



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, DC 20350-2000

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IN REPLY REFER TO

OPNAVINST 4700.8H  
OP-321D3  
December 05 1990

OPNAV INSTRUCTION 4700.8H

From: Chief of Naval Operations

Subj: TRIALS, ACCEPTANCE, COMMISSIONING, FITTING OUT, SHAKEDOWN,  
AND POST SHAKEDOWN AVAILABILITY OF U.S. NAVAL SHIPS  
UNDERGOING CONSTRUCTION OR CONVERSION

Ref: (a) U.S. Navy Regulations, 1990  
(b) OPNAVINST 9080.3G (NOTAL)  
(c) OPNAVINST 4700.34A (NOTAL)  
(d) OPNAVINST 5420.53B (NOTAL)  
(e) OPNAVINST 4700.29 (NOTAL)  
(f) OPNAVINST 9030.2G (NOTAL)  
(g) DOD Military Pay and Allowance Entitlement Manual  
(h) NAVSO 1000 (Comptroller of the Navy Manual)

Encl: (1) Terms and Definitions  
(2) Notional Major Milestones during Construction or  
Conversion  
(3) Appointment of Commissioning Officer

1. Purpose. To augment reference (a) and delineate policies,  
procedures, and responsibilities as applicable to the subject.

2. Cancellation. OPNAV Instruction 4700.8G.

3. Background. It is essential that the Navy's shipbuilding and  
modernization programs deliver to the Fleet complete ships, free  
from both contractor and government responsible deficiencies.  
The ships should be capable of supporting the Navy's mission from  
the first day of commissioned service. (R)

4. Scope. This instruction applies to Trials, Acceptance,  
Commissioning, Fitting Out, Shakedown, and Post Shakedown  
Availability (PSA) of U.S. naval ships undergoing construction or  
conversion. Additionally, this instruction will normally apply  
to reactivations of units of the Inactive Fleet whenever  
reactivation involves modernization and/or conversion. In its  
application to nuclear-powered ships, it is augmented by  
reference (b). In its application to the Aircraft Carrier  
Service Life Extension Program (CV-SLEP), it is augmented by  
reference (c).



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5. Policy

a. Ships and submarines will be fully mission capable, in the sense that all contractual and governmental responsibilities shall be resolved, prior to delivery, except for crew certification, outfitting, or special Navy range requirements which cannot be met until after delivery.

b. Independent verification of readiness of ships and submarines for acceptance and recommendation for fleet introduction is the responsibility of the President, Board of Inspection and Survey (PRESINSURV).

c. The Chief of Naval Operations (CNO) reserves for the cognizant Assistant Chief of Naval Operations (OP-02, OP-03, OP-05) the final determination of readiness for service.

d. Programs to which this instruction applies will follow a pre-established standard event/milestone sequence and duration from industrial period to Fleet introduction as specified here.

6. Responsibilities. Responsibilities are as in reference (a) and as follows:

R) a. Commander Naval Sea Systems Command (COMNAVSEASYSKOM)

A) (1) Act as, or designate a representative to act as, the Accepting Authority. Specific duties are summarized in paragraph 6f.

A) (2) Ensure that provisions of this instruction relating to the delivery of ships are incorporated into the specifications and contracts and/or relevant administrative procedures and instructions.

(3) Ensure that ships are delivered following the requirements of this instruction.

(4) Comply with the prescribed procedures for trials, inspections, waivers, and acceptance as described here.

(5) Recommend Fitting Out Activities to CNO for those ships in private shipyards.

(6) Ensure that complete fitting out of the ship is accomplished as stated in paragraph 71.

(7) Issue instructions to those field activities which have responsibilities in the fitting out of ships to ensure that such ships receive a complete allowance of materiel.

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(8) Assume responsibilities with respect to construction, testing, and trials of nuclear power plants in nuclear powered ships as assigned to COMNAVSEASYSKOM by reference (b).

(9) Assume responsibilities as the Navy Department representative in making arrangements for the construction, conversion, or modernization of ships through the Maritime Administration.

(10) Plan for and authorize the accomplishment of industrial work during the Post Shakedown Availability (PSA).

(11) Report by letter to CNO the status of all PRESINSURV Part I items and certification (see paragraph 7g(2)(f)) requirements at the completion of the PSA.

b. Fleet Commanders in Chief (FLTCINC)

(1) Provide services for trials as requested by responsible commands in order that the ship undergoing trials may adequately demonstrate operation of installed equipments and systems (see paragraph 7e).

(2) Make recommendations, after receiving Type Commander input, to CNO on any request to deliver a ship or to place a ship into an active status.

c. Type Commanders (TYCOM)

(1) Monitor the construction and acceptance process to ensure "customer" input is provided as required. (R)

(2) Maintain liaison with the Supervising Authority via the prospective commanding officer (PCO).

(3) Conduct the pre-commissioning habitability inspection when requested by the Accepting Authority.

(4) Make recommendations, by message, directly to the Fleet Commander, information to CNO and Accepting Authority, on any request to deliver a ship into Navy custody or to place a ship into an active status.

(5) Act as, or designate a representative to act as, the Presenting Authority for Final Contract Trials (FCT)/Guarantee Material Inspection (GMI)/Special Trials (ST). The cognizant Type Commander, or a designated representative, will notify by message the FLTCINC, information CNO, COMNAVSEASYSKOM, cognizant Supervisor of Shipbuilding, Conversion, and Repair (SUPSHIPS),

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and PRESINSURV that the ship is certified ready for trials (paragraphs 7m and 7n apply.)

d. Supervising Authority

(1) Prepare and present the ship for Acceptance Trials (AT)/Underway Trials (UT)/Combined Trials (CT) as applicable. The Supervising Authority will notify by message COMNAVSEASYSKOM, information CNO, FLTCINC, TYCOM, and PRESINSURV that the ship is certified ready for trials (paragraphs 7g, 7h, and 7i apply).

(2) Request and coordinate the scheduling of all services for Builder's Trials (BT), AT, UT, or CT and any other special underway trials prior to delivery of newly constructed or converted ships under the supervising authority's cognizance.

