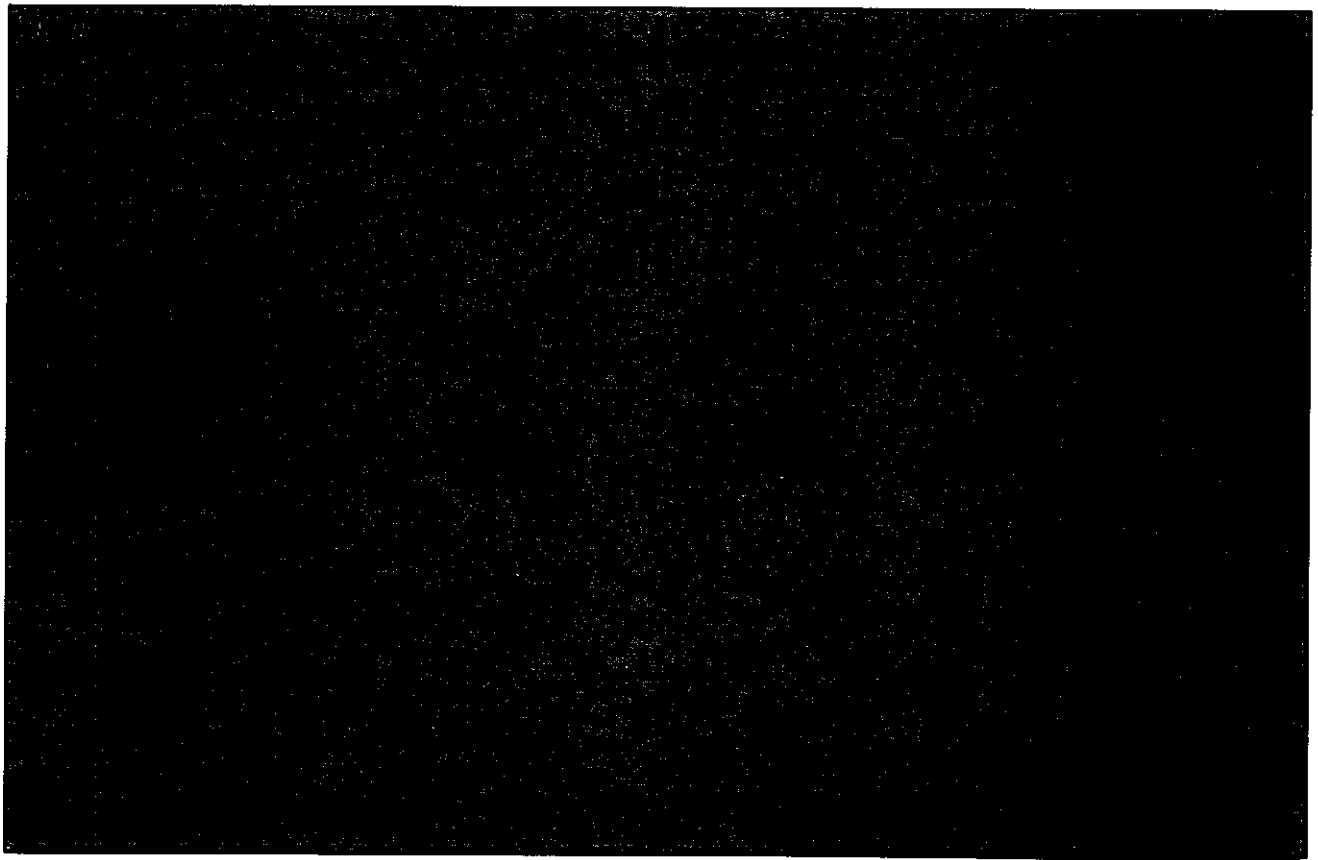
B. (U) PERFORMANCE ASSESSMENTS (INCLUDING INTEROPERABILITY) (Office of Primary Responsibility (OPR): Joint Staff (JS). Offices of Collateral Responsibility (OCRs): White House Military Office (WHMO); DoD Chief Information Officer (CIO)).

(U) Work continued on the 2015 Deputy Secretary of Defense-directed National Leadership Command Capability (NLCC) and Nuclear Command, Control, and Communication (NC3) System Enterprise Review findings and recommendations. The Council reviewed the status of the 13 major recommendations and agreed to close three (AF Organizational Task Force (TF); NLCC and NC3 Engineering TF; and E-6 Requirements). The remaining items report satisfactory progress.

