



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
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OPNAVINST 9640.1C
N83
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OPNAV INSTRUCTION 9640.1C

From: Chief of Naval Operations

Subj: SHIPBOARD HABITABILITY PROGRAM

Ref: (a) T9640-AC-DSP-010/HAB, Shipboard Habitability Design Criteria and Practices Manual (Surface Ships) for New Ship Designs and Modernizations
21 December 2016
(b) T05U3-085, NAVSEA Design Practices and Criteria Manual for Submarine General Arrangements Design, 19 August 2012
(c) SECNAVINST 5000.2F
(d) SL720-AA-MAN-030, Navy Modernization Process Management and Operational Manual (NMP-MOM), January 2010

1. Purpose. To provide Chief of Naval Operations (CNO) policy regarding U.S. Navy shipboard habitability and to establish procedures which enhance conformance with and approve deviations from established design criteria.

a. To assign responsibility for shipboard habitability program implementation and designate Office of the Chief of Naval Operations (OPNAV) Director, Fleet Readiness (OPNAV N83) as shipboard habitability manager.

b. This instruction is a substantial revision and should be reviewed in its entirety. Director, Fleet Readiness (OPNAV N43) has been renamed to Director, Fleet Readiness (OPNAV N83).

2. Cancellation. OPNAVINST 9640.1B.

3. Scope and Applicability. This instruction applies to U.S. Navy ship designs, and commissioned ships over 150 feet in length or manned by 100 or more persons. Smaller ships will be treated on a case-by-case basis, with established criteria providing a foundation for habitability design, recognizing that design constraints may preclude reasonable attainment of all larger ship standards.

4. Discussion

a. The Navy's primary mission is to be prepared to conduct prompt and sustained combat operations at sea in support of U.S. national interests and the national military strategy. The Navy is dependent upon shipboard personnel to accomplish this mission and, therefore, must

provide living and working conditions which result in levels of personnel morale, safety, health and comfort, adequate to sustain maximum personnel effectiveness and support optimum personnel retention. Habitability is that military characteristics of U.S. Navy ships directed toward satisfying personnel needs which are dependent upon physical environment.

b. The objective of this instruction is to ensure shipboard facilities and spaces support the needs of shipboard personnel by: supporting established habitability criteria for ship design and modernization programs, while reflecting the capabilities and needs of a modern U.S. Navy; establishing procedures to compensate for potential impacts upon shipboard habitability incurred through the addition of new systems, equipment, and personnel; and, providing a base for habitability improvements by limiting billet growth to the level of physical accommodations.

5. Responsibilities. OPNAV N83 is designated as OPNAV shipboard habitability manager and will provide overall policy guidance and review for the program.

a. OPNAV N83 must:

(1) ensure that criteria in references (a) and (b) are included in the capability development document and monitor the refinement of these provisions in the baseline development process of reference (c),

(2) coordinate the inclusion of habitability improvements in the Navy modernization process with the CNO warfare sponsors, and

(3) sponsor ad hoc habitability working groups to resolve emergent issues and provide a representative as chair.

b. The CNO warfare sponsors will:

(1) prioritize and incorporate the applicable habitability improvements into the Navy modernization process, per reference (d);

(2) monitor ship's manpower document development and modification to prevent billet increases beyond habitability limitations, except in cases of operational necessity;

(3) review habitability features of new ship designs under their cognizance, when establishing capability development documents, to best conform to the criteria established in references (a) and (b), and inform the OPNAV shipboard habitability manager of potential deviations;

(4) grant waivers for new ships; and

(5) provide representation to OPNAV ad hoc habitability working groups.

c. The fleet commanders will:

- (1) support references (a) and (b) requirements;
- (2) prepare an annual budget for accomplishment of minor alterations in support of class habitability improvements plans;
- (3) recommend prioritization of major habitability alterations during fleet modernization conferences, per references (c) and (d), supporting habitability improvement plans;
- (4) monitor type commander habitability projects to ensure:
 - (a) approved methods and materials are employed, and
 - (b) impacts of proposed improvements upon existing habitability and other systems are considered prior to implementations.
- (5) coordinate with appropriate commands to ensure shipboard personnel allowances and manning limits do not exceed habitability limitations, except as otherwise authorized by OPNAV; and
- (6) grant waivers for existing ships.

d. Commander, Naval Sea Systems Command (COMNAVSEASYSCOM) will:

- (1) ensure U.S. Navy ships are designed, constructed, and modernized per this instruction and as otherwise authorized;
- (2) for habitability deficiencies identified on active ships (e.g., from Board of Inspection and Survey, pre-availability inspection), with respect to criteria in references (a) and (b);
 - (a) record deficiencies from criteria,
 - (b) forward requests for deviation waivers to fleet commanders,
 - (c) initiate alteration development for deficiencies not addressed, and
 - (d) provide impact assessment to CNO warfare sponsor or fleet commander for deviation waivers.
- (3) develop a habitability improvement plan for each class or ship directed toward attainment of habitability criteria not specifically waived;