(3) Recommend applicable trial dates to PRESINSURV at least 60 days in advance and keep the board advised of all necessary changes.

(4) Provide to PRESINSURV, as early as possible (normally four months) prior to BT, copies of applicable test memoranda/procedures which will be used for planned BT/AT/CT/UT demonstrations. Such documents are required only for the lead ship in each building or modernizing yard.

(5) Keep the Accepting Authority informed, prior to delivery of newly constructed or converted ships under the Supervising Authority's cognizance, as to the completion status of all PRESINSURV starred items resulting from AT, UT, or CT.

(6) Accept custody, as directed by the Accepting Authority, of the ship when it is decommissioned prior to undergoing an extended conversion at naval shipyards. Accept custody of and deliver the ship to the private contractor in accordance with the terms of the contract when the work is to be done in a private shipyard.

(7) Assume additional responsibilities, as necessary, with respect to receipt, transfer, and custody of fissionable material and in other areas specifically connected with the construction of nuclear powered ships. These responsibilities are defined in reference (b).

e. PRESINSURV. Conduct trials/inspections and submit reports following references (a), (d) and this instruction.

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f. Accepting Authority

(1) Designate, in writing, the PCO as the officer in charge of the Precommissioning Unit, a separate and detached command. Reference (a) applies.

(2) Recommend a date to CNO for placing nuclear powered ships "in service" prior to Builder's Trials. Reference (b) applies.

(3) Recommend a date to CNO for commissioning the ship.

(4) Accept the ship for the Navy when it is delivered.

(5) Assume custody of the ship and assume responsibility for its material condition from the time of acceptance until commissioning.

(6) Report to CNO the date of delivery of naval ships constructed/converted in a private or naval shipyard.

(7) Prior to the ship being placed "in commission" or "in service" (active or special), request the appropriate Type Commander conduct a precommissioning habitability inspection, as required by references (a) and (e). (R)

(8) Recommend a date to the CNO for decommissioning a ship undergoing extensive conversion. When ready, place such ship "out of commission, special" as directed by the CNO and immediately deliver such ship to the Supervising Authority for appropriate custody.

g. Prospective Commanding Officer/Commanding Officer/Officer In Charge

(1) Ensure that requisitions are submitted in accordance with applicable instructions for articles to outfit the ship which are not otherwise being provided; i.e., those items of consumable supplies which are not listed on applicable allowance lists.

(2) Submit progress and readiness reports under reference (f). Make reports as required by reference (a).

(3) Submit requests for change orders to COMNAVSEASYSOM via the cognizant Supervisor/Shipyard Commander when appropriate. Requests should be limited to those changes which are:

(a) essential to safety of personnel;

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(b) essential for carrying out the ship's mission; or

(c) required for operability, habitability, or maintainability.

(4) Under reference (a), assume the same responsibilities for the safety of the ship as the commanding officer of a commissioned ship when designated as officer in charge of the ship. This will be appropriate for all situations where the ship is not "in commission, active," as in government or naval custody and partially manned by government employees or members of the ship's force. This includes nuclear powered ships and ships in naval shipyards which are scheduled for trials. By reference (b), the PCO of a nuclear ship undergoing construction, conversion, or modernization is assigned additional responsibilities associated with operation of the nuclear propulsion plant.

(5) Assume responsibilities as the officer in charge of the Precommissioning Unit, a separate and detached command, when designated by the Accepting Authority.

(6) Report utilization of the nucleus crew as specified in the progress report required by reference (f). The PCO is encouraged to comment on the needs, composition, and recommended increases or decreases in precommissioning unit manning.

A) h. Commissioning Officer

(1) The CNO has designated the cognizant Assistant Chief of Naval Operations (ACNO) (OP-02, OP-03, OP-05) to appoint or act as Commissioning Officer. Enclosure (3) provides a sample letter for appointing the commissioning officer.

(2) Commissioning Officers will be flag officers or selected flag officers and act as the direct representative of the CNO at the commissioning ceremony.

(3) During the commissioning ceremony, the Commissioning Officer is responsible for affecting the ceremonial turn over of the ship from the Accepting Authority to the Prospective Commanding Officer.

7. Procedures

a. General. Every ship, regardless of the manner in which acquired, shall undergo PRESINSURV trials and materiel inspection prior to acceptance. Trials shall be conducted following the general provisions of reference (d). Trials for nuclear powered ships shall follow reference (b) and this instruction. Enclosure (2) is a notional chart that illustrates the chronological

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relationship between the major milestones in the construction/conversion process.

**b. Ships under Navy Contract at Private Shipyards and/or Naval Shipyards**

(1) PRESINSURV is hereby designated as the Navy Department representative to recommend delivery of a ship when, in the boards' opinion, the ship is ready under the requirements of the contract.

(2) The date of delivery from a private shipyard shall be the date of acceptance (not applicable to a naval shipyard).

(3) The date of final contractual responsibility shall be at the end of the guarantee period or after such extension thereto as may be necessary to correct contractor responsible deficiencies.

**c. Ships at Private Yards under contract through Maritime Administration.** In some cases, the Department of the Navy arranges for the construction, conversion, or modernization of ships through the Maritime Administration which acts as an agent for the Department in issuing a prime contract. In these cases a Department of the Navy representative shall act in the capacity of "Supervising Authority" and the Maritime Administration will act in the capacity of "Builder" under the provisions of this instruction. All other procedures shall remain the same.

**d. Fast Cruise**

(1) Fast Cruise is a period, immediately prior to initial underway trials, established by the Navy crew during which the ship is made available to ship's force for dockside training. At-sea operating conditions will be simulated as far as practicable. The Fast Cruise will be unhampered by construction, conversion, or modernization work and no trials, tests, inspections, or examinations of work should be scheduled by the builder, Supervising Authority, or forces afloat during the Fast Cruise. Fast Cruise duration will be scheduled for a period of about five days for large conventional surface warships (CG and larger) or two days for all other conventional surface ships. The five day Fast Cruise for large conventional ships should normally be conducted in the following sequence: Two days of uninterrupted operations, one day to allow shipyard personnel to correct any deficiencies, followed by two more days of uninterrupted operation. The two day Fast Cruise for small conventional surface ships should be one uninterrupted period. Since successful completion of the Fast Cruise will be followed within

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a day by sea trials, it is important to ensure that the ship is, in fact, ready for sea at the time the Fast Cruise commences.