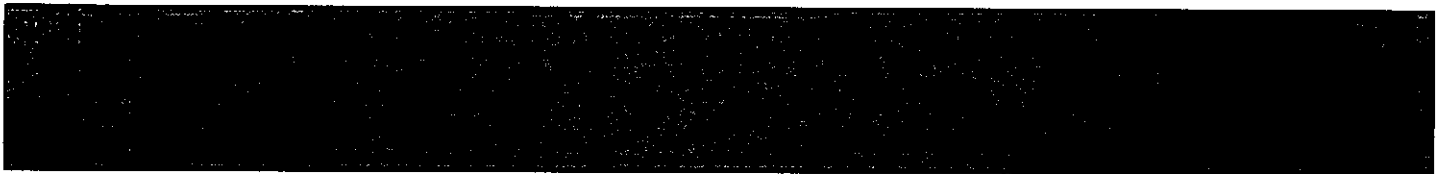
¹ NLC3S is the congressional term for what the Department of Defense refers to as the National Leadership Command Capability (NLCC).



(U) Additional performance assessment activities included:



C. (U) VULNERABILITY IDENTIFICATION AND MITIGATION (OPRs: Under Secretary of Defense for Intelligence; JS: Commander, US Strategic Command (CDRUSSTRATCOM). OCRs: National Security Agency (NSA); DoD CIO).



D. (U) ARCHITECTURE DEVELOPMENT (OPR: DoD CIO. OCRs: NSA; CDRUSSTRATCOM; Commander, U.S. Northern Command; Services)

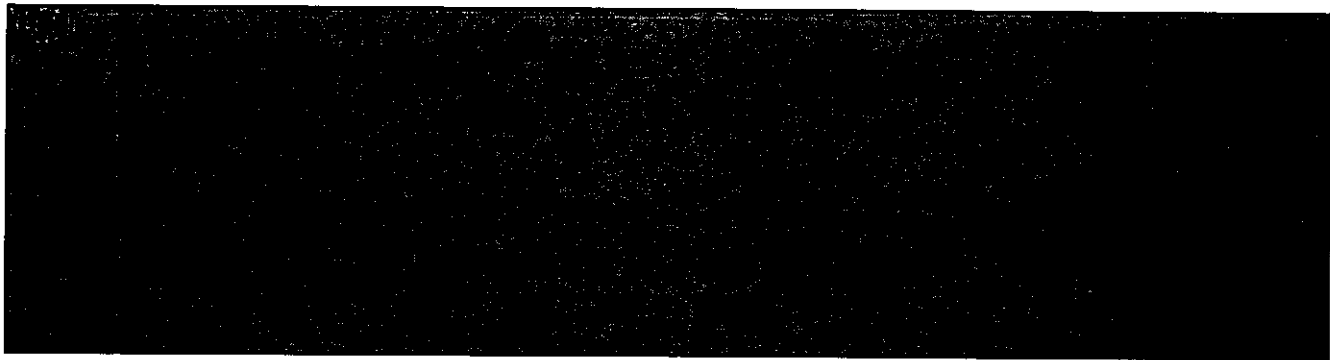
(U) Work continues on an overarching, comprehensive, & conceptual model for NLCC architecture development. In addition to the previously published NLCC Operational and Capability Views, and NLCC Reference Architecture, there has been subsequent development of capability taxonomy, operational activity decomposition, and Technical Patterns.

(U) The NLCC Modeling and Simulation (M&S) project (currently funded Fiscal Year 2017-2021) will provide an additional decision making tool. An initial study effort documented stakeholder requirements and reviewed 20 NC3 M&S capabilities currently available. Major M&S requirements included:

- (U) Capability for end-to-end architectural and decision analysis
- (U) Ability to model all NC3 functions
 - (U) Metrics measured relative to Nuclear Technical Performance Criteria (e.g., Probability of Correct Message Receipt, Time of Receipt)
- (U) Scenario-based and full threat environment performance evaluation
- (U) Ability to calculate component contribution to end-to-end performance

(U) The initial M&S campaign tool selected was the Modeling and Simulation for Strategic Communications (MASSC). Standard architecture and M&S tool development will take several budget cycles before creating standard information sharing and desired support to all levels of decision making.

