



DEPARTMENT OF THE NAVY
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OPNAVINST 3502.5B
N97
16 May 2014

OPNAV INSTRUCTION 3502.5B

From: Chief of Naval Operations

Subj: POLICY FOR MANAGING THE LIFE CYCLE SUPPORT OF THE
SUBMARINE TRAINING SYSTEM PROGRAM

Ref: (a) NAVSO P-1000, DON Financial Management Policy Manual
(b) OPNAVINST 1500.76C
(c) OPNAVINST 4000.57G
(d) NAVSEA S8200-BG-PLN-010/LCSP (OP), Submarine Learning
Facility Life Cycle Support Plan (NOTAL)
(e) NAVSEA T8501-AF-PLN-010, Submarine Training Materials
Management Plan (NOTAL)
(f) OPNAVINST 3502.2D
(g) OPNAVINST 1540.51D

Encl: (1) Submarine Training Policies

1. Purpose. To establish policy for managing configuration management and life cycle support of the Submarine Training System Program. This instruction has been administratively revised, with most of the changes being editorial in nature. It is important to note that the references within this instruction have undergone significant changes and should be reviewed in their entirety.

2. Cancellation. OPNAVINST 3502.5A.

3. Scope. This instruction applies to the sustaining configuration management and life cycle support of the Submarine Training System Program at all submarine learning facilities. This instruction does not apply to training material or trainer systems equipment under the cognizance of the Commander, Naval Sea Systems Command (COMNAVSEASYS COM), Nuclear Power Directorate (SEA 08) or the strategic weapon system under the cognizance of the Director, Strategic Systems Programs (DIRSSP). COMNAVSEASYS COM (SEA 07TR) performs fleet interactive display equipment installations in support of SEA 08 as directed by the Office of the Chief of Naval Operations (OPNAV), Director, Undersea Warfare Division (N97).

4. Background. OPNAVINST 3502.5 and OPNAVINST 3502.5A provided guidance for managing the support of engineering and operations training. In 1990, OPNAV N97 assigned all submarine training systems and life cycle support to COMNAVSEASYS COM Submarine Training Manager (SEA 07TR) (formerly SEA 07L1). In 2009, integrated undersea surveillance systems were transferred under Chief of Naval Operations (CNO), Deputy Chief of Naval Operations, Information Dominance (CNO N2/N6), and is no longer addressed in this instruction. This instruction defines the scope and management plan for the life cycle support of the submarine training system programs for all classes of submarines.

5. General Training Policy. The submarine training policies contained in enclosure (1) are approved for use in programming, development, and acquisition of submarine training systems per references (a) through (c) and for planning and conducting undersea training. These undersea training policies have been developed in coordination with submarine type commanders (TYCOM). Any deviation from established policies requires prior approval by OPNAV N97.

6. Responsibilities

a. OPNAV N97

(1) Grant approval and concurrence for TYCOM generated training requirements and provides recommendations for incorporation into the training system program.

(2) Provide funding, per reference (a), and direction to SEA 07TR for updates to the various team training scenario hardware, software, and other related products that support TYCOM training requirements.

b. TYCOMs

(1) Identify those tactical team training scenario hardware, software, including databases, or other products, which require change, upgrade, or enhancement to OPNAV N97 via the Undersea Warfare Mission Review Group and Undersea Warfare Training Committee.

(2) Review all generated changes for tactical correctness and approves all material prior to installation into the trainer.

c. Submarine Learning Center (SUBLEARNCEN)

(1) As the training agent for Deputy Chief of Naval Operations, Manpower, Personnel, Education and Training (CNO N1) and the Naval Education and Training Command (NETC), utilize SEA 07TR to provide government and contractor operation and maintenance for all identified training systems at all submarine learning facilities.

(2) Participate in hull, mechanical, and electrical; combat systems; and electronic training systems working groups at all submarine learning facilities. Ensure submarine learning facilities submit training equipment change requests, per references (d) and (e), for approval by TYCOM, which will allow SEA 07TR to modify or provide training assets.

(3) Perform duties for both the Undersea Warfare Mission Review Group and Undersea Warfare Training Committee per reference (f).