(2) Reference (b) provides details and procedures for Fast Cruise on nuclear powered ships.

e. Services. The request from the Supervising Authority for necessary services for each of the required trials shall be addressed to the cognizant FLTCINC and shall provide for the following:

(1) A preliminary request for services shall be forwarded in sufficient time (at least one month prior to the quarter during which services are expected to be required) to permit incorporation into operational employment schedules. Request should include as much information as possible but at least the expected date, type of services required, and the probable operating area.

(2) The final request for services shall be forwarded no later than two weeks prior to the week services are required and shall include but not be limited to the following information:

(a) The dates and times on station.

(b) Operating area or position of the ship.

(c) Voice call of the ship.

(d) All necessary frequencies.

(e) A description of services required and in sufficient detail to identify the configuration required of the servicing ship or aircraft and the desired maneuvers including any features peculiar to the trials.

f. Builder's Trials (BT). Builder's Trials shall allow sufficient time during the shipyard work period for the correction of observed deficiencies prior to AT, UT, or CT. In support of this, the conduct and content of BT should, as a minimum, be the same as that intended for AT/CT/UT. See enclosure (1), "Builders Trials."

g. Acceptance Trials (AT). These trials shall be held when the Builder is a private shipyard or the Maritime Administration. They will be conducted when all work including the correction of known deficiencies has been completed. If, in special cases, it is desired to conduct AT with significant items incomplete, the approval of the CNO shall be obtained by COMNAVSEASYSOM prior to presenting the ship to the Trial Board. Requests for this type

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of waiver will be considered on a case-by-case basis under the provisions of paragraph 9 of this instruction.

(1) AT shall be conducted at sea and in port and in accordance with reference (a), this instruction, and applicable INSURV instructions.

(2) In general the following are prerequisites to AT:

(D)

(a) Successful completion of BT, as determined by the Supervising Authority, and the correction of significant construction deficiencies identified thereby.

(b) All required control equipment, auxiliaries, fittings, electronic equipment, combat systems equipment, armament, missile and weapons handling gear, as well as basic hull, machinery, and minesweeping gear, must have been installed, adjusted, aligned, tested, must be operable as individual units of equipment and as systems, and must be capable of meeting performance specifications.

(c) Installation of decking, bulkhead coverings, pipe coverings, labeling, cleaning, and painting of all spaces must be completed. (Exceptions for final carpeting and outfitting items may be negotiated with the Trial Board.)

(d) Completion of surveys for electronic interference, lighting, radiated noise, airborne noise, heat stress, vibration, and self-noise. Exceptions can be made for surveys which required transit to specific ranges away from the building area.

(e) All required installation and checkout measurements and tests must be completed.

(f) Certification of sonar, other acoustic processors, combat control systems, helicopter facilities, and navigational lights, as applicable, is required. Compliance with Navy certification requirements with respect to design and equipment installation is required where applicable (sewage, dry air, potable water, diver air, etc.). When crew certification, outfitting or special Navy range requirements exist which cannot be achieved until after delivery, full certification is not required. However, in these cases all other elements of certification will be accomplished and certified prior to AT.

(g) Completed test memoranda, reports, and certificates reflecting the above conditions must be available for inspection by the Trial Board.

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h. Underway Trials (UT). These trials will be conducted underway for all ships constructed in a naval shipyard or converted/modernized in either a private or naval shipyard. All provisions for AT as specified in paragraph 7g shall apply.

i. Combined Trials (CT). Ships constructed in a naval or private shipyard may have a Trial combining either an AT or UT with a Final Contract Trial (FCT). A Combined Trial will be the norm for nuclear submarines. In all other cases, PRESINSERV will request prior approval from CNO. All provisions for AT as specified in paragraph 7g shall apply.

j. AT/UT/CT Correction Periods. A reasonable period of time shall be scheduled for the correction of trial deficiencies. The following periods, between successful AT/UT/CT and delivery, normally will be assigned for ship types indicated:

(1) Three weeks for SSN, SSBN classes.

(2) Four weeks for DD, FF, auxiliary, amphibious, and mine warfare ships.

(3) Five weeks for FFG and DDG classes.

(4) Six weeks for CG, CGN, CV, CVN, LPH, LHA, and LHD types.

(5) Upon recommendation of the Supervising Authority, the above periods may be lengthened or shortened by COMNAVSEASYSKOM.

k. AT/UT/CT Retrials. Subsequent to an unsuccessful AT/UT/CT, complete or partial retrials may be required as recommended by the Board and approved by CNO. Retrials will be limited to situations where deficiencies exist which preclude the Board from providing an independent assessment of compliance with contractual requirements.

1. Fitting Out Period

(1) The length of the Fitting Out Period will be recommended by COMNAVSEASYSKOM and approved by CNO.

A) (2) The Fitting Out Period normally will be between 10 and 90 calendar days, depending on complexity of the ship. For surface ships, it starts with the day after the date of delivery. For submarines, it normally occurs prior to delivery. If special conditions render fitting out impracticable during this period, CNO will consider requests for extension.

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(3) Industrial work during the Fitting Out Period shall be limited to those items generated by the Trial Board which affect operational readiness or safety and those items specifically designated by CNO. Other items, especially those requiring advance planning, will be deferred to PSA.

(4) The following shall be completed prior to the end of fitting out:

(a) All machinery, equipment, and armament shall be installed, tested, and in an operable condition capable of meeting performance specifications.

(b) All systems performance checkouts shall be completed.

(c) All operational and test equipment shall be on board, calibrated, and compensated.

(d) All initial outfitting shall be completed and on board.

(e) All repair parts as defined in the ship's published allowance lists shall be on board.

(f) All technical manuals shall be on board.

(g) All instructions, data, and test equipment required for training personnel in operation and maintenance of all installed equipment shall be on board.