E. (U) RESOURCE PRIORITIZATION (OPR: All)



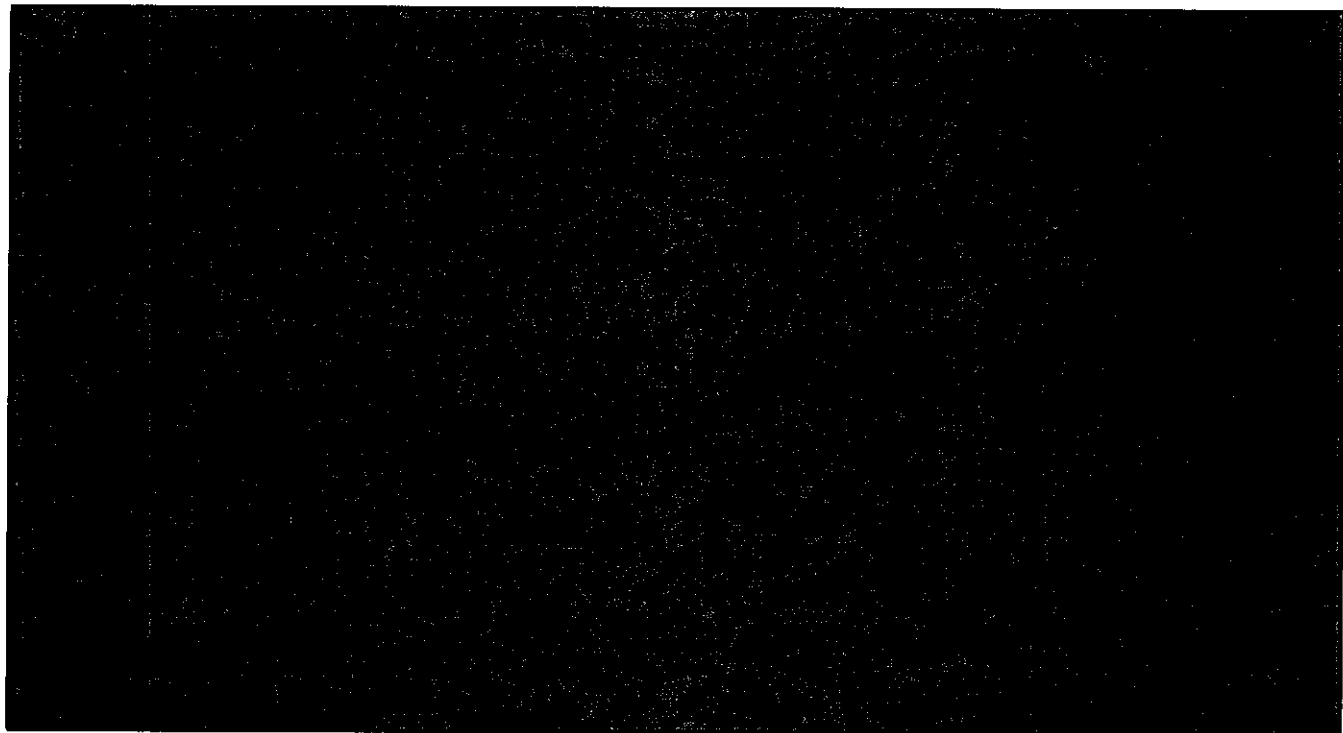
- (U) NC3 Continuing Evaluation Program;
- (U) F-4B recapitalization;

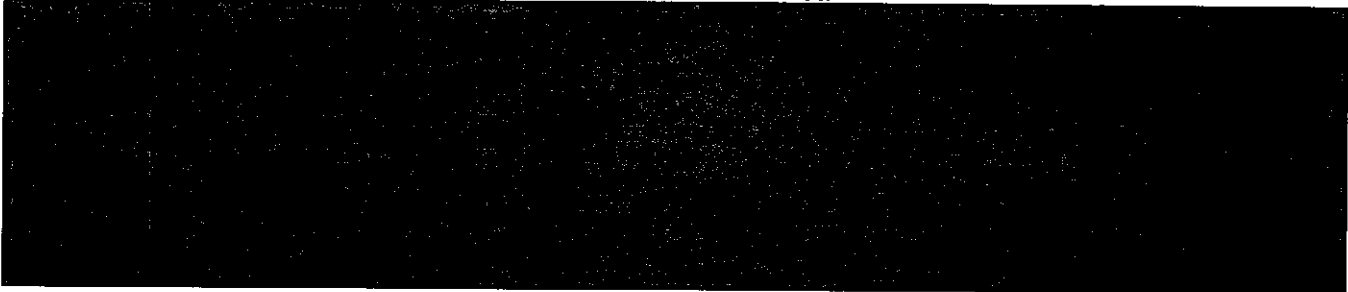


- (U) Presidential and National Voice Conferencing (PNVC) Integration;
- (U) Mission Planning and Analysis System, increment 5; and
- (U) Nuclear Planning and Execution System recapitalization.

