



DEPARTMENT OF THE NAVY  
NAVAL SEA SYSTEMS COMMAND  
WASHINGTON, DC 20362-5101

IN REPLY REFER TO

NAVSEAINST 4720.11C  
OPR 934B1  
18 DEC 89

NAVSEA INSTRUCTION 4720.11C

From: Commander, Naval Sea Systems Command

Subj: SHIPBOARD INSTALLATIONS AND MODIFICATIONS PERFORMED BY  
ALTERATION INSTALLATION TEAMS

Ref: (a) OPNAVINST 4720.2E  
(b) NAVSEA SL720-AA-MAN-010/FMP  
(c) OPNAVINST 4720.93  
(d) NAVSEAINST 3960.2D  
(e) NAVSEAINST 4720.14  
(f) MIL-STD-1680 (series)  
(g) OPNAVINST 5510.143A  
(h) NAVSEA Technical Specification 9090-310 (series)  
(i) OPNAVINST 4790.4B  
(j) NAVSEAINST 4720.16  
(k) NAVSEAINST C9210.4

1. Purpose. To ensure proper accomplishment and centralized control of Ship Alterations (SHIPALTs) and temporary modifications performed on active fleet ships by Alteration Installation Teams (AITS). This instruction will more clearly define the use of AITS and reemphasize that close coordination must be maintained with the cognizant Command Ship Program Manager (SPM), the applicable equipment or system Life Cycle Engineering Manager (LCEM), the cognizant Planning Yard, the cognizant Type Commander (TYCOM) and, when applicable, the Naval Supervising Activity (NSA). This is a major revision to the basic instruction.

2. Cancellation. NAVSEAINST 4720.11B, NAVELEXINST 4720.4A of 15 December 1981.

3. Exceptions. This instruction does not apply to:

a. Alterations and modifications to nuclear components and systems under the cognizance of the Deputy Commander for Nuclear Propulsion (SEA 08).

b. Strategic Systems Projects Alterations (SPALTs) affecting the configuration and/or capabilities of systems and equipment under the cognizance of the Director, Strategic Systems Programs (DIRSSP).

c. Temporary modifications performed as part of a shipyard availability to support drydock or dockside testing. This instruction does apply to those temporary modifications in support of sea trials when required by the cognizant Command SPM.



d. Aircraft launch and recovery equipment changes under the cognizance of the Naval Air Systems Command (NAVAIR) except when the change affects ship structure.

e. Submarine deployed site availabilities such as Forward Site Modernization Program (FSMP) and Submarine Extended Operating Cycle Modernization (SEOC MOD) Program.

f. Changes to the internals of equipment which do not affect the equipment interface with the ship and are not accomplished as SHIPALTs (i.e., Machinery Alterations [MACHALTs], Ordnance Alterations [ORDALTs], Technical Directives [TDs], equipment engineering changes, and equipment field changes). For specific LCEM or SPM designated programs (Space and Naval Warfare Systems Command [SPAWAR] Field Change Implementation Program [FCIP], etc.), the SPMs shall be notified of the approved changes affecting equipment on their respective platforms, shall be periodically advised of installation status and shall be notified of the logistics upgrades which have been completed as a result of the installations.

g. Use of AITs to provide technical guidance or certification of new or modified systems or equipment or on-the-job training for ship's crew.

4. Definitions. As used in this instruction the following definitions apply:

a. Alteration Installation Team (AIT). A Navy team (military, civilian or civilian contractor team under the direction of Navy personnel) that is trained and equipped to accomplish specific SHIPALTs or temporary modifications on specified ships.

b. AIT Sponsor. The activity which tasks and funds the AIT. This may be the applicable equipment or system LCEM (NAVAIR, NAVSEA, SPAWAR, etc.), Chief of Naval Operations (CNO), the Command SPM, or the Type Commanders.

5. Scope. This instruction applies to AIT work in support of the following:

a. Accomplishment of non-nuclear SHIPALTs which have been developed and approved per reference (a) as implemented by reference (b).

b. SHIPALTs and temporary modifications which are initiated by the TYCOMs per reference (c).

c. Temporary modifications which are to be accomplished in support of tests and evaluation (T&E) or which are to be accomplished in support of sea trials or in support of assigned ship missions.

## 6. Background

a. Reference (a), as implemented by reference (b), establishes policies and procedures for the planning and management of the CNO Fleet Modernization Program (FMP).

b. Reference (c) provides policy for TYCOM accomplishment of temporary alterations-equivalent-to-a-repair (AER) in support of immediate requirements for ship safety or operational necessity.

c. Reference (d) implements T&E policy within the Command. Included in reference (d) are procedures for obtaining fleet support for T&E efforts that are not part of an acquisition program but which require liaison with the Command regarding ship weight and moment or safety considerations.

d. Reference (e) establishes policy and procedures for the review and approval of temporary modifications to active fleet submarines.