(h) The ship shall be provisioned and fueled.

(i) Sufficient personnel, trained to maintain and operate the ship safely and effectively for independent operations at sea, shall be on board.

(j) The Planned Maintenance System (PMS) and Engineering Operating Sequencing System (EOSS) shall be installed.

(R)

(k) All certification requirements, except those requiring services not available until the post delivery trials period, shall be completed.

m. Final Contract Trials (FCT) and Guarantee Materiel Inspection (GMI). These trials/inspections shall be scheduled and conducted as follows:

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(1) The dates for trials/inspections shall be recommended by the cognizant Type Commander to PRESINSURV and COMNAVSEASYSKOM at least 60 days in advance.

(2) The FCT will be conducted at sea. It shall include operations at full power and be of sufficient thoroughness to determine whether defects have developed since AT/UT.

R) (3) The GMI will be conducted in port to determine if contractor-responsible equipment has operated satisfactorily since CT and should be accomplished before PSA.

(4) Subsequent to an unsuccessful FCT, complete or partial retrials may be required as recommended by PRESINSURV and approved by CNO. Retrials will be limited to that which is necessary to ensure proper identification of construction/conversion/modernization-related deficiencies (government or contractor responsible) which should be corrected during PSA. Scheduling of the retrial date shall be coordinated by the Type Commander.

n. Special Trials (ST). Occasionally, new construction, conversion, or modernization efforts result in significant ship systems/capabilities remaining incomplete until the end of PSA. Rather than wait for the first regularly scheduled Underway Materiel Inspection (three or more years), CNO, either unilaterally, or as requested by PRESINSURV, COMNAVSEASYSKOM, Fleet or Type Commander, may direct a Special Trial. The purpose of such a trial will be to allow the Board an opportunity to conduct an independent and timely assessment of the finished new construction baseline. In this manner any corrective action found necessary can be initiated promptly in follow ships undergoing construction as well as retrofitted in ships already delivered. For each ST approved, CNO will provide a separate precept tailored to the situation. The Type Commander will schedule the ST, once approved, coordinating with PRESINSURV, and COMNAVSEASYSKOM.

## 8. Trial Reports

a. Upon completion of AT, CT, or UT of a new construction ship, the Senior Member of the Trial Board shall submit a report, less complete list of deficiencies, to PRESINSURV recommending acceptance/delivery of the ship on or about a given date provided the deficiencies specified as necessary to acceptance/delivery are corrected. The Accepting Authority and all other concerned commands shall be addressees on this report. The report shall be reviewed by PRESINSURV and forwarded with his comments to CNO. The CNO will authorize delivery and notify the Secretary of the Navy when the ship has been accepted by the Navy. The same

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reporting procedure will be followed in the case of conversions/modernizations, Final Contract Trials, unsuccessful trials, and Special Trials.

b. Upon completion of a trial/inspection reported in accordance with paragraph 8a, the complete report including the complete list of deficiencies shall be submitted by the Senior Member of the Trial Board to PRESINSURV, who will in turn review and endorse the report and forward it as follows:

To: Chief of Naval Operations

Via: Commander, Naval Sea Systems Command

Copy to:

Assistant Secretary of the Navy (RD&A) (R)  
 Chief of Naval Operations (advance copies)  
 Commander, Naval Air Systems Command (if appropriate)  
 Commander, Space and Naval Warfare Systems Command (A)  
 Commander, Naval Medical Command (if appropriate) (R)  
 Commander, Naval Military Personnel Command (if appropriate)  
 Commanding Officer, Fitting Out and Supply Support Assistance Center (FOSSAC)  
 Planning Yard  
 Commanding Officer/Prospective Commanding Officer Supervisor of Shipbuilding, Conversion and Repair, USN (private shipyard)  
 Commander, Naval Ships Systems Engineering Station  
 Naval Inspector General  
 Fleet Commander (Operational and Administrative)  
 Type Commander (Operational and Administrative)  
 Group Commander  
 Squadron Commander  
 Accepting Authority  
 Senior Member, Board of Inspection and Survey, Pacific  
 Senior Member, Board of Inspection and Survey, Atlantic  
 Fitting Out Activity  
 Commander, Naval Supply Systems Command

9. Waivers. Waiver requests are to be minimized; however, in those extraordinary circumstances where it is considered in the best interest of the Navy to deviate from established requirements, waiver requests will be considered by CNO. Waiver requests should be submitted as follows:

(R)

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**a. Waiver for conduct of trials with Significant Construction Deficiencies**

(1) COMNAVSEASYSKOM shall submit requests for waivers for conduct of trials with Significant Construction Deficiencies to CNO to arrive no later than seven working days prior to the date action is required. Distribution shall include PRESINSURV and appropriate Fleet and Type Commanders.

(2) Request for waivers shall:

(a) Identify the item to be waived.

(b) Specify the reason for non-completion of the prerequisite or non-correction of deficiency, including estimated completion date if the waiver is granted. If material delivery is involved, provide best estimated delivery date.

(c) State the alternatives available, and include, if appropriate, the consequences of not granting the waiver.

**b. Waiver for delivery or completion of a Fitting Out Period with uncorrected Starred Deficiencies**

(1) COMNAVSEASYSKOM shall submit requests for waiver of starred items direct to CNO to arrive no later than seven working days prior to the date action is required. Distribution shall at least include PRESINSURV and appropriate Fleet and Type Commanders.

(2) Request for waivers shall:

(a) Identify the item to be waived by proper Trial Board number.

(b) Specify the reason for non-correction of the deficiency or trial item, including estimated correction date if the waiver is granted. If material delivery is involved, provide best estimated delivery date.

(c) State the alternatives available, and include, if appropriate, the consequences of not granting the waiver.

**c. PRESINSURV Recommendations on Waivers.** PRESINSURV recommendation shall be considered on all requests for waiver. Concurrence is assumed unless otherwise specified. Rationale for non-concurrence will be submitted direct to CNO.

**d. Comments on Waivers by Other Commands.** Comments and recommendations by cognizant naval authorities on waiver requests are invited when safety of personnel is involved or the ship's

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mission capability is affected. These should reach CNO no later than three days prior to the date action is required. Comments are required for delivery requests, from the Fleet Commander with Type Commander input.