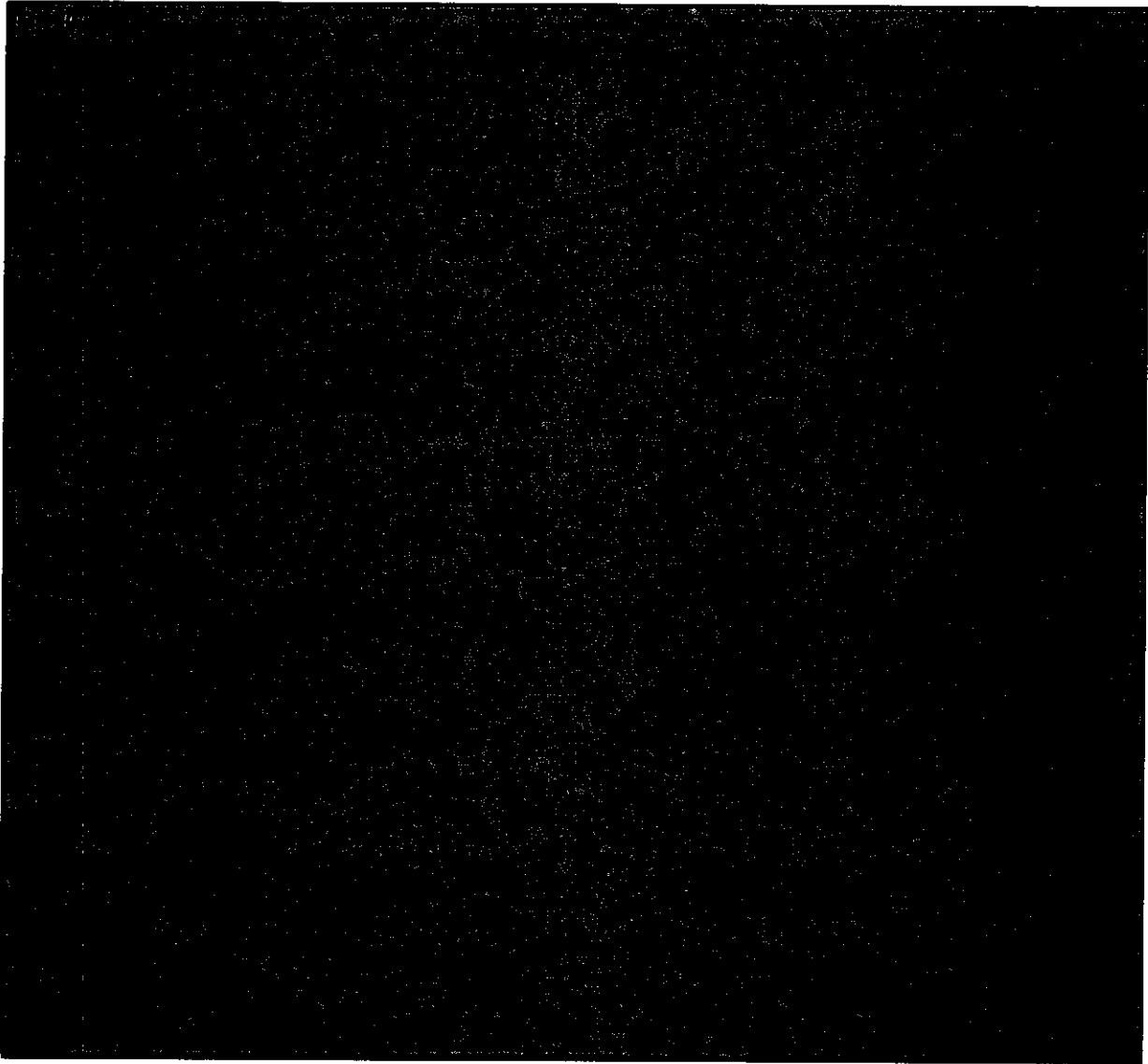
- (U) In August 2016, the Council co-chairs informed the Congressional Committees of concerns with congressional marks on the E-6B aircraft, Submarine Broadcast Support, FAB-T, Advanced Extremely High Frequency (AEHF), and SBIRS High.