(4) Staff the submarine learning facilities for operation of submarine training systems equipment.

(5) Ensure trainer safety per the agreements between Naval Undersea Warfare Center (NAVUNSEAWARCEN) and SEA 07TR.

(6) Perform duties as the submarine on board training program director per reference (g).

d. COMNAVSEASYSKOM

(1) SEA 07TR shall function as the Submarine Training System Program training support agency, as defined in references (a), (b), (d) and (e) for submarine technical training and for all COMNAVSEASYSKOM team submarine funded and installed trainers at the submarine learning facilities. As such, SEA 07TR shall be responsible for configuration management and life cycle support for all tactical oriented team trainers and all training support agency training materials.

(2) Financial management responsibility for the COMNAVSEASYS COM Team Submarine Training System Program is delegated to SEA 07TR.

(3) Sponsorship of the submarine training system budget, required to execute the responsibilities identified in references (a) through (g) is the responsibility of SEA 07TR. This responsibility includes identification and development of the necessary requirements to sustain the life cycle operation of the Submarine Training System Program, which includes the allocation of funds to program manager (PM), material support agencies, contractors and other agencies as necessary.

(4) SEA 07TR shall ensure that emerging fleet outfitting plans identified in the CNO-approved Navy training system plans (NTSP) result in timely identification of training requirements and that required training equipment and training materials are available for instructional use prior to equipment deployment in the fleet. All training plans for the training systems located in the submarine learning facilities shall be consistent with the policy provided by references (b) and (c).

(5) Sponsor and execute all programmatic and financial matters regarding sustaining support of the Submarine Training System Program under their cognizance as identified in references (d) and (e) during the life cycle of the submarine training systems.

(6) Execute existing instructions for implementation of the policy and direction provided here.

(7) Execute life cycle configuration management and training support agency responsibilities identified in references (d) and (e) for Submarine Training System Program equipment and training materials required to satisfy training requirements. Maintain training support agency and life cycle support plans that identify training materials and trainer system responsibilities.

(8) Manage the Submarine Training System Program as identified in references (d) and (e) which support the existing fleet requirement and act as the focal point for all new

requirements which are approved for each submarine class. Representative support to be developed and executed by SEA 07TR are listed below:

(a) Provide information on actions to be taken and milestones to be attained to ensure continuing logistic support of all elements of the Submarine Training System Program. The milestones, and actions required to attain them, must be in sufficient detail to permit budget justification.

(b) Develop changes to the individual training path in coordination with the SUBLEARNCEN.

(c) Following the process and guidance of references (d) and (e), manage the submarine learning facility functional baselines by providing continuing assessment of the configuration compatibility of the fleet ballistic-missile submarine, nuclear (SSBN), guided-missile submarine, nuclear (SSGN), and attack submarine, nuclear (SSN) and the Submarine Training System Program. Continue assessment of configuration changes planned for all submarine learning facilities.

(d) After stage 5 and under the responsibility identified in reference (g), SEA 07TR shall provide technical updates to the SUBLEARNCEN for incorporation into technical training curriculum assigned to SEA 07TR, which is required to be maintained by the training support agency. Updates to the training materials for the submarine learning facilities shall reflect tactical equipment changes which are being incorporated into the fleet. The updates provided shall be based on:

1. Approved technical changes (different revision levels).

2. Different training hardware configurations that affect curriculum.

3. TYCOM requirements directed by Commander, Submarine Force, Atlantic (COMSUBLANT) or Commander, Submarine Force, U.S. Pacific (COMSUBPAC).

(e) Coordinate submarine team training matters with COMSUBLANT and COMSUBPAC. Coordinate individual training matters with the SUBLEARNCEN.

(f) Coordinate nuclear power training interfaces with SEA 08.

(g) Per reference (b), provide annual NTSP review recommendation for submarine program NTSPs to OPNAV N97 and provide updates if deemed necessary. Assist in providing resource data to OPNAV N97.

(h) Perform responsibilities on the CNO-sponsored Undersea Warfare Training Committee and Undersea Warfare Mission Review Group per reference (f).

