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LIST OF ACRONYMS

2M	Miniature/Microminiature
3-M	Maintenance and Material Management
A&I	Alteration and Improvement
ACN	Advanced Change Notice
AEL	Allowance Equipage List
AOE	Fast Combat Support Ship
APL	Allowance Parts List
AT	Acceptance Trial
AWP	Availability Work Package
BAWP	Baseline Availability Work Package
BDT	Builder's Dock Trial
BST	Builder's Sea Trial
BT	Builder's Trial
BUPERS	Bureau of Personnel
CAGE	Commercial and Government Entity
CASREP	Casualty Report
CD-ROM	Compact Disc Read Only Memory
CFE	Contractor Furnished Equipment
CHT	Collection, Holding and Transfer
CNO	Chief of Naval Operations
CO	Commanding Officer
COMFLTFORCOM	Commander, Fleet Forces Command
COMLANTFLT	Commander, Atlantic Fleet
COMNAVSEASYSCOM	Commander, Naval Sea Systems Command
COMNAVSURFLANT	Commander Naval Surface Force Atlantic
COMPACFLT	Commander, Pacific Fleet
COMSUBDEVRON	Commander Submarine Development Squadron
COSAL	Coordinated Shipboard Allowance List
CPA	Carrier Planning Activity
CS/CCS	Command and Control Systems
CSCT	Combat Systems Certification Trial
CSMP	Current Ship's Maintenance Project
CSSQT	Combat System Ship Qualification Trials
CT	Combined Trial
CVN	Nuclear-Powered Aircraft Carrier
CW	Continuous Wave
DDG	Guided Missile Destroyer
DIRSSP	Director, Strategic Systems Programs
DRA	Dead Reckoning Analyzer
DRAI	Dead Reckoning Analyzer Indicator
DRT	Dead Reckoning Tracer
EAB	Emergency Air Breathing
EDORM	Engineering Department Organization and Regulations Manual
EEBD	Emergency Escape Breathing Device
EGL	Equipment Guide List
EMBT	Emergency Main Ballast Tank

EOSS	Engineering Operational Sequencing System
EPM	Emergency Propulsion Motor
ESM	Electronic Warfare Support Measures
ETG	Engineering Training Group
FBW SCS	Fly-By-Wire Ship Control System
FCT	Final Contract Trial
FFC	Fleet Forces Command
FIT	Fleet Introduction Team
FMA	Fleet Maintenance Activity
FMR	Field Modification Request
FOSAT	Fitting Out Supply Assistance Team
FOSSAC	Fitting Out and Supply Support Assistance Center
FRP	Fleet Readiness Plan
FTC	Fleet Training Center
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GMI	Guarantee Material Inspection
GPETE	General Purpose Electronic Test Equipment
HF	High Frequency
HMR	Headquarters Modification Request
IEM	Inactive Equipment Maintenance
IFF	Identification Friend or Foe
IMP	Incremental Maintenance Plan
INSURV	Inspection and Survey
ISE	Independent Ship Exercise
ISEA	In-Service Engineering Activity
ISIC	Immediate Superior in Command
JFMM	Joint Fleet Maintenance Manual
JFMMBOD	Joint Fleet Maintenance Manual Board of Directors
JSN	Job Sequence Number
LCPC	Life Cycle Planning Conference
LHD	Amphibious Assault Ship
LOA	Light-Off Assessment
LOEP	List of Effective Pages
LSD	Dock Landing Ship
MACHALT	Machinery Alteration
MBT	Main Ballast Tank
METCAL	Metrology and Calibration
MHC	Coastal Minehunter
MIP	Maintenance Index Page
MRC	Maintenance Requirement Card
MRMS	Maintenance Resources Management System
MSW	Main Seawater
MT	Magnetic Particle Testing
MT	Maintenance Team
MTR	Metrology and Calibration Technical Representative
NAVAIR	Naval Air Systems Command
NAVMASSO	Navy Management Systems Support Office

NAVSEA	Naval Sea Systems Command
NAVSEA 08	Naval Sea Systems Command Nuclear Propulsion Directorate
NAVSEALOGCEN	Naval Sea Logistics Center
NAVSUP	Naval Supply Systems Command
NAWC	Naval Air Warfare Center
NJP	Non-judicial Punishment
NRMC	Navy Regional Maintenance Center
NSTM	Naval Ships' Technical Manual
NSWC	Naval Surface Warfare Center
NSWCCD	Naval Surface Warfare Center Carderock Division
NTP	Naval Telecommunication Procedures
O&MN	Operations and Maintenance, Navy
OCT	Operational Control Transfer
OIC	Officer In Charge
OPNAV	Office of Chief of Naval Operations
OPPE	Operational Propulsion Plant Examination
ORDALT	Ordnance Alteration
ORSE	Operational Reactor Safeguard Examination
OSI	Operating Space Item
OSS	Operational Sequencing System
PCO	Prospective Commanding Officer
PCU	Pre-Commissioning Unit
PDDI	Post Delivery Deficiency Item
PLAD	Plain Language Address Directory
PMS	Planned Maintenance System
POAM	Plan of Action and Milestones
PQS	Personnel Qualification Standard
PSA	Post Shakedown Availability
QA	Quality Assurance
RDORM	Reactor Department Organization and Regulations Manual
RMC	Regional Maintenance Center
RSE	Reactor Safeguard Examination
RT	Radiographic Testing
SCN	Shipbuilding and Conversion, Navy
SDI	Ship Drawing Index
SDOSS	Sewage Disposal Operational Sequencing System
SHIPALT	Ship Alteration
SIB	Ship Information Book
SITREP	Situation Report
SME	Subject Matter Expert
SMMSO	Submarine Systems Monitoring Maintenance and Support Office
SNAP	Shipboard Nontactical Automated Data Processing Program
SOE	Submerged Operating Envelope
SORM	Ship Organization and Regulation Manual
SOSMRC	Senior Officer Ship Maintenance and Repair Course
SPALT	Strategic System Programs Alteration
SRD	Selected Record Drawing
SSBN	Nuclear-Powered Ballistic Missile Submarine
SSGN	Nuclear-Powered Guided Missile Submarine
SSM	Ship Systems Manual
SSN	Nuclear-Powered Attack Submarine

SRDRS	Submarine Rescue Diving Recompression System
SUBMEPP	Submarine Maintenance Engineering, Planning and Procurement Activity
SUBSAFE	Submarine Safety
SUPSHIP NN	Supervisor of Shipbuilding Newport News
SURFMEPP	Surface Maintenance Engineering Planning Program Activity
SYSCOM	Systems Command
SWOS	Surface Warfare Officer School
TD	Test Depth
TDU	Trash Disposal Unit
TEMPEST	National Policy on the Control of Compromising Emanations (unclassified code name)
TFBR	Technical Feedback Report
TSRA	Total Ship's Readiness Assessment
TVD	Technical Variance Documentation
TYCOM	Type Commander
UHF	Ultrahigh Frequency
URO	Unrestricted Operations
VLS	Vertical Launch System
VTI	Visual TEMPEST Inspection

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CHAPTER 2

POLICIES AND RESPONSIBILITIES

REFERENCES.

(a) OPNAVINST 4700.8 - Trials, Acceptance, Commissioning, Fitting Out, Shakedown, and Post Shakedown Availability of U.S. Naval Ships Undergoing Construction or Conversion
(b) OPNAVINST 9080.3 - Procedures for Tests and Trials of Navy Nuclear Powered Ships Under Construction, Modernization, Conversion, Refueling and Overhaul
(c) NAVSEA T9044-AD-MAN-010 - Requirements Manual for Submarine Fly-By-Wire Ship Control Systems
(d) INSURVINST 4730.1 - Material Inspections (MI) of Surface Ships
(e) INSURVINST 4730.2 - Trials and Material Inspections of Submarines
(f) NAVSEA S0300-B2-MAN-010 - Supervisor of Shipbuilding, Conversion and Repair Operations Manual
(g) NAVSEAINST 4790.8/OPNAVINST 4790.4 - Ships' Maintenance and Material Management (3-M) Manual
(h) NAVSEAINST 4734.1 - NAVSEA Test, Measurement, and Diagnostic Equipment (TMDE) and Calibration Programs
(i) NAVSEA ST700-AM-PRO-010 - Test and Monitoring Systems (TAMS) Program Operations and Procedures
(j) NAVSEA ST700-AM-GYD-010 - Metrology and Calibration (METCAL) Laboratory Requirements and Certification Guide
(k) NAVAIR 17-35MTL-1/NAVSEA OD 45845 - Metrology Requirements List (METRL)
(l) COMNAVAIRLANT/COMNAVAIRPACINST 3500.20 - Aircraft Carrier Training and Readiness Manual
(m) NAVSEAINST C9210.30 - Procedures for Administration of Nuclear Reactor Plant Preventive Maintenance and Tender Nuclear Support Facilities Preventive Maintenance on Ships
(n) OPNAVINST C3000.5 - Operation of Naval Nuclear Powered Ships
(o) COMNAVSUBFOR OPORD 2000
(p) SSPINST 5600.11 - Preventive Maintenance Management Program for Strategic Weapon Systems Equipments and Associated Material
(q) COMNAVSUBFORINST 5400.25 - Standard Submarine Supply Department Organization and Regulations Manual
(r) COMNAVSUBFORINST 5400.29 - Standard Submarine Navigation/Operations Department Organization and Regulations Manual
(s) COMNAVSUBFORINST 5400.40 - Standard Submarine Combat Systems Department Organization and Regulations Manual (SSN)
(t) COMNAVSUBFORINST 5400.41 - Standard Submarine SSBN 726 Class Weapons Department Organization and Regulations Manual
(u) COMNAVSUBFORINST 5400.47 - Standard Submarine Combat Systems Department Organization and Regulations Manual (SSGN)
(v) COMNAVSURFLANT/COMNAVSURFPACINST 3502.2 - Surface Force Training Manual
(w) OPNAVINST C9210.2 - Engineering Department Manual for Naval Nuclear Propulsion Plants
(x) OPNAVINST 4790.15 - Aircraft Launch and Recovery Equipment Maintenance Program (ALREMP)
(y) COMNAVSURFLANTINST 3540.18/COMNAVSURFPACINST 3540.13 - Engineering Department Organization and Regulations Manual (EDORM)
(z) COMSUBFOR/COMSUBPACINST C5400.30 - Engineering Department Organization Manual
(aa) COMNAVSURFLANTINST 4700.4 - Fleet Introduction Handbook

(ab) NAVSEAINST 5450.142 - Mission and Functions of the Surface Maintenance Engineering Planning Program Activity

LISTING OF APPENDICES.

A Message Scenario and Sample Messages/Letters for Habitability Inspections and In-Service
B Message Scenario and Sample Messages for Fast Cruise and Alpha Sea Trial (Nuclear Powered Ships)
C Message Scenario and Sample Messages for Bravo, Charlie and Combined Trials (Submarines)
D Message Scenario and Sample Messages for URO Certification (Submarines)
E Pre-RSE/RSE/Criticality/Power Range Testing Logic Table (All Nuclear Powered Ships)
F Sample TYCOM Message Concerning Sea Trial Agenda (Submarines)
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H Sample TYCOM Message to PCU Concerning Use of the FBW SCS In Support of Alpha Sea Trials (Submarines)
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J Sample TYCOM Message to the Ship Concerning FBW SCS Certification (Submarines)
K Sample Supervising Authority Message to NAVSEA Concerning PCU FBW SCS Material Condition Readiness for Fast Cruise and Alpha Sea Trials (Submarines)
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M Sample Supervising Authority Message to NAVSEA Concerning PCU FBW SCS Material Condition Readiness Upon Completion of Alpha Sea Trials and Readiness of the FBW SCS for Use During Bravo and Subsequent Sea Trials (Submarines)
N Sample Supervising Authority Message to NAVSEA Concerning PCU FBW SCS Material Condition Initial Certification (Submarines)
O Pre Man-Up Checklist for TYCOM/ISIC
P Basic Requirements for Initial Man-up Personnel of the PCU (Detachment Concept) (CVN, DDG, LHD, LPD, AOE, LSD)
Q Basic Requirements for Initial Man-up Personnel of the PCU (CVN, DDG, LHD, LPD, AOE, LSD, Submarines)
R Generic Base Line of Fleet Introduction Team (FIT) Functions and Responsibilities
S Sample NAVSEA Message to TYCOM Concerning PCU FBW SCS Material Condition Readiness for Alpha Sea Trials (Submarines)
T Sample NAVSEA Message to TYCOM Concerning PCU FBW SCS Material Condition Initial Certification (Submarines)
U Sample NAVSEA Message to TYCOM Concerning PCU Recommendation for Fly-By-Wire Ship Control System Certification
V BAWP to AWP Process - New Construction (Surface Force Ships Only)

2.1 SHIP PROGRAM MANAGERS. The various Naval Sea Systems Command (NAVSEA)/Program Executive Office for Carriers, Littoral Warfare and Auxiliary codes designated as Ship Program Managers provide the specifications for the building and testing of all ships. These codes are initially established to get the shipbuilding program and development of logistic support programs up and running.

2.1.1 Pre-Commissioning. Ship Program Manager responsibilities during the Pre-Commissioning phase of New Construction are delineated in references (a) and (b). The following is a summation of those responsibilities and is intended to be used as a guide, not to be considered all inclusive. Questions concerning a Ship Program Manager's specific functions should be directed to the applicable NAVSEA code.

a. Provide supervision and direction concerning all non-nuclear aspects of ship construction.

b. Provide written instructions to the Supervising Authority regarding the conduct and scheduling of all non-nuclear ship testing.

c. Generate the correspondence (message or letter traffic) as indicated in Appendix A of this chapter recommending the Habitability Inspection and In-Service dates.

d. The assignment of deficiency responsibility and ensuring the correction of those deficiencies identified during Combined Trials (CT), Acceptance Trials (AT), Final Contract Trials (FCT) and Guarantee Material Inspections (GMI).

e. (Submarines only) Report to the Type Commander (TYCOM), with information copies to Chief of Naval Operations (CNO) and Fleet Commander, that the material condition of the ship is certified satisfactory for Alpha Sea Trials and recommend authorization to dive the ship be granted under deliberate and controlled conditions to a specified depth for accomplishment of the approved Sea Trials agenda. Appendix B of this chapter provides a sample message.

f. (Submarines only) Report to the TYCOM that the material condition of the ship is certified satisfactory for Bravo, Charlie, and CTs. Appendix C of this chapter provides a sample message.

g. (Submarines only) After completion of all Sea Trials, report to the TYCOM that the material condition of the ship is certified for Unrestricted Operations (URO). Appendix D of this chapter provides a sample message.

2.1.2 Post Shakedown Availability (Submarines only). Ship Program Manager responsibilities during Post Shakedown Availability (PSA) are defined in Volume II, Part I, Chapter 3 of this manual.

2.2 NAVAL SEA SYSTEMS COMMAND NUCLEAR PROPULSION DIRECTORATE (NUCLEAR POWERED SHIPS ONLY).

2.2.1 Pre-Commissioning. NAVSEA Nuclear Propulsion Directorate (08) responsibilities for the Pre-Commissioning period are as follows:

a. Provide specifications for the building and testing of the nuclear propulsion plant.

b. Provide supervision and direction of nuclear propulsion plant testing and trials.

c. Approve the sequencing and scheduling of nuclear propulsion plant tests and trials.

d. Arrange for technical assistance from the U.S. Department of Energy, including the Pre-Critical Examination by the Director, Division of Naval Reactors.

e. Provide written instructions to the Supervising Authority regarding the conduct and scheduling of all dockside tests and underway trials involving operation of the nuclear propulsion plant.

f. Authorize critical operation of the reactor.

g. Authorize commencement of Fast Cruise after receiving notification from the Supervising Authority that the ship has demonstrated a satisfactory state of training.

2.2.2 Reactor Safeguard Examination. A Pre-critical Reactor Safeguard Examination (RSE) will be conducted by NAVSEA 08 prior to initial reactor criticality. NAVSEA 08 will approve operation of the Nuclear Propulsion Plant during dockside testing and underway trials. Volume I, Chapter 3, Appendix C of this manual provides information on Pre-RSE preparations.

2.2.3 Criticality/Power Range Testing. Upon receiving the request for initial criticality from the Supervising Authority, NAVSEA 08 will authorize critical operation of the reactor, with subsequent power range testing. Appendix E of this chapter provides a listing of the events leading up to the authorization for critical operation of Naval Nuclear Propulsion plants, with sample request messages and/or letters.

2.2.4 Post Shakedown Availability. NAVSEA 08 responsibilities for the PSA period are as follows:

a. Provide approved test procedures for the verification of reactor plant repairs and alterations accomplished in the availability.

b. Arrange for technical assistance by the U.S. Department of Energy as required.

2.3 TYPE COMMANDER. Reference (a) states the TYCOM is responsible for monitoring the construction and acceptance process to ensure "customer" input is provided. Reference (c) describes the TYCOM's responsibilities during new construction for Submarine Fly-By-Wire Ship Control Systems (FBW SCS). The following summarizes major TYCOM responsibilities during the Pre-Commissioning, FCT/GMI and PSA periods.

2.3.1 Pre-Commissioning. During the construction phase, major TYCOM responsibilities include but are not limited to:

a. (Surface Ships and Submarines only) Designating an Immediate Superior in Command (ISIC) for all units being built within the TYCOM's geographical area of responsibility.

b. Ensuring that the Pre-Commissioning Unit (PCU) is placed on distribution for all message traffic applicable to the platform and platform's operational environment.

c. Reviewing all incoming correspondence for PCU applicability and forwarding platform related documentation as required.

d. Conducting the Habitability Inspection when requested by the Accepting Authority (may be delegated to the ISIC). Sample messages relating to Habitability and In-Service are contained in Appendix A of this chapter.

e. Recommending to the CNO that the ship be placed "In-Service Active" upon receiving satisfactory results of the Habitability Inspection. Appendix A of this chapter provides sample messages.

f. (Nuclear Powered Ships only) Conducting or assisting the ISIC with the Pre-RSE.

g. (Non-Nuclear Powered Ships only) Establishing Light-Off Assessment (LOA) dates via liaison with the ISIC, the Ship and the Propulsion Examining Board.

h. Conducting or directing the conduct of the arrival assist and periodic monitoring inspections as defined in Volume I, Chapter 3, paragraph 3.3.1 and 3.3.2 of this manual.

i. (Nuclear Powered Ships only) Conducting an inspection to certify crew training per the requirements of reference (b).

j. (Nuclear Powered Ships only) Exercising operational control during underway trials either directly or through the designated ISIC.

k. (Submarines only) Reviewing the schedule and sequence of Sea Trial Agendas and concurring by message to the Supervising Authority concerning the operational aspects of the specific trial. Appendix F of this chapter provides a sample message.

l. (Submarines only) Providing escorts as may be required. Send Sea Trial support services message to specify Submarine Rescue Diving Recompression System "modified alert" requirements. Appendix G of this chapter provides a sample message.

m. (Submarines only) Assigning an unrestricted Line Officer (a former Commanding Officer (CO) senior to the Officer In Charge (OIC)) as the TYCOM Embarked Representative who has authority to act for the TYCOM, making on-the-spot changes to approved Sea Trial Agendas.

n. (Submarines only) If desired, assigning an officer to act as the TYCOM material representative on selected trials. The material representative's duties include:

(1) Serving as a technical advisor to the TYCOM Embarked Representative on matters pertaining to Sea Trial Agenda modifications, compliance with this instruction and disposition of emergent material problems.

(2) Acting for the TYCOM in making on-the-spot changes to approved Sea Trial Agendas in the absence of the TYCOM Embarked Representative.

o. (Submarines only) Reporting to the CNO and the Ship Program Manager that the crew is ready for underway trials, prior to Fast Cruise and upon receipt of the ISIC message certifying the operational readiness of the submarine crew. Appendix B of this chapter reflects the message scenario and contains sample messages for Fast Cruise/Alpha Trials.

p. (Submarines only) Promulgating of the Alpha Sea Trial Depth Authorization upon receipt of the Supervising Authority message reporting completion of Fast Cruise and the Ship Program Manager message promulgating the authorized depth for the Alpha Trial. Appendix B of this chapter provides sample messages.

NOTE: SUBSEQUENT TO THE SHIP PROGRAM MANAGER AND SUPERVISING AUTHORITY MESSAGES PROMULGATING DEPTH AUTHORIZATION AND REPORTING THE SHIP'S MATERIAL READINESS TO COMMENCE FAST CRUISE AND SEA TRIALS, ANY DEFICIENCY DISCOVERED AND CORRECTIVE ACTION TAKEN WHICH AFFECTS THE WATERTIGHT INTEGRITY, THE RECOVERABILITY OF THE SHIP, THE OPERATIONS OF THE SHIP'S CONTROL SURFACES OR THE SHIP'S SALVAGE CAPABILITY SHALL BE REPORTED TO THE SHIP PROGRAM MANAGER, THE TYCOM AND FLEET COMMANDER BY THE SUPERVISING AUTHORITY/ISIC/TYCOM REPRESENTATIVE AND PCU BY MESSAGE. PREVIOUS CERTIFICATION MESSAGES SHALL BE SUSPENDED. WHEN THE SHIP PROGRAM MANAGER'S REVIEW OF THE MESSAGE IS COMPLETED, THE SHIP PROGRAM MANAGER WILL CERTIFY TO THE TYCOM THAT THE MATERIAL CONDITION OF THE SHIP IS SATISFACTORY FOR SEA TRIALS TO A SPECIFIED DEPTH.

q. (Submarines only) Promulgating by message the Bravo, Charlie and Combined Trials Depth Authorization after receipt of the Supervising Authority message confirming readiness for the test depth dive and the Ship Program Manager message promulgating Sea Trial Depth Authorization. Appendix C of this chapter provides sample messages.

r. (Submarines only) Promulgating by message to the PCU the final URO Material Certification upon receipt of the Supervising Authority message concerning material condition for URO and the Ship Program Manager message recommending URO. Appendix D of this chapter provides sample messages.

s. (Applicable Submarines only) Prior to Alpha Sea Trials and following NAVSEA certification that the submarine FBW SCS is satisfactory for sea trials and Supervising Authority report that the FBW SCS is satisfactory for commencement of Alpha Sea Trials, report by message to ship authorizing conduct of

sea trials in accordance with the approved Sea Trial Agenda and specifically identify any operating restrictions of the ship and/or system. Repeat the routine for each subsequent sea trial. Appendix H of this chapter provides a sample message.

t. (Applicable Submarines only) After all builder's sea trials, and following NAVSEA certification that the submarine FBW SCS is satisfactory for unrestricted use, report by message to ship authorizing FBW SCS unrestricted use in support of submarine unrestricted operations or specifically identify any operating restrictions of the ship and/or system. Appendix I of this chapter provides a sample message.

2.3.2 Combined Trials/Acceptance Trials/Final Contract Trials/Guarantee Material Inspection. The TYCOM's responsibilities for these trials are documented in references (a), (d), and (e). The most significant action from the ship's perspective is the TYCOM's presenting of the ship for GMI or FCT.