F. (U) OTHER





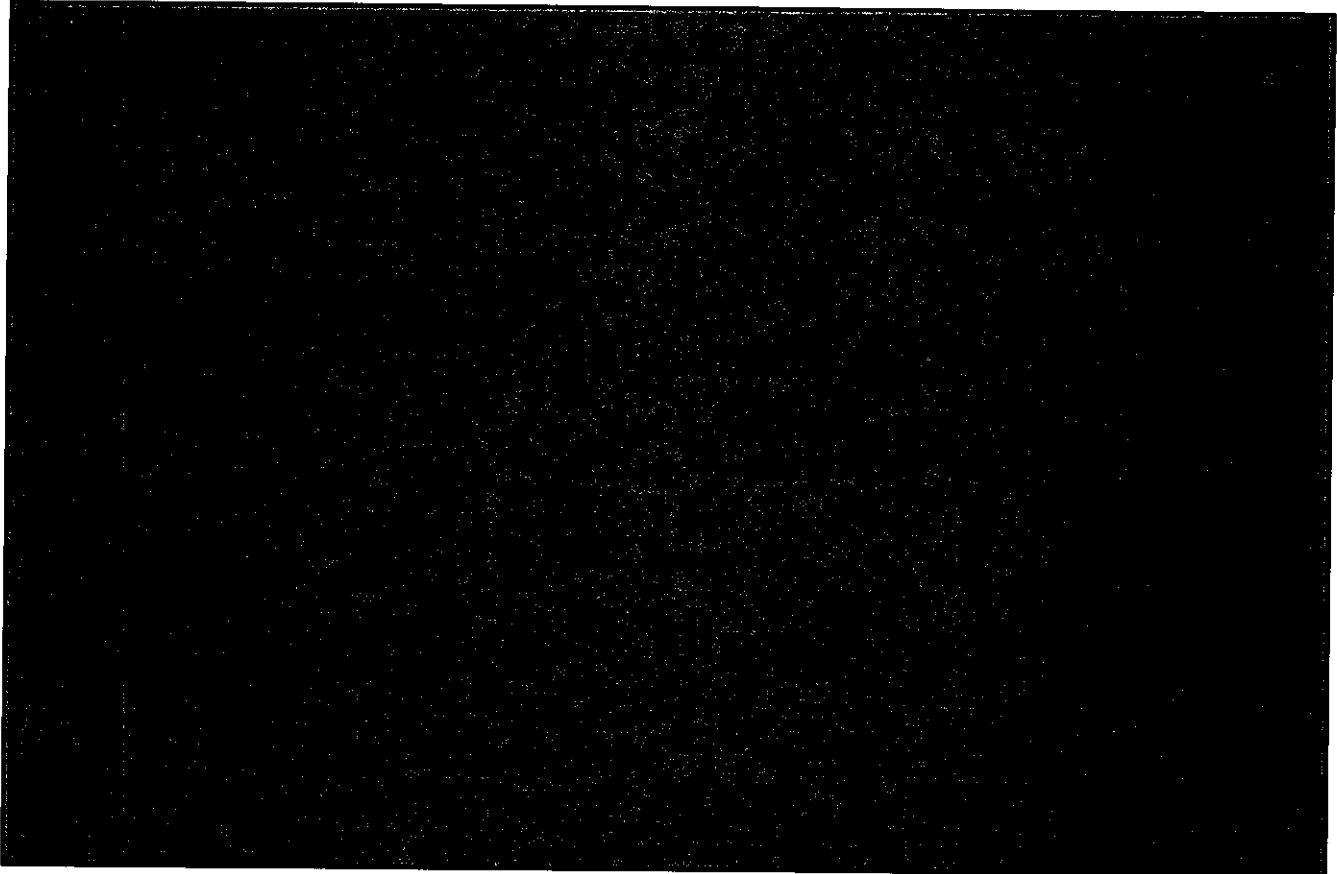
II. (U) ACTIVITIES PROPOSED TO BE UNDERTAKEN BY THE COUNCIL DURING THE CURRENT FUTURE YEARS DEFENSE PROGRAM



