



MILITARY SEALIFT COMMAND

MSC Technical Authority

Prepared for Military Sealift Command
by Emprise Corporation

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Learning Objectives

- **The overarching objective of this module is to introduce you to Military Sealift Command (MSC) technical authority**
- **At the conclusion of this module, you will understand and be able to describe the following:**
 - **Nature of technical authority**
 - **SECNAV delegation of technical authority to MSC**
 - **Distinctions between programmatic authority and technical authority**
 - **Independent exercise of technical authority**
 - **N7 responsibility for exercising technical authority**
 - **Documentation of MSC technical authority processes**
 - **Technical authority for new construction ship acquisition programs**
 - **Interaction between MSC Technical Authorities and other Navy Technical Authorities**
 - **Role of N7 personnel in supporting exercise of technical authority**
 - **Distinctions between programmatic authority decision-making and technical authority decision-making**



SECNAVINST 5400.15C

- **Discusses roles and responsibilities associated with research and development, acquisition, life-cycle management, and logistics for Navy ships, aircraft, weapons systems, and facilities from concept development through disposal**
 - **Emphasizes the importance of distinguishing between programmatic authority and technical authority as they relate to ensuring the safety, reliability, performance, and affordability of Navy ships, aircraft, weapons systems, and facilities**



Programmatic Authority

- **SECNAVINST 5400.15C defines programmatic authority as the authority, responsibility, and accountability to manage all aspects of assigned programs from delivery to disposal, including oversight of cost, schedule, performance, and life cycle management**
- **Programmatic authority is an inherently governmental function**



Technical Authority

- **SECNAVINST 5400.15C defines technical authority as the authority, responsibility, and accountability to establish, monitor and approve technical standards, tools, and processes in conformance with applicable DOD and DON policy, requirements, architectures, and standards**
- **Technical authority is:**
 - **An inherently governmental function**
 - **Assigned to specific Navy organizations by SECNAV**



Exercise of Technical Authority

- **A structured process that ensures the technical standards, processes, and tools used by the Navy:**
 - **Ensure the safety, reliability, and performance of Navy assets**
 - **Are practical**
 - **Are complete**
 - **Meet customer requirements**
 - **Ensure timely and responsive technical decisions and guidance without excessive review and oversight**



Independent Exercise of Technical Authority

- **Technical authority is exercised independent of programmatic authority in order to:**
 - **Provide a system of checks and balances to ensure the safety, reliability, performance, and affordability of Navy assets through adherence to appropriate technical standards and processes, and established engineering principles and practices**
 - **Promote constructive collaboration between Navy Program Managers and Technical Authorities**



Technical Authorities

- **Technical authority is vested in individuals referred to as Technical Authorities**
- **Technical Authorities have demonstrated the engineering expertise, skills, experience, integrity, and self-discipline to:**
 - **Establish appropriate technical standards, tools, and processes**
 - **Oversee and guide compliance with established technical standards, tools, and processes**
 - **Make sound, unbiased engineering decisions to support the safe and reliable planning and management of Navy programs**



What is the Common Factor?



Royal Ship Vasa



HMS Captain



RMS Titanic



Shuttle Challenger



Shuttle Columbia



MSC Programmatic Authority

- Programmatic authority is vested in MSC Program Managers in accordance with COMSCINST 4700.1 (series)
- Program Managers are responsible and accountable for:
 - Setting objectives (e.g., cost, schedule, capabilities, and performance) for their assigned programs based upon customer requirements and applicable DOD and DON policy, requirements, and standards
 - Program and life cycle planning and management to achieve established objectives for their assigned programs



MSC Technical Authority

- **SECNAVINST 5400.15C, as clarified by ASN (RD&A) Memorandum dated 21 January 2009, assigns technical authority to COMSC for:**
 - In-service USNS ships assigned to MSC
 - HM&E systems for USS ships assigned to MSC
- **MSC Engineering Director (N7) designated as Technical Authority for MSC per COMSCINST 4700.1 (series)**



