



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
WASHINGTON, DC 20362-5101

IN REPLY REFER TO
NAVSEAINST 3960.4A
SEA 902/233
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NAVSEA INSTRUCTION 3960.4A

From: Commander, Naval Sea Systems Command
To: All Offices Reporting Directly to COMNAVSEA

Subj: IMPLEMENTATION OF TOTAL SHIP TEST PROGRAM FOR SHIP PRODUCTION
(TSTP/SP)

Ref: (a) NAVSEA 0900-LP-095-2010 of Apr 1977, Subj: TSTP/SP Ship
Construction Tests and Trials Manual
(b) NAVSEAINST 3960.5 of 31 May 1984, Subj: Policy on ship testing

1. Purpose. To continue the Total Ship Test Program for Ship Production as a high priority program of the Naval Sea Systems Command (NAVSEA) and to promulgate procedures for its implementation.

2. Cancellation. NAVSEA Instruction 3960.4 of 21 June 1983 and NAVMAT Instruction 3960.7A of 6 April 1977 are hereby cancelled. NAVSEA 0900-LP-095-2010, reference (a), which was enclosed in NAVMAT Instruction 3960.7A, is continued.

3. Scope. This instruction implements NAVSEA's overall policies on ship testing, reference (b), for naval ships in acquisition, modernization and conversion programs under the cognizance of the Commander, Naval Sea Systems Command and systems installed in such ships. Specifically excluded from the provision of this instruction are Navy nuclear propulsion plants for which the Deputy Commander for Nuclear Propulsion (SEA 08) has cognizance.

4. Background

a. In 1974, NAVSEA issued the policy that test and evaluation (T&E) in ship acquisition programs is to be used for the assessment of technical risk, for the indication of program progress and for the early exposure of problem areas. NAVSEA established the TSTP/SP to develop and maintain procedures to be used in implementing this policy. The improvement in ship programs in which the TSTP/SP has initially been implemented has demonstrated its value. The Chief of Naval Operations and the President of the Board of Inspection and Survey (INSURV) have commended the TSTP/SP and have continually supported its implementation.

b. The core policies, procedures and standards of the TSTP/SP are contained in the Ship Construction Tests and Trials Manual, reference (a).

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These documents require that the shipyard part of the ship's T&E program be accomplished through the conduct of a validated Integrated Test Package (ITP). The ITP consists of a combination of Government and contractor (shipbuilder/subcontractor) prepared tests, tailored to the mix of Government and contractor design responsibilities of each shipbuilding contract.

5. Policy. In implementing the TSTP/SP within NAVSEA, the following policies apply:

a. Reference (a) shall be implemented in all Naval ship acquisition, modernization and conversion programs (hereafter referred to only as acquisition programs), including foreign military sales, research and development ships, and ships acquired for operation by the Military Sealift Command.

b. Cognizant NAVSEA managers (e.g., ship acquisition program managers (SHAPMs), combat system engineers, and shipborne system program managers) shall ensure that their responsibilities in each ship class TSTP are carried out in accordance with reference (a).

c. The TSTP shall be used by cognizant NAVSEA managers and by the on-site Supervising Authority (Supervisor of Shipbuilding or Commander of the Naval Shipyard) as a tool for monitoring technical progress during the shipyard period and for assessing the ship's readiness for INSURV Trials (Acceptance Trials, Underway Trials and Combined Trials). Ships shall not be considered ready for such trials unless the prerequisite tests are completed and the results of those tests support a high probability of successful trials.

d. In order to increase the standardization and the resultant reapplicability of test documentation, as well as to effect improvements in test engineering, NAVSEA designates field activities to manage the development of selected TSTP/SP tests. For surface ship programs, the Naval Ship Weapon Systems Engineering Station (NAVSHIPWPNSYSENGSTA) has been designated in the Combat System area and the Naval Ship Systems Engineering Station (NAVSHIPSYSSENGSTA) in the ship systems area. In addition, for surface ship programs NAVSEA maintains a repository of both combat and ship system tests at NAVSHIPWPNSYSENGSTA (Code 4J00).