III. (U) CHANGES TO NLC3S REQUIREMENTS MADE DURING PREVIOUS YEAR

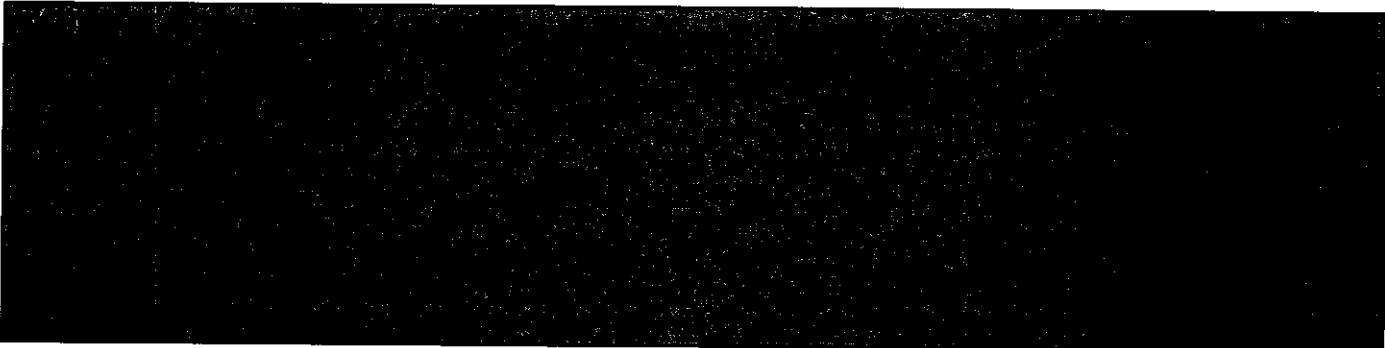
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(U) The Vice-Chairman, Joint Chiefs of Staff discussed the issuance of a Joint Requirements Oversight Committee (JROC) Memorandum directing a review of all PPDs, including PPD-35, "United States Nuclear Weapons Command and Control, Safety, and Security" (issued in December 2015). This will enable PPDs to inform military requirements through the Joint Capabilities Integration and Development System and the JROC.



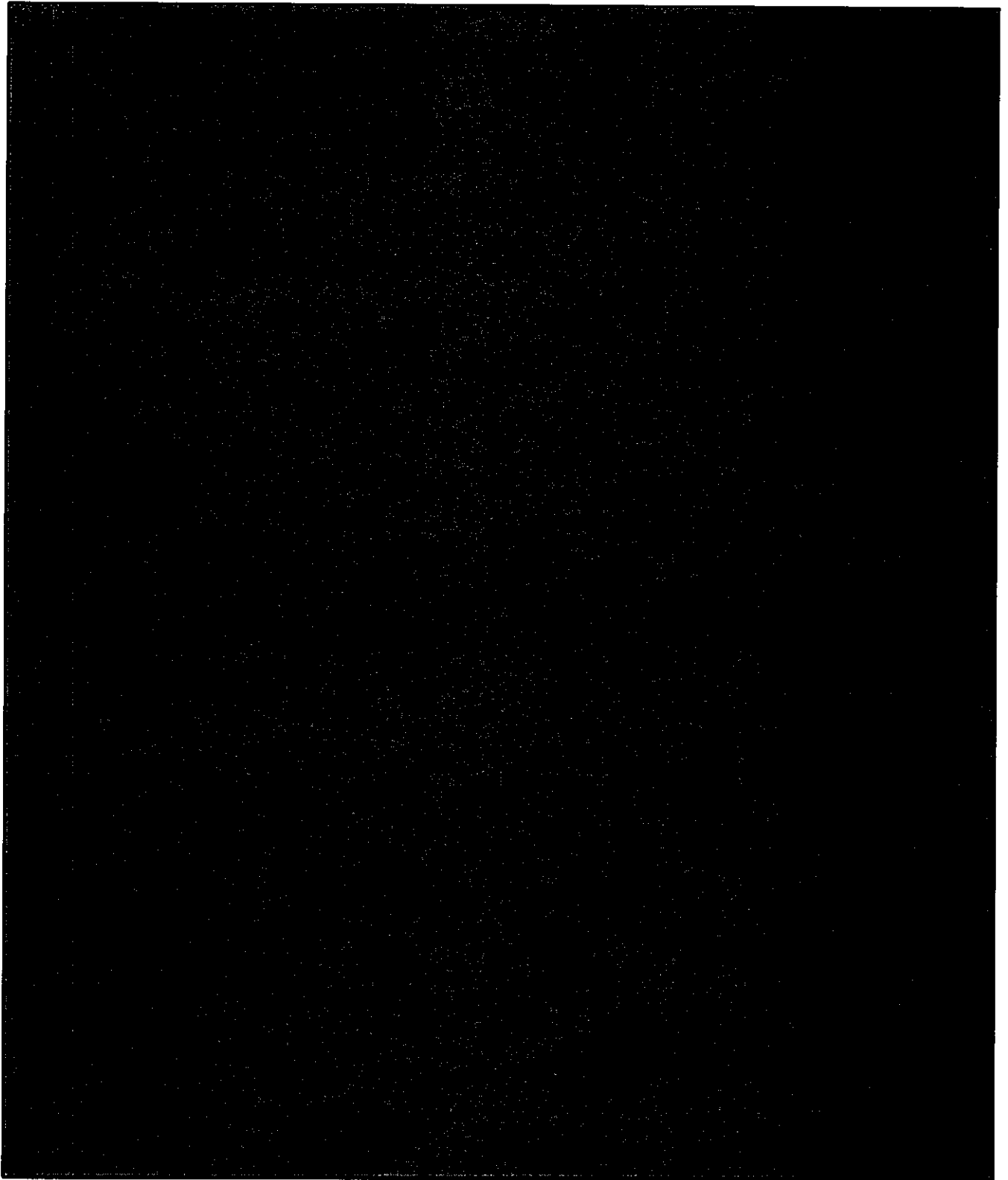
IV. (U) BREAKDOWN OF NLC3S PROGRAM ELEMENTS. See Enclosure 1.