2.3.3 Post Shakedown Availability. The TYCOM's responsibilities as related to PSA are as follows:

a. (Non-Nuclear Powered Ships only) Assist with LOA as shown in Volume I, Chapter 6, Appendix C.

b. (Nuclear Powered Ships only) Conduct or assist the ISIC in conducting the Pre-Critical Inspection (only required when reactor has been shutdown greater than 16 weeks). Schedule the Fleet Commander Post-Overhaul RSE as recommended by the Industrial Activity in the Key Events Schedule and confirmed by the parent ISIC/TYCOM representative (required if the availability is scheduled for more than six months) upon completion of the ISIC's Pre-Critical Inspection.

c. (Submarines only) TYCOM responsibilities are defined in Volume II, Part I, Chapter 3 of this manual.

d. (Applicable Submarines only) For the first ship of a class or when directed by NAVSEA, ship control trials are planned and conducted under the direction of NAVSEA 05 to support verification that the FBW SCS automatic control algorithms performance is in accordance with Section 4 of reference (c). Upon successful completion of these trials, the Submarine Program Manager issues to TYCOM, the ship's final FBW SCS certification message with NAVSEA 07 concurrence and in support of the submarine class FBW SCS design. TYCOM issues to the ship a final FBW SCS certification message. When required, by message or letter, the NAVSEA Submarine Program Manager via separate correspondence shall identify impact to the FBW SCS Certification of other ships in the submarine class. Appendix J of this chapter provides a sample message.

2.4 SUPERVISING AUTHORITY. References (a), (b), (c) and (f) describe the Supervising Authority's responsibilities during new construction. The following is a synopsis of those functions with additional amplification. Platform unique functions are identified by indicating the applicable class (if any) or group covered (i.e., Nuclear Powered Ships).

2.4.1 Pre-Commissioning. The Supervising Authority's responsibilities as related to Pre-Commissioning are as follows:

a. Provide crew support as directed by the Ship Program Manager. This support may include facility support requirements such as berthing, administration, officer and crew training spaces, vehicles for transportation, computers for development of training programs and ship's directives.

b. Ensure PCU office spaces have been certified to the appropriate classification for storage of classified documentation.

c. Provide the required safety training and gear to the crew for working in an industrial area.

d. Provide initial briefing to Prospective Commanding Officer (PCO)/crew to provide an overview of the Supervisor's role during construction.

e. Provide to the PCO/crew the planning documents necessary for establishing goals during New Construction, such as a Master Construction Schedule, an Operational Control Transfer (OCT) schedule, Testing schedules, and all other schedules that would require crew support and coordination.

f. Act as liaison for the ship in resolving conflicts in construction schedules.

g. Ensure that at least ten copies of reference (g) are available to support Phase 1 and Phase 2 of the Planned Maintenance System (PMS) installation.

h. Provide the PCU with at least one set of all the technical manuals required to support the equipment installed on the particular platform.

i. Provide the PCU with, or access to a complete set of ship's drawings and contract specifications.

j. Monitor the ship's familiarization training conducted by the Industrial Activity or Fleet Introduction Team (FIT) for fulfillment of the contract. For familiarization training conducted using computer-aided instruction, the Supervising Authority is responsible only for ensuring sufficient resources are available to the PCU to utilize the training. Provide feedback to the Ship Program Manager and the Industrial Activity concerning content and value of this training.

k. Recommend to the Ship Program Manager the commencement date for the Habitability Inspection. Appendix A of this chapter provides sample documentation.

l. Recommend to the Ship Program Manager the date for placing the ship "In-Service." In-Service for Submarines should occur approximately two to four weeks prior to underway trials and for Nuclear Powered Aircraft Carriers two to four months prior to underway trials. Appendix A of this chapter provides sample documentation.

m. Recommend to the Accepting Authority the date for placing the ship "In Commission". The In Commission date is normally on or about the date of delivery.

n. Request necessary services for each trial from the Fleet Commander in accordance with reference (a), with an information copy to the TYCOM.

o. (Nuclear Powered Ships only) Accept custody of special nuclear material upon delivery from the U.S. Department of Energy.

p. (Nuclear Powered Ships only) Transfer custody of, and responsibility for, special nuclear material to the OIC when the ship is placed "In-Service".

q. (Nuclear Powered Ships only) Coordinate the schedule for dockside and underway tests and trials in accordance with the requirements of the Ship Program Manager and the Builder.

r. (Nuclear Powered Ships only) Provide sufficient time for crew training and Fast Cruise during the building period to permit Ship's Force to attain a state of training adequate to ensure proper operation and safety of the ship and its personnel during Sea Trials. Provide sufficient time for the correction of deficiencies after the completion of the final Dock Trials and before the start of the operational training period.

s. (Nuclear Powered Ships only) Submit for approval the schedule and sequence of any dockside tests or Sea Trials involving operation of the nuclear propulsion plant to NAVSEA 08, except where such tests and trials have been approved in the written instructions provided by NAVSEA 08.

t. (Submarines only) Coordinate with ISIC for support personnel to perform salvage inspection.

u. (Nuclear Powered Ships only) Submit the schedule and sequence of all Sea Trials to the ISIC for approval and to the TYCOM for concurrence with the operational aspects of the trial.

v. (Nuclear Powered Ships only) Report to the Ship Program Manager when the ship is ready for Fast Cruise and Alpha Sea Trial (Builder's Trials for Nuclear Powered Aircraft Carriers). Appendix B of this chapter provides a sample message.

w. (Nuclear Powered Ships only) Report the successful completion of Fast Cruise and readiness for Alpha Sea Trial (Builder's Trials for Nuclear Powered Aircraft Carriers), with the concurrence of the OIC, to the TYCOM, with an information copy to the Ship Program Manager, the Fleet Commander and the ISIC. Appendix B of this chapter provides a sample message for submarines.

x. (Nuclear Powered Ships only) Report to the Ship Program Manager the satisfactory completion of Alpha Sea Trials (Builder's Trials for Nuclear Powered Aircraft Carriers). For Submarines, the material status of the ship is certified to support operations to test depth. Appendix C of this chapter provides a sample message.

y. (Submarines only) Certify to the Ship Program Manager the completion of all Sea Trials, reporting the status of all Sea Trial deficiencies and all CAT 1A Audit Items. Certify the material condition of the ship is satisfactory for URO to test depth. Appendix D of this chapter provides a sample message.

z. Retain responsibility for the material condition of the ship until it reports for duty in the fleet.

aa. Maintain "Lessons Learned Logs" from the CO of previously built ship for delivery to the next PCO/OIC.

ab. (Applicable Submarines only) Report by message to NAVSEA Submarine Program Manager, in advance of the scheduled start of Fast Cruise, that all FBW SCS work necessary for Alpha Sea Trials, including resolution of NAVSEA FBW SCS Certification Audit Category I recommendations, has been completed, provide the status of all incomplete NAVSEA FBW SCS Certification Audit Category IA recommendations, and that the FBW SCS is ready for commencement of Fast Cruise. The message shall also state that there are no conditional FBW SCS Deviations or Waivers which have not been satisfied or cite those that exist, identify any operating restrictions of the ship and/or system, and that, subject to satisfactory completion of Fast Cruise and resolution of mandatory FBW SCS deficiencies, the submarine FBW SCS is satisfactory for commencement of sea trials. Make a similar report prior to each subsequent sea trial. Appendix K of this chapter provides a sample message.

ac. (Applicable Submarines only) Report by message to the NAVSEA Submarine Program Manager and TYCOM, with the concurrence of the ship's Commanding Officer, successful completion of Fast Cruise as a prerequisite for the start of sea trials. Appendix L of this chapter provides a sample message.

ad. (Applicable Submarines only) Report by message to the NAVSEA Submarine Program Manager the satisfactory completion of Alpha Sea Trials and report the status of all incomplete NAVSEA FBW SCS Certification Audit Category IA recommendations. Appendix M of this chapter provides a sample message.

ae. (Applicable Submarines only) Report by message to the NAVSEA Submarine Program Manager the satisfactory completion of all shipbuilder's sea trials, correction of all mandatory sea trial deficiencies, and resolution of all NAVSEA FBW SCS Certification Audit Category IA recommendations. Report that the submarine FBW SCS is satisfactory for unrestricted use in support of submarine unrestricted operations. Identify all deferred FBW SCS work and/or conditionally approved deviations and waivers to date which have not had the condition satisfied and specifically identify any operating restrictions of the ship and/or system. Appendix N of this chapter provides a sample message.

af. Prior to Ship's Force assuming operational control, ensure that assigned New Construction units operate and maintain installed diesel engines in accordance with established procedures. Specifically, the Supervisor shall:

(1) Schedule a routine diesel inspection prior to initial start up by Ship's Force.

(2) Observe diesel engine operations during shipboard visits in accordance with Volume IV, Chapter 4 of this manual.

(3) Ensure that the Automated Diesel Engine Trend Analysis Program addressed by reference (g) and TYCOM directive is in place.

2.4.2 Acceptance Trials/Combined Trials. The Supervising Authority is responsible for presenting the ship for AT/CTs. References (d), (e), and (f) delineate the Supervising Authority's responsibilities concerning these trials. Several of the more significant issues are:

a. Submit for approval the schedule and sequence of AT/CT to the President, Board of Inspection and Survey (INSURV).

b. Request necessary services for each trial from the Fleet Commander in accordance with reference (a), with an information copy to the TYCOM.

c. Provide riders to assist and provide system/historical expertise.

2.4.3 Post Shakedown Availability. During PSA the Supervising Authority is responsible for the following:

a. Determining, in conjunction with the CO, the type and extent of post-repair dockside and at-sea tests/trials, in addition to those described in Volume I, Chapter 6, section 6.4 of this manual. Submit the following for approval:

(1) The schedule and sequence of post-repair nuclear propulsion plant trials to NAVSEA for concurrence and the ISIC/TYCOM Representative for approval.

(2) The schedule and sequence of post-repair trials subsequent to the nuclear propulsion plant trials to the ISIC for approval. Include the TYCOM as a Copy To addressee.

b. Providing sufficient time for crew training to support Fast Cruise and to ensure the proper operation and safety of the ship.

c. Coordinating the schedule for Fast Cruise and post repair trials with the ISIC/TYCOM representative. Submit the Sea Trials Agenda to the Ship Program Manager for approval.

d. (Submarines only) Additional Supervising Authority responsibilities are defined in Volume II, Part I, Chapter 3 of this manual.

e. Reporting to the TYCOM the completion of Fast Cruise and the correction of all mandatory deficiencies. Recommend commencement of Sea Trials with the CO's concurrence in accordance with Volume II, Part I Chapter 3 of this manual.

f. Reporting to the Ship Program Manager or the TYCOM (PSA less than six months) that Sea Trials have been completed, and for submarines, that the material condition of those parts of the ship installed, prepared and/or tested by the Industrial Activity is satisfactory for URO to design test depth, concurrence in accordance with Volume II, Part I Chapter 3 of this manual.

2.4.4 Deficiencies. The Supervising Authority's primary functions involve the building of ships and the correction/resolution of deficiencies discovered during the building and trials portion of construction. Reference (f) and locally generated Supervising Authority Instructions provide specific and detailed information pertaining to deficiencies, their identification, tracking and resolution. Contact the Supervising Authority for more information. Volume I, Chapter 5 of this manual also provides additional guidance.

2.5 IMMEDIATE SUPERIOR IN COMMAND. The ISIC is the TYCOM's delegate.

2.5.1 Pre-Commissioning. During the Pre-Commissioning period, the ISIC is responsible for the following:

a. Providing crew support prior to initial man-up. Personnel arriving prior to initial manning will be tasked with coordinating with the Supervising Authority to start the necessary preparations for initial man-up. Appendix O of this chapter provides a checklist of areas that need to be addressed several months before personnel start arriving.

b. Conducting an inspection approximately two months following the arrival of the first increment of the crew at the building yard, using Volume I, Chapter 3, paragraph 3.3.1 of this manual as a guide.

c. Conducting periodic monitoring of ships per Volume I, Chapter 3, paragraph 3.3.2 of this manual to include:

(1) Technical and/or administrative/training assistance visits (Tech Assists) directed toward improvements in the management and conduct of maintenance and training tasks.

(2) Evaluation visits (Work-ups) to determine the state of administration and training.

(3) Spot checks (Monitor Visits) to monitor the progress and effectiveness in specific material, training and administrative areas.

d. Coordinating with the Bureau of Personnel (BUPERS) to ensure personnel arrive in support of initial crew man-up.

e. Conducting a Habitability Inspection when directed by the TYCOM. Volume I, Chapter 3, Appendix D of this manual provides information concerning the Habitability Inspection and a sample Compartment Surveillance Guide. Volume I, Chapter 3, Appendix E of this manual provides a sample check list.

f. Making recommendations to the TYCOM for placing the ship "In-Service". Appendix A of this chapter provides a sample message.

g. Conducting a review of units to be established as Field Calibration Activities prior to certification by the Naval Sea Systems Command (NAVSEA)/Naval Air Systems Command (NAVAIR) designated Metrology and Calibration Technical Representative. The review will evaluate the Field Calibration Activity in accordance with the requirements delineated with references (h), (i) and (j), or for Nuclear Powered Aircraft Carriers, reference (k).

h. When Ship's Force has assumed operational control, ensuring that assigned New Construction units operate and maintain installed diesel engines in accordance with established procedures. Specifically, the ISICs shall conduct follow-up action to ensure that any unsatisfactory conditions found are corrected at an early date.

i. (Nuclear Powered Ships only) Conducting a Pre-RSE of the Engineering/Reactor Department to determine the ship's readiness for the Naval Reactors Pre-Critical RSE. The TYCOM will assist in this examination. Volume I, Chapter 3, Appendix C of this manual provides administrative guidelines for the conduct of the Pre-RSE.

j. (Nuclear Powered Ships only) Reviewing Pre-RSE findings, the CO's training plan, and progress evaluations, and direct follow-up reviews and/or inspections necessary to verify the ship's readiness for the RSE.

k. (Submarines only) Prior to Fast Cruise, reporting ship's preparations to assume responsibility for Re-entry Control in the Crew/Material Certification message. Appendix B of this chapter provides a sample message.

l. (Submarines only) Scheduling salvage inspections per Volume IV, Chapter 18 of this manual.

m. (Submarines only) Designating the salvage inspection team using the guidance provided in Volume IV, Chapter 18 of this manual.

n. For CVNs, conduct crew certification in accordance with reference (l).

o. For all other hulls, conduct formal Phase I crew certification inspection(s) of the Ship's Force in accordance with the TYCOM Training Manual (when required). The purpose of this inspection shall be to audit the readiness and training of the Ship's Force, particularly in the areas of watchstander qualifications, damage control readiness, status of operational and emergency bills, presence on board of essential technical manuals and general operational knowledge. This inspection shall be scheduled about one month prior to Fast Cruise and should include written examinations and personal interviews with officers and key enlisted personnel to determine their readiness and status of training as outlined for Phase I. A comparison of personnel allowance (including Navy Enlisted Classification requirements) versus onboard count shall be made to ensure that the ship is adequately manned.

p. Conduct Phase II crew certification. Witness and certify to the TYCOM that the state of crew training is satisfactory for at-sea operations in accordance with the TYCOM Training Manual. This will be done during a two day period subsequent to Dock Trials and Phase II crew certification, and prior to Fast Cruise. This two day period shall be scheduled so that there is normally a 48 hour period between the end of this event and the beginning of Fast Cruise. This two day Phase II crew certification period is divided into a 40 hour crew work-up and rest period and an eight hour modified dockside Operational Readiness Inspection. The entire period should be scheduled to minimize interference with industrial activity work. However, since the certification must be conducted carefully to be meaningful, the officer scheduling the certification should coordinate industrial activity interference during the eight hour modified Operational Readiness Inspection. This certification should be thorough and meticulous. Pressure from the industrial activity or any other source to compromise ship safety must not be permitted to influence the judgment of the certifying officers. The desired overall sequence of these events is shown in Appendix B of this chapter.

q. Conduct a material inspection of the ship.

r. Satisfactory completion of the inspections of paragraphs 2.5.1.n. through 2.5.1.p. of this chapter should be reported to the TYCOM in one "PRIORITY" crew certification message in accordance with sample message format of Appendix B of this chapter paralleled by a telephone call to the TYCOM Watch Officer reporting the date-time group of the message. If significant deficiencies exist or it appears that an extension of time is required to correct training/material deficiencies, the TYCOM shall be immediately advised by telephone and by message. The Supervising Authority will be included as an information addressee.

s. A summary of typical New Construction major milestones and message reporting requirements as they apply to the ISIC is listed in Volume I, Chapter 1, Appendix A of this manual.

2.5.2 Post Shakedown Availability. During PSA, the ISIC is responsible for the following:

a. Conducting periodic monitoring similar to that described in paragraph 2.5.1.c of this chapter, placing the emphasis on the management and conduct of PSA.

b. (Nuclear Powered Ships only) Conducting a Pre-Critical Inspection of the Engineering/Reactor Department per Volume I, Chapter 6, paragraph 6.3.4 of this manual. Review inspection findings, the CO's training plan and progress evaluations, and direct follow-up reviews and/or inspections as necessary to verify ship's readiness for criticality.

c. Witnessing and certifying to the TYCOM that the state of crew training is satisfactory for at-sea operations per the Force Training Manual.

d. (Nuclear Powered Aircraft Carriers only) Receiving from the CO/Supervising Authority the scope, schedule and agenda of the tests for Sea Trials for review and approval. When approved, forward copies of the agenda to the TYCOM.

e. Arranging for the embarkation of technical personnel who may be assigned by the Ship Program Manager to observe tests or trials.

f. Arranging for the assignment of operating areas and communications frequencies.

g. (Submarines only) Scheduling a salvage inspection in time to have discrepancies corrected prior to Fast Cruise.

h. (Submarines only) Prior to Fast Cruise, auditing Ship's Force Re-entry Control and Departure from Specification Records. Using the Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity URO Maintenance Requirement Card (MRC) scheduling reports and current Industrial Activity/Ship's Force updates to the latest report, ensure URO MRC accomplishment is current.

i. (Submarines only) Conducting a material inspection consisting of a vertical audit of Ship's Force and Fleet Maintenance Activity Submarine Safety (SUBSAFE) work and URO completion status per Volume V, Part I, Chapter 9 of this manual.

j. (Submarines only) Additional ISIC responsibilities are defined in Volume II, Part I, Chapter 3 of this manual.

k. If deficiencies exist and/or it appears that extension of time is required to correct training/material deficiencies, the TYCOM shall be immediately advised by telephone and message. The Supervising Authority will be included as an information addressee. The TYCOM retains the prerogative to authorize corrective action by the Industrial Activity in the case of material deficiencies.

l. When authorized by the TYCOM, direct the ship to get underway for Sea Trials.

2.6 BUILDING YARD. The Building yard is an industrial activity responsible for construction of the ship, correction of shipbuilder responsible deficiencies and additional logistic support products as delineated in the contract. The following is a sample listing of the shipbuilder's products and responsibilities.

a. Technical Manuals for Contractor Furnished Equipment (CFE).

b. Ship Information Book (SIB)/Ship Systems Manual (SSM).

c. PMS for new systems when tasked by Ship Program Managers or cognizant NAVSEA code.

d. Selected Familiarization Training.

e. Ship Drawings.

f. Advising the Accepting Authority and the TYCOM of the date of initial criticality.

g. Builder's Trials (non-nuclear) to include:

(1) Taking the ship to sea.

(2) The testing of all equipments and systems with the exception of weapons.

2.7 DESIGN YARD/PLANNING YARD. The Design Yard/Planning Yard, which may also be the Building Yard, is an industrial activity responsible for maintaining the Ship's Drawing Index current with configuration. The Planning Yard is responsible for updating ship's drawings to reflect PSA changes.

2.8 COMMANDING OFFICER, PROSPECTIVE COMMANDING OFFICER, OFFICER IN CHARGE.

2.8.1 General.

a. The responsibilities of a PCO for a new construction ship are set forth in U.S. Navy Regulations. In the case of a nuclear powered ship under construction, the PCO has additional responsibilities associated with the operation of the nuclear propulsion plant as specified in references (a) and (b). In order to provide him with authority commensurate with this responsibility the PCO will be designated in his orders as CO of the PCU, a separate and detached command, with responsibilities as specified in references (a) and (b) and U.S. Navy Regulations.

b. Following completion of the required training and material readiness certification, the CO/PCO/OIC must keep the ISIC fully informed of any changes in personnel, training and/or material status which could affect the validity of certification. Prompt notification is required to permit revision of Operational Orders and services required.