6. Action. The following organizations shall take the action indicated to insure full implementation of references (a) for programs under the cognizance of COMNAVSEA:

a. The Deputy Commander for Acquisition and Logistics (SEA 90) is the Director of the TSTP/SP. The Director shall ensure that the program is given a high priority among, and is integrated with, the other initiatives of NAVSEA to improve the ship acquisition process. The Director is delegated the authority to grant waivers from TSTP/SP requirements for individual ship programs.

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b. The Director of the Test and Evaluation Division (SEA 902) is the TSTP/SP program manager. The program manager shall provide management within NAVSEA of the TSTP/SP and act as the NAVSEA point of contact for organizations outside NAVSEA. SEA 902 insures that each ship program appropriately incorporates the TSTP policies and directs the efforts of the Systems Test and Evaluation Division (SEA 61X1) in developing TSTP practices and standards and in incorporating them into ship programs.

c. SHAPMs shall:

(1) Establish a Total Ship Test Program for each class of ships in accordance with reference (a).

(2) Include in Ship Project Directives (SPDs) the requirements and funding for the development of test documentation and the provision of engineering services to the shipyard to assist in the conduct of the test program. Surface ship SHAPMs shall provide copies of approved test procedures, and changes thereto, to the TSTP/SP repository at NAVSHIPWPNSYSENGSTA.

(3) For major ship programs, assign a Combat System Test Development Director (CSTDD) and a Ship System Test Development Director (SSTDD), in accordance with reference (a), to manage the development and integration of combat and ship system tests and to assist SUPSHIPS and the NAVSHIPYDs in administering the test program. For surface ship programs, NAVSHIPWPNSYSENGSTA shall be assigned as the CSTDD and NAVSHIPSYSENGSTA the SSTDD.

(4) Use the TSTP to monitor progress during the shipyard period and to assess the ship's readiness for trials.

(5) Insure that the shipbuilding contract provides for shipbuilder preparation of test documentation compatible with and suitable for integration with Government furnished test documentation, for shipbuilder conduct of the ITP, and for appropriate shipbuilder participation in the test problem reporting and resolution process.

d. SEA 61X1, NAVSEA's TSTP engineering group, shall perform the engineering tasks necessary to ensure that NAVSEA implements the TSTP/SP in a consistent and effective manner. Towards this end, SEA 61X1 shall:

(1) Insure that each ship's design effort supports a total ship, system-engineered, effective and efficient tests and trials program. SEA 61X1 shall monitor the planning and implementation to ensure that the T&E program objectives established are appropriately maintained and to obtain feedback for the improvement of future ship contract design efforts.

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(2) Maintain the T&E Sections (092, 094 and 095) of the General Specifications for Shipbuilding as a cohesive, current description of the requirements necessary for effective shipyard testing.

(3) Accomplish support tasks assigned in the TSTP/SP Master Plan published by SEA 902. Plan and budget for the O&MN funds required for these tasks.

e. NAVSEA shipborne system program managers shall:

(1) During each ship contract design, develop the TSTP test requirements for systems under their cognizance;

(2) During each ship detail design, develop test documentation for Government furnished equipment and review appropriate shipbuilder test documentation for contractor furnished equipment. When a Combat System or Ship System Test Development Director (TDD) is assigned for the ship program, the cognizant program managers shall coordinate this development and review with the TDD's. Program managers shall insure that for Government furnished documentation maximum cost effective use is made of previously developed documentation; for surface ship programs the TSTP/SP repository at NAVSHIPWPNSYSENGSTA shall be used as a source of such documentation; and

(3) During shipyard testing, provide on-site engineering services as required and funded by the SHAPM or his T&E management agents.

7. Waivers. Ship programs in which the contract for lead ship construction has been or will be awarded after NAVSEA's establishment of the TSTP/SP, September 1976, require written waivers for deviations from the requirements of reference (a). Requests shall be submitted by the cognizant SHAPM to SEA 90 via the ship platform Deputy Commander and shall identify the specific requirements to be waived, with the appropriate justification.

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