V. (U) ASSESSMENT OF THE READINESS OF THE COMMAND, CONTROL, AND COMMUNICATIONS SYSTEM FOR THE NATIONAL LEADERSHIP OF THE UNITED STATES

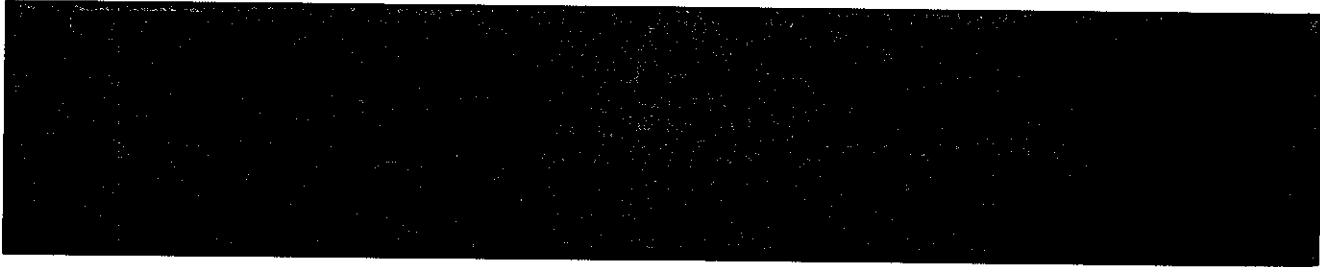


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SIGNED:

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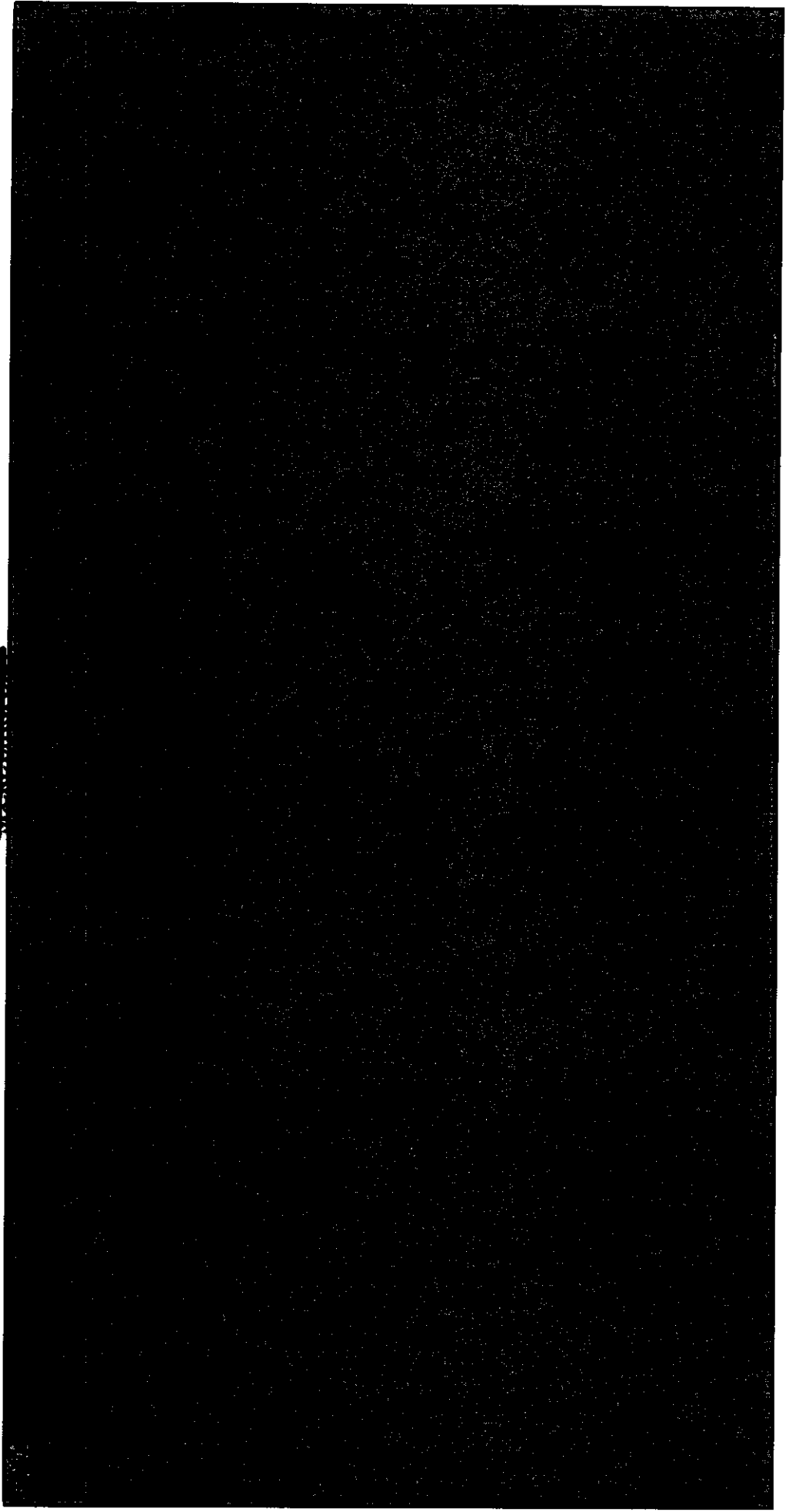
Ellen M. Lord
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GLOSSARY OF TERMS