(i) Provide support to OPNAV N97 on all planning and financial matters regarding Submarine Training System Program life cycle support, and configuration management of training equipment and training materials for the submarine learning facilities.

(9) Provide technical support to DIRSSP on strategic weapon system and engineering and operations training common support areas of Trident Training Facility Kings Bay and Bangor.

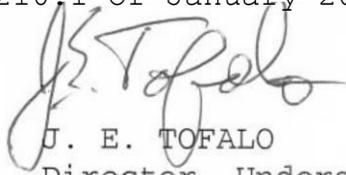
(10) Provide funding and monitor cost associated with OPNAV approved changes required to support and upgrade TYCOM team training requirements. Advise OPNAV of impacts to other submarine training programs when tasked to execute emergent and unplanned requirements.

(11) Execute the government and contractor operation and maintenance for all identified training systems at the SUBLEARNCEN and subordinate learning sites.

e. Commander, Space and Naval Warfare Systems Command (COMSPAWARSYSCOM) and Commanding Officer, Naval Air Warfare Center, Training Systems Division (NAVWARCENTSD). COMSPAWARSYSCOM and NAVWARCENTSD shall continue to perform PM and material support agencies functions per the requirements of references (d) and (e) in support of the life cycle of the Submarine Training System Program.

OPNAVINST 3502.5B
16 May 2014

7. Records Management. Records created as a result of this instruction, regardless of format and media, shall be managed per Secretary of the Navy Manual 5210.1 of January 2012.



J. E. TOFALO
Director, Undersea Warfare

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SUBMARINE TRAINING POLICIES

The following undersea warfare (USW) training policies are approved for use in programming, development, and acquisition of USW training systems and for planning and conducting undersea training. These undersea training policies have been developed in coordination with NETC and submarine TYCOMs. Any deviation from established policies requires prior approval by OPNAV N97.

1. General

a. All NTSPs will be developed per reference (b).

b. Training on national strategy shall be provided in formal courses and kept current by NETC, the fleet commanders and TYCOMs.

(1) The single point of contact and submarine training system PM for non-nuclear, non-strategic weapon system submarine training established within the COMNAVSEASYSYSCOM Undersea Warfare Directorate (SEA 07) is SEA 07TR.

(2) All submarine training and trainer-related development efforts shall be coordinated via SEA 07TR prior to submittal to the OPNAV Head, Manpower and Training Branch (OPNAV N973B).

(3) On board interactive courseware and interactive multimedia instruction products must be compatible with shore-based interactive courseware and interactive multimedia instruction systems and must not be developed with proprietary authoring systems.

(4) Shore-based interactive courseware and interactive multimedia instruction systems must be compatible with on-board interactive courseware and interactive multimedia instruction systems and must not be developed with proprietary authoring systems.

(5) Technical appraisals of submarine training courses of instruction will only be performed in conjunction with USW training requirements reviews NETC human performance requirements reviews, or curriculum relevancy reviews.

(6) Technical appraisals of submarine training systems that have a proven configuration management system in place will not be scheduled unless requested by OPNAV N97.

(7) Submarine reserve mission area qualification training material will be developed by the Navy Reserve, SUBLEARNCEN, Headquarters unit.

(8) The submarine technical design manager undersea is the division technical director of NAVUNSEAWARCEN, Newport Division. The submarine training warrant is an NAVUNSEAWARCEN-funded billet assigned to the SUBLEARNCEN with responsibilities for trainer safety.

2. Fleet Team Training

a. By maintaining training capability in fleet concentration areas, submarine crews will not normally leave homeport for training.

b. All team shore-based training will occur in the individual's home port whenever possible.

c. The submarine TYCOMs training requirements are contained in the following Commander, Naval Submarine Force instructions: COMSUBFORINST 3500.2; COMSUBFORINST C3500.21; COMSUBFORINST 3500.22; and COMSUBGRUNINE/COMSUBGRUTENINST 1500.1B. Formal school requirements are listed in the Fleet Training Management and Planning System.

d. USW personnel shall use existing applicable courses of instruction in Navy schools in the local area, to the maximum extent possible.

e. Responsive training shall be supported to the maximum extent possible within existing assets using the Trainer Scheduling Utility Program.