- (4) support fleet habitability improvement efforts by:
- (a) developing appropriate ship alterations,
 - (b) providing technical guidance to support habitability efforts of the fleet commanders, and
 - (c) providing the fleet current information on approved habitability improvement methods and materials.
- (5) ensure alteration and work package development includes determination of impact on existing habitability facilities and plans to concurrently minimize such impact;
- (6) ensure changes to references (a) and (b) are coordinated with CNO warfare sponsors and OPNAV N83, and that applicable COMNAVSEASYS COM documents and instructions are updated to reflect those changes;
- (7) provide manpower and material costs for title “D” and “K” ship alterations to fleet commanders and OPNAV N83;
- (8) ensure analysis of personnel and attendant habitability requirements are provided to CNO warfare sponsors sufficiently early in the development and acquisition of systems and equipment destined for shipboard use, or required shipboard support and handling, to allow for concurrent development of shipboard equipment tradeoff and habitability modification plans;
- (9) coordinate proposed ship alterations that affect troop lift capacity with the Commandant of the Marine Corps and refer unresolved issues to OPNAV N83.;
- (10) in coordination with the appropriate type commander, ensure that accurate determinations of installed berthing accommodations are made, published, and updated; and
- (11) provide appropriate representation for OPNAV ad hoc shipboard habitability working groups.

6. Policy

a. General. Habitability is one of several important factors included in the overall consideration of unit mission readiness. A warship cannot be designed around optimum habitability factors alone, but conversely, habitability factors cannot be progressively sacrificed to other readiness elements without eventual degradation of mission readiness. Maintaining the appropriate shipboard quality of life within established habitability criteria supports positive morale and peak mission readiness.

b. Specific Criteria. References (a) and (b) contain detailed habitability criteria for developing the specifications required for directing both new ship construction, and modifications or modernization to existing ships.

c. Definitions

(1) “New ship designs” refers to ship and submarine designs sufficiently early in the design process where changes can reasonably be made to the capability development document, or which have not completed preliminary design.

(2) “Existing ships” refers to ships and submarines that do not meet the new ship definition, as well as those accepted and commissioned.

(3) “Accommodations” denotes the number of personnel permanently supported in a given ship by habitability spaces, systems, fixtures, and equipment. Accommodations are provided for ship’s company plus any of the following embarked personnel: troops, air wing, staffs, detachments, short-term assignments, indoctrination personnel, civilian technical representatives, and official visitors or guests. Accommodations for some personnel can be categorized as “surge” or “transient” depending on their function.

(a) “Surge” refers to personnel embarked for short durations for special operations, exercises, or mobilizations. Surge personnel accommodations require provisions for berths. When unqualified reference to “troops” is made, it excludes surge troops.

(b) “Transients” refers to personnel embarked for short durations who do not contribute to the host ship’s operational capability. Transients normally are awaiting transfer to, or arrival at, another destination. Ships receiving a steady influx of transients require support for them so that habitability for permanently assigned personnel is not compromised.

(4) “Ship’s company” refers to all officers and enlisted crew members assigned to the ship.

(a) “Chief petty officers (CPO)” and “senior non-commissioned officer” refer to E-7 through E-9 personnel.

(b) “Crew” and “troop” refer to E-1 through E-6 personnel.

(c) “Enlisted personnel” refers to CPO, senior non-commissioned officer, crew, and troop.

(5) “Hot bunking” refers to the practice of assigning more than one person to a single berth.

(6) “CNO warfare sponsors” refers to Director, Expeditionary Warfare (OPNAV N95), Director, Surface Warfare (OPNAV N96), Director, Undersea Warfare (OPNAV N97), and Director, Air Warfare (OPNAV N98).

d. Accommodation Limits. Increasing the population of a ship beyond the capability of existing environmental control systems, habitability space, and facilities (physical habitability elements) degrades habitability. In new ship designs, physical habitability elements are provided for the number of accommodations derived from the capability development document. The capability development document must include a service life allowance for officer and enlisted personnel which provides for a growth of 10 percent at ship delivery (this applies to ship’s company only). For existing ships, permanent accommodation limits (peacetime) must be established for each class and ship, as appropriate, from which plans may be developed for meeting the habitability criteria in references (a) and (b). The ultimate objective is the elimination of “hot bunking” and other habitability degradations caused by overpopulation. Normal fluctuations inherent in shipboard manning may cause temporary exceeding of accommodation limits.