2.8.2 Pre-Commissioning. Specific responsibilities of the PCO during the primary construction phase are as follows:

a. The preparation and execution of training plans, operational and emergency bills, procedures and organization manuals in support of his responsibilities.

b. The demonstration of his crew's operational and administrative readiness in accordance with the inspections required by Volume I, Chapter 3, paragraph 3.3.4 of this manual.

c. Verifying that all required Navy Enlisted Classification Codes or other skill requirements are met by BUPERS or by the ship's training programs.

d. The presentation of the crew for the platform applicable inspections described within this volume.

e. The designation of a Miniature/Microminiature (2M) Repair or Module Test and Repair Manager.

f. The designation in writing of a Calibration Coordinator.

g. Ensuring that at least two NAVSEA/NAVAIR certified Field Calibration Activity/Aircraft Intermediate Maintenance Department technicians are available to support certification.

h. Verifying that all pertinent alongside tests, inspections and trials are completed.

i. The establishment of "Lessons Learned Files". These files are to be turned over to the incoming PCO of the next ship of the class to be built. DDG 51 Class Destroyers should pass their files to the PMS 400 tasked contractor. MHC Class ships can provide this data to the FIT while all others should pass Lessons Learned to the Supervising Authority if the next PCO has not yet arrived.

j. The establishment of PMS in accordance with reference (g) and Volume I, Chapter 3, paragraph 3.4.1 of this manual.

k. Concurring with the Ship Program Manager's request to the TYCOM for the conduct of a Habitability Inspection.

l. The designation of system/space experts to assist the ISIC with the Habitability Inspection.

m. The establishment of early liaison with the Engineering Training Group (ETG) team OIC to define training needs and the agenda for assist visits in preparation for LOA and Initial Light-Off.

n. (Nuclear Powered Ships only) The development and execution of training plans and documents in support of his responsibilities for inspection and operation of the nuclear propulsion plant. These plans and documents shall be in conformance with the instructions and procedures approved by NAVSEA.

o. (Nuclear Powered Ships only) The preparation of ship's engineering/reactor personnel for examination by the Nuclear Propulsion Directorate (NAVSEA 08).

p. (Nuclear Powered Ships only) Review the findings of the ISIC's Pre-RSE Inspection Team and make necessary adjustments to the ship's training program to ensure the crew's readiness for the RSE. Keep the ISIC advised of the ship's training plan and provide an assessment of the crew's progress.

q. (Nuclear Powered Ships only) Maintain the Reactor Plant in accordance with reference (m). Ensure records are ready for the ISIC's audit prior to Fast Cruise.

r. (Nuclear Powered Ships only) Review test and trial schedules and agendas and signify concurrence to the TYCOM and the designated ISIC. Copies of detailed schedules and agendas for underway trials will be forwarded to the designated ISIC, the escort ship (Submarines) and the TYCOM Embarked Representative.

s. (Nuclear Powered Ships only) Assume duty as the OIC and accept custody and responsibility for special nuclear material, after the ship is placed "In-Service". Report to the Fleet Commander In-Service status. Appendix A of this chapter provides a sample message.

t. (Nuclear Powered Ships only) The preparation of Ship's Force Dock Trial Agenda.

u. (Nuclear Powered Ships only) In accordance with the specifications and information in this volume, the conduct of dockside and underway trials. Critical operation of the reactor will be conducted in accordance with reference (n).

v. (Nuclear Powered Aircraft Carriers only) Prior to Fast Cruise, report to the TYCOM the successful completion of Crew Certification and recommend commencement of Fast Cruise and Builder's Trials via message. Appendix B of this chapter provides a sample message.

w. (Nuclear Powered Ships only) When authorized by the Ship Program Manager, conduct Fast Cruise in accordance with Volume I, Chapter 4, section 4.3 of this manual.

x. (Nuclear Powered Ships only) During Sea Trials, assume the duties of Officer In Tactical Command unless otherwise designated by the ISIC. For submarines, ISICs must comply with direction found in Annex C of reference (o).

y. (Nuclear Powered Ships only) Provision for adequate crew rest time during Sea Trials. Six uninterrupted hours in each twenty-four hour period is a minimum for each crew member.

z. (Nuclear Powered Ships only) In the absence of a TYCOM and ISIC representative, act for the TYCOM in approving on-the-spot changes to approved Sea Trial Agendas.

aa. (Nuclear Powered Ships only) When all platform applicable requirements of this instruction are completed to the OIC's satisfaction and when permission has been received from the ISIC, proceed to sea in accordance with the operations order and carry out the approved Sea Trial Agenda.

ab. (Submarines only) If possible, participate in two at sea periods prior to initial Sea Trials as follows:

(1) Accompany the preceding ship of the class on the first Sea Trial to learn how the propulsion trial is run (except first ship of class).

(2) Participate in an underway period of at least five days duration approximately six months prior to the final phase of Crew Certification. The purpose of this ride is to refamiliarize the PCO with those functions unique to being underway so as to ensure the safe conduct of his own initial Sea Trials and shakedown. This underway period also allows him to validate his crew's training program. This underway period should be on a ship, preferably of the same class, which is concentrating on basic ship/submarine operations, such as Selected Refresher Training or Independent Ship Exercise (ISE), so he can witness such evolutions as: coming to periscope depth, snorkeling, ventilating, casualty training, etc. If the new construction schedule has 10-12 weeks between Power Range testing and the final phase of Crew Certification, the PCO should go to sea approximately two months before initial criticality. The intent is for the PCO to go to sea after having been in the Industrial Activity for a fair amount of time (normally one year or more), but with sufficient time remaining to improve his own training program if necessary. During these underway periods, the PCO should spend time on the bridge and also observe piloting and navigation.

NOTE: IF NOT POSSIBLE TO PARTICIPATE IN TWO AT-SEA PERIODS AS DESCRIBED ABOVE, THE ISIC AND TYCOM WILL COORDINATE REQUIRED TRAINING.

ac. (Submarines only) Request that the ISIC conduct a salvage inspection in accordance with the policies set forth in Volume IV, Chapter 18 of this manual.

(1) Coordinate salvage inspection support requirements as may be needed by the inspecting team to fulfill the requirements of Volume IV, Chapter 18, Appendix D of this manual.

(2) Ensure Volume IV, Chapter 18, Appendix D of this manual is completed and furnished to the Senior Inspecting Officer prior to the commencement of the Salvage Inspection.

(3) Ensure all ship's data called out in Volume IV, Chapter 18, Appendix D of this manual is assembled and staged prior to the inspection for ease of reference by the inspecting team.

(4) Take corrective action on all discrepancies found during the Salvage Inspection. Inform the ISIC of corrective action prior to commencement of Fast Cruise.

ad. (Submarines only) Ensure a copy of the salvage plan has been provided to the escort ship designated for Sea Trials. Coordinate communications and operational procedures with the escort ship to ensure the escort is fully informed of the submarine's condition and intentions.

ae. (Submarines only) Concur with the Supervising Authority message that the material condition of the ship is satisfactory to commence Fast Cruise.

af. (Submarines only) Upon successfully completing Fast Cruise and after having exercised his crew thoroughly and operated all machinery, equipment and systems to his satisfaction, concur in the Supervising Authority's message recommending commencement of Alpha Trials. Appendix B of this chapter provides an example of this message.

ag. (Submarines only) Maintain Planned Maintenance Management Plan in accordance with reference (p). Ensure records are ready for the ISIC's audit conducted prior to Fast Cruise.

2.8.3 Trials and Inspections. PCO responsibilities are delineated in references (d) and (e).

2.8.4 Post Shakedown Availability. Specific responsibilities of the PCO during PSA are as follows:

a. Determine, in conjunction with the Supervising Authority, the nature and extent of PSA Sea Trials. Prepare, in conjunction with the Supervising Authority, the Sea Trial Agenda, including the sequence and duration of each test. The Supervising Authority will submit it to the Ship Program Manager and the ISIC/TYCOM representative for approval as described herein. Provide copies of the approved detailed schedule and agenda for underway trials to the local ISIC and, if appropriate, the escort ship and the TYCOM Embarked Representative. This schedule and agenda shall include:

(1) The minimum requirements shown in Volume I, Chapter 6, section 6.4 (Volume II, Part I, Chapter 3 for submarines) of this manual.

(2) A firm time scheduled for conducting all tests and trials showing their sequence and duration.

(3) General prerequisites for conducting each test. Detailed prerequisites should be itemized as part of individual test requirements.

(4) Responsibility for conducting each test (Industrial Activity or Ship's Force).

(5) Ship's Force support required for conducting each test.

(6) Provision for adequate crew rest time during Sea Trials. Six uninterrupted hours in each twenty-four hour period is a minimum for each crew member.

(7) (Submarines only) Provision for a minimum of six hours of uninterrupted ISE for crew training following the initial tightness dive and prior to the deep dive.

(8) Underway tests may be run during ISE and rest periods on a not-to-interfere basis. Specifically, tests which can be conducted underway under normal operating conditions without manning special watch stations that require extra military personnel may be scheduled during rest periods. Tests which will not interfere with Ship's Force drills and training exercises may be conducted during ISE periods.

b. Prepare Dock Trial Agenda.

c. Conduct one day Ship's Force Dock Trials in accordance with Volume II, Part I, Chapter 3 of this manual.

d. Demonstrate the crew's state of training.

e. Ensure that all pertinent alongside tests, inspections, and trials are conducted.

f. (Nuclear Powered Ships only) Supervise operation of the nuclear propulsion plant. Conduct critical operations as set forth in reference (n).

g. (Nuclear Powered Ships only) When authorized by the TYCOM, conduct Fast Cruise in accordance with Volume II, Part I, Chapter 3 of this manual.

h. (Nuclear Powered Ships only) Review the findings of the Pre-Critical Inspection (if performed) and adjust the training plan to ensure the crew's readiness for criticality. Advise the ISIC of training plan adjustments and provide an assessment of the crew's progress.

i. (Nuclear Powered Ships only) Maintain Reactor Plant Maintenance in accordance with reference (m). Ensure records are ready for an ISIC audit conducted prior to Fast Cruise.

j. (Submarines only) Undergo a salvage inspection in accordance with Volume IV, Chapter 18 of this manual.

k. (Submarines only) Maintain Planned Maintenance Management Plan in accordance with reference (p) and SUBSAFE Re-entry Control in accordance with Volume V, Part I, Chapter 5 of this manual. Ensure records are ready for an ISIC audit prior to Fast Cruise.

l. (Submarines only) Additional PCO/CO responsibilities are defined in Volume II, Part I, Chapter 3 of this manual.

2.9 PRE-COMMISSIONING UNIT. The PCO and crew will monitor the ship's construction, prepare ship's directives, regulations and administrative programs, and observe and/or demonstrate the operation of installed systems to ensure the ship is safe and habitable prior to commissioning. The shipyard period is an opportunity for the crew to familiarize themselves with the ship. The ship will be required to complete various certifications leading up to introduction into the fleet. This section provides some insight into the administrative requirements and personnel related issues associated with the initial man-up.

2.9.1 Initial Man-up. New construction ships are manned based on a Crew Scheduling and Phasing Plan. Dependent upon the platform type, crew manning is accomplished in two, three, four or as many as eight increments. The quantitative and qualitative requirements of these increments are based on the platform type, test and construction schedule. The objectives of the Crew Scheduling and Phasing Plan are to:

a. Ensure adequacy of schooling for personnel assigned.

b. Ensure appropriate course convening dates.

c. Ensure there are no conflicts/redundancies between Navy and contractor courses.

d. Ensure sufficient training for anticipated maintenance and operating skill requirements.

e. Ensure the optimization of training opportunities for personnel in the pipeline en route to the ship. A senior crew member from the first increment shall be assigned with the responsibility of tracking and reviewing manning issues. For some ships, the Ship Program Manager has provided support contractors to assist either partially or entirely in the management of the Crew Scheduling and Phasing Plan. Regardless of the class or type of ship, the initial increment of personnel must quickly organize. If a detachment concept is used, Appendix P of this chapter provides a basic listing of requirements that the first increment of personnel should be pursuing. Appendix Q of this chapter provides similar information for the non-detachment approach.

2.9.2 Training.

2.9.2.1 Shipboard Training. The Industrial Activity presents a unique environment with special circumstances not routinely encountered by operating forces. The incremental assignment of personnel to PCUs and the pace of new construction demands a comprehensive training strategy. A well established training program is the key to the ship

being ready for introduction into the Fleet. Consistent with the objectives of a shipboard training program, the TYCOM training manuals and references (l) and (q) through (v), a new construction training program will ensure that:

a. (Nuclear Powered Ships only) The qualification of all Engineering/Reactor Department personnel in strict accordance with reference (w). Included is the CO's responsibility to personally conduct an RSE of each key propulsion plant watchstander.

b. Personnel are trained in any special Quality Assurance (QA) procedures that may be used during the construction period.

c. Personnel assigned are knowledgeable of the platform, system and equipment installations and operation of installed equipment.

d. Watchstander qualifications support a watch section of fully or provisionally qualified personnel for all scheduled events.

e. Training designated for assigned personnel supports the platform/equipment configuration.

f. Intensified special training is provided to support:

(1) Cold Operations.

(2) Hot Operations.

(3) RSE.

(4) LOA.

(5) Criticality/Power Range Testing.

(6) Combat Systems Installation Certification.

(7) Crew Certification.

(8) Fast Cruise and Sea Trials.

(9) Piloting Party/Navigation Detail.

(10) Damage Control Team.

(11) Fire Fighting Team.

(12) Tactical Team.

(13) Special details.

g. All billets requiring specific Navy Enlisted Classifications are filled.

h. Established Naval Schools and Trainers are used to the maximum extent possible.

i. Factory training on systems/equipments for which Naval Schools are not established is provided.

j. Special training in accordance with TYCOM directives is provided for provisional certification to load, handle, stow and maintain a weapons load-out specific to the class of ship.

k. Weapons/Combat Systems training is sufficient to enable the Weapons/Combat Systems Department to operate its systems while complying with existing safety rules, technical directives and governing operating procedures promulgated by the CNO, the Defense Nuclear Agency, NAVSEA, Space and Naval Warfare Systems Command, the TYCOM or other commands as applicable.

l. Industrial Activity/contractor familiarization training courses are monitored for content and value. Provide supplemental instruction where necessary and inform the Supervising Authority and Ship Program Manager of significant problems or shortfalls.

m. The enlisted training program is started as soon as the Leading Petty Officers for the major divisions arrive. The Officers and senior enlisted personnel will develop the content and scope of the training programs for implementation with the arrival of the first large increment of enlisted personnel.

n. Aircraft Launch and Recovery Equipment Maintenance Program training shall be conducted in accordance with reference (x).

2.9.2.2 Industrial Activity Training. The Industrial Activity/FIT will provide familiarization training in accordance with the shipbuilding contract on ship's characteristics and systems. This training generally is not sufficient for "System Expert" qualification, but will provide an excellent opportunity for School of the Boat/Ship, and at the same time provide an opportunity for Divisional Training Petty Officers to develop a more detailed and in depth training program. In most cases the Industrial Activity will allow the ship to control the scheduling of topics.

2.9.2.3 Fleet Training Center. Surface ships utilizing the Pre-Commissioning Detachment Concept at a Fleet Training Center (FTC), either in Norfolk, VA or San Diego, CA, are provided with an outstanding opportunity to ensure pipeline training is obtained. This concept also provides for the easy access to many of the basic courses such as firefighting, damage control, Repair Parts Petty Officer training, Drug and Alcohol Program Advisors, Component Change Control, etc., which are needed to ensure assigned personnel can effectively function as a ship's crew upon delivery. For ships not utilizing the FTC Detachment Concept, such as submarines, an individual should be assigned to monitor and track training and manning issues as they develop.

2.9.3 Ship's Qualification Program. The implementation and operation of the Ship's Qualification/Personnel Qualification Standard (PQS) should ensure a logical process for training Ship's Force for watchstanding and ship's qualification. TYCOM instructions that cover Ship's Qualification/PQS requirements are found in references (l) and (q) through (v). The department organization manual should establish prerequisites for watchstander qualification. Qualification goals should be established and the program should support completion of goals within each division. Fleet wide training and qualification goals are:

a. Underway Watchbills; 3 Section Enlisted, 4 Section Officer/Chief Petty Officer.

b. Inport Watchbills; 4 Section Enlisted, 5 Section Officer/Chief Petty Officer (6 Section for all personnel on Aircraft Carriers).

2.9.4 Deficiency Identification and Correction. The establishment of procedures by which Ship's Force reports and tracks the correction of deficiencies cannot be overstressed. The Supervising Authority relies heavily upon PCU involvement to augment their efforts. Inspections of systems, equipments and spaces by PCU personnel are extremely important in the identification of unsatisfactory work and/or material deficiencies. Each shipbuilder and associated Supervising Authority have their own established system for tracking shipbuilder responsible deficiencies. Those deficiencies which are not corrected during the construction cycle will be submitted to the INSURV Board just prior to FCT, AT or CT (the type of trial dependent on platform). These deficiencies, depending on their seriousness, may impact a ship's delivery to the Navy. Deficiencies cited must either be resolved/corrected or waived by the Ship Program Manager.

2.9.5 Establishment of Engineering/Reactor Department. This paragraph addresses the Engineering/Reactor Department establishment and tasks which are to be accomplished during the pre-commissioning phase of new construction. The tasks defined in this section incorporate experience gained and lessons learned from previously completed ships. The objective is to provide guidance which will assist in the ship's readiness, from an Engineering/Reactor Department standpoint, to successfully complete contract milestones and to prepare for fleet introduction.

2.9.5.1 Requirements. The PCU should monitor and report on the ship's construction progress to the PCO, and dependent upon platform, conduct and/or witness and participate in the ship's dockside and at-sea testing, attend periodic documentation reviews, assessments, and validations, and provide recommendations regarding manpower, training, watchstanding and related shipboard engineering requirements. Tasks and responsibilities include items discussed in the following paragraphs.

2.9.5.2 Shipboard Inspections. Shipboard inspections by the ship's Engineering/Reactor Department and cognizant Supervising Authority personnel are necessary during the ship construction phase. There is no precise pattern or timetable for these inspections, but they should be thorough and conducted frequently. Ship's Force personnel need to become familiar with the contract specifications and system drawings. This will ensure the prompt identification, and documenting, of discrepancies discovered when comparing "as built" conditions to the actual specification.

2.9.5.3 Personnel Qualification Standards. Theoretical portions of PQS should be implemented during the training pipeline at the specific Training Centers and at the FTCs using available technical manuals and training material. Ship-wide PQS should be implemented prior to the arrival of the final crew increment at the shipbuilder's yard. The ship's Engineer Officer should establish interim watch qualifications to set the training goals for Engineering/Reactor Department personnel as they arrive at the Industrial Activity. Additionally, PQS sign-off authority should be specified in writing by the ship's Engineer Officer, in order to ensure that the provisional qualifications and sign-off procedures function smoothly.

2.9.5.4 Outfitting Support (as applicable). The PCU must ensure that engineering spaces are completely outfitted. Routine progress inspections must be made in this area, and the PCU will participate in completing Compartment Completion Inspection Reports. It is important that personnel involved with Compartment Completion Inspection Reports are fully aware of all implemented Engineering Change Proposals and Engineering Change Notices to ascertain that outfitting materials and Operating Space Items (OSI) support the ship as revised by Engineering Change Proposals and Engineering Change Notices. Configuration Change Requests must be drafted with full recognition of the guidance contained in both the General Specifications for Building Naval Vessels and the specific Class Building Specifications.

2.9.5.5 Operational Sequencing System (Surface Force Ships only). The Operational Sequencing Systems (OSS) (Engineering Operational Sequencing System (EOSS), Sewage Disposal Operational Sequencing System, etc.) establish the operational procedures for various shipboard equipment, including applicable Casualty Control procedures. Validation of Engineering Department OSS manuals is the responsibility of the ship's Engineering Department personnel, with assistance provided by the Ship Program Manager and contractor support personnel (if available). This validation will ensure that procedural requirements are current, well-defined and correct. OSS validation is a Key Event that must be accomplished by the PCU prior to arrival of the final crew increment. EOSS installation (under the cognizance of Naval Surface Warfare Center Carderock Division (NSWCCD)) involves the following sequence of events, which may be modified for other OSS installations:

a. Develop the preliminary EOSS package.

b. Submit the preliminary EOSS to the PCU, the Supervising Authority and the Ship Program Manager.

c. The PCU, the Supervising Authority and the Ship Program Manager review the preliminary EOSS.

d. Conduct cold plant check to validate equipments for correct system operation.

e. Revise EOSS to pre-hot check package and submit EOSS to the PCU, the Supervising Authority and the Ship Program Manager.

f. Conduct pre-hot check.

g. Conduct hot system ship check.

h. Submit final EOSS to the PCU, the Supervising Authority and the Ship Program Manager for review/comment.

i. Deliver camera-ready copy of EOSS to Ship Program Manager.

j. Print, laminate, assemble EOSS.

k. Install final EOSS.

2.9.5.6 Engineering/Reactor Department Organization and Regulations Manual. The Engineering/Reactor Department Organization and Regulations Manual (EDORM/RDORM) is the responsibility of the ship's Engineer/Reactor Officer, however, basic EDORM/RDORMs have been established as guidelines. Reference (y) provides EDORM development guidance for Surface Forces, reference (z) provides guidance for Submarines, and reference (w) provides EDORM/RDORM development guidance for Nuclear Powered Aircraft Carriers.

2.10 SUPPORT ACTIVITIES.

2.10.1 Technical Support. The Regional Maintenance Centers (RMC) have numerous functions and responsibilities, some of which will further be discussed in Volume I, Chapter 3 of this manual, but for the purpose of this section only those functions and responsibilities related to new construction will be discussed.

2.10.1.1 Regional Maintenance Centers. RMC locations are listed in Volume VI, Chapter 2, Appendix A of this manual. Personnel from the RMCs are responsible for the loading of PMS on every new construction ship to be manned by naval personnel. Their primary functions with respect to new construction is to install PMS in a phased sequence in coordination with Ship's Force. Additional information concerning PMS installations can be found in Volume I, Chapter 3, paragraph 3.4.1 of this manual.

2.10.2 Submarine Maintenance Engineering, Planning and Procurement Activity. The SUBMEPP Activity is located in Portsmouth, NH. SUBMEPP functions are related to submarines and selected submarine support activities. As was the case with the RMCs, SUBMEPP's functions are numerous and deal with a submarine's maintenance at all levels of accomplishment (Organizational, Intermediate, Depot) from construction to inactivation. For the purpose of this section SUBMEPP's responsibilities and functions include:

a. Tracking the configuration of ships under construction.

b. Assisting local RMC with the PMS installation on all new construction submarines.

c. Assisting the Supervisor of Shipbuilding, Groton with the resolution of INSURV deficiencies concerning PMS related issues.

d. Providing Ship's Force with a Master Equipment Guide List (EGL) for all non-nuclear/non-missile related equipment (component to MRC).

e. Providing Ship's Force with their URO and Maintenance Standard documentation at PMS installation.

f. Providing Maintenance and Material Management Coordinator Training at SUBMEPP concerning VIRGINIA and SEAWOLF Maintenance philosophy.

g. Processing all shipbuilder developed Submarine PMS to the In-Service Engineering Activity (ISEA) for review and approval.

2.10.3 Carrier Planning Activity, PMS312C (Aircraft Carriers only). The Carrier Planning Activity (CPA) provides centralized Aircraft Carrier life-cycle management, maintenance and modernization planning, closely aligned to Fleet and Program Executive Officer Aircraft Carriers needs and priorities. Operationally, CPA reports to the Program Manager, In-Service Aircraft Carriers (PMS 312). In accordance with NAVSEAINST 5400.130, CPA responsibilities are as follows:

a. Development, maintenance and monitoring of the Carrier Incremental Maintenance Plan (IMP), including tracking the backlog of IMP and modernization work.

b. Developing Carrier Baseline Availability Work Packages (BAWP) including integration of the IMP sequencing plan and the Modernization Plan for presentation to the TYCOMs.

c. Capturing and analyzing maintenance data history for use in updating the IMP Sequencing Plan and supporting the TYCOMs in assessing the value of ongoing material assessments.

d. Supporting the TYCOMs and Executing Activities in the development of continuous maintenance requirements including life cycle input from the IMP to the continuous maintenance process.

2.10.4 Surface Maintenance Engineering Planning Program Activity (Surface Force Ships only). Surface Maintenance Engineering Planning Program Activity (SURFMEPP) shall provide centralized surface ship lifecycle maintenance engineering, class maintenance planning and management closely aligned to the Surface TYCOM and NAVSEA needs and priorities in accordance with reference (ab). For the purpose of this section, SURFMEPP's responsibilities and functions include:

a. Serve as the authorized engineering agent for Surface Ship Lifecycle maintenance engineering, planning and management.

b. Act as the surface ship Class Maintenance Program development and management activity.

c. Develop and issue BAWPs for follow on CNO availabilities after PSA.