3. New Training System Capability

a. Initial production equipment and associated technical manuals for a new system will be provided for training purposes

prior to fielding of the new tactical capability unless waived by OPNAV N97 and endorsed by Director, Training and Education (OPNAV N15), per reference (b).

b. Advances in training technology that are cost-effective and that demonstrate potential for improving USW readiness will be applied to the maximum extent possible.

c. Per DoD Directive 1322.18 of 13 January 2009, embedded training and distributed learning shall be considered the first alternative in training for new weapon systems.

d. The systems command (SYSCOM) acquisition PM's shall propose policies on training for commercial off-the-shelf (COTS) hardware and software to SEA 07TR and OPNAV N973B for emergent shipboard systems.

e. Use of factory training will be minimized. Curriculum will be transferred to USW training activities as soon as possible. Factory training schedules and quotas will be coordinated through the TYCOM directors of training and tactical development (N7).

f. Replacement and conversion training will be in place at Navy training activities at initial operating capability, unless waived by OPNAV N97.

g. SYSCOMs, program executive officers and PMs will, per the tenant human systems integration OPNAV instructions, propose and support to SEA 07TR and OPNAV N973B embedded training during the design, development, installation, and operational and life cycle support of new and existing parent shipboard systems.

h. The PM shall provide general purpose electronic test equipment for initial training system installations.

i. USW team trainers shall be composed of totally training-unique equipment (COTS and government off-the-shelf hardware). The trainer shall incorporate the latest tactical configurations using operational software to its fullest capability. The common architecture must reduce the inherent lag time incurred in updating the trainers to the latest tactical configuration and decrease the costs of associated hardware and software development and life-cycle maintenance.

j. Simulation or stimulation is the preferred approach for all combat system team trainers ashore. Operational software programs shall be used to the maximum extent practical.

k. Training devices shall be procured with enough lead-time to have formal training established and graduates available at the time the related operational hardware and system is installed in the fleet.

l. Interactive multimedia instruction may be used as part task trainers to support maintenance training, operator training, and to supplement classroom training. Interactive multimedia instruction may also be used as interim training devices, onboard training (OBT) devices, and to replace training devices where personnel or equipment hazards prohibit performing training on tactical equipment.

m. The requirement for interactive courseware or interactive multimedia instruction shall be validated using front-end analysis, approved by SEA 07TR and OPNAV N97 and documented and approved in appropriate NTSPs.

n. Interactive training shall use common training objects to the maximum extent practical.

o. SYSCOMs providing equipment and systems that use interactive electronic training manuals (IETM) for operations and maintenance are required to provide appropriately sized electronic classroom capability to support training that uses the IETM. The SYSCOMs will plan for the procurement and installation of an electronic classroom as part of their usable training package as directed by reference (a), and documented by the NTSP, or by separate correspondence to the program sponsor, OPNAV N973B. A site survey will be conducted to determine the existing training command's electronic classroom capacity and will be used to satisfy the training requirement. SYSCOMs that provide technical training equipment and IETMs to support maintenance skill training are required to provide laptops for use in the technical training equipment laboratories.

p. All USW instructor-led training curriculum developed per MIL-PRF-29162 and NAVEDTRA 130B using authoring instructional materials shall be maintained using authoring instructional materials until the curriculum material is re-authored for use

in the integrated learning environment. Authoring instructional materials will continue to be used for development of new instructor-led training curriculum.

q. Stimulation of the tactical system is the preferred approach for all combat system OBT.

r. All equipment installations will be performed per OPNAVINST 11102.2 .

s. Initial, factory, and operational evaluation training materials and lessons learned shall be integrated and used to the maximum extent possible in the development and implementation of follow-on training at USW training activities and OBT material.

t. Procurement activities shall implement a clearly defined life-cycle management program for interactive courseware or interactive multimedia instruction used in shore-based and on-board curriculums.

u. The baseline assumption for procurement of training devices or equipment laboratories will be two-shift operation unless otherwise specified.