(1) Surface Ships

(a) Officers, CPOs, crew, and embarked personnel will not be assigned more than 60 days in numbers greater than that of installed berths, except in cases of operational necessity, as determined by fleet commanders.

(b) Billets must not be added in numbers greater than that of installed berths, except in cases of operational necessity, as determined by the appropriate CNO warfare sponsor.

(c) Where possible, transient personnel will be provided support equivalent to permanently assigned personnel. Where dedicated compartments are provided for transients, they must follow the guidelines in reference (a).

(d) Troop lift capacity is to be maintained per ship design specifications except as modified by authorized ship alterations. Ship alterations reducing troop accommodations are to be submitted to the Commandant of the Marine Corps, Plans, Policies and Operations (Code PPO) for comment prior to being authorized for accomplishment. Ships designed with surge troop living spaces that have alternative peacetime functions must be capable of restoring surge capacity by ship’s force within 48 hours.

(e) Where possible, a civilian technical representative will be provided support based on their equivalent military rank. Where dedicated compartments are provided, they must follow reference (a).

(2) Submarines. Submarines are exempt from the policy in subparagraph 4d(1) by virtue of their unique constraints. However, the philosophy of eliminating “hot bunking,” and

providing transient and civilian technical representatives equivalent support to that of permanently assigned personnel where feasible, based on their military or equivalent military rank, remains valid, and all reasonable effort will be made towards this end.

e. Deviations

(1) For new ships, cognizant CNO warfare sponsor approval is required for deviations which do not meet the criteria in references (a) and (b). CNO warfare sponsor may require an impact assessment from COMNAVSEASYS COM Naval Systems Engineering (NAVSEA 05) surface or submarine technical warrant holder for determination before granting a waiver.

(2) For existing ships, fleet commander approval is required for deviations from criteria in references (a) and (b). Copies of such waivers must be provided to the CNO warfare sponsor, OPNAV N83, and NAVSEA 05. Fleet commanders may require an impact assessment from surface or submarine technical warrant holder for determination before granting a waiver.

(3) All waiver requests must be submitted via the normal chain of command. CNO waiver requests will be addressed to the appropriate CNO warfare sponsor, copy to OPNAV N83 and NAVSEA 05.

f. Improvement Beyond Established Criteria. The basic goal is to enhance shipboard habitability within the unique constraints of a warship. Attainment of references (a) and (b) criteria has the highest priority within the habitability program. Improvements beyond these criteria must consider cost, quality of life, accessibility, location, rank, gender, and redundancy. Expenditure of funds for shipboard habitability improvement must support fundamental elements of standard quality and design and under no circumstance be for decoration or rehabilitation solely for reasons of personal taste. Habitability improvements are to be guided by reason and responsibility of public trust.

g. Wartime or National Emergency Waiver. Criteria issued here and in references (a) and (b) are for peacetime. In time of war or other national emergency, these criteria may be set aside to meet other mission essential requirements. Specific deviation approval is not required. However, either the criteria must be restored or an approved deviation must be obtained once peacetime is restored or the emergency passes.

h. Procedures

(1) New Ship Designs. Criteria established in references (a) and (b) must be used in developing the capability development document. The OPNAV shipboard habitability manager and warfare sponsors will be actively involved in the development of the capability development document and functional baseline documents, and will make recommendations on habitability factors, per reference (c).

(2) Existing Ships

(a) Attainment of criteria established in references (a) and (b) will be accomplished primarily through the Navy modernization process by means of ship alterations, per reference (d) and assistance provided by the NAVSEA 05 habitability surface or submarine technical warrant holder.

(b) Prioritization of habitability alterations will follow reference (d), with emphasis on:

1. improvement to the established criteria for climate control in berthing, messing, and sanitary spaces,
2. provision of a permanent berth and personal stowage space for each member of ship's company and embarked personnel, and
3. other habitability elements where problems exist to the extent that the negative effects upon morale or personal effectiveness are great enough to create a detriment to the unit's ability to perform its mission.

7. Records Management

a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned for the standard subject identification codes 1000 through 13000 series per the records disposition schedules located on the Department of the Navy/Assistant for Administration (DON/AA), Directives and Records Management Division (DRMD) portal page at <https://portal.secnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx>.

b. For questions concerning the management of records related to this instruction or the records disposition schedules, please contact the local records manager or the DON/AA DRMD program office.

8. Review and Effective Date. Per OPNAVINST 5215.17A, OPNAV N83 will review this instruction annually around the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, Department of Defense, Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction.

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This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.



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Releasability and distribution:

This instruction is cleared for public release and is available electronically only via Department of the Navy Issuances Web site, <https://www.secnav.navy.mil/doni/default.aspx>.