2.10.5 Navy Management Systems Support Office.

a. Navy Management Systems Support Office (NAVMASSO) designs, develops, implements and provides life cycle support for standard fleet non-tactical automated information systems, afloat and ashore. NAVMASSO, also known as the Fleet Central Design Activity, is the software development and support command for tactical support applications automated under the Shipboard Nontactical Automated Data Processing Program (SNAP), the Naval Aviation Logistics Command Management Information System and their successor program, the Naval Tactical Command Support System. Through these programs, NAVMASSO automates supply, inventory, finance, ship/submarine/aviation maintenance and configuration management, medical, dental, food services, retail operations, manpower administration, watch, quarter, station bills, for fleet and fleet-like activities. In all, NAVMASSO customers number over 1200 separate activities, many of which operate with multiple functional systems.

b. All software development takes place at NAVMASSO's headquarters in Chesapeake, VA, along with Atlantic Fleet implementation and support. NAVMASSO DET PAC in San Diego, CA is responsible for Pacific Fleet implementation and support. Small detachments in Sigonella, Italy and Yokosuka, Japan provide on-site assistance for overseas commands and units deployed to the Sixth and Seventh Fleets.

2.10.6 Fleet Introduction Team (Surface Forces only). Reference (aa) states that for newly commissioned Commander Naval Surface Force Atlantic (COMNAVSURFLANT) ships, COMNAVSURFLANT assumes the responsibility of instituting and managing a fleet introduction program. FITs provide support to pre-commissioning crews by monitoring the progress of construction, coordinating training, providing continuity in the management and administration of facilities at the building site and providing administrative support. For the DDG 51 and to a lesser degree the LHD 1 programs, the Ship Program Manager provides this support in the form of support contractors. The specific responsibilities of individual FITs will vary dependent upon the platform and the requirements peculiar to that platform. Appendix R of this chapter provides a generic base line of services available if a FIT is established.

2.10.7 Engineering Training Group (Surface Force Ships only). The ETG is chartered by reference (y) to assist ships in tailoring a training program for the conduct of pre-light-off cold checks and evaluations, program management and fire fighting. This assistance is rendered through formal visits, scheduled at the request of the ship's ISIC via the quarterly scheduling process. ETG teams will conduct tailored training, defined in consonance with the CO, the ISIC and the team OIC which best meets the needs of the ship.

2.10.8 Surface Nuclear Propulsion Mobile Training Team (Nuclear Powered Aircraft Carriers only). The Surface Nuclear Propulsion Mobile Training Team will conduct training and assessment of Reactor Departments (to include Engineering department on CVN 65) for ships undergoing extended availabilities and for PCUs. These assessments shall include Reactor Department administration, qualifications, operations, cleanliness, preservation, material condition, radiological controls, chemistry controls and damage control. The Maintenance Training Group will conduct preavailability training with Reactor Department personnel, conduct in process quality assurance assessments and training visits, and train the crew in life cycle management.

2.10.9 Fitting Out and Supply Support Assistance Center (Surface Force Ships only).

a. Fitting Out and Supply Support Assistance Center (FOSSAC) is a world wide supply support organization dealing with logistics engineering and management, acquisition and information systems training, cost and manpower analysis, and occupational health and safety issues. FOSSAC major service operations are:

(1) Code 02 - Intra-Fleet Supply Support Operations Program.

(2) Code 03 - Fitting Out Supply Assistance Team (FOSAT).

(3) Code 05 - Naval Supply Systems Command Occupational Safety and Health Office.

(4) Code 06 - Logistics Engineering Department.

(5) Code 07 - Systems Training Department.

(6) Code 08 - Price Fighters Department.

(7) Code 09 - Shipboard Uniform Automatic Data Processing System Support Group.

(8) Code OM - Manpower Management Analysis.

As the subject of this volume is new construction the following provides a brief description of Code 03, the FOSAT.

b. FOSAT assists PCOs and their Prospective Supply Officers in establishing the Supply Department for U.S. Navy, Military Sealift Command, and Foreign Military Sales ships during their new construction, conversion, activation and modernization periods. This mission also extends into Integrated Logistics Overhaul/Integrated Logistics Review for Military Sealift Command ships. FOSAT also assists INSURV inspectors. FOSAT evaluates the progress and effectiveness of:

(1) Ship's equipment validation.

(2) Provisioning of ship's equipment.

(3) Allowance products development.

(4) Material ordering (via Automated Coordinated Shipboard Allowance List (COSAL) Tracking System).

(5) Material receipt and identification.

(6) Stowage, both mock-up and shipboard.

c. Additional services provided by FOSAT includes:

(1) Serve as the focal point to assist the PCU.

(2) Establishment and maintenance of S-1 records.

(3) Establishment and training of the food service, retail sales and services divisions and the disbursing function aboard new construction ships.

(4) Conduct the pre-acceptance bin validity inspection and recommend acceptance or rejection of storerooms based on the results.

(5) Chair Automated COSAL Tracking System Conference and User's Meeting.

(6) Chair Incremental Stock Number Sequence List and Load COSAL quality reviews for Naval Inventory Control Point allowance products.

(7) Chair Start of Overhaul and End of Overhaul COSALs or Integrated Allowance Document for Military Sealift Command ships undergoing Integrated Logistics Overhaul or Integrated Logistics Review.

(8) Report on the effectiveness of supply support to the Systems Commands (NAVSEA and NAVSUP), the TYCOMs, Commander Military Sealift Command and Ship Masters, as appropriate.

2.11 NAVAL SEA SYSTEMS COMMAND (SUBMARINES ONLY). Reference (c) describes NAVSEA's responsibilities during new construction for Submarine FBW SCS. The following is a synopsis of those functions with additional amplification:

2.11.1 Pre-Commissioning. NAVSEA's responsibilities for the Pre-Commissioning period are as follows:

a. (Applicable Submarines only) Supervising Authority sends message to NAVSEA in advance of the scheduled start of Fast Cruise stating the status of all incomplete NAVSEA FBW SCS Certification Audit Category IA recommendations, that all FBW SCS work necessary for sea trials, including resolution of all NAVSEA FBW SCS Certification Audit Category I recommendations, has been completed and that the FBW SCS is ready for commencement of Fast Cruise. The message shall also

state that there are no conditional FBW SCS Deviations or Waivers which have not been satisfied or cite those that exist, identify any operating restrictions of the ship and/or system, and that, subject to satisfactory completion of Fast Cruise and resolution of mandatory deficiencies, the FBW SCS is satisfactory for commencement of Alpha Sea Trials. Appendix S of this chapter provides a sample message.

b. (Applicable Submarines only) NAVSEA Submarine Program Manager message to TYCOM certifying that the submarine FBW SCS is satisfactory for sea trials in accordance with the approved Sea Trial Agenda. The message shall also state that there are no conditional FBW SCS Deviations or Waivers which have not been satisfied or cite those that exist, identify any operating restrictions of the ship and/or system, and that, subject to satisfactory completion of Fast Cruise and resolution of mandatory deficiencies, the FBW SCS is satisfactory for commencement of Alpha Sea Trials. Appendix T of this chapter provides a sample message.

c. (Applicable Submarines only) NAVSEA Submarine Program Manager shall provide a report documenting the resolution of sea trial deficiencies to NAVSEA 07TC for review in support of NAVSEA 07 concurrence on final system certification. Appendix U of this chapter provides a sample message.

2.12 INTEGRATION OF CLASS MAINTENANCE PLAN AND BASELINE AVAILABILITY WORK PACKAGE (SURFACE FORCE SHIPS ONLY).

a. SURFMEPP has lead responsibility for BAWP development for new construction ships entering the Fleet Readiness Plan (FRP) cycle at A-530.

b. Each ship class has a Technical Foundation Paper that summarizes maintenance requirements and provides recommended CNO availability durations for a ship to reach its Expected Service Life.

c. Due to the unique nature of new construction, the BAWP to Availability Work Package (AWP) process, Appendix V, is different than the process for in-service ships. Volume II of this manual describes the BAWP to AWP process for Continental United States and Forward Deployed Naval Forces ships.

d. New construction BAWP process milestones start at A-585 from the start date of the first scheduled CNO availability. BAWP development process for new construction is as follows:

NOTE: SURFMEPP WILL HOST THREE (3) SCHEDULED MEETINGS OVER THE COURSE OF THE SHIP'S FRP MAINTENANCE CYCLE: THE LIFE CYCLE PLANNING CONFERENCE (LCPC) (A-530), THE CURRENT SHIP'S MAINTENANCE PROJECT/DEPARTURE FROM SPECIFICATION/BAWP MID-CYCLE REVIEW (A-410) AND THE BAWP CLOSE-OUT AND ASSESSMENT MEETING (C+45). WHEN POSSIBLE, SURFMEPP CONFERENCES WILL BE HELD IN CONJUNCTION WITH OTHER MAINTENANCE TEAM (MT) SCHEDULED MEETINGS SUCH AS MONTHLY AVAILABILITY ADVANCED PLANNING MEETINGS AND PB4M.

2.12.1 A-585. SURFMEPP will establish the date, location and agenda for the LCPC.

2.12.2 A-540. SURFMEPP will send a list of the FRP Maintenance Cycle Class Maintenance Plan requirements to the ship's Port Engineer for review and correction. This list is a preview of the initial BAWP and will be discussed in detail at the LCPC. Upon request, SURFMEPP will provide a list of Class Maintenance Plan-required assessments to TYCOM, Navy Regional Maintenance Center (NRMC) and RMC Total Ship's Readiness Assessment (TSRA) Planners and update this list throughout the TSRA process.

2.12.3 A-530. SURFMEPP, TYCOM and the ship's Port Engineer will convene for a LCPC. SURFMEPP will be responsible for planning and conducting the conference. RMC Assessment Directors, Naval Regional Maintenance Command Code 200 and TYCOM TSRA Planners, NRMC Code 200, Program Manager Representatives, and representatives from NAVSEA 05D, NAVSEA 21 Modernization, Commander, Naval Surface Atlantic/Commander, Naval Surface Pacific N43, Multi-Ship Multi-Option Contractor (and/or Planning Activity) and the ship's MT shall attend the LCPC.

2.12.4 A-520.

a. SURFMEPP will upload a data file (MM0001 file) with all mandatory maintenance actions and expected CNO Availability services into Regional Maintenance Automated Information System in support of ship-specific MT screening and brokering requirements. The data file will span approximately ten (10) calendar quarters and will include the requirements through C+120.

b. SURFMEPP will issue formal correspondence detailing the planning schedule and outstanding action items from the LCPC.

2.12.5 Other BAWP to AWP Process Milestones. All other BAWP to AWP process milestones are germane (refer to Volume II of this manual) for in-service Continental United States ships.

APPENDIX B_1

SAMPLE ISIC CERTIFICATION OF NEW CONSTRUCTION READINESS FOR FAST CRUISE AND SEA TRIALS MESSAGE (SUBMARINES)

FM (ISIC)//
TO (TYCOM)//N4/N43/N433/N433312/N40/N402/N40A//
INFO CNO WASHINGTON DC//087//
COMNAVSEASYSCOM WASHINGTON DC//(SHIP PROGRAM MANAGER)/08//04/04X/05H/07Q/07T//
PEO SUB WASHINGTON DC//450//
COMUSFLTFORCOM NORFOLK VA//N33/N43//
(PARENT GROUP)//
(PARENT SQUADRON)//
PRES INSURV NORFOLK VA
SUPSHIP GROTON CT
SUPSHIP NEWPORT NEWS VA
COMSUBGRU TWO SHIPYARD REP GROTON CT
COMSUBGRU SHIPYARD REP NEWPORT NEWS VA
COMSUBDEVRON FIVE SILVERDALE WA//N3//
SUBDEVRON FIVE DET DAN DIEGO CA//N3//
SSV CAROLYN CHOUEST
(SUPERVISING AUTHORITY)//(APPROPRIATE CODE)//
(SHIP NAME AND HULL NUMBER)//
CCGDONE BOSTON MA//CC/MHS//
COMLANTAREA COGARD PORTSMOUTH VA//AM//AO//
COMCOGARD SECTOR LONG ISLAND SOUND NEW HAVEN CT
BT
UNCLAS //N09094//
MSGID/GENADMIN/(ISIC)//
SUBJ/(SUBS) PRECOMUNIT (SHIP NAME AND HULL NO.) CREW AND SALVAGE CERTIFICATION//
REF/A/DOC/COMUSFLTFORCOMINST 4790.3//(date)
REF/B/DOC/COMNAVSEASYSCOM/S9560-CH-SCB-010/(date)//(If required)
REF/C/DOC/COMNAVSUBFOR 8500.2/(DATE) (If required)
NARR/REF A IS JOINT FLEET MAINTENANCE MANUAL//REF B (if required) IS VIRGINIA CLASS SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEM CERTIFICATION BOUNDARY BOOK, REF C IS TACTICAL WEAPONS CERTIFICATION, PROFICIENCY AND MODERNIZATION//
RMKS/1. CREW CERTIFICATION CONDUCTED AND SATISFACTORILY COMPLETED IAW REF A.
2. SALVAGE CONDITION CERTIFIED SATISFACTORY.
3. MATERIAL CONDITION CERTIFIED SATISFACTORY UPON COMPLETION OR RESOLUTION OF THE FOLLOWING:
4. PCU (Ship Name and Hull Number) IS PREPARED TO ASSUME RESPONSIBILITY FOR RE-ENTRY CONTROL. PCU (Ship Name and Hull Number) IS PREPARED TO ASSUME RESPONSIBILITY FOR SUBMARINE FLY-BY-WIRE AND FLIGHT CRITICAL COMPONENT CONTROLS IAW REF B.
5. (ISIC) REPORTS THE READINESS OF (Ship Name and Hull Number) FOR COMMENCEMENT OF FAST CRUISE. COMMANDING OFFICER, PCU (Ship Name and Hull Number) CONCURS.
6. SUBJECT TO SATISFACTORY COMPLETION OF FAST CRUISE AND RESOLUTION OF MANDATORY DEFICIENCIES, (ISIC) CONSIDERS PCU (Ship Name and Hull Number) MATERIAL CONDITION READINESS SATISFACTORY FOR COMMENCEMENT OF SEA TRIALS.
7. PCU (Ship Name and Hull Number) IS PROVISIONALLY CERTIFIED TO LOAD, HANDLE, STOW, AND MAINTAIN SHAPES IAW REF C.//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

APPENDIX B_2

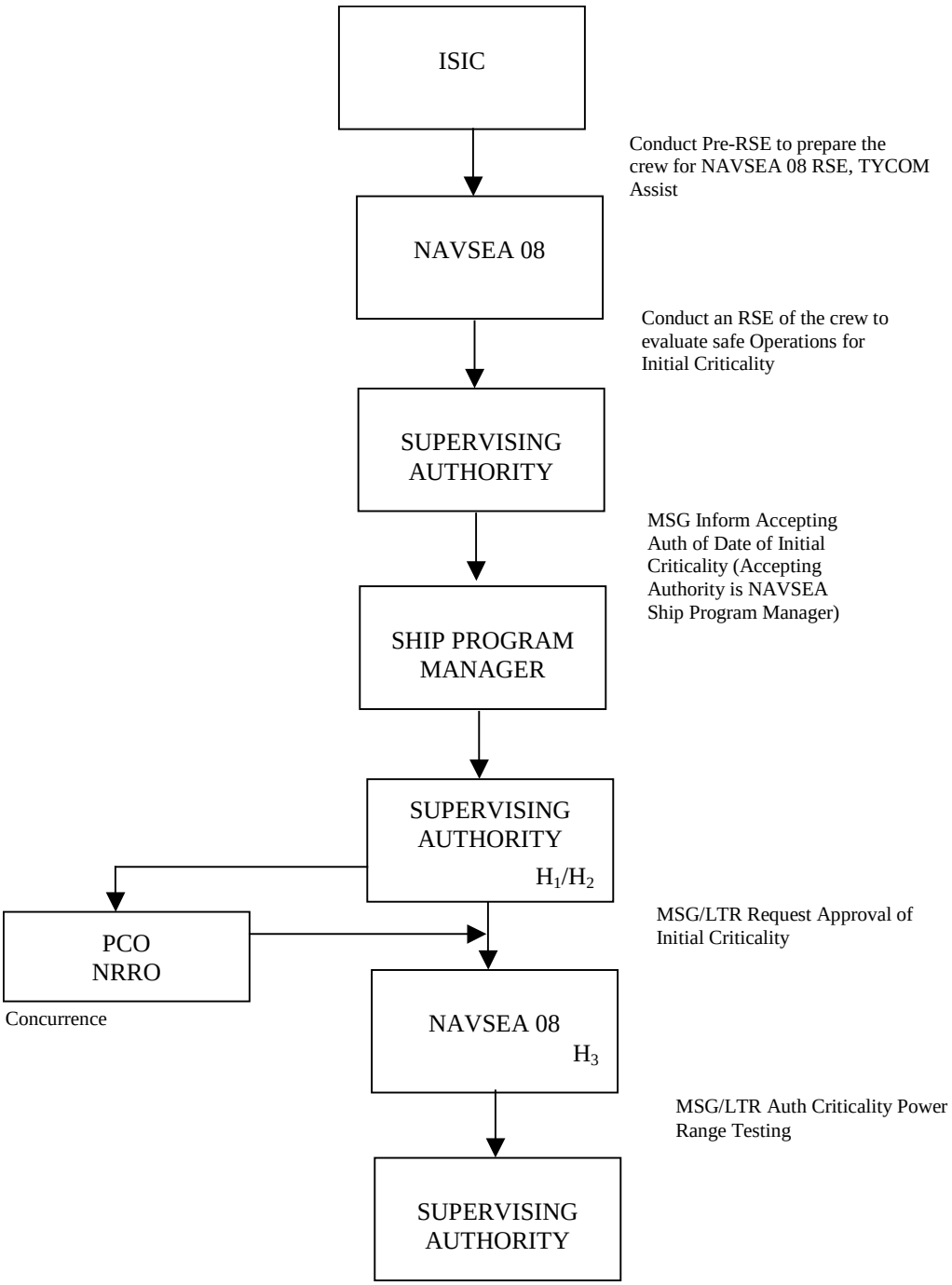
SAMPLE PRE-COMMISSIONING UNIT MESSAGE TO TYCOM CONCERNING CREW CERTIFICATION (CVN)

FM PRECOMUNIT (SHIP NAME)//
TO TYCOM//N00/N02/N3/N8//
INFO COMNAVSEASYSCOM WASHINGTON DC//08/PMS-312//
(FLEET COMMANDER)//N43//
(PARENT GROUP)//N4//
(SUPERVISING AUTHORITY)//
BT
UNCLAS //N09094//
MSGID/GENADMIN/(ORIGINATING ACTIVITY)//
SUBJ: CREW CERTIFICATION PHASE II//
REF/A/DOC/OPNAVINST/-/9080.3//
AMPN/REF A IS PROCEDURES FOR TESTS AND TRIALS OF NAVAL NUCLEAR POWERED SHIPS UNDER CONSTRUCTION, MODERNIZATION, CONVERSION, REFUELING AND OVERHAUL//
REF/B/DOC/OPNAVINST/-/9080.2//
AMPN/REF B IS CREW CERTIFICATION REQUIREMENTS FOR NEW CONSTRUCTION CVNS//
REF/C/DOC/CNALINST 3500.20//
AMPN/REF C IS CVN TRAINING AND READINESS MANUAL//
RMKS/1. (PARENT GROUP) CERTIFIES (SHIP NAME) SATISFACTORILY COMPLETED CREW CERTIFICATION PHASE II AS REQUIRED BY REF A AND IAW REFS B AND C. RECOMMEND (SHIP NAME) COMMENCE BUILDER'S SEA TRIALS AS SCHEDULED.
2. RELEASED BY COMMANDER (PARENT GROUP)//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

APPENDIX E

Pre-RSE/RSE/Criticality/Power Range Testing Logic Table (All Nuclear Powered Ships)



APPENDIX E_1

SAMPLE SUPERVISING AUTHORITY TO NAVSEA MESSAGE REQUESTING AUTHORIZATION FOR CRITICALITY

FM (SUPERVISING AUTHORITY)//
TO COMNAVSEASYSCOM WASHINGTON DC//08//
INFO CNO WASHINGTON DC//N77//
(SHIP PROGRAM MANAGER)//
(FLEET COMMANDER)//N43//
(TYCOM)//N43/N9 (FOR CVN)//
(ISIC)//
(PARENT GROUP)//N4//
(PARENT SQUADRON)//
PRECOMUNIT (SHIP NAME)//
BT
UNCLAS NOFORN//N09690//
MSGID/GENADMIN/(SUPERVISING AUTHORITY)//
SUBJ/(SHIP NAME AND HULL NO.) INITIAL CRITICALITY OF REACTOR PLANT NR TWO//
REF/A/DOC/NAVSEA 0989-028-5000//
AMPN/REF A IS MANUAL FOR THE CONTROL OF THE TESTING AND PLANT CONDITIONS//
REF B/DOC/OPNAVINST 9080.3//
AMPN/REF B IS PROCEDURES FOR TESTS AND TRIALS OF NAVAL NUCLEAR POWERED SHIPS UNDER CONSTRUCTION, MODERNIZATION, CONVERSION, REFUELING, AND OVERHAUL//
REF/C/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)//
AMPN/REF C IS NAVSEA 08 LETTER IDENTIFYING CORE INSTALLED IN (SHIP NAME)//
REF/D/DOC/A4W/A1G PREREQ LIST NR SEVEN REV D DTD 6 MAY 86//
AMPN/REF D IS A4W/A1G PREREQUISITE LIST NUMBER SEVEN//
REF/E/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)//
AMPN/REF E IS NAVSEA PROGRAM MANAGER LETTER CONCERNING RESOLUTION TO OUTSTANDING WORK ITEMS//
REF/F/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)//
AMPN/REF F IS SUPERVISING AUTHORITY LETTER CONCERNING RESOLUTION TO OUTSTANDING WORK ITEMS//
RMKS/1. IAW REFS A AND B, REQ AUTHORIZATION TO PERFORM TEST PROCEDURE A4W/A1G 3-KA-9 REV D DTD 5-6-86 IN REACTOR PLANT NR TWO.
2. THE REACTOR CORE IS INSTALLED IN (SHIP NAME) REACTOR NR TWO AS SPECIFIED BY REF C.
3. (SHIPBUILDER) HAS CERTIFIED THAT ALL PREREQS FOR NR TWO PLANT INITIAL CRITICALITY REQD BY REF D ARE MET.
4. THE PCO, (SHIP NAME) AND NRRO CONCUR THAT THE NUCLEAR PROPULSION PLANT NR TWO IS READY FOR INITIAL CRITICALITY AND SUBSEQUENT POWER RANGE TESTING.
5. ALL OUTSTANDING WORK ITEMS HAVE BEEN RESOLVED BY REFS E AND F.
6. ESTIMATE (SPECIFIED) DAYS WILL BE REQUIRED TO PERFORM CRITICALITY AND POWER RANGE TESTING OF NR TWO PLANT. REQ A MAX OF (SPECIFIED) EFPH BE AUTHORIZED.
7. THIS EVENT IS SKED FOR (TIME (LOCAL)) AND (DATE).//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

NOFORN when filled in

APPENDIX E_2

**SAMPLE SUPERVISING AUTHORITY
TO NAVSEA REQUEST FOR
INITIAL CRITICALITY**

From: (Supervising Authority), USN, (Location)
To: Commander, Naval Sea Systems Command (08)

Subj: AUTHORIZATION REQUEST FOR (Ship Name and Hull No.) INITIAL CRITICALITY

Ref: (a) (Plant Type) Initial Criticality Prerequisite List
(b) COMNAVSEASYSCOM letter Ser (Serial Number and Date)

1. Request authorization required by reference (a) to perform test procedure with TPI incorporated.

2. The reactor core installed in (Ship Name and Hull No.) as specified in reference (b).

3. Estimated time to perform all critical testing is __ days. All critical testing will require a maximum of __ effective full power hours. This estimate includes Critical Over-the-Side-Noise testing.