AEHF	Advanced Extremely High Frequency
AFGSC	Air Force Global Strike Command
AO	Authorizing Official
C2	Command and Control
C3	command, control, and communications
CBA	capabilities-based assessment
CCIC2S	Combatant Commanders Integrated C2 System
CDRUSEUCOM	Commander United States European Command
CDRUSSTRATCOM	Commander, U.S. Strategic Command
CEP	Continuing Evaluation Program
CJCSI	Chairman of the Joint Chiefs of Staff instruction
CPG	Capability Planning Guidance
CVR	Common VLF Receiver
DCIN-TS	Distributed Continuity Integrated Network-Top Secret
DIA	Defense Intelligence Agency
DIRECT	Defense Injection/Reception Emergency Action Message C2 Terminal
DISA	Defense Information Systems Agency
DoD CIO	Department of Defense Chief Information Officer
DSS	Decision Support System
DTRA	Defense Threat Reduction Agency
FAB-T	Family of Advanced Beyond Line-of-Sight-Terminal
FD	Force Direction
GPS	Global Positioning System
GPS OCS	GPS Operational Control Segment (for Block II satellites)
GPS OCX	GPS Operational Control Segment (for Block III satellites)
HEMP	High-Altitude Electromagnetic Pulse
HICS	Hardened Intersite Cable System
ICBM	Intercontinental Ballistic Missile
ICD	Initial Capabilities Document
INSER	Integrated Nuclear Survivability and Endurability Report
IO	Information Operations
ISPAN	Integrated Strategic Planning and Analysis Network
JRSC	Jam-Resistant Secure Communications
JS	Joint Staff
JSEIO	Joint Systems Engineering and Integration Office
LF/VLF	Low frequency/very low frequency
M&S	Modeling and Simulation
MILSTAR	Military Strategic and Tactical Relay
MRT	Miniature Receive Terminal
NC2	Nuclear Command and Control
NC3	Nuclear Command, Control, and Communications
NDAA	National Defense Authorization Act
NLC3S	National Leadership Command, Control, and Communications System
NLCC	National Leadership Command Capability

NSA	National Security Agency
OCR	office of collateral responsibility
OPR	office of primary responsibility
PAGCN	Phoenix Air Ground Communications System
PBR	Program Budget Request
PNVC	Presidential and National Voice Conferencing
PPD	Presidential Policy Directive
POM	Program Objective Memorandum
RMD	Resource Management Decision
SAOC	Survivable Airborne Operations Center
SATCOM	satellite communications
SBIRS	Space-Based Infrared System
SECDEF	Secretary of Defense
TF	Task Force
VIP/SAM	Very Important Person/Special Air Mission
VPS	VIP/SAM Protected SATCOM
WGS	Wideband Global SATCOM
WHMO	White House Military Office

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(U) Note: This input is extracted from the more comprehensive Congressionally-directed NLCC Budget Exhibit, which has been forwarded under separate cover by the Under Secretary of Defense (Comptroller). This table is based on the FY 18 President's Budget.

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