#### 10. Status and Readiness for Commissioning

a. Ships (except nuclear powered ships), undergoing construction, conversion, or modernization at a private shipyard, will normally be placed in an "in service, special" status upon delivery to naval custody for fitting out. This status remains unchanged until the completion of the Fitting Out Period at which time the ship will be placed "in commission." Ships undergoing construction, conversion, or modernization in a private shipyard where the fitting out is concurrent with construction will normally be placed in an "in service, special" status at delivery and in a "in commission" status as soon as practicable, normally within 30 days.

b. Ships (except nuclear powered ships), undergoing construction, conversion, or modernization at naval shipyards, will be normally placed in a special status prior to the conduct of INSURV Underway Trials.

c. Nuclear powered ships will be assigned an active status of "in service" about two weeks prior to commencement of the first sea trial. At this time responsibility for, and custody of, fissionable material will be transferred from the Supervising Authority to the officer in charge of the ship. The prospective commanding officer, who is also commanding officer of the precommissioning unit, becomes officer in charge of the ship at this time and continues until becoming the commanding officer at commissioning. At time of delivery the status will normally not change. The ship will be placed "in commission" as soon as practicable after delivery, normally 30 days for ships without a special fitting out period, and upon completion of such a fitting out period when one is assigned.

d. The status of naval ships intended for the active fleet, regardless of the shipyard where constructed, converted, or modernized, shall be changed to "in commission" prior to the ships joining the active fleet. With respect to crew entitlements, sea duty commencement date, and Commanding Officer's Non-Judicial Punishment (NJP), no differentiation should normally be made between ships in an active or a special status as defined in enclosure (1) of this instruction. Entitlement to sea pay shall be under reference (g). (D)

e. After a ship is placed "in commission," all changes of status will be reflected in accordance with "Movement Report

Instructions" (Naval Warfare Publication (NWP) 10-1-10 current edition).

f. A required prerequisite to placing the ship "in service, active or special" or "in commission, special" is habitability. In the above cases, there still remains industrial and fitting out work prior to the ship completion and readiness for reporting to the fleet. The Accepting Authority must take the above into consideration when scheduling the habitability inspection prior to the crew moving on board. The purpose of this inspection is to ascertain whether or not the spaces within which the crew will live, primarily berthing and messing, are clean, safe, and ready to receive the crew.

g. Placing the ship "in commission" will depend in each case upon the determination that the ship is ready in all respects to commence duty with the active fleet under reference (a). The commissioning date will be directed by CNO. The ship at this time will be in the following condition:

- (1) Habitable for berthing and messing.
- (2) Necessary firefighting, damage control and navigational equipment on board in operating condition.
- (3) Command and control spaces and combat systems available to ship's company for drill and emergencies.
- (4) Storerooms, magazines, and magazine sprinkling systems, as required, ready for use.
- (5) Propulsion and maneuvering equipment ready for use.

#### 11. Status of Ships During Conversion

a. Upon arrival at a shipyard to commence conversion, the commanding officer of a non-nuclear powered ship shall file a change of status to "in commission, special." The status of nuclear powered ships shall remain "in commission" throughout this shipyard period.

b. When determined by CNO that the status of a ship will be "out of commission, special" during the period of conversion or modernization, the following procedures shall apply:

(1) A period of 10 to 60 days between the time of arrival at the shipyard and the commencement of conversion shall be scheduled for the removal of all portable equipment, repair parts, initial stock lists, consumables, and other appropriate materials.

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(2) During the off-loading period, the crew will be phased down at a rate commensurate with the amount of preparation to be accomplished by ship's force.

(3) Based upon the progress of preparation, the appropriate Type Commander shall recommend to CNO a date for decommissioning the ship.

(4) On the date approved for decommissioning, the Type Commander or designated representative shall place the ship "out of commission, special." (In the case of a naval shipyard, custody will be transferred to the shipyard commander. In the case of a private shipyard, custody of the ship will be transferred to the Supervising Authority for delivery to the private contractor following the terms of the contract).

12. Readiness-For-Sea (RFS) Period. This period commences immediately on completion of the Fitting Out Period and is assigned by the Fleet Commander. It varies from one to three weeks according to the requirements of each type ship. The purpose of an RFS Period is to provide an opportunity for a commanding officer to prepare the command for a shakedown period. This period should be dedicated for the specific purpose of ensuring that tests, alignments, calibrations, and other similar ship evolutions are completed and that the ship is, in all respects, ready for sea. The FLTCINC requirement of a successful Light-Off Exam (LOE) conducted by the Propulsion Examining Board (PEB) should be met prior to this period.

13. Post Delivery Test and Trials (PDT&T) Period

a. This is a special Period, usually 8 to 16 weeks, immediately following the RFS Period. It is a variable-duration period assigned by the FLTCINC for the conduct of selected trials/tests peculiar to the Anti Air Warfare (AAW)/Strike Warfare (STW)/Anti Surface Warfare (ASUW)/Anti Submarine Warfare (ASW) systems. A Special Assistance Team (SAT) may be embarked upon completion of fitting out to assist the commanding officer in the supervision of any special trials/tests/demonstrations during this period. Typical trials and tests that may be conducted as applicable during this period are:

(1) Operational Propulsion Plant Examination (OPPE).

(2) Combat System Ship Qualification Trials (CSSQT).

(3) Acoustic Trials.

(4) ASW Weapon Systems Accuracy Trials (WSAT).

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(5) Shipboard Electromagnetic Compatibility Improvement Program (SEMCIP).

(6) Ship Electronic System Evaluation Facility (SESEF).

b. These trials/tests will be interrupted, if necessary, to permit conduct of the FCT within the ship guarantee period. It should be kept in mind that these tests and trials do not extend the guarantee period following delivery of the ship.