4. The shipyard has certified that all the prerequisites for Initial Criticality required by reference (a) are met and the ship is ready for Initial Criticality and subsequent Power Range Testing.

5. The following reactor plant work item(s) is (are) not completed and does (do) not involve safety of the reactor plant.

a.

b.

6. The Prospective Commanding Officer and Naval Reactors Representative concur.

7. The event is scheduled for (Date) at (Time).

(Signature)

Copy to:
PCO (Ship Name and Hull No.)
NRRO (Location)
TYCOM (N43)(N9 for CVN)
ISIC

APPENDIX E_3

SAMPLE NAVSEA TO SUPERVISING AUTHORITY MESSAGE AUTHORIZING CRITICALITY

FM COMNAVSEASYSCOM WASHINGTON DC//08//
TO (SUPERVISING AUTHORITY)//
INFO CNO WASHINGTON DC//N77//
(FLEET COMMANDER)//N43//
(TYCOM)//N43/N9 (FOR CVN)//
(ISIC)//
NRRO (LOCATION)//
(PARENT GROUP)//N4//
(PARENT SQUADRON)//
PCO (SHIP NAME AND HULL NO.)//
BT
UNCLAS NOFORN//N09210//
MSGID/GENADMIN/COMNAVSEASYSCOM//
SUBJ: INITIAL CRITICALITY OF REACTOR NO. 2 IN (SHIP NAME AND HULL NO.)//
REF/A/MSG/(ORIGINATING ACTIVITY)/(DTG)//
AMPN/REF A IS SUPERVISING AUTHORITY MESSAGE REQUESTING AUTHORIZATION FOR CRITICALITY//
REF/B/DOC/(PLANT TYPE) TEST PROCEDURE (NUMBER SPECIFIED)//
AMPN/REF B IS TEST PROCEDURE FOR INITIAL APPROACH TO CRITICALITY//
RMKS/1. REF A CERTIFIES THAT ALL PREREQUISITES REQUIRED BY REF B FOR INITIAL CRITICALITY OF REACTOR NO. 2 IN (SHIP NAME) HAVE BEEN MET. REF A REQUESTS NAVSEA AUTHORIZATION REQUIRED BY REF B TO CONDUCT INITIAL CRITICAL OPERATIONS OF REACTOR NO. 2 IN (SHIP NAME). REF A ESTIMATES (SPECIFIED) EFPH NECESSARY TO CONDUCT INITIAL CRITICALITY AND SUBSEQUENT POWER RANGE TESTING.
2. BASED ON THE STATEMENTS CONTAINED IN REF A, YOU ARE AUTHORIZED TO PROCEED WITH INITIAL CRITICALITY AND POWER RANGE TESTING OF REACTOR NO. 2 IN (SHIP NAME) IN ACCORDANCE WITH APPROVED PROCEDURES, FOR A MAXIMUM OF (SPECIFIED) EFPH.//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

NOFORN when filled in

APPENDIX F

SAMPLE TYCOM MESSAGE CONCERNING SEA TRIAL AGENDA (SUBMARINES)

FM (TYCOM)//N43//
TO (SUPERVISING AUTHORITY)//
PRECOMUNIT (SHIP NAME)//
INFO CNO WASHINGTON DC//N77//
(FLEET COMMANDER)//N43//
COMNAVSEASYSCOM WASHINGTON DC//(SHIP PROGRAM MANAGER)/08//
DSU SAN DIEGO CA//N3//
COMSUBDEVRON FIVE SILVERDALE WA//N3//
(ISIC)//
(PARENT GROUP)//
(PARENT SQUADRON)//
BT
UNCLAS //N09094//
MSGID/GENADMIN/(TYCOM)//
SUBJ/(SUBS) (SHIP NAME AND HULL NO.) (TRIAL NAME) SEA TRIAL AGENDA//
REF/A/DOC/COMUSFLTFORCOMINST 4790.3//
AMPN/REF A IS JOINT FLEET MAINTENANCE MANUAL//
REF/B/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)/NOTAL//
AMPN/REF B IS (SUPERVISING AUTHORITY) FIRST ENDORSEMENT TO (SHIPBUILDER) LTR (SERIAL/DATE)//
SUBJ: (SHIPBUILDER) (SHIP NAME AND HULL NO.) (TRIAL) UNDERWAY SEA TRIAL AGENDA, REV (-)//
RMKS/1. IAW REF A, ORIG CONCURS WITH THE OPERATIONAL ASPECTS OF REF B SEA TRIAL AGENDA.
2. FOR OIC (SHIP NAME AND HULL NO.): RECOGNIZING LIMITED UNDERWAY OPERATIONAL EXPERIENCE LEVEL, EXERCISE EXTREME CAUTION WHILE CONDUCTING ALL OPERATIONS AT TEST DEPTH. ENSURE YOUR SHIP CONTROL PARTIES ARE WELL VERSED IN ALL ASPECTS OF SHIP'S COMPENSATION AND EFFECTS OF SPEED AND TRIM ADJUSTMENTS, AS WELL AS PROCEDURES TO PREVENT EXCEEDING TEST DEPTH.//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX G

SAMPLE TYCOM SRDRS SUPPORT SERVICES MESSAGE (SUBMARINES)

FM (TYCOM)//N31//
TO COMSUBDEVRON FIVE SILVERDALE WA//N31//
(SUPERVISING AUTHORITY)//(IF SUBSIG II USED)
(COMSUB SQD/GRP (ISIC))//
USS (SHIP NAME)//(MOSUB)
USS (SHIP NAME)//(ESCORT)(IF SUBSIG II NOT USED)
INFO CNO WASHINGTON DC//21//23//
COMNAVSEASYSCOM WASHINGTON DC//(SHIP PROGRAM MANAGER)/08/SEA07//
(FLEET COMMANDER)//N43/N33//
COMSUBPAC PEARL HARBOR HI//N31/N4/N40//
COMSECONDFLT//
COMNAVSURFLANT NORFOLK VA//N31/N4//
COMNAVAIRLANT NORFOLK VA//N31//
(SUPERVISING AUTHORITY)//(RESPONSIBLE SHIPBUILDER)
COMSUBDEVRON FIVE DET SAN DIEGO CA//
CTF TWO SIX//
CTF TWO SIX PT ONE//
NUWC DIV NEWPORT RI//2412//
NAVSEALOGCEN//
DSU SAN DIEGO CA//00//
NAVUNSEAWARCENDIV NEWPORT RI//02245//
NAVUNSEAWARCENDET WEST PALM BEACH FL//3812//
NAVUNSEAWARCENDET AUTEC ANDROS ISLAND BAHAMAS//05//
NAVSURFWARCEN CARDEROCKDIV BETHESDA MD//1921//
PEOSUBCBTWPNSYS WASHINGTON DC//PMO417//
COMSUBRON (SPECIFY)//(STRL UNIT)
COMSUBRON (SPECIFY)//(MOSUB)
(STRL UNIT)//
BT
UNCLAS //N03120//
MSGID/GENADMIN/(TYCOM)//
SUBJ/(SUBS) SUBMARINE SEA TRIAL SUPPORT SERVICES//
REF/A/MSG/(ORIGINATING ACTIVITY)/(DTG)//
AMPN/REF A IS SUPERVISING AUTHORITY/RESPONSIBLE SHIPBUILDER SEA TRIAL SUPPORT REQUEST//
REF/B/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)//
AMPN/REF B IS CNO LETTER CONCERNING SEA TRIALS//
REF/C/LTR/(ORIGINATING ACTIVITY) (SERIAL NUMBER)/(DATE)//
AMPN/REF C IS NAVSEA LETTER TO CNO DESCRIBING GMV VS MOSUB CAPABILITY//
REF/D/DOC/COMUSFLTFORCOMINST 4790.3//
AMPN/REF D IS JOINT FLEET MAINTENANCE MANUAL//
REF/E/TEL/COMSUBLANT/(DD MM YY)//(CONFIRMING STRL SCHEDULE)
AMPN/REF E IS TELCON BETWEEN (ORIGINATOR ACTIVITY)/(PERSON'S NAME) AND (CALLED ACTIVITY)/(PERSON'S NAME) OR (SUPERVISING AUTHORITY)(SUBSIG II)//
RMKS/1. IRT REF A AND IAW REF B THROUGH D, THE FOLLOWING ASSIGNMENTS APPLY FOR (STRL UNIT NAME AND HULL NO.) SEA TRIALS OCCURRING PD: (DD-DDMMM) (ALPHA 70% TD) AND (DD-DDMMM) (BRAVO 100% TD).

A. SRDRS SUPPORT SHIP - USS
B. RESCUE PORT -
C. RESCUE PORT REPRESENTATIVE -
D. RESCUE AIRFIELD -

E. MOORING SUPPORT SHIP -
F. GOLD DOLPHIN OBSERVER -
G. ESCORT VESSEL -
H. TYCOM EMBARKED REP -

FOR COMSUBDEVRON FIVE:
REQUEST SRDRS BE PLACED IN MOD-ALERT STATUS TO SUPPORT SEA TRIALS FOR USS (STRL UNIT NAME AND HULL NO.) ON (DD-DDMMM). IT IS ANTICIPATED THAT ESCORT SERVICES AND SRDRS MOD-ALERT STATUS WIL BE REQUIRED THROUGH (DD-DDMMM).
3. FOR (STRL UNIT),
A. INCLUDE THE FOLLOWING INFO ADDEES ON FINAL TEST DEPTH DEEP DIVE CHECK REPORT: COMSUBPAC PEARL HARBOR HI, COMSUBDEVRON FIVE SILVERDALE WA, AND DSU SAN DIEGO CA.
B. ONCE ESCORT, SRDRS SERVICES ARE NO LONGER REQUIRED, RELEASE IAW ISIC OPS DIRECTIVE.
4. DIRLAUTH ALCON FOR EVENT SCHEDULES AND SCHEDULE CHANGES.//
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

APPENDIX H

SAMPLE TYCOM MESSAGE TO PCU CONCERNING USE OF THE FBW SCS IN SUPPORT OF ALPHA SEA TRIALS (SUBMARINES)

FROM: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>//
TO: PRECOMUNIT <SHIP NAME>//
INFO CNO WASHINGTON DC
COMNAVSEASYSCOM WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/COMSUB<LANT/PAC>//
SUBJ/(SUBS) PRECOMUNIT <SHIP NAME/HULL NO.> AUTHORIZATION TO USE THE FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF ALPHA SEA TRIALS//
REF/A/MSG/COMNAVSEASYSCOM/<DTG>// {G.2.2}
REF/B/MSG/<SUPERVISING AUTHORITY>/<DTG>//{G.2.3}
REF/C/LTR/COMSUB<LANT/PAC>/<SER NO./DATE>//
REF/D/LTR/NAVSEA/<SER NO./DATE>//
REF /E/LTR NAVSEA SERNO./DATE
NARR/REF A IS NAVSEA FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS REPORT AND ALPHA SEA TRIALS RECOMMENDATION FOR <SHIP NAME/HULL NO.>. REF B IS <SUPERVISING AUTHORITY> REPORT OF FAST CRUISE COMPLETION AND READINESS OF FLY-BY-WIRE SHIP CONTROL SYSTEM FOR ALPHA SEA TRIALS. REF C CONCURRED WITH THE SEA TRIALS AGENDA. REF D APPROVED THE SEA TRIALS AGENDA.//
RMKS/1. REF A CERTIFIED THE FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION OF <SHIP NAME/HULL NO.> SATISFACTORY FOR ALPHA SEA TRIALS.
2. REF B REPORTED SUCCESSFUL COMPLETION OF FAST CRUISE AND READINESS OF FLY-BY-WIRE SHIP CONTROL SYSTEM FOR ALPHA SEA TRIALS.
3. <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM USE IS AUTHORIZED IN SUPPORT OF ALPHA SEA TRIALS IAW THE ALPHA SEA TRIALS AGENDA CONCURRED IN BY REF C AND APPROVED BY REF D. THERE ARE NO FLY-BY-WIRE SHIP CONTROL SYSTEM or SHIP RELATED OPERATING RESTRICTIONS/LIMITS WHICH HAVE NOT BEEN SATISFIED. <or identify operating restrictions/limits>//
4. THIS CERTIFICATION IS VALID THROUGHOUT TRIALS UNLESS A DEFICIENCY HAS BEEN DISCOVERED. SHIP SPEED IS RESTRICTED TO LESS THAN 20 KNOTS WHEN A FBW SCS FAULT CONDITION RESULTS IN A MAJOR NON-CONFORMANCE AFFECTING CONTROL OF SHIPS PITCH, HEADING, DEPTH OR CONTROL SURFACES. THESE DEFICIENCIES MUST BE REPORTED TO NAVSEA AND THE APPROPRIATE FLEET AND TYPE COMMANDERS. PREVIOUS NAVSEA CERTIFICATION OF THE FBW SCS MATERIAL CONDITION SHALL BE SUSPENDED UNTIL NAVSEA REVIEWS THE REPORT AND CERTIFIES TO THE TYCOM THAT THE FBW SCS MATERIAL CONDITION IS SATISFACTORY FOR SEA TRIALS IN ACCORDANCE WITH THE SEA TRIAL AGENDA APPROVED BY REFERENCE D. THE SHIP'S SPEED IS RESTRICTED TO LESS THAN 20 KNOTS UNTIL SATISFACTORY RESOLUTION OF THE MAJOR NON-CONFORMANCE AND TYCOM APPROVAL TO OPERATE THE FBW SCS TO PREVIOUSLY AUTHORIZED CONDITIONS IS GRANTED, UNLESS SPECIFICALLY ADDRESSED IN THE SEA TRIAL AGENDA.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX I

SAMPLE TYCOM MESSAGE TO PCU CONCERNING FBW SCS MATERIAL CONDITION INITIAL CERTIFICATION (SUBMARINES)

FROM: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>//
TO: PRECOMUNIT <SHIP NAME>//
INFO CNO WASHINGTON DC
COMNAVSEASYSCOM WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSG/GENADMIN/COMSUB<LANT/PAC>//
SUBJ/(SUBS) UNRESTRICTED USE OF PRECOMUNIT <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATION//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF/B/MSG/NAVSEA/<DTG>// {G.2.7}
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS THE NAVSEA MSG FOR UNRESTRICTED USE OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATION.//
RMKS/1. IAW REF A, REF B CERTIFIED THAT THE FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION OF <SHIP NAME/HULL NO.> IS SATISFACTORY AND RECOMMENDED UNRESTRICTED USE OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS.
2. <SHIP NAME/HULL NO.> IS AUTHORIZED UNRESTRICTED USE OF THEIR FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATION SUBJECT TO THE FOLLOWING RESTRICTIONS: <list restrictions if they exist or state "NONE">
3. CONTINUED CERTIFICATION FOR UNRESTRICTED USE OF THE FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATION IS SUBJECT TO COMPLIANCE WITH REF A.
4. RECOMMENDATION FOR SHIP'S UNRESTRICTED OPERATION TO TEST DEPTH WILL BE ADDRESSED BY SEPARATE CORRESPONDENCE.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX J

SAMPLE TYCOM MESSAGE TO THE SHIP CONCERNING FBW SCS CERTIFICATION (SUBMARINES)

FROM: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>//
TO: UNIT <SHIP NAME>//
INFO CNO WASHINGTON DC
COMNAVSEASYSCOM WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSG/GENADMIN/COMSUB<LANT/PAC>//
SUBJ/(SUBS) UNRESTRICTED USE OF FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF UNRESTRICTED OPERATIONS OF UNIT <SHIP NAME/HULL NO.>//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF /B/MSG NAVSEA/DTG // FBW SCS INITIAL CERTIFICATION (G.2.9)
REF//C/ SSM VOLUME 7
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FBW SCS. REF B IS NAVSEA FBW SCS CERTIFICATION MSG FOR <SHIP NAME/HULL NO.>. REF C CONTAINS COMSUB<LANT/PAC> AUTHORIZED SUBMARINE OPERATING AND TEST DEPTHS.//
1. IN ACCORDANCE WITH REFERENCE (A), REFERENCE (B) PROVIDED <INTERIM FOR FIRST SHIP OF CLASS OR AFTER MAJOR SHIP MODIFICATION AFFECTING SHIP HYDRODYNAMIC CHARACTERISTICS> CERTIFICATION OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM FOR UNRESTRICTED USE IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS <OR STATE LIMITS>.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX K

SAMPLE SUPERVISING AUTHORITY MESSAGE TO NAVSEA CONCERNING PCU FBW SCS MATERIAL CONDITION READINESS FOR FAST CRUISE AND ALPHA TRIALS (SUBMARINES)

FROM: <SUPERVISING AUTHORITY>//-+
TO: COMNAVSEASYSCOM WASHINGTON DC//
INFO CNO WASHINGTON DC
COMSUB<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/<SUPERVISING AUTHORITY>//
SUBJ/(SUBS) PRECOMUNIT <SHIP NAME/HULL NO > FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS FOR FAST CRUISE AND SEA TRIALS//
REF/A/DOC/NAVSEA T9044-AD-MAN-010 //
REF/B/LTR/NAVSEA/<SER NO./DATE>// (REFERENCE ADDITIONAL AUDIT REPORTS AS REQUIRED)
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS THE NAVSEA FLY-BY-WIRE SHIP CONTROL SYSTEM CERTIFICATION AUDIT REPORT FOR <SHIP NAME/HULL NO.>.//
RMKS/1. IAW REF A, <SUPERVISING AUTHORITY> REPORTS THE COMPLETION OF ALL FLY-BY-WIRE SHIP CONTROL SYSTEM WORK AND TESTING REQUIRED FOR COMMENCEMENT OF FAST CRUISE AND ALPHA SEA TRIALS.
2. IAW REF A, <SUPERVISING AUTHORITY> REPORTS THAT ALL CAT I AUDIT RECOMMENDATIONS OF REF B HAVE BEEN SATISFACTORILY RESOLVED. THERE ARE NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS WITH CONDITIONS NOR FLY-BY-WIRE SHIP CONTROL SYSTEM OR RELATED SHIP OPERATING RESTRICTIONS/LIMITS WHICH HAVE NOT BEEN SATISFIED. <or identify operating restrictions/limits and list conditional Deviations and Waivers including Deviation Number, Short Title, and Expected Clearance Date/Key Event(1)>.
3. IAW REF A, THE STATUS OF ALL INCOMPLETE CAT 1A AUDIT RECOMMENDATIONS OF REF B IS AS FOLLOWS:
A.
B.
4. <SUPERVISING AUTHORITY> REPORTS READINESS OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM FOR COMMENCEMENT OF FAST CRUISE. OIC<SHIP NAME/HULL NO.> CONCURS.//
5. SUBJECT TO SATISFACTORY COMPLETION OF FAST CRUISE AND RESOLUTION OF MANDATORY DEFICIENCIES, <SUPERVISING AUTHORITY> CONSIDERS <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS SATISFACTORY FOR COMMENCEMENT OF SEA TRIALS.
(1) Subject to Program Manager approval, cumulative lists of conditional Deviations and Waivers which are deemed too lengthy for messages may be communicated in a letter format, with the letter referenced by the applicable message.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX L

SAMPLE SUPERVISING AUTHORITY MESSAGE TO TYCOM AND NAVSEA CONCERNING PCU FAST CRUISE COMPLETION AND READINESS OF FBW SCS MATERIAL CONDITION FOR ALPHA SEA TRIALS (SUBMARINES)

FROM:<SUPERVISING AUTHORITY>//
TO: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>//
COMNAVSEASYSCOM WASHINGTON DC
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME/NUMBER>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/<SUPERVISING AUTHORITY>//
SUBJ/(SUBS) PRECOMUNIT <SHIP NAME/HULL NO.> FAST CRUISE COMPLETION AND READINESS OF FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION FOR ALPHA SEA TRIALS//
REF/A/DOC/OPNAVINST 9080.3//
NARR/REF A CONTAINS PROCEDURES FOR TESTS AND TRIALS OF NAVAL NUCLEAR POWERED SHIPS.//
RMKS/1. IAW REF A, <SUPERVISING AUTHORITY> REPORTS <SHIP NAME/HULL NO.> FAST CRUISE SUCCESSFULLY COMPLETED AT <TIME, DATE>.
2. NO MANDATORY FLY-BY-WIRE SHIP CONTROL SYSTEM DEFICIENCIES FOR SEA TRIALS HAVE BEEN IDENTIFIED. THERE HAVE BEEN NO FLY-BY-WIRE SHIP CONTROL SYSTEM CWPs/RIPOUTs OPENED AND NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS PROCESSED SINCE THE START OF FAST CRUISE. <or, report any mandatory deficiencies discovered with corrective action, and if CWP/RIPOUT and/or Deviations and Waivers were processed since the start of Fast Cruise, report all Fly-By-Wire Ship Control System CWPs/RIPOUTs opened since the start of Fast Cruise are closed and/or all Fly-By-Wire Ship Control System deviations and waivers resolved.>
3. THERE ARE NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS WITH CONDITIONS WHICH HAVE NOT BEEN SATISFIED. <or list conditional Deviations and Waivers including Deviation Number, Short Title, and Expected Clearance Date/Key Event.(1)>.
4. FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION IS SATISFACTORY TO SUPPORT COMMENCEMENT OF ALPHA SEA TRIALS AS SCHEDULED. OIC <SHIP NAME\HULL NO.> CONCURS.\\
5. RECOMMENDATION TO COMMENCE ALPHA SEA TRIALS WILL BE ADDRESSED BY SEPCOR.
(1)Subject to Program Manager approval, cumulative lists of conditional Deviations and Waivers which are deemed too lengthy for messages may be communicated in a letter format, with the letter referenced by the applicable message.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX M

SAMPLE SUPERVISING AUTHORITY MESSAGE TO NAVSEA CONCERNING PCU FBW SCS MATERIAL CONDITION READINESS UPON COMPLETION OF ALPHA SEA TRIALS AND READINESS OF THE FBW SCS FOR USE DURING BRAVO AND SUBSEQUENT SEA TRIALS (SUBMARINES)