Delegation of MSC Technical Authority

- **QMS Procedure N0700-005.00-P permits limited delegation of technical authority by N7**
 - Approval of modifications to preventive/predictive maintenance delegated to Director, Engineering Management Systems Division (N71)
 - Approval of TRANSALTS and design drawings delegated to Director, Technical Division (N72)
 - Approval of alterations equivalent to repair (AER) documented as TRANSALTS delegated to Director, Life Cycle Management Division (N75)
 - Technical authority delegated to Deputy Engineering Director (N7X) in absence of Engineering Director, or as-directed



Documentation of MSC Technical Authority Processes

- **COMSCINST 4700.1** requires that technical authority processes be documented
- **MSC technical authority processes and technical standards are:**
 - Established through MSC Maintenance and Repair Management System (MRMS) processes
 - Documented and managed through:
 - MSC Quality Management System
 - MSC Safety Management System



N7 Exercise of Technical Authority

- **Includes, but not limited to:**
 - Establishing and maintaining technical policy, standards, tools, requirements and processes for life cycle management for MSC ships
 - Establishing technical certification requirements, as required
 - Acting as technical certification authority for MSC, when required
 - Establishing and monitoring safety standards and processes for MSC afloat and ashore
 - Establishing and monitoring preventive/predictive maintenance requirements for MSC ships
 - Ensuring adequate checks and balances exist between programmatic authority and technical authority decision-making within MSC
 - Supporting Program Managers, MSC fleet, and MSC's customers by providing best value engineering and technical products that meet customer needs and requirements, including interoperability
 - Advising Program Managers, MSC fleet, and MSC customers on technical matters related to programmatic and life cycle management issues
 - Approving technical aspects of proposed alterations (TRANSALTS)
 - Authorizing proposed departures from specifications (DFS)



N7 Exercise of Technical Authority (cont.)

- Identifying technically acceptable options and associated costs, benefits, risks, and trade-offs to inform Program Manager decision-making for instances in which:
 - Technical services or products are not in conformance with established technical policy, standards, processes, or requirements
 - Operational systems or equipment do not meet technical established technical policy, standards, processes, or requirements
- Ensuring technical modules learned and best practices from the public and private sectors of the maritime industry are considered for implementation by MSC
- Ensuring MSC engineering workforce is staffed, trained, empowered, and accountable to make sound technical decisions and recommendations



Pre-Delivery Technical Authority for New Construction Programs

- NAVSEA Ship Design Manager designated as overall Technical Authority for all aspects of MSC ship acquisition programs pre-delivery, with the exception of certain designated areas
- SUPSHIP Chief Engineer designated as Waterfront Technical Authority for ship design and construction
- Involvement of other NAVSEA Technical Authorities primarily limited to matters involving use of Navy standards or instances in which commercial standards are inadequate for Navy's needs



Post-Delivery Technical Authority for New Construction Programs

- **Technical authority transfers to MSC at ship delivery**
 - NAVSEA Program Manager responsible for post-delivery operational test and evaluation, warranty administration, and final acceptance of each ship as part of ship acquisition process
 - While Ship Design Manager or SUPSHIP may take technical lead for certain matters pursuant to Program Manager responsibilities, MSC retains overall technical authority post-delivery



Additional Interaction with Other Navy Technical Authorities

- **MSC periodically consults with Navy Technical authorities on life-cycle matters, as needed; however, MSC retains overall technical authority**



Technical Authority Roles of N7 Personnel

- **N7 personnel contribute to exercise of technical authority by:**
 - **Representing Technical Authorities during routine interactions with Program Managers**
 - **Being well versed in established technical policy, standards, processes, and requirements, and accepted engineering principles and practices**
 - **Ensuring N7 services and products are in conformance with established technical policy, standards, processes, and requirements, and accepted engineering principles and practices**
 - **Ensuring all reasonable alternatives are evaluated for each instance in which N7 support is required**
 - **Possessing engineering and business acumen necessary to distinguish between an alternative that is less desirable, but still technically acceptable from an alternative that is technically unsound**
 - **Promoting and facilitating communications throughout the technical and programmatic communities to ensure all interested parties are situationally aware and all applicable technical requirements and considerations are identified and understood**
 - **Promptly notifying designated Technical Authorities regarding potential conflicts between programmatic authority and technical authority**



