



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO

NAVSEAINST 9462.1C

Ser 07T/036

25 JUL 2003

NAVSEA INSTRUCTION 9462.1C

From: Commander, Naval Sea Systems Command

Subj: SONAR TESTING, ASSESSMENT, & GROOMING INSPECTION (STAG-I)
PROGRAM

Ref: (a) CINCPACFLT/CINCLANTFLT 4790.3 Ch. 5 of 07 Dec 2001,
Joint Fleet Maintenance Manual
(b) NAVSEAINST 4790.23 of 23 Aug 2002
(c) OPNAVINST 4790.4C of 07 Nov 1994, Ship's Maintenance
and Material Management (3-M) Plan

1. Purpose. To re-establish policies, responsibilities, and procedures for conducting the Naval Sea Systems Command (NAVSEA) 07T Sonar Testing, Assessment, and Grooming (STAG-I) Inspection Program on submarines.

2. Cancellation NAVSEAINST 9462.1B CH-2 of 20 June 1999

3. Definitions

a. For the purposes of this instruction:

(1) "Availability" is defined for SSN 688/21/774 Class submarines as Depot Modernization Period (DMP), Engineered Refueling Overhaul (ERO), Engineered Overhaul (EOH), Interim Dry Docking (IDD), Restricted Availability (RAV) and Selected Restricted Availability (SRA), and for SSBN 726 Class submarines (including SSGN) as Engineered Overhaul (EOH), Engineered Refueling Overhaul (ERO), and Extended Refit Period (ERP).

(2) Transducer is defined as sonar projectors, hydrophones and/or resonators.

4. Scope. The procedures set forth by this instruction apply to all U.S. Navy submarines supported by the Commander, Naval Sea Systems Command, SEA 07T. STAG-I determines the mechanical, electrical, and material condition of submarine installed

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transducers using the tests designated by Submarine Maintenance Monitoring Support (SMMS) "K" Maintenance Requirement Cards (MRCs) including electrical connectors and cables.

5. Background. On 1 October 1986, responsibility for the Phase I Sonar Training, Assessment, and Grooming (STAG) Inspection transferred from NAVSEA 63T to 05N (now 07T). This eliminated the previous contractor supported STAG Inspection Program and used NAVSEA 07T Performance Monitoring Teams (PMTs) to conduct the Phase I STAG Inspection. The Phase I STAG Inspection is now incorporated into STAG-I, transducer performance monitoring program.

6. Objective. In accordance with references (a) and (b), the STAG-I objective is to identify defective submarine sonar transducers for repair and/or replacement during SSN 688, SSBN 726 (including SSGN), SSN 21 and SSN 774 Class Availabilities.

7. Responsibilities and Actions

a. Type Commanders. TYCOMS are responsible for final determination of, and authorization for, replacement of defective transducers identified during the performance of STAG-I. TYCOMS shall evaluate requirements for replacement of failed transducers based on results of STAG-I testing and recommendations forwarded by the Ship's Commanding Officer.

b. NAVSEASYSKOM 07T. SEA 07T is responsible for overall management of the STAG-I program including policy, planning and financial management. SEA 07T provides and maintains STAG-I procedures and monitors STAG-I Program performance, scheduling and effectiveness. Conflicts or questions concerning the transducer and/or electronic system boundaries should be referred to NAVSEA 07T for resolution.

c. Group and Squadron Commanders. Group and Squadron Commanders provide operational support by ensuring availability of the ship at specified times and locations and review/release the STAG-I message provided by PMT.

d. Submarine Commanding Officer. Submarine Commanding Officers provide support necessary to conduct STAG-I. Support

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will include the designation of a STAG-I Liaison Officer with authority to commit ship personnel and resources necessary to complete the inspection. Submarine Commanding Officers coordinate any required transducer rework based on test results.

e. PMT Sonar Technicians. PMT Sonar Technicians shall: provide liaison with Group or Squadron Commander and Ship's Force personnel to coordinate the schedule for STAG-I testing; ensure all technical documentation required for testing is available; supervise testing by Ship's Force personnel; report deficiencies and forward repair/replacement recommendations via On-Site Analysis Reports (OSARs); prepare a "Draft" STAG-I message report for review and release by parent Squadron and/or Group; and ensure updated A-3 STAG-I test data is forwarded expeditiously for incorporation in Availability Work Packages (AWP).

f. Ship's Force Sonar Technicians. Ship's Force Sonar Technicians shall: make available the latest approved version of "K" MRCs for installed sonar systems; conduct testing under the direction of PMT sonar technician; at the direction of the Ship's Commanding Officer, initiate troubleshooting, fault localization, and corrective maintenance actions as applicable.