FROM:<SUPERVISING AUTHORITY>//
TO: COMNAVSEASYSCOM WASHINGTON DC//
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/<SUPERVISING AUTHORITY>//
SUBJ/(SUBS) COMPLETION OF <ALPHA(2)> SEA TRIALS OF PRECOMUNIT<SHIP NAME/HULL NO.> AND FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS FOR<BRAVO(1)> SEA TRIALS//
REF/A/MSG/<SUPERVISING AUTHORITY>/<DTG>// {G.2.1}
REF/B/LTR/NAVSEA/<SER NO./DATE>
REF/C/DOC/NAVSEA 0924-062-0010//
NARR/REF A IS <SUPERVISING AUTHORITY'S> REPORT OF FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS OF <SHIP NAME/HULL NO.> FOR FAST CRUISE AND ALPHA SEA TRIALS. REF B IS FLY-BY-WIRE SHIP CONTROL SYSTEM CERTIFICATION AUDIT REPORT.// REF C IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS.//
RMKS/1. <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM HAS SUCCESSFULLY COMPLETED <ALPHA(2)> SEA TRIALS.
2. BY REF A, <SUPERVISING AUTHORITY> REPORTED ALL CAT I AUDIT RECOMMENDATIONS OF REF B SATISFACTORILY RESOLVED. THERE HAVE BEEN NO FLY-BY-WIRE SHIP CONTROL SYSTEM CWPS/RIPOUTS OPENED AND NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS PROCESSED SINCE <ALPHA (2)> SEA TRIALS. <or, if FLY-BY-WIRE SHIP CONTROL SYSTEM CWPS/RIPOUTS or FLY-BY-WIRE SHIP CONTROL SYSTEM Deviations and Waivers were processed since the start of <ALPHA (2)> Sea Trials, report ALL FLY-BY-WIRE SHIP CONTROL SYSTEM CWPS/RIPOUTS OPENED SINCE THE START OF <ALPHA (2)> SEA TRIALS ARE CLOSED AND/OR ALL FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS PROCESSED SINCE <ALPHA (2)> SEA TRIALS ARE RESOLVED.>.
3. THERE ARE NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS WITH CONDITIONS NOR FLY-BY-WIRE SHIP CONTROL SYSTEM or SHIP RELATED OPERATING RESTRICTIONS/LIMITS WHICH HAVE NOT BEEN SATISFIED. <or identify operating restrictions/limits and list conditional Deviations and Waivers including Deviation Number, Short Title, and Expected Clearance Date/Key Event.(3)>
4. THE STATUS OF REF B INCOMPLETE CAT 1A AUDIT RECOMMENDATIONS IS <SAME AS REPORTED BY REF A OR AS FOLLOWS:>.
5. IAW REF C, <SUPERVISING AUTHORITY> REPORTS THAT THE FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION OF <SHIP NAME/HULL NO.> IS SATISFACTORY FOR USE IN SUPPORT OF <BRAVO (1)> SEA TRIALS. OIC <SHIP NAME/HULL NO.> CONCURS.//
(1)UPCOMING TRIALS WHICH IS SUBJECT OF THIS CERTIFICATION (E.G., BRAVO SEA TRIALS, CHARLIE SEA TRIALS, INSURV TRIALS, ETC.).
(2)PREVIOUS TRIALS.
(3)SUBJECT TO PROGRAM MANAGER APPROVAL, CUMULATIVE LISTS OF CONDITIONAL DEVIATIONS AND WAIVERS WHICH ARE DEEMED TOO LENGTHY FOR MESSAGES MAY BE COMMUNICATED IN A LETTER FORMAT, WITH THE LETTER REFERENCED BY THE APPLICABLE MESSAGE.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX N

SAMPLE SUPERVISING AUTHORITY MESSAGE TO NAVSEA CONCERNING PCU FBW SCS MATERIAL CONDITION INITIAL CERTIFICATION (SUBMARINES)

FROM: <SUPERVISING AUTHORITY>//
TO: COMNAVSEASYSCOM WASHINGTON DC//
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/<SUPERVISING AUTHORITY>//
SUBJ/(SUBS) UNRESTRICTED USE OF <SHIP NAME/HULL NO.>FLY-BY-WIRE SHIP CONTROL SYSTEM IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF/B/MSG/<SUPERVISING AUTHORITY>/<DTG>//{G.2.1}
REF/C/LTR/NAVSEA/<SER NO./DATE>// (REFERENCE ADDITIONAL AUDIT REPORTS AS REQUIRED)
REF/D/ SHIP SYSTEM MANUAL VOL 7 SHIP CONTROL SYSTEMS
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS <SUPERVISING AUTHORITY> REPORT OF <SHIP NAME/HULL NO.> READINESS OF FLY-BY-WIRE SHIP CONTROL SYSTEM FOR FAST CRUISE AND ALPHA SEA TRIALS. REF C IS THE NAVSEA FLY-BY-WIRE SHIP CONTROL SYSTEMS CERTIFICATION AUDIT REPORT FOR <SHIP NAME/HULL NO.>. REF D IS THE SHIP SYSTEM MANUAL FOR FBW SCS.//
RMKS/1. IAW REF A, <SUPERVISING AUTHORITY> REPORTS THE SATISFACTORY COMPLETION OF ALL FLY-BY-WIRE SHIP CONTROL SYSTEM SEA TRIAL TESTING, THE RESOLUTION OF MANDATORY SEA TRIAL DEFICIENCIES<IF NOT RESOLVED THEN LIST ANY SEA TRIAL TEST EVENTS THAT NEED TO BE DEFERRED>.
2. REF B REPORTED SATISFACTORY RESOLUTION OF ALL FBW SCS CAT I AUDIT RECOMMENDATIONS OF REF C. IAW REF A, <SUPERVISING AUTHORITY> REPORTS THAT ALL CAT IA AUDIT RECOMMENDATIONS OF REF C HAVE BEEN SATISFACTORILY RESOLVED. THERE IS NO DEFERRED FBW SCS WORK AND THERE ARE NO FBW SCS DEVIATIONS AND WAIVERS WITH CONDITIONS NOR ARE THERE ANY FBW SCS OR RELATED SHIP OPERATING RESTRICTIONS/LIMITS WHICH HAVE NOT BEEN SATISFIED. <or identify operating restrictions/limits and list deferred work and/or conditional Deviations and Waivers including Deviation Number, Short Title, and Expected Clearance Date/Key Event[(1)]>.
3. THE STATUS OF INCOMPLETE CAT II AUDIT RECOMMENDATIONS OF REF C IS AS FOLLOWS:
A.
B.
4. IAW REF A, <SUPERVISING AUTHORITY> REPORTS THE MATERIAL CONDITION OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS SATISFACTORY FOR UNRESTRICTED USE IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS IN ACCORDANCE WITH THE GUIDANCE IN REF D EXCEPT AS NOTED:<identify any ship or system operating restrictions or limits>
5. RECOMMENDATION FOR SUBMARINE'S UNRESTRICTED OPERATION TO TEST DEPTH WILL BE ADDRESSED BY SEPARATE CORRESPONDENCE.
[(1)]Subject to Program Manager approval, cumulative lists of conditional Deviations and Waivers which are deemed too lengthy for messages may be communicated in a letter format, with the letter referenced by the applicable message.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX O

PRE MAN-UP CHECKLIST FOR TYCOM/ISIC

The TYCOM/ISIC is responsible for the following:

1. Contacting the Supervising Authority and establishing the date of initial man-up.

2. Coordinating with the Supervising Authority to ensure that crew facilities will be available on man-up.

3. Coordinating with the Supervising Authority and BUPERS on manning issues involving slippage or delays in schedule.

4. Upon man-up, coordinating with the PCO the dates for arrival inspection and monitoring watches.

5. Providing the ship with the necessary Fleet/TYCOM directives, instructions, notices, training memorandums, etc.

6. Reporting personnel arriving early onboard.

7. Ensuring personnel arriving early get pay accounts established and entitlements started.

8. Ensuring personnel arriving early have been screened for New Construction and meet all the requirements. Personnel not meeting the New Construction requirements should be brought into compliance, if possible, or made available for further assignment in accordance with the Enlisted Transfer Manual.

9. Ensuring the reporting personnel satisfy the requirements as outlined in the manning directive (i.e., Crew Scheduling and Phasing plans, Manning Letter, Enlisted Distribution and Verification Report, etc.). Areas that are deficient should be identified to BUPERS to correct deficiencies. In the case of submarines, submit a Personnel Deficiency Report.

10. For submarines, ensuring personnel are medically screened for submarine duty.

11. If the Detachment Concept is used, establishing a Point of Contact with FTC and obtain phone numbers for PCU office spaces.

12. Inspecting the PCU's office spaces prior to the arrival of the initial manning detachment. Immediately upon the PCU's arrival, coordinating with the PCO to arrange for the certification of office spaces to receive classified material.

13. Providing the requirements for storage of classified material in office spaces.

14. Assisting the PCU in developing a management system for handling classified material.

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APPENDIX P

BASIC REQUIREMENTS FOR INITIAL MAN-UP PERSONNEL OF THE PCU (DETACHMENT CONCEPT) (CVN, DDG, LHD, LPD, AOE, LSD)

1. The following is a list of actions that should be undertaken by the Detachment within the first two months.

   a. Establish Fiscal Account with FTC Logistics.

   b. Provide accounting data for telephone service to Naval Station Public Works, Communications Department.

   c. Establish Temporary Plain Language Address with the communications facility.

   d. Obtain administrative supplies from SERVMART.

   e. Make Basic Enlisted Quarters arrangements with Naval Station Billeting.

   f. Establish Basic Enlisted Quarters Watch Bill.

   g. Acquire Government Vehicle from Public Works.

   h. Create Ship's Pre-Commissioning Indoctrination Manual.

   i. Designate Drug and Alcohol Program Advisors and obtain school quota from FTC.

   j. Designate Urinalysis Coordinator and establish program.

   k. Designate Key Sub-Custodian.

   l. Designate two Electrical Safety Petty Officers.

   m. Designate Ombudsman.

   n. Create/Start Pre-Commissioning Training schedule (Formal/School of the Ship/Afloat).

   o. Establish program for monitoring security clearance requirements.

   p. Write authorization letters for "By Direction," mail and paycheck pickup authority.

   q. Acquire software programs from the ship's allowance for use on computers.

   r. Set up office spaces and obtain the necessary instructions and publications necessary to function as an Administrative Office.

   s. Establish a Personnel Office to assist/check-in newly reporting personnel.

   t. Arrange a meeting with the local Personnel Support Detachment to formulate a memorandum of agreement to include Service Record maintenance, Pay Account maintenance, assignment of disbursing support personnel from the ship, liquidation of travel claims, authorization for travel advances and other personnel related matters.

   u. Arrange for maintenance of Medical and Dental records based on local military medicine procedures. The FTC will provide details.

v. Compile a Recall List.

w. Submit the Inaugural Diary to establish the manpower accounts and activate the Unit Identification Code in the Source Data System. This will require the reporting of one Enlisted and one Officer, using a gain Transaction Code with the use of a Diary Message Reporting System message. This should be done in advance of the initial manning date.

x. Coordinate with the FTC to establish the Security Certification of office spaces for retention of classified material.

y. Request of NAVSEA Non-Judicial Punishment (NJP) and Special Court Martial authority for the PCO. If the PCO is ordered in as OIC, NJP authority is limited.

z. Develop a planning schedule to incorporate Department Head training and the overall command planning schedule.

2. The following is a list of actions that must occur to support activity at the Construction Site.

a. Obtain office space for the Prospective Commanding Officer/Prospective Executive Officer, Command Master Chief, and other crew personnel.

b. Arrange for installation and access to telephone service. The Supervising Authority will provide details.

c. Obtain phone listing for key Industrial Activity and Supervising Authority personnel.

d. Obtain Master Construction Schedule from the Supervising Authority Project Officer.

e. Make arrangements for the crew to receive badges for access to the industrial area.

f. Make arrangements for the crew to receive all necessary safety equipment (hard hats, safety glasses, safety shoes, etc.).

g. Arrange for the crew at the Construction Site to receive safety briefings.

h. Arrange for crew briefings on necessary Radiological Control procedures.

i. Arrange for the Supervising Authority to take action to add the PCU to the Standard Navy Distribution List.

j. Obtain copies of Supervising Authority instructions related to new construction activities.

k. Obtain a System Testing Schedule and Turnover Schedule. The Supervising Authority will provide assistance.

l. Request authorization for the crew to draw Basic Allowance for Subsistence if government messing is not available at the Construction Site. The BUPERS Manual provides direction.

m. Coordinate with the ISIC the Security Certification of office spaces to be used for the retention of classified material.

APPENDIX Q

BASIC REQUIREMENTS FOR INITIAL MAN-UP PERSONNEL OF THE PCU (CVN, DDG, LHD, LPD, AOE, LSD, SUBMARINES)

The following is a list of actions that should be undertaken upon the arrival of the first members of a PCU:

1. Obtain office space for the Prospective Commanding Officer/Prospective Executive Officer, Command Master Chief, and other crew personnel.

2. Arrange for installation and access to telephone service. The Supervising Authority will provide details.

3. Obtain phone listing for key Industrial Activity and Supervising Authority personnel.

4. Obtain Master Construction Schedule from the Supervising Authority Project Officer.

5. Make arrangements for the crew to receive badges for access to the industrial area.

6. Make arrangements for the crew to receive all necessary safety equipment (hard hats, safety glasses, safety shoes, etc.).

7. Arrange for the crew at the Construction Site to receive safety briefings.

8. Arrange for crew briefings on necessary Radiological Control procedures.

9. Arrange for the Supervising Authority to take action to add the PCU to the Standard Navy Distribution List.

10. Obtain copies of Supervising Authority instructions related to new construction activities.

11. Obtain a System Testing Schedule and Turnover Schedule. The Supervising Authority will provide assistance.

12. Request authorization for the crew to draw Basic Allowance for Subsistence, if government messing is not available at the construction site. The BUPERS Manual provides direction.

13. Request of NAVSEA NJP and Special Court Martial authority for the PCO. If the PCO is ordered in as OIC, NJP authority is limited.

14. Develop a planning schedule to incorporate Department Head training and the overall command planning schedule.

15. Submit the Inaugural Diary to establish the manpower account and activate the Unit Identification Code in the Source Data System. This will require the reporting of one Enlisted and one Officer, using a gain Transaction Code with the use of a Diary Message Reporting System message. This should be done in advance of the initial manning date.

16. Set up office spaces and obtain the necessary instructions and publications necessary to function as an Administrative Office.

17. Establish a Personnel Office to assist/check-in newly reporting personnel.

18. Arrange a meeting with the local Personnel Support Detachment to formulate a memorandum of agreement to include Service Record maintenance, Pay Account maintenance, assignment of disbursing support personnel from the ship, liquidation of travel claims, authorization for travel advances and other personnel related matters.

19. Arrange for maintenance of Medical and Dental records based on local military medicine procedures. The FTC will provide details.

20. Compile a Recall List.

21. Coordinate with the ISIC the Security Certification of office spaces to be used for the retention of classified material.

22. Upon completion of the Security Certification coordinate with the Supervising Authority mailroom for delivery of the ship's mail.

APPENDIX R

GENERIC BASE LINE OF FLEET INTRODUCTION TEAM FUNCTIONS AND RESPONSIBILITIES

1. Perform all tasks normally assigned to the PCO until the PCO has reported to the Construction Site and assumed duties.

2. Provide assistance to the PCO in carrying out duties according to Navy Regulations.

3. Provide continuity in the management and administration of pre-commissioning facilities at the Construction Site.

4. Coordinate the overall pre-commissioning crew training program for both nucleus and balance crews.

5. Schedule and conduct crew training at the Construction Site. Such training shall be structured to support the Force Commander's standard for Crew Certification. Additional training provided will consist of:

   a. Basic Damage Control Training (100, 200 and 300 series).

   b. Ship Familiarization Training.

   c. Enlisted Surface/Aviation Warfare Specialist Qualification/Requalification Training.

6. Provide each ship with standardized tailored Lesson Training Guides (where appropriate) in the areas of:

   a. Engineering.

   b. Mess Specialist.

   c. Supply.

   d. Communications.

   e. Operations.

   f. Weapons.

   g. Deck.

   h. Air.

7. Provide each PCO with standardized administrative, organizational and procedural manuals, bills, and directives for the ship class.

8. Monitor the progress of construction, outfitting, test and trials of each ship.

9. Perform the specific functions as assigned by the Force Commander or higher authority.

10. Provide familiarization training if directed.

11. Provide continuity between successive PCUs.

    a. Maintain results of significant trials, inspections, assist visits, design and progress meetings, etc., in order to provide lessons learned and a corporate history to each successive pre-commissioning crew.

    b. Detailed reports of government and contractor material and operational tests and inspections are maintained by the Supervising Authority.

    c. Develop a Plan of Action and Milestones (POAM) for each ship to support the mission objectives to consist of actions and milestones to be accomplished by the FIT and the ship before sailaway.

    d. Tailor the POAM to each specific ship based on the delivery date. The POAM will start approximately one year before delivery and end upon sailaway. (Start date will vary depending on FIT establishment and crew manning).

    e. Maintain copies of the POAMs at the FIT, PCU and Pre-Commissioning Detachment.

    f. Update and perform quarterly reviews of the POAM.

12. Maintain a Standard Products POAM.

    a. Ensure that each ship receives their initial outfit of standard products such as directives, publications, forms, instructions, charts, etc. These products will be ordered by the FIT in accordance with the POAM, maintained at the FIT, and given to ship upon delivery.

    b. In addition, locally developed standard administrative products such as the Standard Organization and Regulations Manual, Standard Operating Procedures, instructions, notices, etc., in support of the mission goals, will be tailored to each specific ship by the FIT with Ship's Force assistance.

13. Conduct Familiarization Training.

    a. Training will consist of lectures and ship tours which cover:

        - Ship Capabilities
        - Characteristics and Mission
        - Damage Control
        - Propulsion
        - Electrical
        - Auxiliaries
        - Deck
        - Communications
        - Navigation
        - Combat Systems

b. Familiarization Training will be performed in a manner that will also encompass Enlisted Surface/Aviation Warfare Specialist qualification/requalification training.

c. Provide each student a detailed and comprehensive Training Guide of each topic, for reference and study purposes.

14. Assist the ship in preparations for LOA to include:

a. Assist in preparations for the ISIC and ETG visits (Pre-industrial, Industrial and Pre-LOA) to include the areas of administration, material, level of knowledge and firefighting.

b. Provide plans (in the form of ship's notices) for the Pre-Industrial and Pre-LOA visits.

c. Assist in EOSS validation (cold and hot checks to include hand over hand verification of piping systems and components) performed by the Ship Program Manager.

d. Provide a standard package of cold and hot checks (schedule and procedures) required to support material checks for LOA. Conduct training in the execution of cold and hot checks.

e. Provide standard engineering administration (EDORM, Standing Orders, Main Space Fire Doctrine, Restricted Maneuvering Doctrine, logs, management programs, etc.).

f. Provide a standard ship engineering training plan which will include Lesson Topic Guides, Lesson Topic Matrix, Evolution Training Matrix, Casualty Control Training Matrix, Watch Team Replacement Plan, Quadrant Training Plan, Month Training Plan and Watchstander Proficiency Logs. Conduct training on implementation and execution of the engineering training plan.

g. Conduct training (lectures, seminars, drills, etc.) to improve the level of knowledge and firefighting capability of the crew in support of LOA. Conduct Damage Control training to combat a Main Space Fire. Provide procedures, drill packages and training for the Engineering Casualty Control Training Team and Damage Control Training Team.

15. Assist the ship in preparations for Crew Certification to include:

a. Provide plans (in the form of ship's notices) for Crew Certification.

b. Provide procedures, drill packages and training (lectures, seminars, drills, etc.) for the Seamanship Training Team and Combat Systems Training Team.

16. Assist with the implementation of PMS to include:

a. Provide training to the ship's 3-M Coordinator concerning ship specific/unique PMS, Waterfront Maintenance Management System Net and/or SNAP.

b. Assist in Phase I and II PMS installation by local RMC.

17. Order forms and publications.

a. Order in accordance with the ship POAM and turn over to the crew upon delivery of the ship.

b. Include Initial Outfit List of publications and forms as well as Technical Manuals, SIBs, Naval Warfare Publications, Naval Telecommunication Procedures (NTP), charts, command-specific instructions and notices, etc.

18. Assist the ship in the load out of storerooms and operating spaces to include:

    a. Assist in developing load out plan.

    b. Assist in the coordination between ship, Supervising Authority, contractor and FOSSAC.

    c. Act as technical advisor to the Supply Officer in matters concerning load out.

    d. Provide training to Supply Department personnel in support of load out.

19. Maintain a reference library.

    a. A master reference library will be located in the FIT building and will include general and ship specific directives, forms, publications, instructions, notices, Technical Manuals, PQS, Naval Warfare Publications, NTPs, SIBs, charts, EOSS, PMS, message correspondence, etc.

    b. A satellite reference library will be located within the pre-commissioning building. This library will consist of immediate reference materials, Naval Ships' Technical Manuals, SIBs, Technical Manuals, instructions and notices.

    c. A basic set of unclassified reference material will be maintained at the PCU for the pre-commissioning crews. Classified reference material for the pre-commissioning crews will be maintained at the FIT facilities due to the lack of adequate security at the PCU.

    d. Liaison with the Supervising Authority to obtain technical documents such as contract specifications, drawings, test and inspection results, etc. when required.

    e. Provide access to various electronic bulletin boards throughout the Navy via computer-modem hookup.

20. Provide audio/visual support consisting of projectors (overhead, slide), screen, video cassette recorder (VHS, BETA), and marker boards.

21. Provide situational administrative support as required.

    a. Provide supplemental administrative support for events such as LOA, Crew Certification, Commissioning, etc.

    b. Support may include word processing as well as E-mail, laminating, fax and copier service.

22. Maintain communication guard for PCUs until delivery.

    a. Assist PCU Radiomen in processing (receiving and transmitting) standard naval messages up to and including Secret.

    b. Locate the GATEGUARD terminals in the classified material storeroom at the FIT.

23. Provide secure stowage for classified material.

    a. Store classified material for the FIT and PCU in General Services Administration approved safes located in the FIT's facilities.

    b. Restrict access to those personnel authorized by the OIC/PCO.

c. Maintain security through a combination of General Services Administration approved storage containers, controlled access (key and cipher locks) and intrusion detection systems.

24. Coordinate off-site training such as schools for pre-commissioning crew between the Ship, BUPERS and Ship Program Manager.