4. Training Equipment and Devices

a. The baseline assumption for laboratory utilization of training devices, equipment laboratories or training laboratories will be based upon instructor manning and fleet student throughput of the course of instruction conducted in that space which is determined by the appropriate instructor computation NETC instructions. Reporting laboratory utilization will follow the appropriate NETC instructions and will be used by the SYSCOM for determining contractor supported maintenance, etc.

b. On-site contractor representatives and or COMNAVSEASYSYSCOM government employees will accomplish maintenance of commercial and training-unique equipment used to support submarine training activities.

c. Maintenance training will not be performed on equipment used for operational training unless requested by the PM and waived by OPNAV N97.

d. Site preparation costs are included in equipment installation costs unless a military construction project is required per reference (a).

5. Officer Training

a. All officers will attend the indoctrination course and Submarine Officer Basic Course prior to being assigned to their initial tour on a submarine.

b. Unrestricted line officers will attend the Submarine Officer Advanced Course prior to being assigned as department head on a submarine.

c. Any officer assigned to an SSBN as strategic weapons officer or navigator shall complete the appropriate strategic weapons or navigator school prior to reporting.

d. Any officer screened as executive officer (XO), XO submarine support, commanding officer (CO), or CO submarine support will attend the Submarine Command Course prior to being assigned as XO or CO on a submarine, as CO of a submarine learning site, or as a squadron deputy. Any officer screened as XO being assigned to a submarine learning site may attend the Submarine Command Course after consideration of their level of experience, resources available, and geographic location of the learning site to which the officer is assigned.

6. Training Courses and Pipelines

a. Curriculum or formal documentation required to support team training shall be jointly developed by the SUBLEARNCEN command and TYCOM N7 representatives and approved by the TYCOM N7.

b. NETC-approved planning factors will be used for instructor computations, class scheduling, and workload determination at submarine training activities.

c. SYSCOMs will evaluate pipeline restructuring periodically, whenever the curriculum is revised, or when supporting technical manuals are revised or converted to electronic technical manual or IETM format. Restructuring courses are requested to reduce pipeline length, shift training to OBT or integrated learning environment whenever possible, and reduce Navy enlisted classifications.

d. Operational courses and USW OBT material shall use approved operational documentation.

e. USW maintenance courses will be conducted using the approved technical documentation for the tactical equipment and system and will support the maintenance philosophy stated in the Naval Sea Systems Command, Supervisor of Shipbuilding, Conversion and Repair Operations Manual, 2008 edition, chapter 14: Integrated Logistics Support Plan.

f. Self-paced training content will be designed using the NAVEDTRA 136, Navy Integrated Learning Environment Content Development and Maintenance Manual, of 10 December 2010.

g. Submarine reserve mission area qualification training shall be delivered to submarine reserves personnel via the Navy's integrated learning environment.

h. Authoring instructional materials will apply for in-house use under all curriculum development systems. Automated systems used by contract developers will be compatible with authoring instructional materials to facilitate future maintenance and revision with the in-house authoring instructional materials capabilities now being planned.

i. All officers and enlisted accessions personnel (except nuclear trained submarine enlisted and fleet returnees) should attend pressurized submarine escape training prior to reporting on board.

j. All submarine enlisted personnel, with the exception of nuclear trained personnel, shall attend Basic Enlisted Submarine School before assignment to an operating submarine.

7. OBT

a. SUBLEARNCEN submarine OBT department director is the single point of contact for liaison between the submarine force, development agencies, and contractors regarding OBT products per reference (g).

b. OBT products that are developed as interactive courseware or interactive multimedia instruction will be compatible with the submarine local area network system and be able to be interfaced with the technical data products delivered with the advanced technical information support system.

c. The TYCOMs and NETC shall be integrally involved in the analysis and planning for interactive courseware or interactive multimedia instruction and the computer-based delivery system procurement to ensure configuration management and maximum cross-utilization between sea and shore.

d. Following combined tactical system upgrades, the modernization training team will facilitate OBT and underway training to ensure crew familiarization and basic proficiency in system operation, functionality and system employment.

e. OBT objectives shall be coordinated with shore-based training. To the maximum extent feasible, OBT curriculum will complement and reinforce shore-based efforts as required in appropriate NTSPs.