8. Schedule. The STAG-I inspections are conducted dockside and are normally accomplished during a five to six day period. The STAG-I inspections are scheduled three to six months prior to IDD and SRAs for SSN 688/21/774 Class submarines. In support of Submarine Factory efforts and reference (b) requirements, STAG-I inspections for SSN 688 Class EROs, EOHs and DMPs and SSBN 726 Class EROs, EOHs and ERPs will be scheduled to support A-10 testing. For availabilities requiring A-10 testing, PMTs will conduct an additional STAG-I at A-3 to update A-10 data. Any pre-availability STAG-I verifications should be performed within 48 hours of transducers and/or cables leaving the water to ensure the outboard components do not dry out prior to testing.

9. Procedure

a. Preparation. The PMT STAG-I Team Leader reviews all deficiencies noted during the previous STAG-I and End of Monitoring Period (EMP) reports.

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b. Pre-Brief. At the submarine Pre-Arrival meeting, the PMT STAG-I Team Leader will notify the squadron and ship that a STAG-I is due. At this time, scheduling concerns can be addressed; the Ship's Liaison Officer is designated; and Ship's force personnel requirements are reviewed. Additionally, the Team Leader shall provide the following to Ship's Force:

- STAG-I scheduled dates
- Equipment Configuration List (to be verified by Ship's Force prior to the start of the STAG-I)
- List of MRCs to be conducted during the STAG-I
- List of maintenance oriented MRCs that will not be conducted during the STAG-I, but which Ship's Force should verify completed as scheduled.

c. Testing

(1) During the STAG-I, testing is conducted in accordance with MRCs applicable to the sonar suite being inspected. Ship's Force is required to provide two experienced (typically E-5 or above, Submarine qualified) Sonar Technicians during the STAG-I inspection period. Participation by Ship's Force Sonar Technicians will ensure: that Ship's Force has Sonar Technicians trained in transducer testing methods; that shipboard Sonar division is aware of defective elements, and why the elements are defective.

(2) During the STAG-I, procedural problems are reported via Technical Feedback Reports (TFBRs) in accordance with reference (c). As sonar system problems are identified, the discrepancies are documented and forwarded to Ship's Force via On Site Analysis Reports (OSARs). The OSARs inform Ship's Force of discrepancies, provide recommendations for corrective actions, and provide information to NAVSEA 07T for evaluation and trend analysis.

d. Debrief. Immediately upon completion of STAG-I, the PMT STAG-I Team Leader or PMT Sonar Technician will debrief Ship's Force personnel. Copies of all OSARs generated during the STAG-I are provided to the ship's Commanding Officer or designated representative and all outstanding items are addressed. In addition to the inspected ship's Commanding Officer and Ship's

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Force personnel, representatives of the TYCOM, Group, or Squadron may be present at the debrief.

e. Final Report

(1) At the completion of the STAG-I, OSARs shall be compiled and summarized into a final report prepared in standard naval message format for transmittal. The Naval message shall identify all outstanding deficiencies and provide recommended corrective actions. A draft copy of the message shall be provided to the inspected ship. The final STAG-I message will be forwarded by the PMT, through the parent squadron or group, to the ship's TYCOM. The message should be released within 10 days of STAG-I completion, or within 10 days of the completion of the last STAG-I in a series of back-to-back STAG-Is.

(2) Info addressees on the STAG-I message shall include (as a minimum):

- Naval Sea Systems Command, (SEA 07T), Washington, D.C.
- Naval Sea Systems Command, Submarine Combat Weapons Program Office (PMS401), Washington, D.C.
- Naval Sea Systems Command (PMS392C), Washington, D.C. (for SSN 688/21 and SSBN 726 Classes)
- Naval Sea Systems Command, Virginia Class Program Office (PMS450), Washington, D.C. (for SSN 774 Class)
- Submarine Maintenance Engineering, Planning and Procurement Activity (Code 1850.2 Portsmouth, NH)
- Naval Weapons Support Center (Code 6072), Crane, IN
- Fleet Technical Support Center-Pacific (Code 213), San Diego, CA
- Fleet Technical Support Center-Atlantic (Code 4332) Norfolk, VA
- Naval Undersea Warfare Center (Code 2131, 2133), Newport, RI
- Cognizant Naval Shipyard or Supervisor of Shipbuilding (Code 270) (if commercial shipyard is used).