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APPENDIX S

SAMPLE NAVSEA MESSAGE TO TYCOM CONCERNING PCU FBW SCS MATERIAL CONDITION READINESS FOR ALPHA SEA TRIALS (SUBMARINES)

FROM: COMNAVSEASYSCOM WASHINGTON DC//
TO: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>//
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/COMNAVSEASYSCOM//
SUBJ/(SUBS) PRECOMUNIT <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM (FBW SCS) MATERIAL CONDITION READINESS FOR ALPHA SEA TRIALS.//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF/B/DOC/COMUSFLTFORCOMINST 4790.3 //
REF/C/MSG/<SUPERVISING AUTHORITY>/<DTG>// {G.2.1}
REF/D/LTR/SUB<LANT/PAC>/<SER NO./DATE>//
REF/E/LTR/NAVSEA/<SER NO./DATE>//
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS JOINT FLEET MAINTENANCE MANUAL. REF C IS <SUPERVISING AUTHORITY> MSG REPORTING FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS OF <SHIP NAME/HULL NO.> FOR FAST CRUISE AND ALPHA SEA TRIALS. REF D CONCURRED WITH THE SEA TRIALS AGENDA FOR <SHIP NAME/HULL NO.>. REF E APPROVED THE SEA TRIALS AGENDA FOR <SHIP NAME/HULL NO.>.//
RMKS/1. IAW REFS A AND B, AND AS REPORTED BY REF C, THE MATERIAL CONDITION OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS CERTIFIED SATISFACTORY FOR USE DURING SEA TRIALS, UPON SATISFACTORY COMPLETION OF FAST CRUISE AND RESOLUTION OF MANDATORY DEFICIENCIES, IN ACCORDANCE WITH THE SEA TRIALS AGENDA CONCURRED IN BY REF D AND APPROVED BY REF E.
2. THERE ARE NO FLY-BY-WIRE SHIP CONTROL SYSTEM DEVIATIONS AND WAIVERS WITH CONDITIONS NOR FLY-BY-WIRE SHIP CONTROL SYSTEM or RELATED SHIP OPERATING RESTRICTIONS/LIMITS WHICH HAVE NOT BEEN SATISFIED. <or identify operating restrictions/limits and list conditional Deviations and Waivers including Deviation Number, Short Title, and Expected Clearance Date/Key Event[(1)]>.
3. THIS CERTIFICATION IS VALID THROUGHOUT TRIALS UNLESS A DEFICIENCY HAS BEEN DISCOVERED. SHIP SPEED IS RESTRICTED TO LESS THAN 20 KNOTS WHEN A FBW SCS FAULT CONDITION RESULTS IN A MAJOR NON-CONFORMANCE AFFECTING CONTROL OF SHIPS PITCH, HEADING, DEPTH OR CONTROL SURFACES. THESE DEFICIENCIES MUST BE REPORTED TO NAVSEA AND THE APPROPRIATE FLEET AND TYPE COMMANDERS. PREVIOUS NAVSEA CERTIFICATION OF THE FBW SCS MATERIAL CONDITION SHALL BE SUSPENDED UNTIL NAVSEA REVIEWS THE REPORT AND CERTIFIES TO THE TYCOM THAT THE FBW SCS MATERIAL CONDITION IS SATISFACTORY FOR SEA TRIALS IN ACCORDANCE WITH THE SEA TRIAL AGENDA APPROVED BY REFERENCE E. THE SHIP'S SPEED IS RESTRICTED TO LESS THAN 20 KNOTS UNTIL SATISFACTORY RESOLUTION OF THE MAJOR NON-CONFORMANCE AND TYCOM APPROVAL TO OPERATE THE FBW SCS TO PREVIOUSLY AUTHORIZED CONDITIONS IS GRANTED, UNLESS SPECIFICALLY ADDRESSED IN THE SEA TRIAL AGENDA.
4. REQUEST NAVSEA PMS< > BE INFO ADDEE ON ALL SEA TRIAL SITREPS.
5. RECOMMENDATION TO AUTHORIZE DIVING WILL BE ADDRESSED BY SEPCOR.

[(1)]Subject to Program Manager approval, cumulative lists of conditional Deviations and Waivers which are deemed too lengthy for messages may be communicated in a letter format, with the letter referenced by the applicable message.

BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

APPENDIX T

SAMPLE NAVSEA MESSAGE TO TYCOM CONCERNING PCU FBW SCS MATERIAL CONDITION INITIAL CERTIFICATION (SUBMARINES)

FROM: COMNAVSEASYSCOM WASHINGTON DC//
TO: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/COMNAVSEASYSCOM//
SUBJ/(SUBS) RECOMMENDATION FOR <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM UNRESTRICTED USE IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF/B/MSG/<SUPERVISING AUTHORITY>/<DTG>// {G.2.6}
REF/C/SSM VOLUME 7 SHIP CONTROL SYSTEM
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS <SUPERVISING AUTHORITY> REPORT OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM MATERIAL CONDITION READINESS FOR UNRESTRICTED USE.
RMKS/1. IAW REF A, REF B REPORTED MATERIAL CONDITION READINESS OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS SATISFACTORY AND NO OUTSTANDING LIMITING DISCREPANCIES EXIST.
2. REF B ALSO REPORTED SATISFACTORY COMPLETION OF ALL FLY-BY-WIRE SHIP CONTROL SYSTEM SEA TRIAL TEST REQUIREMENTS AND RESOLUTION OF MANDATORY SEA TRIAL DEFICIENCIES. <IF ANY DISCREPANCIES ARE DEFERRED SO STATE>.//
3. IAW REFS A AND C, NAVSEA CERTIFIES THAT THE MATERIAL CONDITION OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS SATISFACTORY AND RECOMMENDS THE SHIP'S FLY-BY-WIRE SHIP CONTROL SYSTEM BE AUTHORIZED UNRESTRICTED USE IN SUPPORT OF SUBMARINE UNRESTRICTED OPERATIONS IN ACCORDANCE WITH SSMS./SUBJECT TO COMPLIANCE WITH REF A <WITH THE FOLLOWING RESTRICTIONS: list any ship or system operating restrictions/limits which may be applicable>.
4. RECOMMENDATION FOR SHIP'S UNRESTRICTED OPERATION TO TEST DEPTH WILL BE ADDRESSED BY SEPARATE CORRESPONDENCE.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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APPENDIX U

SAMPLE NAVSEA MESSAGE TO TYCOM CONCERNING PCU RECOMMENDATION FOR FLY-BY-WIRE SHIP CONTROL SYSTEM CERTIFICATION

FROM: COMNAVSEASYSCOM WASHINGTON DC//
TO: COMSUB<LANT/PAC><NORFOLK VA/PEARL HARBOR HI>
INFO CNO WASHINGTON DC
COM<LANT/PAC>FLT<NORFOLK VA/PEARL HARBOR HI>
<DIRSSP WASHINGTON DC FOR SSBN/SSGN>
COMSUBGRU <NO.>
COMSUBRON <NO.>
PRECOMUNIT <SHIP NAME>
<SUPERVISING AUTHORITY>
BT
UNCLAS // N09094 //
MSGID/GENADMIN/COMNAVSEASYSCOM//
SUBJ/(SUBS) RECOMMENDATION FOR FLY-BE-WIRE SHIP CONTROL SYSTEM UNRESTRICTED USE IN SUPPORT OF UNRESTRICTED OPERATIONS FOR <SHIP NAME/HULL NO.>//
REF/A/DOC/NAVSEA T9044-AD-MAN-010//
REF/B/MSG/<SUPERVISING AUTHORITY>/<DTG>// {G.2.8}
REF/C/SSM VOLUME 7 SHIP CONTROL SYSTEM
NARR/REF A IS THE REQUIREMENTS MANUAL FOR SUBMARINE FLY-BY-WIRE SHIP CONTROL SYSTEMS. REF B IS <SUPERVISING AUTHORITY> REPORT OF <SHIP NAME/HULL NO> MATERIAL CONDITION READINESS FOR THE FLY-BY-WIRE SHIP CONTROL SYSTEM
RMKS/1. UPON COMPLETION OF HYDRODYNAMIC TRIALS <FOR FIRST SHIP OF CLASS>. IAW REF A, REF B REPORTED THE MATERIAL CONDITION READINESS OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS SATISFACTORY AND NO OUTSTANDING LIMITING DISCREPANCIES EXIST.
IF THERE ARE SO STATE.
2. REF B ALSO REPORTED SATISFACTORY COMPLETION OF ALL FLY-BY-WIRE SHIP CONTROL SYSTEM SEA TRIAL TEST REQUIREMENTS AND RESOLUTION OF MANDATORY SEA TRIAL DEFICIENCIES.
<IF ANY DISCREPANCIES ARE DEFERRED SO STATE>
3. IAW REFS A AND C, NAVSEA CERTIFIES THAT THE MATERIAL CONDITION OF <SHIP NAME/HULL NO.> FLY-BY-WIRE SHIP CONTROL SYSTEM IS SATISFACTORY AND RECOMMENDS UNRESTRICTED USE OF THE SYSTEM IN SUPPORT OF THE SHIP'S UNRESTRICTED OPERATIONS IN ACCORDANCE WITH SSMS./SUBJECT TO COMPLIANCE WITH REF A <WITH THE FOLLOWING RESTRICTIONS: list any restrictions which may be applicable.>.
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAD IS UTILIZED.

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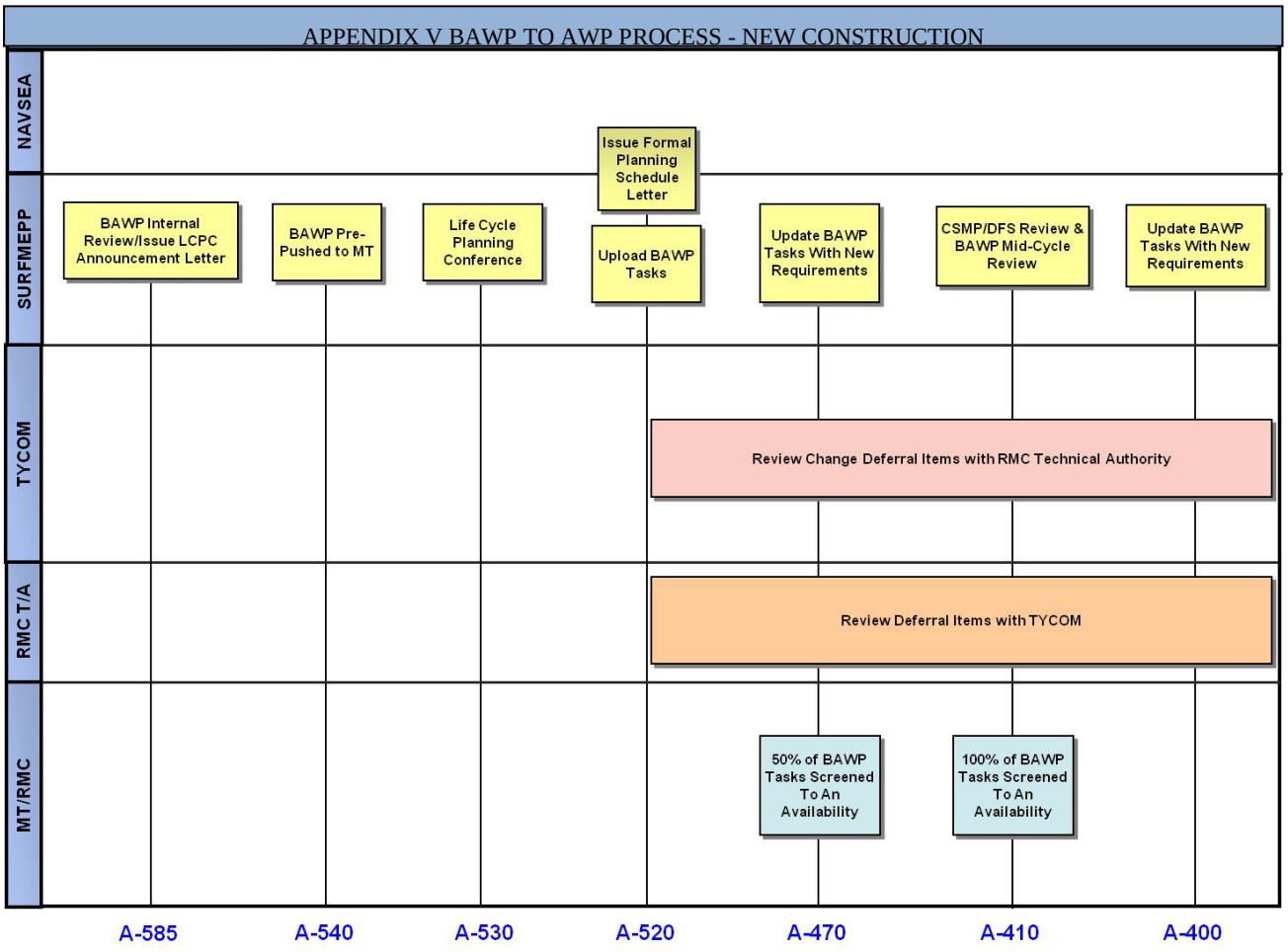
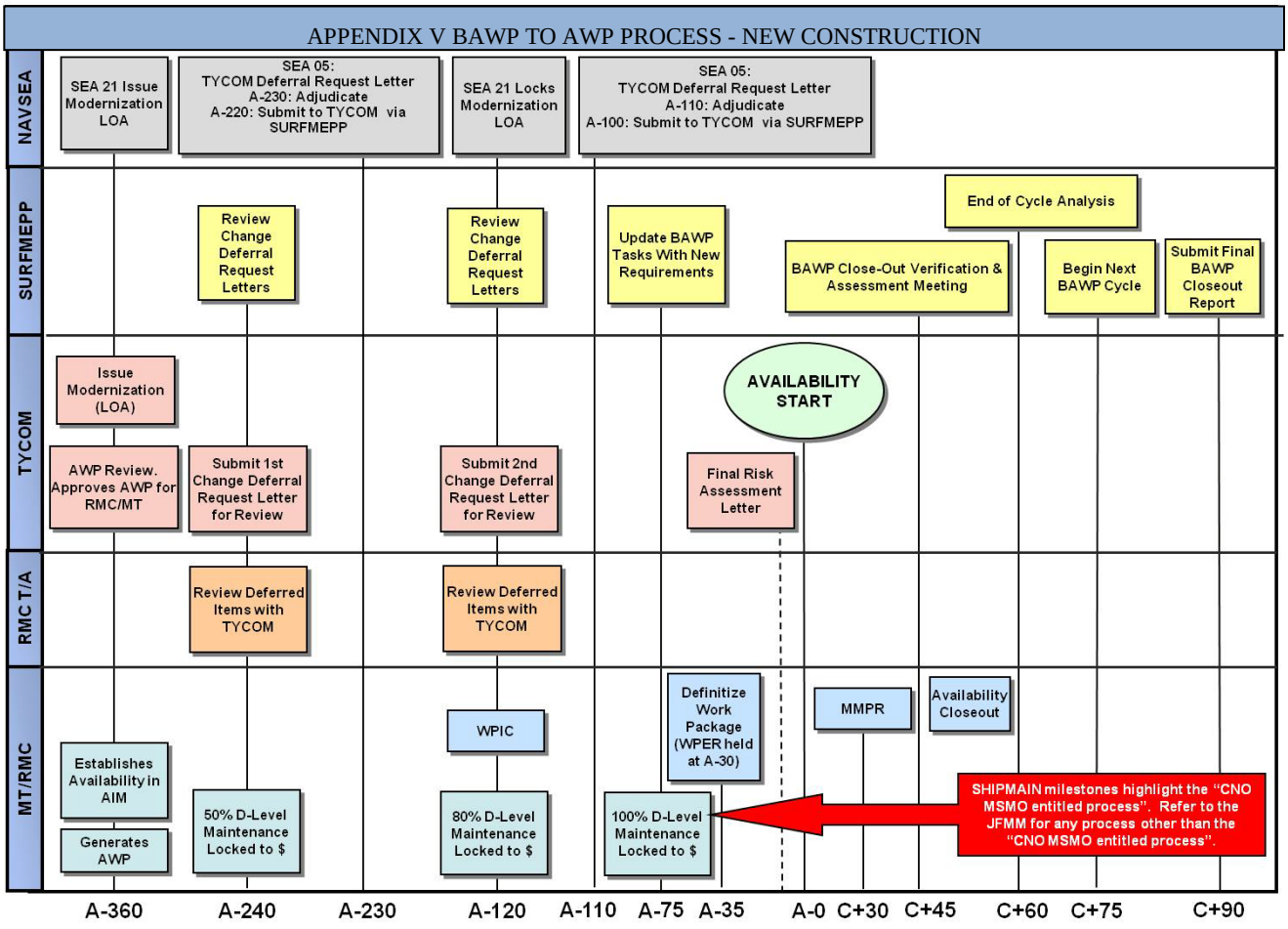
APPENDIX V

BAWP TO AWP PROCESS - NEW CONSTRUCTION

(SURFACE FORCE SHIPS ONLY)




APPENDIX V BAWP TO AWP PROCESS - NEW CONSTRUCTION
NAVSEA
SURFMEPP
TYCOM
RMC T/A
MT/RMC
SEA 21 Issue Modernization LOA
SEA 05: TYCOM Deferral Request Letter A-230: Adjudicate A-220: Submit to TYCOM via SURFMEPP
SEA 21 Locks Modernization LOA
SEA 05: TYCOM Deferral Request Letter A-110: Adjudicate A-100: Submit to TYCOM via SURFMEPP
Review Change Deferral Request Letters
Review Change Deferral Request Letters
Update BAWP Tasks With New Requirements
End of Cycle Analysis
BAWP Close-Out Verification & Assessment Meeting
Begin Next BAWP Cycle
Submit Final BAWP Closeout Report
Issue Modernization (LOA)
AWP Review. Approves AWP for RMC/MT
Submit 1st Change Deferral Request Letter for Review
Submit 2nd Change Deferral Request Letter for Review
AVAILABILITY START
Final Risk Assessment Letter
Review Deferred Items with TYCOM
Review Deferred Items with TYCOM
Definitize Work Package (WPER held at A-30)
MMPR
Availability Closeout
WPIC
Establishes Availability in AIM
Generates AWP
50% D-Level Maintenance Locked to $
80% D-Level Maintenance Locked to $
100% D-Level Maintenance Locked to $
SHIPMAIN milestones highlight the "CNO MSMO entitled process". Refer to the JFMM for any process other than the "CNO MSMO entitled process".
A-360
A-240
A-230
A-120
A-110
A-75
A-35
A-0
C+30
C+45
C+60
C+75
C+90

3.3.15 Shipboard Crane Certification Program (CVN/MHC/LHD/LPD/LSD only). The Shipboard Crane Certification Program established by reference (ae) is intended to improve the reliability and safety of all shipboard cranes and is applicable to all cranes mounted on board. Initial crane certification should be accomplished per reference (ae).

3.4 MAINTENANCE AND MATERIAL MANAGEMENT PROGRAM.

3.4.1 Planned Maintenance System.

a. The installation of the Planned Maintenance System (PMS) on new construction ships should be scheduled to provide maintenance documentation to support the Operational Control Transfer (OCT) of systems/equipments from the shipbuilder to Ship's Force. This early loadout of PMS allows Ship's Force personnel to become familiar with the maintenance procedures and facilitates the identification of problems with the Maintenance Requirement Cards (MRC) prior to the ship being placed in operation. Local RMC coordinates the scheduling of PMS installations with the ship's Maintenance and Material Management (3-M) Coordinator. In addition, local RMC is responsible for:

(1) Generating a preliminary List of Effective Pages (LOEP) for Phase I validation.

(2) Conducting Phase I of the PMS installation.

(3) Generating a final LOEP based on Phase I and 3-M Coordinator Feedback.

(4) Notifying local RMC of the required PMS documentation (LOEP requirements) and the date the documentation is required to support Phase II PMS installation.

(5) Compile Phase II PMS package and forward to ship.

(6) Conduct Phase II PMS installation.

(7) Effect additional LOEP corrections as a result of Phase II.

(8) Outbrief with ship's PCO/OIC concerning status of ship's 3-M program.

b. PMS installation for nuclear powered ships will be conducted approximately six months prior to initial reactor plant criticality. The installation for non-nuclear ships will be conducted at least three months prior to delivery. Installation of PMS is accomplished in two phases.

(1) Phase I. Phase I results in the establishment of a ship's LOEP. Local RMC, utilizing either the LOEP from the previous ship of the class or configuration information provided by Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity (Submarines only), Supervisor of Shipbuilding Newport News PMS 312C, (Aircraft Carriers) or applicable TYCOM (Surface Force Ships), generates a preliminary LOEP for Ship's Force review. This preliminary LOEP and copies of the listed Maintenance Index Pages (MIP) are delivered to the new construction unit for a review by the ship's 3-M Coordinator, Work Center Supervisors and maintenance personnel. Ship's Force personnel review the documentation, verify MIP to Work Center assignments and approve the preliminary LOEP. Phase I occurs approximately two months prior to Phase II.

(2) Phase II. Phase II is the actual load out of PMS documentation, final verification of the LOEP, generation of preliminary schedules for local RMC review and a Ship's Force validation of provided documentation. Depending upon the ship class, quantity of documentation, and/or Ship's Force preparation, Phase II can last from two to four days. Additionally, maintenance

support organizations such as Naval Surface Warfare Center, Carderock Division (NSWCCD), SUBMEPP or Submarine Monitoring, Maintenance and Support Program Office may be participants.

c. The preparation of preliminary Cycle, Quarterly, or Weekly schedules to support PMS load out prior to the preparation of First Quarter after Overhaul schedules is recommended. As a minimum, the development of a cycle schedule for each work center should be accomplished prior to Phase II PMS installation. As systems/equipments are turned over, Ship's Force maintenance should be scheduled to support. This preliminary quarterly schedule (schedule "A") is utilized to track maintenance prior to the official First Quarter after Overhaul start date. Additional preliminary quarterly schedules identified as "B", "C", etc. may be developed as required.

d. The "official" PMS start date depends upon several factors: OCT of equipment, available man power, availability of supporting documentation and the availability of tools, parts, test equipment, and material. The start date is also an arbitrary date arrived at by the ship's 3-M Manager and 3-M Coordinator. A start date should be selected that causes as little disruption and preparation of schedules as possible. Utilization of preliminary schedules as discussed in paragraph 3.4.1.c of this chapter will allow for the flexibility to start PMS "officially" at the beginning of a quarter. However, should this approach not support your situation, the starting of PMS should be indicated on your quarterly schedule with a yellow vertical line, top to bottom, indicating your start date.

e. Inactive Equipment Maintenance (IEM).

(1) IEM, per the direction of reference (af), may be implemented anytime that an equipment will be out of service for thirty days or longer. The implementation of IEM may be appropriate for those systems/equipments which were transferred to ship's custody early in the construction cycle. Ship's Force should follow the guidance of reference (af) when implementing.

(2) In deciding whether to place equipment in lay up, consideration should be given to the training opportunity lost. As long as equipment is in an active status, Ship's Force will be performing PMS. By virtue of accomplishing those maintenance tasks, they will become more familiar with the equipment, its operation and the maintenance procedures. Maintaining equipment in an active status also allows for the identification of procedural problems within the MRCs.