Programmatic Decision-Making

- **Programmatic decision-making involves balancing complex schedule, financial, performance, technical, logistical, contracting, and resource considerations**
 - **Technical Authorities have the authority to decide which alternatives are technically acceptable**
 - However, they do not have the authority to decide which technically acceptable alternative will be implemented
 - **Program Managers have the authority to decide which technically acceptable alternative will be implemented**
- **Technical Authorities are also independent subject matter expert advisors to COMSC as it pertains to oversight of programmatic decision-making compliance with established technical standards**



Let's Review

- Describe the importance of exercising technical authority independent of programmatic authority.
- Describe how technical authority procedures are developed and documented at MSC.
- Describe the delegation of technical authority within MSC.
- Describe the distinctions between Technical Authority decision-making and programmatic decision-making.
- Describe the interactions between the MSC Technical Authority and other Navy Technical Authorities.



Summary

- **During this module, we have discussed:**
 - Nature of technical authority
 - SECNAV delegation of technical authority to MSC
 - Distinctions between programmatic authority and technical authority
 - Independent exercise of technical authority
 - N7 responsibility for exercising technical authority
 - Documentation of MSC technical authority processes
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 - Distinctions between programmatic authority decision-making and technical authority decision-making



Additional Information

- **For additional information, please refer to:**
 - **SECNAVINST 5400.15C, Department of the Navy (DON) Research and Development, Acquisition, Associated Life-Cycle Management, and Logistics Responsibilities and Accountability**
 - **Assistant Secretary of the Navy, Research, Development and Acquisition, Memorandum for Distribution dated 21 January 2009, Clarification of Responsibilities Between NAVSEA and MSC**
 - **COMSCINST 4700.1, Military Sealift Command's Technical Authority, Maintenance Philosophy, and Maintenance and Repair Management System**



Final Questions





Revision History

Date	Version	Description	Author
4/8/19	2.0	Revised slide template. Updated content.	Gary Fields
8/7/19	2.1	Verified content is consistent with current COMSC Instructions and QMS and SMS procedures; Corrected minor format errors.	Gary Fields



Back-Up Slides



NAVSEA Technical Authority

- **SECNAVINST 5400.15 (series), as clarified by ASN (RD&A) Memorandum dated 21 January 2009, assigns technical authority for all Navy ships, submarines, submersibles, and other water craft, including all associated ship systems, ship combat systems, shipboard support systems, ship and aviation interface systems, and surface and submarine expendable ordnance to Commander, Naval Sea Systems Command, with the exception of:**
 - In-service USNS ships assigned to MSC
 - HM&E systems for USS ships assigned to MSC



MSC vs. NAVSEA

Technical Authority Management

- **NAVSEA processes for executing technical authority are uniform with those of other Navy SYSCOMs (i.e., NAVAIR, NAVFAC, NAVSUP, and SPAWAR)**
 - **Uniformity of processes for establishing and executing technical authority between the different Navy SYSCOMS is promoted through the Virtual SYSCOM Systems Engineering and Technical Authority Board**
- **MSC's processes for executing technical authority are independent from NAVSEA's processes**



MSC vs. NAVSEA

Technical Authority Selection Process

- **Selection process is similar for NAVSEA and MSC inasmuch as it involves prescribed human resources processes for personnel hiring and promotion**
 - **NAVSEA and MSC selection processes emphasize engineering knowledge, skills, and abilities, experience, integrity, and self-discipline as critical selection factors**
 - **NAVSEA process requires formal interview with SEA 05 Technical Authority Qualification Board, and Warranting Officer and cognizant Deputy Warranting Officer approval of Technical Authority selectees**
 - **MSC process requires N00 approval of Engineering Director selectee, and Engineering Director approval of N7 Division Director selectees**