14. Shakedown Period. This is a period assigned by the Fleet Commander for each type ship and usually extends from RFS Period to commencement of PSA. When a Post Delivery Test and Trial period is assigned to a ship, the shakedown period commences immediately following this PDT&T period rather than after the RFS Period. It is intended to complete the following as required:

a. Desired trials and tests not previously conducted; for example, Tactical Trials, Standardization Trials, and Structural Test Firing.

b. Calibration of equipment and alignment of weapon systems.

c. Degaussing, ranging, and deperming.

d. Organization of the ship and training of the crew to the maximum attainable level of combat readiness.

e. Loading of aviation units.

f. Refresher training.

g. Final Contract Trials or Guarantee Material Inspection.

15. PSA

a. PSA is a shipyard availability assigned to commence after delivery and to be completed prior to the expiration of the SCN obligation work limiting date. This date occurs at the end of the eleventh month after the month in which the Fitting Out Period completes. PSA will normally be of three months duration. It is planned that authorized Acceptance and Final Contract Trials deficiencies will be corrected during PSA. Only those items affecting safety or operations, for which planning can be completed, will be accomplished during fitting out. Funding guidelines for PSA are outlined in reference (h).

b. Conducting the PSA at the fitting out location is desirable to profit from familiarity with the ship. However, other factors such as shipyard workload and proximity to the

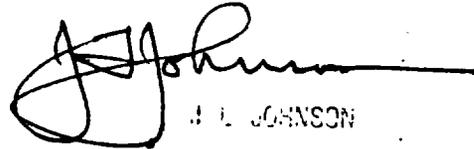
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ship's homeport must also be considered in determining the PSA location. The purpose of the PSA is to accomplish:

- (1) correction of new construction deficiencies found during the shakedown period which are authorized;
- (2) correction of other contractor and government responsible deficiencies previously authorized; and
- (3) accomplishment of other improvements or class items as authorized.

16. Reports. The following report symbols are assigned to these reporting requirements and are approved for three years from the date of this instruction:

| <u>REPORT SYMBOL</u> | <u>PARAGRAPH &amp; PAGE</u> |
|----------------------|-----------------------------|
| OPNAV 4700-5         | Par 6a(11), p. 3            |
| OPNAV 4700-5A        | Par 6f(6), p. 5             |
| OPNAV 4700-5B        | Par 8a, p. 12               |
| OPNAV 4700-5C        | Par 8b, p. 12               |



J. L. JOHNSON

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### Terms and Definitions

1. Acceptance. The legal act of accepting custody of a new construction ship by the Navy upon delivery of the ship by a private builder is termed Acceptance.
2. Accepting Authority. The officer designated by the Chief of Naval Operations to accept a ship for the Navy; normally, he is the Commander, Naval Sea Systems Command or his designated representative.
3. Active Status. Ships which are currently assigned for duty in the active fleets are in an Active Status; normally "in commission".
4. Aeronautical Outfitting Assembly Point. The activity designated by the Commander, Naval Air Systems Command to assemble and deliver to the ship its allowance of aeronautical material is the Aeronautical Outfitting Assembly Point.
5. Builder's Trials (BT). Ship trials conducted by the contractor to demonstrate the readiness of the ship for Acceptance Trials are Builder's Trials. BT is conducted in two phases:
  - a. Builder's Dock Trials (BDT) are trials conducted by the Contractor to demonstrate to the Supervising Authority the readiness of all machinery, equipment, and systems for sea trials.
  - b. Builder's Sea Trials (BST) are ship trials conducted as soon as practical after BDT; and are required to demonstrate that the ship is seaworthy and all machinery, equipment, and systems are ready for the Acceptance Trials. All tests that cannot be performed with the ship moored are accomplished during BST.
6. Combined Trials (CT). A combination of either Underway Trials or Acceptance Trials with a Final Contract Trial are Combined Trials. Combined Trials have been authorized by CNO for nuclear powered submarines. Combined Trials for other ships will be conducted only when directed by the CNO.
7. Deficiencies. Throughout this instruction reference is made to various categories of deficiencies. For purposes of consistency in reporting to CNO, they are defined here and associated with the appropriate trial/event.
  - a. Significant Construction Deficiencies: Those deficiencies identified by the Supervising Authority which must be waived by CNO (Waiver for Trial, see paragraph 9a) if Acceptance Trials

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are to take place prior to deficiency correction are considered Significant Construction Deficiencies. These are deficiencies (contractor or government responsible) which meet the single or double starred criteria below; or, which represent systems, subsystems, or equipments which should have been but were not satisfactorily demonstrated during Builders Trials; or, prerequisite events which are not complete (see para 7g(3)) or, which represent unsatisfactory status with respect to CNO high interest items as separately identified to COMNAVSEASYSKOM, or specified characteristic and top level requirements which are not satisfied.

b. Single Starred Deficiencies: Deficiencies identified by the Board of Inspection and Survey, which significantly degrade a ship's ability to perform an assigned primary or secondary Required Operational Capability (ROC), or which represent General Safety, Navigational Safety, Security, Firefighting, Habitability, or Maintainability Deficiencies which would prevent the crew from living on board safely and/or operating and maintaining ship systems for which the Navy has assumed responsibility, are Single Starred Deficiencies. Single Starred Deficiencies must be corrected or waived prior to delivery.

c. Double Starred Deficiencies: Double Starred Deficiencies are applicable only to those ships constructed, converted, or modernized with a separate fitting-out period assigned away from the building site. Such designation represents General Safety and includes navigational safety, security, fire-fighting, habitability, or maintainability deficiencies, identified by the Board of Inspection and Survey. These deficiencies would prevent the crew from living on board safely and/or operating and maintaining ship systems for which the Navy has assumed responsibility. Incompleteness or inoperability of equipments or systems, even though significantly affecting the ships ability to perform her assigned mission, is not, of itself, justification for double stars. Double Starred Deficiencies must be corrected before the ship is moved from the building site.

d. Mission Degrade Deficiencies. The designation for deficiencies identified by the Board of Inspection and Survey after Acceptance which significantly degrade a ship's ability to perform a primary mission area or Required Operational Capability (ROC) are Mission Degrade Deficiencies.

## 8. Delivery

a. As related to new construction in private shipyards, this is the actual assumption of custody by the Navy incident to acceptance.