3.4.2 Technical Feedback Reports. Ship's Force should start using Technical Feedback Reports (TFBR) to report problems with PMS as soon as the PMS package is installed. TFBRs should be submitted per the requirements of reference (af). The TFBR tracking log should be established, even if PMS has not officially started. TFBRs are processed through the ISIC for further processing to RMC. If an ISIC is not available, TFBRs are to be processed through the TYCOM or directly to RMC. New construction ships will provide their TFBRs to the local RMC. The current contact information for the RMCs is listed in Volume VI, Chapter 2, Appendix A of this manual.

3.4.3 Establishment of Current Ship's Maintenance Project. The ship's Current Ship's Maintenance Project (CSMP) will be initialized at delivery. That does not mean however, that significant maintenance related events do not happen during the construction period. In fact, every industrial activity has their own deficiency tracking programs, all of which contain a certain degree of data that should be retained in the ship's CSMP. The problem is that this data resides on industrial activity computers which for the most part do not "talk" to Navy computers. When the ship leaves the industrial activity, it generally leaves without this data. Ship's Force will load into the CSMP any deficiencies not adjudicated at delivery and any historical construction related maintenance data deemed worthy of future retrieval.

APPENDIX D

LISTING OF TESTS TO BE PERFORMED DURING INITIAL TIGHTNESS DIVE

1. The following tests and evolutions will be carried out on the surface en route to the test dive area and prior to the initial tightness dive:

a. Underway. Rig for dive (for Alpha Trial, rig for deep submergence is required for the initial dive). Compensate. Start-up evaporator.

b. Ship's Force instruct Sea Trial riders on the proper use of EAB masks.

c. Conduct operational test of rudder in normal and emergency modes.

d. Navigation system check. Take fixes by all electronic, celestial, and visual means and compare.

e. Test underwater log(s) using the base course/reciprocal course method (i.e., inertial reference method) or other approved functional procedures to determine accuracy.

f. Check accuracy of all bearing transmitters and indicators. Compare sonar, visual and radar bearings.

g. Check operation of all radar.

h. Check all radio transmitters, receivers and electronic equipment.

i. Inspect stern tube packing gland/seals and circulating water flow for excessive heating, leakage and audible noise.

j. Check Dead Reckoning Analyzer Indicator (DRAI), Dead Reckoning Analyzer (DRA), Dead Reckoning Tracers (DRT) and RPM indication. If certified for electronic navigation, verify satisfactory operation of the Voyage Management System including the ability to receive inputs from the Navigation System, Electromagnetic Logs, Radar bearings, Sonar bearings, fathometer and Gyrocompass, as applicable.

k. Test fathometer(s) and compare with charted soundings.

l. Run ahead at full power long enough for temperatures to reach a stable value. After readings have stabilized, operate rudder through full throw in each direction in normal and emergency power. Time evolution and compare with design values. Check out hand modes.

m. Ahead flank to back emergency.

n. Run astern up to full power for 10 minutes or to meet the intent of a more restrictive Industrial Activity Test Form. Operate rudder through full throw in each direction in normal and emergency power (measure degrees per second travel and compare with design value).

o. Fire Control System operation.

p. Check operation and accuracy of ship's gyrocompass.

q. Check operation of magazine/pyro locker flooding if not tested in industrial activity.

r. Rendezvous with escort. Conduct radio and sonar communications checks. (See Note 1).

s. Test all bottomside sonar.

t. Test bow/sail and stern plane operations in all modes.

u. Flood variable tanks to computed compensation.

v. Record megger readings of all antennas where meggering is permissible. (See Note 9).

w. Operate trim and drain pumps. (See Note 2).

x. Test variable ballast system for proper operation.

NOTE: CONDUCT PARAGRAPHS 1 AND 3 OF URO MRC 022 (DOCKSIDE OPERATION OF EMBT BLOW SYSTEM VALVES) OR EQUIVALENT SHIPYARD TEST PROCEDURE DURING DOCK TRIALS PER APPENDIX A OF THIS CHAPTER FOR THE TEST OF THE EMBT BLOW SYSTEM. ENSURE THE REMAINING PORTIONS OF URO MRC 022, THE TEST OF THE EMBT BLOW SYSTEM, ARE COMPLETED PRIOR TO INITIAL DIVE TO TEST DEPTH ON ALPHA SEA TRIAL (INITIAL BUILDER'S SEA TRIAL).

y. Perform a low pressure, normal and EMBT blow for as long as necessary to verify system operability. A static blow shall not be used to test the EMBT blow system.

z. Operate on the Emergency Propulsion Motor (EPM) for 10 minutes.

aa. Motor generator set operation.

ab. Ventilate ship.

ac. Start atmosphere control equipment.

ad. Additional requirements may be imposed at the discretion of the CO.

NOTE: REQUIRED SYSTEMS ARE LISTED IN PARAGRAPH 4b OF REFERENCE (i). OBSERVE RESTRICTIONS ON OPERATION OF SYSTEMS LISTED IN PARAGRAPH 4d OF REFERENCE (i). BALL VALVE TRASH DISPOSAL UNITS (TDU) (WITHOUT REMOTE CLOSURES) WILL NOT BE OPERATED BELOW 200 FEET.

2. The following tests and evolutions will be carried out immediately prior to or during the initial tightness dive:

a. Obtain navigational fix and take sounding. Maximum depth of water is 400 feet as specified in reference (p).

b. Conduct a dive to periscope depth. Obtain stop trim, if practical, at periscope depth. If sea state requires deeper submergence, proceed slowly to 150 feet for SSN 688 Class submarines (155 feet for SSN 774 Class submarines), (160 feet for SSN 21 and SSBN/SSGN 726 Class submarines) to obtain stop trim. Maximum keel depth shall be per Table 1 of Appendix F.

c. Inspect the discharge of all automatic drains in each EMBT Blow quadrant for sea water leakage prior to the first dive when the ballast tanks are flooded (e.g., at periscope depth).

d. Check operation of ship control systems, including depth indication. (See Note 3).

e. Shoot pyrotechnics from each ejector by hand and impulse methods, as applicable (see Notes 4 and 5).

f. Communicate with escort on WQC at each depth increment or at ten minute intervals, whichever is sooner. If communications are lost, return to depth at which communications can be established before continuing (see Note 1).

g. All hands inspect for leaks and report them to the Sea Trial coordinator.

h. Operate all periscopes, checking optics and for leakage. Operate all masts.

i. Test full throw of rudder and planes at slow speeds.

j. Test operation of trim and drain systems.

k. Check all sonar equipment on each hydrophone.

l. Comply with the Command Control Systems (CS/CCS) Test Program regarding the shooting of waterslugs. This event is not required by the TYCOM if not required by the CS/CCS Test Program (see Notes 4 and 5).

m. Snorkel, test operation of stills and air compressors (see Notes 5 and 6).

n. Operate all hull and back-up valves and equalize sea pressure on all systems designed for test depth (see Notes 5, 7 and 8).

o. Check hovering system (where applicable) (see Note 5).

p. Ensure air banks are charged to within 200 psi of full pressure.

q. Line up MBT blow system for maximum blow rate.

r. Conduct EMBT blow from 200 feet keel depth. Check bank pressure before and after surfacing. Surfacing with EMBT blow may be delayed to permit additional testing, commencing pre-transit valve operating cycling or transit submerged. However, first surface after initial tightness dive must be by EMBT blow from 200 feet.

s. Additional requirements may be imposed at the discretion of the CO.

NOTES

1. **In the execution of any Sea Trial, whether escorted or not, submarine COs are reminded of their responsibility to communicate with escorts and/or shore authorities within prescribed, previously agreed upon time limits to avoid initiation of inadvertent lost contact or submarine disaster procedures.**

2. **Pumps should be tested in the industrial activity prior to Sea Trials, to determine that they can pump against a test depth head.**

3. **Compare all depth and pressure gages. Depth and pressure gages should be checked as soon as the next specified depth is reached.**

4. **Integrity of launchers or signal ejectors shall be established by admitting sea pressure through equalizing lines or flooding connection and the muzzle valve/door operated before conducting operational tests. Shoot water slugs from specified launchers or signal ejectors, at specified depths, as required by the CS/CCS test program. Shoot pyrotechnics on initial dive and at test depth on the deep dive. Shooting of pyrotechnics during the initial dive shall be accomplished in conjunction with the 200 foot EMBT Blow. Shooting of pyrotechnics at test depth during the deep dive shall be accomplished in conjunction with the test depth EMBT blow.**

5. **Those seawater systems which are not required for normal safe operation of the ship at test depth but which have been designed for and may be subjected to test depth pressure should not be subjected to submergence pressure during the initial dive to any specified depth (e.g., a blown sanitary tank). (See reference (i)).**

6. **Check operation of electrodes; head valve and each snorkel safety circuit.**

7. **Depth increments for cycling vital sea valves are as set forth in reference (i).**

8. **This evolution (initial operation of hull and back-up valves in fully submerged condition) at depths other than specified in reference (i) is intended for crew training and is not technically required. Evolution may be abbreviated or deleted on a case basis with concurrence of the embarked TYCOM representative.**

9. **Meggering of antenna may be accomplished during dock trials but must be accomplished prior to initial deep dive.**

APPENDIX G

SUBMARINE SEA TRIAL SITUATION REPORT (SITREP)

FM USS <SHIP NAME>//
TO COMSUB<LANT/PAC> <NORFOLK VA/PEARL HARBOR HI>//N4//
INFO CNO WASHINGTON DC//N77//
COM<LANT/PAC>FLT <NORFOLK VA/PEARL HARBOR HI>N43//
COMNAVSEASYSCOM WASHINGTON DC//PMS 392/08O//
DIRSSP WASHINGTON DC//205// {For SSBN/SSGN Only}
<SUBOPAUTH>// {IF OTHER THAN PARENT TYCOM}
COMSUBDEVRON FIVE SILVERDALE WA//N3//
COMSUBGRU <NO.>//N5//
COMSUB<RON/GRU NO.>//
<SUPERVISING AUTHORITY>//<CODES>//
(OTHER UNITS IN AREA IF APPLICABLE)//
BT
UNCLAS //N09094//
MSGID/GENADMIN/USS <SHIP NAME>//
SUBJ/(TYPE AVAILABILITY) SITREP (SEQUENTIAL NUMBER)//
REF/A/DOC/COMUSFLTFORCOM/<DATE>//
REF/B/DOC/AS APPLICABLE/<DATE>//
NARR/ REF A IS COMUSFLTFORCOMINST 4790.3, JOINT FLEET MAINTENANCE MANUAL, VOLUME II.
RMKS/1. CO'S SUMMARY, EVENTS 1-9 COMPLETED WITH THE FOLLOWING DEFICIENCIES NOTED:
A. SUBSAFE/URO DEFICIENCIES.
1) #1 SCOPE HULL GLAND LEAK 1 DPM AT 20% TD
2) TDU VENT, TD-104 LEAKS 3 DPM AT 65% TD.
3) STERN PLANES AUX ANGLE INDICATOR ON BCP DOES NOT ILLUMINATE, URO-16
B. NON-SUBSAFE/URO DEFICIENCIES.
1) SCULLERY DRAIN LEAKING AT FITTING F-18, 27 DPM
2) 3 FLOOR TILES IN CREWS MESS LIFTED AFFECTING SANITATION
3) CO HOT WATER SHOWER RECIRC PUMP FAILED

2. PREVIOUS DEFICIENCIES REPORTED AND STATUS.
(LIST ALL PREVIOUS DEFICIENCIES AND CURRENT STATUS-THE GOAL IS TO CAPTURE THE COMPLETE MATERIAL CONDITION IN EACH MESSAGE) STATUS = REPAIRED (R), CORRECTIVE ACTION REQUIRED (CAR), NOT APPLICABLE (NA)

EXAMPLE -

1) SCULLERY DRAIN LEAKING AT FITTING F-18, 27 DPM -R
2) 3 FLOOR TILES IN CREWS MESS LIFTED AFFECTING SANITATION - CAR
3) CO HOT WATER SHOWER RECIRC PUMP FAILED - CAR
4) #1 SCOPE HULL GLAND LEAK 1 DPM AT 20% TD - CAR
5) TDU VENT, TD-104 LEAKS 3 DPM AT 65% TD - CAR
6) STERN PLANES AUX ANGLE INDICATOR ON BCP DOES NOT ILLUMINATE, URO-16 - R
3. ADDITIONAL INFO.
1) DESCRIBE ANY ADDITIONAL INFO DESIRED OR LIST "NONE".
4. **TYCOM, NAVSHIPYD, AND NAVSEA REPS CONCUR-DO NOT CONCUR (AS APPROPRIATE).//**
BT

NOTE: ENSURE MESSAGES ARE IN ACCORDANCE WITH NTP-3 FORMAT AND CURRENT PLAIN LANGUAGE ADDRESS DIRECTORY (PLAD) IS UTILIZED.

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VOLUME I

CHAPTER 6

POST SHAKEDOWN AVAILABILITY

REFERENCES.

(a) OPNAVINST 4700.8 - Trials, Acceptance, Commissioning, Fitting Out, Shakedown, and Post Shakedown Availability of U.S. Naval Ships Undergoing Construction or Conversion
(b) NAVSO P 1000 - Navy Comptroller Manual
(c) NAVSEAINST 4790.8/OPNAVINST 4790.4 - Ships' Maintenance and Material Management (3-M) Manual
(d) INSURVINST 4730.11 - Preparation of Deficiency Forms
(e) OPNAVINST 3540.3 - Naval Nuclear Propulsion Examining Boards

LISTING OF APPENDICES.

A Major Funding Milestones During Construction/Conversion
B Post Shakedown Availability Planning Events Milestone Schedule
C Summary of Major Milestones for Post Shakedown Availability

6.1 PURPOSE.

a. Post Shakedown Availability (PSA) is an industrial activity availability assigned to correct deficiencies found during the shakedown cruise or to accomplish other authorized improvements. PSAs are scheduled to commence after delivery and to be completed prior to the Shipbuilding and Conversion, Navy (SCN) obligation work limiting date. This date occurs at the end of the 11th month after the month in which the Fitting Out Period completed for surface units or at the end of the 11th month after the month in which delivery occurs for submarines. Appendix A of this chapter, taken from reference (a), reflects the Major Milestones during Construction related to funding. Funding guidelines for PSA are outlined in reference (b).

b. The length of time designated for PSAs will vary dependent on the platform. Acceptance Trial (AT), Final Contract Trial (FCT), Combined Trial (CT) and Guarantee Material Inspection (GMI) related deficiencies constitute the majority of the PSA workload. Ship Program Manager planned, authorized and funded modifications may also be included.

6.2 PLANNING AND EXECUTION. The events leading to a successful completion of PSA involve several activities and a variety of actions and reports. Appendix B of this chapter outlines the schedule of PSA planning events.

6.3 TRIALS, INSPECTIONS AND CREW CERTIFICATION. For nuclear and non-nuclear powered surface ships, Appendix C of this chapter provides a summary of major milestones required for PSA. For submarines, Appendices BC and CC in Volume II, Part I, Chapter 3 of this manual provide a summary of major milestones.

6.4 SEA TRIALS.

6.4.1 General. Sea Trials are required to test work completed during PSA. The mandatory submarine requirements for PSA Sea Trials are identified in Volume II, Part I, Chapter 3 of this manual. Volume II, Part I, Chapter 3, Appendix K of this manual provides a list of the minimum tests to be performed during Sea Trials for non-nuclear powered surface ships. The industrial activity shall include at least two days in the availability for Sea Trials. The industrial activity shall prepare an agenda for Sea Trials conducted after a PSA. Extensions or reductions of the Sea Trial period may be granted where warranted by the scope of work accomplished. Where an extension of Sea Trial and a change in the availability schedule is required, requests for such extensions must be submitted by the industrial

activity to the Type Commander (TYCOM) as early as practical. All deficiencies resulting from Sea Trials shall be satisfactorily resolved prior to completion of the availability. If no Sea Trial deficiencies are found, the availability may be completed with TYCOM concurrence at the completion of Sea Trials.

6.5 DEFICIENCY CORRECTION PERIOD. A deficiency correction period will be scheduled after Sea Trials and prior to PSA completion. The scheduled length of this deficiency correction period shall be determined by the type and magnitude of the remaining deficiencies.

6.6 PERIOD FOLLOWING POST SHAKEDOWN AVAILABILITY. Depending on the PSA contract, the industrial activity will normally guarantee work accomplished during an availability for a period of 90 days from the completion of the availability. This does not include responsibility for malfunctioning machinery and equipment due to normal wear, improper adjustment, or tuning by Ship's Force and failure of limited life components. Ship's Force is required to report guarantee items to the industrial activity prior to the guarantee period expiration date. If operational commitments prohibit reporting prior to the 90 day period, the ship should report problems as soon as operations permit. A message is the preferred method of reporting these items. The message outlining specific deficiencies should be submitted to the Supervising Authority with a copy to the TYCOM, the Immediate Superior in Command (ISIC) and the Ship Program Manager who will pass a copy to Naval Sea Systems Command (NAVSEA) 04, and to NAVSEA 08 for nuclear cognizant issues. Additionally, any Casualty Reports (CASREP) submitted during the guarantee period must also be addressed to the Supervising Authority and the Ship Program Manager with passing instructions to NAVSEA 04, and to NAVSEA 08 for nuclear cognizant issues.

APPENDIX B

POST SHAKEDOWN AVAILABILITY PLANNING EVENTS MILESTONE SCHEDULE

NOTE: EVENT TIMES ARE IN DAYS BEFORE AND AFTER DELIVERY AND ARE APPROXIMATE. SIGNIFICANT ADJUSTMENT MAY BE REQUIRED FOR PSAs THAT COMMENCE AT OTHER TIMES AFTER DELIVERY.

Time	Event
-90	a. Ship review and update Out of Commission List.
-30	a. Ship review and update Maintenance Data System and Equipment Deficiency Log in accordance with reference (c).
-21	a. Supervising Authority prepare OPNAV 4790/2Ks for all deficiencies to be presented to the Board of Inspection and Survey (INSURV) at AT/CT in accordance with reference (d). b. AT/CT conducted by the INSURV Board. c. Conference following critique of AT/CT. (1) Purpose - to identify and resolve controversies over responsibility and timing for correction of deficiencies. (2) Participants - Ship Program Manager, Supervising Authority, Shipbuilder and Ship. d. Supervising Authority provide ship one copy of each documented INSURV item for input at delivery into the Current Ship's Maintenance Project (CSMP) in accordance with reference (c).
0	a. Delivery. b. Ship Program Manager issue Section B of Consolidated Report. c. Ship's Force submit OPNAV 4790/2Ks for all INSURV items and for all other material deficiencies that qualify for the CSMP.
10	a. Shipbuilder issues delivery letter.
20	a. Supervising Authority comments on delivery letter.
27	a. PSA Planning Conference. (1) Purpose - To establish PSA work package from input to date and to identify required advance planning actions. (2) Participants - Ship Program Manager, Supervising Authority, TYCOM, Ship and Shipbuilder.
30	a. Ship submit priority list of AT/CT deficiencies.
35	a. TYCOM comments on ship's priority list.
40	a. Ship Program Manager issue list of SCN funded items authorized for accomplishment during PSA.

Time	Event
42	a. TYCOM assign availability.
45	a. Supervising Authority issue initial PSA work package. b. (Submarines only) Latest date for the conduct of Ship Program Manager sponsored Acoustic and Combat System Certification Trials in order to present to the INSURV Board at the GMI.
50	a. Prepare for FCT/GMI in accordance with reference (c). b. TYCOM representative places ship in "INSURV Window" and calls down ship's Pre-INSURV Package.
54	a. FCT/GMI by the INSURV Board. b. Conference following FCT/GMI critique (may coincide with Planning or Pre-Arrival Conference). (1) Purpose - To assign responsibility for correction of deficiencies and to assign ship/TYCOM priorities. (2) Participants - Ship Program Manager, Supervising Authority, Shipbuilder, TYCOM, Ship, and ISIC (optional). c. Ship Program Manager issue Section B of Consolidated Report. d. Ship comply with reference (c) for documenting INSURV items.
75	a. (Submarines only) Silencing Deficiency Conference: (1) Purpose - Naval Surface Warfare Center Carderock Division (NSWCCD) presents results of acoustic trials data analysis. (2) Participants - NSWCCD, Ship Program Manager, Shipbuilder, TYCOM, Ship.
90	a. Ship Program Manager issue final list of SCN funded items authorized for accomplishment during PSA.
100	a. Supervising Authority issue final PSA work package.
149	a. Pre-Arrival Conference: (1) Purpose - To review all work authorized by all customers with available cost estimates and to establish arrival procedures and conditions for the ship. Review and take action on Post Delivery Deficiency Items (PDDI). (2) Participants - Ship Program Manager, Supervising Authority, Shipbuilder, TYCOM, ISIC and Ship.
154	a. Commence PSA. b. Arrival Conference (Ship Program Manager and TYCOM participation not required unless specifically requested).

APPENDIX C

SUMMARY OF MAJOR MILESTONES FOR POST SHAKEDOWN AVAILABILITY

Event	Cognizance	Approximate Schedule see Note 1
A. Periodic Monitoring Inspections	ISIC/TYCOM	Start to completion
B. (Nuclear Powered Ships only) Pre-Criticality Inspection (required if reactor shutdown greater than 16 weeks)	ISIC/TYCOM	Criticality -4 weeks
C. (Nuclear Powered Ships only) Post-Overhaul Reactor Safeguard Examination (per reference (e) if reactor shutdown greater than 6 months)	Fleet Commander	Criticality -4 weeks
D. Light-Off Assessment (LOA) (if propulsion plant shut down greater than 120 days)	Fleet Commander/ TYCOM	-30 days
E. (Nuclear Powered Ships only) Approve Sea Trials Agenda	ISIC/TYCOM	-30 days
F. Dock Trials	Commanding Officer (CO) of ship	-21 days
G. Crew Certification	ISIC/TYCOM	-9 days
H. (Nuclear Powered Ships only) Message Certifying Crew and Material Readiness to Ship Program Manager	TYCOM	-8 days
I. (Nuclear Powered Ships only) Authorize Ship to Commence Fast Cruise upon receipt of NAVSEA Permission to Conduct Critical Operations	TYCOM	-8 days
J. Commence Fast Cruise	CO of Ship	-7 days (2 days on, 1 off, 2 on)(length of Fast Cruise may be reduced based on length and extent of availability)
K. Report Completion of Fast Cruise and Ready for Sea Trials Message	Supervising Authority to TYCOM (CO of Ship concur)	-1 day
L. Authorize Commencement of Sea Trials Message	TYCOM to ISIC/TYCOM to Ship	-1 day
M. Commence Sea Trials	CO of Ship	0
N. Sea Trials Completion Message	Supervising Authority	+1 day

NOTE 1: Unless otherwise indicated, scheduled date referenced to Sea Trials underway date.

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