MSC vs. NAVSEA

Technical Authority Warranting Process

- **NAVSEA issues a formal written Technical Warrant (similar in nature to a Contracting Officer's Warrant) signed by the NAVSEA Warranting Officer and cognizant Deputy Warranting Officer to designate a specific individual as a Technical Authority**
- **MSC does not issue Technical Warrants**
 - **N7 positions designated as MSC Technical Authorities are identified in COMSC Instruction 4700.1 (series) and QMS Procedure N0700-005.00-P**



MSC vs. NAVSEA

Number of Technical Authorities

- **NAVSEA designates approximately 200 individuals as Technical Authorities**
 - **Distributed throughout NAVSEA organization, including Headquarters, NSWC offices, Naval Shipyards, Regional Maintenance Centers, and SUPSHIPs**
- **MSC designates 5 individuals as Technical Authorities**
 - **Centralized at MSC Headquarters**



MSC vs. NAVSEA

Technical Authority Areas of Cognizance

- **NAVSEA Technical Authorities typically have narrowly defined area of technical cognizance (e.g., Technical Authority for a specific type of system or equipment)**
- **MSC Technical Authority has responsibility for full range of technical areas associated with operation and maintenance of MSC ships**
 - **Delegated technical authority typically involves narrowly defined (i.e., specialized) area of technical cognizance**



NAVSEA Technical Authority Roles and Responsibilities

- **Warranting Officer (SEA 00)**
 - Provides leadership and accountability for establishing and maintaining organizational alignment throughout the SYSCOM, field activities and affiliated PEOs to ensure technical authority is independent of programmatic authority and provides adequate checks and balances to ensure safety, reliability and interoperability
- **Deputy Warranting Officers (e.g., SEA 05)**
 - Provide leadership and accountability for all engineering and technical decision-making accomplished throughout the Navy, including field activities, affiliated PEOs and the Fleet
 - Establish technical policy, standards, and processes
 - Coordinate with other Deputy Warranting Officers and the Technical Authority Board to determine the scope of technical authority warrants
 - Develop, qualify, designate and evaluate Technical Warrant Holders
 - Ensure due diligence and oversight of engineering and technical authority



NAVSEA Technical Authority Roles and Responsibilities (cont.)

- **Technical Authority Board**
 - Establishes common policies for technical authority, technical standards, metrics, systems engineering, certification, reliability and safety
 - Coordinates engineering and technical authority interfaces with PEOs, other SYSCOMs, and the Fleet
 - Resolves issues associated with the function, operation, organization, resources, and manning of engineering and technical authority
 - Provides guidance on technical authority matters, such as:
 - General descriptions of different types of engineering agents and their responsibilities
 - Processes for determining specific technical areas to be warranted, qualification, selection and evaluation process for Technical Warrant Holders
 - Process for determining who is acting in the absence of a Technical Warrant Holder



NAVSEA Technical Authority Roles and Responsibilities (cont.)

- **Technical Warrant Holders**
 - Navy's subject matter expert for designated area of cognizance
 - Oversee and guide technical efforts throughout the Navy within designated area of cognizance, independent of organizational boundaries
- **Certificate Holders**
 - Empowered by appropriate Technical Warrant Holder to perform specific certification functions related to specific technical processes
 - Can be located organizationally anywhere within NAVSEA, fleet, or private industry, including programmatic organizations and field activities



MSC Technical Authority Roles and Responsibilities

- **COMSC (N00)**
 - Provides leadership and accountability for establishing and maintaining organizational alignment throughout MSC, field activities and fleet to ensure technical authority is independent of programmatic authority and provides adequate checks and balances to ensure safety, reliability and interoperability
- **Technical Authorities (N7, N7X, N71, N72 and N75)**
 - MSC's subject matter expert for designated area of cognizance
 - Provide leadership and accountability for all engineering and technical decision-making accomplished throughout MSC, including field activities, and the fleet
 - Establish technical policy, standards, and processes
 - Oversee and guide technical efforts throughout MSC within designated area of cognizance, independent of organizational boundaries
 - Ensure due diligence and oversight of engineering and technical authority
- **N7 Staff**
 - Empowered by appropriate Technical Warrant Holder to perform specific functions related to exercising technical authority