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b. As related to conversion/modernization in private shipyards, this is the actual return of naval ships to naval custody in accordance with the terms of the contract incident to the completion of conversion or modernization.

c. As related to new construction/conversion/modernization in naval shipyards, this is the actual completion of the Fitting Out Period incident to reporting to the Fleet for duty. In the conversion/modernization of certain type ships, reporting to the Fleet for duty may be governed by separate instructions.

9. Final Contract Trials (FCT). Trials and materiel inspection conducted underway and in port by the Trial Board to determine if builder responsible equipments have operated satisfactorily during the guarantee period are Final Contract Trials. Final Contract Trials are accomplished prior to the end of the guarantee period for all naval ships constructed, converted, or modernized in private or public shipyards.

10. Fitting Out (FO). The operation of placing on board a ship the materiel specified in its allowance list is Fitting Out. It can also include industrial work, normally correction of deficiencies identified by the Trial Board, which must necessarily be performed during the Fitting Out Period.

a. For nuclear powered ships, fitting out will essentially be accomplished prior to delivery.

b. For conventionally powered ships, it will normally be accomplished at the designated Fitting Out Activity during a Fitting Out Period, as specified by the governing contract, except that items requiring installation during the shipyard work period, items required for trials, and items required to be on board at the time of placing "in commission" or "in commission, special" shall be placed on board when needed.

c. In the case of ships carrying or servicing aircraft, such aircraft and associated equipment, including aviation stores and aviation repair parts, may be placed on board during the shakedown period at the designated Aeronautical Outfitting Assembly Point.

11. Fitting Out Activity (FOA). The activity designated by the Chief of Naval Operations to assemble and place on board the allowance list materiel other than that which may have been placed on board previously at the industrial site is the Fitting Out Activity. Ships in a naval shipyard normally shall be fitted out at the shipyard. Nuclear powered ships shall be fitted out at the building yard. Reference (b) applies. Other ships constructed/converted/modernized in a private shipyard may be

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authorized for fitting out either in a naval shipyard or, when suitable facilities are available, in the builder's yard. The Commander, Naval Sea Systems Command shall recommend to CNO the Fitting Out Activity, with justification for either naval or private shipyard.

12. Guarantee Materiel Inspection (GMI). A materiel inspection conducted in port prior to PSA by a Trial Board prior to the end of the guarantee period when CNO has authorized a Combined Trial to determine if contractor responsible equipment has operated satisfactorily during the guarantee period is the Guarantee Materiel Inspection. It shall include the opening and inspection of equipment designated by the Board together with the operation and visual inspection of equipment and the review of material maintenance records.

13. Guarantee Period. The interval of time during ship construction, conversion or modernization, following ship delivery, during which the public or private builder retains responsibility for and is financially liable for failure (in performance, workmanship and/or material quality) to fulfill the specifications under which the ship or material was built defines the Guarantee Period. The length of this period is normally six months and is intended to be of sufficient duration to permit a reasonable period of time for operational demonstration prior to its expiration. The guarantee period can only be extended by COMNAVSEASYS COM (in his role as contracting officer, in the case of a private builder).

14. Inactive Status. Ships which are in reserve and not currently required for duty in the active fleets or supporting forces are in an Inactive Status. Ships in inactive status are "in commission, in reserve" or "out of commission, in reserve". (Ships undergoing construction, conversion or modernization shall not be designated "Inactive" since they are intended for active services and therefore are considered to satisfy a current need).

15. In Commission. Naval ships employed in active fleet assignments are "In Commission". (When used alone, this term shall be identified with "Active Status" only.)

16. In Service. Naval ships and ships of Military Sealift Command (MSC) being utilized in an active supporting role are "In Service". When used alone, this term can be identified with "Active Status" only. Nuclear ships in construction are assigned an "in service" status during the period from approximately two weeks before the commencement of first sea trials until delivery of the ship. Reference (b) applies. This category may also be used for ships for the time between delivery and commissioning during which time either the shipbuilder or the government has

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significant responsibility for completing the ship; e.g., crew training, outfitting or post delivery industrial work. When used for this reason, the "in service" category will be associated with a special status as described below to reflect a ship intended for but not yet ready to join an active fleet.

17. Outfit Supply Activity. The naval activity designated by COMNAVSEASYSKOM to procure, assemble, and deliver to the Fitting Out Activity materiel specified in allowance lists as "Outfit Supply Activity Furnished" and supplies/stores classified as "General Use Consumables" is the Outfit Supply Activity.

18. Out of Commission. Naval ships not employed in active fleet assignments are "Out of Commission". (This term must be suffixed by the terms "in reserve" or "special", thereby identifying the status as "inactive" or "special" respectively.)

19. Out of Commission, Special. "Out of Commission, Special" is a status applied to ships undergoing extensive modernization/conversion when so designated by the Chief of Naval Operations.

20. Precommissioning Detail. The balance crew of the ship's force which reports for temporary duty at a training center is designated the Precommissioning Detail.

21. Precommissioning Unit. The Nucleus Crew of the ship's force which reports at the building yard is designated the Precommissioning Unit.

22. Presenting Authority. The officer designated to present the ship to the Trial Board certifying that it is ready for trials and materiel inspection is the Presenting Authority. For Acceptance Trials (AT), this is normally the Supervisor of Shipbuilding, Conversion and Repair. For Underway Trials (UT), this is normally the Commander, Naval Shipyard. For the Final Contract Trials (FCT), this is normally the Type Commander or a designated representative.