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(3) An example of the final report message is provided in figure (1).


STEVE SCHULZE
By direction

Distribution:

SNDL 24G1 COMSUBLANT (Code N4)
24G2 COMSUBPAC (Code N4)
28K1 Submarine Group and Squadron, LANT
28K2 Submarine Group and Squadron, PAC
29N Submarine (SSN)
29Q Fleet Ballistic Missile Submarine (SSBN)
C28D FTSC-PAC (Code 9460)
C31B FTSC-LANT (Code 4230)
FKP1E NAVUNSEAWARCENDIV-KEYPORT (Code 75V3), NEWPORT
(2131, 2151)
FKP4E NAVSURFWARCENDIV-CRANE (Code 705, 70523)
FKP8 SUPSHIP (Code 270)
FKP26 SUBMEPP (Code 1843, 1850.2)

Copy to:

SNDL FT88 EDOSCOL

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ADMINISTRATIVE MESSAGE

ROUTINE

R 121730Z JAN 95 ZYB PSN 756165M30

FM COMSUBRON (or COMSUBGRU) _____ //N4/SMMS PMT//
TO: COMSUBLANT NORFOLK VA//N4// or COMSUBPAC PEARL HARBOR HI//N4//
INFO COMNAVSEASYS COM WASHINGTON DC//SEA07T/SUB 401/PMS 392C/SUB SUBW//
SUBMEPP PORTSMOUTH NH//1850.2//
NAVWPNSUPPCEN CRANE IN//6072//
FTSCPAC SAN DIEGO CA//213//
FTSCLANT NORFOLK VA//4332//
NAVUNDSEAWARCENDIV NEWPORT//2131/2133//
SUPSHIP _____ //270// (if applicable)
USS _____ (ship under inspection)

*(include shipyards as INFO address or SUPSHIP if commercial shipyard is used)
(Optional addressees may include the tender, SUPSHIP, related squadrons, etc.)

BT

CLASSIFICATION//N09460//

SUBJ: (SUBS) SSN/SSBN ### STAG-I REPORT
MSGID/GENADMIN/COMSUBRON ___ SMMS PMT//
REF/A/DOC/COMSUBLANT/COMSUBPAC 4790.3 CH. 5/07 DEC 2001//
REF/B/DOC/NAVSEAINST 9462.1C/ //

NARR/REF A IS JOINT FLEET MAINTENANCE MANUAL 4790.3; REF B IS NAVSEAINST DETAILING SMMS STAG-I PROGRAM//
POC/TOM JONES/STSCS(SS)/COMSUBRON TWO PMT/TEL:COMM (860)694-5045,2257//

RMKS/

1. (U) IAW REFS (A) AND (B), SUBJ STAG-I COMPLETED ON 5 JAN 95 BY PMT NLON AND S/F.
2. (U) DISCREPANCIES NOTED DURING TESTING:
 - A. AN/BQQ-5B:
 - (1) SPHERICAL ARRAY.
 - (A) FOL XDUCERS FAILED INSULATION RESISTENACE (IR) TESTING:
T1-20, T3-58, B1-58, B2-72, B3-05, B3-36, B4-48
 - (2) HULL ARRAY.
 - (A) FOL H-PHONES FAILED IR TESTING: 5B, 6A, 7A, 7B, 9C
 - (B) FOL H-PHONES HAD MARGINAL IR TEST READINGS AND SHOULD BE RETESTED PRIOR TO
SRA: 32A, 45B, 49A
 - B. AN/BQA-8B:
 - (1) FOL H-PHONES FAILED DC RESISTANCE AND/OR IR TESTING:
#2 (DC RESISTANCE ONLY; SUSPECT PIN "E" OPEN).

DECL/X4//

Figure (1) - Sample STAG-I Final Message Report