## 7. Policy

a. SHIPALTs and temporary modifications to ships will not be accomplished by AITs unless installation drawings and supporting technical data are approved by the Command. The Command SPM shall be responsible for ensuring that the installation data is reviewed and shall provide written approval prior to accomplishment of the alteration. For AIT accomplishment of SHIPALTs, at least the applicable Planning Yard and the cognizant LCEM shall be included in the technical review of the submitted installation data. For temporary modifications, the SPM will determine the reviewing activities based on the magnitude and duration of the alteration.

b. AIT accomplishment of SHIPALTs and temporary modifications requires full compliance with applicable approved installation drawings and those test procedures described in the SHIPALT Installation Drawings (SIDs) and as amplified and provided by the Project Sponsor. For installations in TEMPEST certified spaces, the provisions of reference (f) for at least a partial TEMPEST inspection will be followed. The provisions for Signal Security (SIGSEC) in reference (g) will be implemented for any installation or modification of a communications space or system.

c. All SHIPALTS and temporary modifications which are to be accomplished by AITs will be scheduled and coordinated with the cognizant TYCOM, the Headquarters AIT Sponsor and, if applicable, the cognizant NSA. Planning for SHIPALTS and temporary modifications to be accomplished by an AIT during a scheduled industrial availability shall be coordinated with the NSA which is designated to supervise the availability. The AIT Sponsor will keep the Command SPM informed of the AIT's schedule and any schedule changes. For SPAWAR AITs, specific scheduling procedures, utilizing a centralized east and west coast concept, will be provided in a separate SPAWAR instruction.

d. All SHIPALTS and temporary modifications are to be provided with complete logistics support concurrent with accomplishment of the alteration, per reference (h) and (j). The onboard ship availability of all logistics support will be verified at the time of installation. For temporary modifications, logistics support will be provided to the extent necessary to maintain the system or equipment for the duration of the alteration.

e. Completion reporting will be provided in accordance with references (e), (h) or (i), as applicable.

f. Alterations to the portions of the propulsion plants of nuclear ships which are not under the cognizance of the SEA 08 shall be approved by the Command as required by reference (k).

## 8. Procedures

### a. For SHIPALTS to be installed by AITs:

(1) When the decision is made to accomplish a SHIPALT by AIT, the Headquarters AIT Sponsor shall initiate coordination with the cognizant Command SPM. The SPM shall ensure that the AIT installations are identified to the applicable material procurement activity. Material identification must be accomplished in time to accommodate acquisition lead times for all material items.

(2) When OPNAV funds are specifically approved for AIT installation accomplishment of a SHIPALT or other permanent change, the Headquarters Sponsor for the AIT must prepare a tasking letter which specifies [1] the coordination required for AIT accomplishment, [2] the tasking plan for the AIT, [3] the distribution of the available installation funds and [4] comprises direction by the Headquarters Sponsor for release of the applicable programmed funds from the FMP. AIT Sponsors shall provide budget inputs for projected AIT installations. SPAWAR AIT budgets shall be processed to the Command FMP Budget Office through a central office in SPAWAR 003.

(3) Upon receipt of the approved Task Assignment Letter and applicable FMP funds, the action addressee will implement the assigned tasks and funding, including AIT staging and pre-installation planning.

(4) Completion reporting will be in accordance with references (h) and (i). SPAWAR AITs will also report completions in accordance with SPAWAR procedures.

b. For SHIPALTs which are initiated by the TYCOM. These SHIPALTs must be approved by the cognizant NAVSEA SPM prior to the start of shipwork. AIT accomplishment may be scheduled and funded by NAVSEA or by the TYCOM as appropriate.

c. For temporary modifications:

(1) The AIT Sponsor will advise the cognizant NAVSEA SPM, in writing, of the intent to accomplish a temporary modification to a ship as soon as the decision is made. For those modifications which are determined to affect only the internals of equipment and which have no impact on the interface between a ship and its systems and equipment the SPM may only require notification of the intent to install the modification. The SPM may request additional information regarding any or all changes designated. Lack of such a request by the SPM within 20 working days shall constitute SPM concurrence that the changes do not impact ship interface or systems.

(2) The SPM will be responsible for the technical review and approval of the installation design of those shipboard installations and modifications which impact ship safety, stability, operational characteristics, space, habitability, ships services and ship interfaces. The procedures for installation design, planning, accomplishment, removal and reporting are specified, managed and controlled by the cognizant NAVSEA SPM. Policy and procedures for the control of temporary alterations on active fleet submarines are contained in reference (e).

## 9. Action

a. Headquarters AIT Sponsor

(1) Ensure that the AIT effort is fully coordinated with the cognizant NAVSEA SPM and LCEM. Ensure that SHIPALT or temporary modification design is approved by the NAVSEA SPM prior to the start of shipwork.

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(2) Ensure that installation scheduling and AIT tasking are coordinated with the applicable TYCOM(s) and, if applicable, the cognizant NSA. The AIT Sponsor will ensure that the Command SPM is informed of the AIT schedule any and schedule changes. -  
Continuing liaison throughout the AIT process with all participants is vital for successful accomplishment of alterations by AITs.

(3) Perform reviews and audits to ensure AIT compliance with technical guidance, policy and procedures.

b. AIT

(1) Coordinate installation planning and accomplishment with the AIT Sponsor, the applicable TYCOM(s) and, if applicable, cognizant NSA. The AIT Sponsor will coordinate all planning and scheduling with the Command SPM.

(2) Report completion of the alteration in accordance with reference (e), (h), and (i), as applicable.

c. Command SPM. Ensure technical design approval of AIT installation designs and ensure proper reporting and recording of installation completion have been completed (including the FMP Management Information System [MIS] by appropriate activities).

10. Concurrence. Commander, Space and Naval Warfare Systems Command concurrence was provided by SPAWAR letter 4720 Ser 003-243/112 dated 17 November 1989. Any future revisions to this instruction will be provided to COMSPAWARSYSCOM for review and concurrence.

  
P. M. HEKMAN, JR.

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