23. Special Status. Ships for which the Navy is charged with certain responsibilities by reason of custody or title, and which are neither in an "Active Status" nor "Inactive Status", are in a "Special Status". Ships in special status are "in commission, special" or "in service, special" or "out of commission, special" or "out of service, special". Ships in a special status are not assigned to an active Fleet. A special category vessel's state of approximate operational readiness, as well as the responsibilities of OIC (PCO) and crew, are substantially similar to those associated with active, commissioned ships. Crew entitlements on a special category ship, as well as the exception to the right to refuse punishment under Article 15 of the Uniform Code of

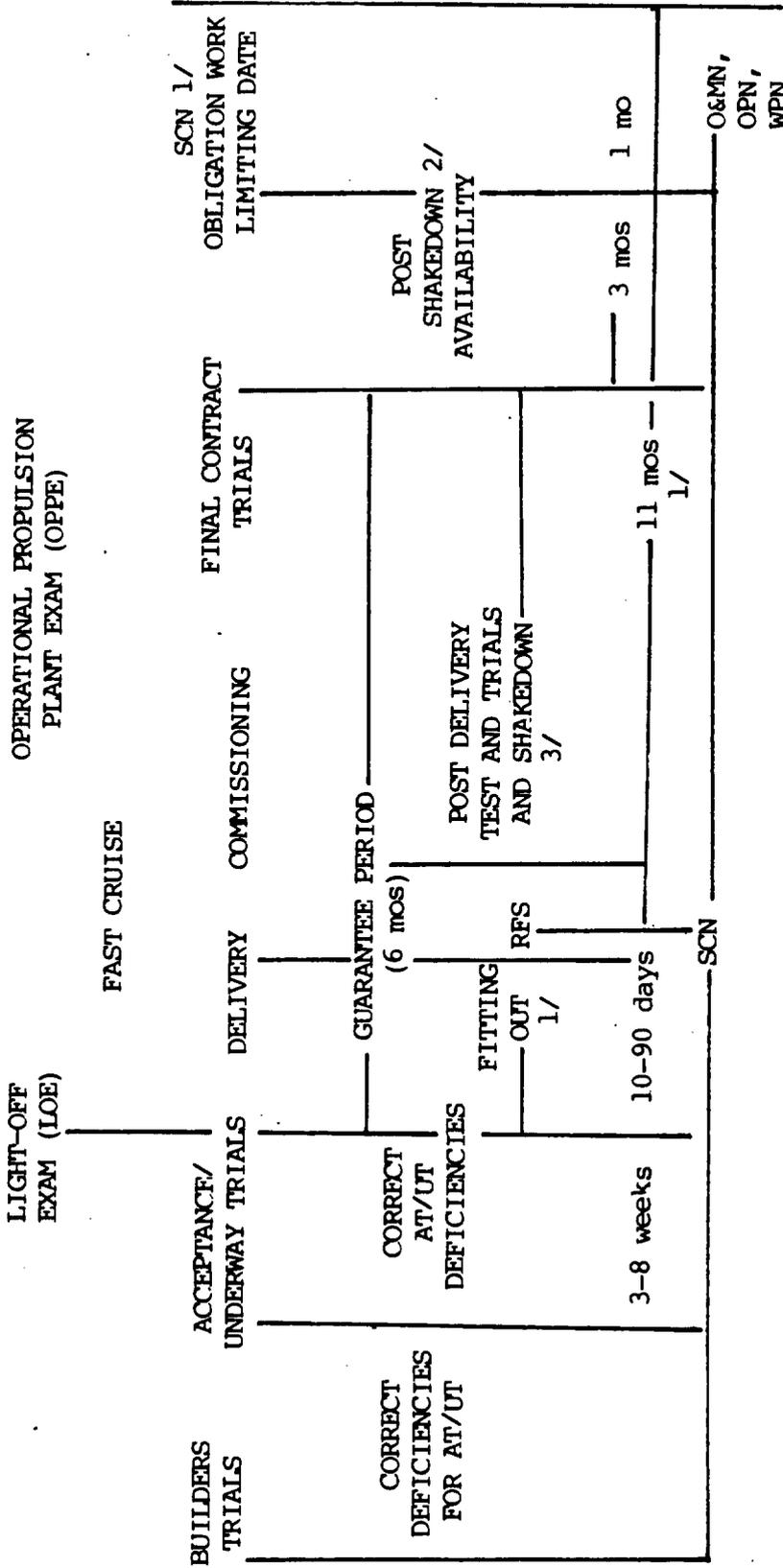
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Military Justice (UCMJ), as are associated with an active category normally apply. A vessel placed in a "special" status as defined here will normally be equipped with berthing and messing facilities; and, upon moving on board, the crew will be assigned duties and responsibilities in connection with readying that vessel for active fleet service. When required, vessels in a special status may operate underway at sea. COMNAVSEASYS COM shall normally retain custody of ships while they are in this status, through an agreement with the cognizant Fleet Commander and approved by CNO.

24. Special Trials. Trials and materiel inspection, which may or may not be conducted underway, by the Trial Board as recommended by PRESINSURV, COMNAVSEASYS COM or the appropriate Fleet/Type Commander and approved by CNO or as directed by CNO are termed Special Trials. The purpose of such a trial is to allow the Trial Board to observe, prior to initial Underway Material Inspection (UMI), the final configuration of a ship or major ship subsystem when that configuration is not complete until PSA. This post-PSA Trial will be scheduled by the Type Commander in accordance with a precept provided by CNO.

25. Supervising Authority. Either the commanding officer of a naval shipyard or the Supervisor of Shipbuilding for a private shipyard where a ship is undergoing construction, conversion, or reactivation.

NATIONAL MAJOR MILESTONES DURING  
 CONSTRUCTION/CONVERSION



- 1/ For submarines fitting out is complete prior to delivery. Hence, the SCN obligation work limiting date is at the end of the eleventh month after the month in which delivery occurs.
- 2/ PSA is normally scheduled to complete approximately one month prior to the obligation limiting date.
- 3/ Total period of PDT&T and Shakedown shall be a minimum of six months. A waiver may be granted for a period greater than eight months; a request to extend SCN obligation limiting date may be required.

DEC 15 1990

5060

Code

Date

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To:

Subj: APPOINTMENT OF COMMISSIONING OFFICER

Ref: (a) OPNAVINST 4700.8H  
(b) U.S. Navy Regulations, 1990

1. Under the provisions of reference (a), \_\_\_\_\_ is designated as the Commissioning Officer, as prescribed in reference (b), for USS \_\_\_\_\_.
2. (Special instructions, if appropriate).

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Appropriate Group Commander  
Appropriate Squadron Commander  
PCO USS \_\_\_\_\_