

DEPARTMENT OF THE NAVY COMMANDER MILITARY SEALIFT COMMAND WASHINGTON NAVY YARD BLDG 210 901 M STREET SE WASHINGTON DC 20398-5540

COMSCINST 9000.1C N7 15 May 1992

COMSC INSTRUCTION 9000.1C

- Subj: PREPARATION, MAINTENANCE AND DISTRIBUTION OF SELECTED RECORD PLANS AND BOOKLETS FOR MSC SHIPS (USNS)
- Ref: (a) COMSCINST 4700.2F
 - (b) MIL-M-15071, MANUALS, TECHNICAL: EQUIPMENT SYSTEMS CONTENTS REQUIREMENT FOR
 - (c) MIL-STD-100E, ENGINEERING DRAWING PRACTICES
- Encl: (1) Preparation, Maintenance and Distribution of Selected Record Plans and Booklets
 - (2) Sample IC System Block Diagram (SEPARATE COVER)
 - (3) Sample Lighting One Line Diagram (SEPARATE COVER)
- 1. <u>Purpose</u>. To issue procedures for preparation, maintenance and distribution of:
 - a. Selected Record Plans (SRPs)
 - b. Tank Capacity Tables
 - c. Trim and Stability Booklets
- 2. Cancellation. COMSCINST 9000.1B.

3. <u>Background</u>. In order to define and administer maintenance, repair, modification and alterations of MSC ships, it is necessary to have available an accurate description of the ship as presently configured. The description is provided by documentation collectively known as Selected Record Plans and Booklets and is defined in enclosure (1).

4. <u>Action</u>. This instruction is applicable to MSC ships in service (USNS ships). Headquarters and Area Commanders responsibilities are defined in enclosure (1). Procedures for the preparation, maintenance and distribution of Selected Record Plans and Booklets as outlined in enclosure (1) are effective immediately. Enclosures (2) and (3) provide amplifying guidance to these procedures. Two significant additions to the plans and booklets to be maintained in this category are as follows:

a. Operating instructions for ventilation and air conditioning systems for existing MSC ships shall be considered as Selected Record Plans and updated as required; for new MSC ships these instructions shall be incorporated in the Engineer's Operating Manual/Ships Information Book (EOM/SIB) in accordance with reference (b).

b. The Trim and Stability Booklet is considered a Selected Record Plan and shall be prepared in accordance with COMSC standard drawing STD 001-835-5985377.

c. The Docking Plan is considered a Selected Record Plan and shall be prepared in accordance with COMSC standard drawing STD 001-085-6229179.

Distribution: COMSCINST 5000.19 List I (Case A) SNDL 41B (MSC Area Commanders) (LANT & PAC only) (50) 41B (MSC Area Commanders) (FE & EUR only) (10) 41C (MSC Subarea Commanders) (10) 41D3 (MSC Offices) 41F (MSCCENTACT) 41G (COMFSRON) 41L (COMPSRONs) 41M (MSC TAGOS Units) T-100 (Masters, civil service manned ships) T-101 (Operators and Masters, contract operated tankers) T-102 (Operators & Masters of contract-operated Fast Sealift Ships) T-103 (Operators & Masters, contract-operated TAGOS) T-104 (Operators & Masters, MPS ships)

PREPARATION, MAINTENANCE AND DISTRIBUTION OF SELECTED RECORD PLANS AND BOOKLETS

1. General

a. <u>Objective</u>. To provide Masters, Administrative Commanders and Contract Operators of MSC Force ships the documentation required for safe and efficient operation.

b. Definitions

(1) Selected Record Plans (SRPs) are developed to show the general arrangement, important features and systems for individual ships. These plans are as follows:

General arrangement of decks Inboard and outboard profiles Capacity plan Docking plan Heating, ventilating and air conditioning diagrammatic Ventilation schedule (fan, motor, control and heating equipment in tabular form) Machinery arrangement plans Electrical distribution system - one-line diagram Damage control display plans Electrical system load and power analysis Electrical system fault current analysis Lighting System - one-line diagram Interior Communication System Block diagram Piping system diagrams Fire Fighting Plans

(2) Booklets are assembled copies of small scale general arrangement plans, tank capacity tables and trim and stability data.

c. <u>Responsibility</u>. MSC Central Technical Activity (MSCCENTACT) will retain the originals of Selected Record Plans for USNS contract-operated ships and for any ship over which they have administrative control. The Area Commanders will retain the originals of all Selected Record Plans for ships under their administrative control. The requirement for revising the SRPs shall not be included in the shipyard work package. When any of the drawings listed will be affected by alterations or modifications the responsible administrative Area Command shall issue a task to the Engineering Level of Effort contractor to revise the SRPs. The revised drawings should be available not later than 60 days after the ship modifications. Otherwise the drawings shall be verified as reflecting the ship on a maximum 10-year cycle. Selected Record Plans and Booklets shall be prepared and maintained as follows:

ITEM	PREPARATION	MAINTENANCE
Selected Record Plans	MSCCENTACT	Area Command having administrative
(Ships in service)		control of ship
Selected Record Plans	MSCCENTACT	MSCCENTACT
(Contract operated ship)		
Tank Capacity Tables		
Trim and Stability	MSCCENTACT	MSCCENTACT
Booklets & Tank Capacity		
Tables		

d. <u>Accuracy</u>. It shall be the responsibility of MSC Area Commanders and Contract rators to review the Selected Record Plans and Tank Capacity Tables provided by MSCCENTACT Technical Division for new MSC ships. Cognizant Area Commanders and Contract Operators shall ensure that these plans and tables are maintained in an up-to-date status.

2. <u>Preparation of Selected Record Plans</u>. MSCCENTACT Technical Division shall acquire one set of uniform size mylar plans prepared in accordance with MIL-STD-100 for the design of any new MSC ships. One set of mylar reproducibles shall then be sent to the Area Command having administrative control or to MSC Headquarters, as applicable, for each ship in service. This set shall then be considered as the master set of Selected Record Plans for that ship. MASTERS for CAD generated drawings shall be the magnetic medium in which the drawing is stored rather than hard plotted copy. For CAD generated drawings, Contractors shall provide one vellum copy and one magnetic copy (5-1/4" or 3-1/2" floppy disk) per drawing for MSCCENTACT archiving. CAD masters shall be prepared on a system using a vector format conforming to MIL-D-28000 and initial graphics exchange standard (IGES) standards and/or compatible with AUTOCAD 11. Drawings shall be size "F" in accordance with reference (c), with maximum finished sheet size of 30 inches by 48 inches.

a. Format of Plans. Master Selected Record Plans shall be drawn as follows:

TYPE OF PLAN	INDEX NO. (NAVSHIPS S9040-AA-IDX-1010)	SCALE - (inch to the foot)
Outboard profile	801	For Ship length less than or equal to 325' @ 1/4" more than 325' @ 1/8"
General arrangement of all superstructure, tops of houses, decks platforms flats and holds	801	Same as outboard profile
Capacity Plan, including inboard profile	835	Same as outboard profile
Docking plan	085	Same as outboard profile

Enclosure (1)

TYPE OF PLAN	INDEX NO. (NAVSHIPS S9040-AA-IDX-1010)	SCALE - (inch to the foot)
Diagrammatic ventilation	512	Same as outboard profile
Ventilation schedule including fan, motor, control and heating equipment information in tabular form	512	None
Electrical distribution one-line diagram	320	None
Interior communication system block diagram	430	None
Electrical system load and power analysis	300	None
Electrical system fault current analysis	300	None
Damage control display plans	079	Same as outboard profile
Lighting system one-line diagram	330	None
Fire Fighting plans profile	085	Same as outboard
Machinery arrangement plan	201	1/4 inch
Piping Diagrams Main steam diagram	253	1/8 inch Min
Auxiliary steam diagram	534/535	
Air ejector, condensate and feed diagram	255	
Main condensate circulating water diagram	255	
Auxiliary condensate circulating water diagram	524	
Fresh water systems diagram	530	
Sea water systems diagram (Firemain, cooling and flushing	520-526	
Steam, fresh water and contaminated drains diagram	534/535	
Lubricating oil system diagram	540	
Fuel oil system diagram	540	
Fuel oil transfer diagram	540	
Bilge/Ballast drain diagram	529	
Diesel oil service diagram	342	

TYPE OF PLAN	INDEX NO. (NAVSHIPS S9040-AA-IDX-1010)	SCALE - (inch to the foot)
Compressed air system diagram	551	
Sanitary drain system diagram	528	

b. <u>Detail to be Shown on Plans</u>. Selected Record Plans shall include the following information where applicable:

(1) General Arrangement Plans, Outboard Profile and Capacity Plan

Air conditioning units Airports Anchors - outline on outboard profile, outline of stowed spare anchors, deck plans only Anchoring Equipment/Ground Tackle - including windlass an deck hardware Antennas Appendages, major, such as propeller struts and bilge keels Archways in bulkheads Armament (indicate by location mark "+" only), size and type of weapon not to be given Automobile stowage - number and location Auxiliary machinery space - flats and outline of tanks only Awnings - extent of Ballast - extent, type, and heights, together with weight in long tons on deck plans and capacity plan; extent on inboard profile; V.C.G. and L.C.G. on capacity plan Bell - ship's Binnacle - with fixed and movable non-magnetic material circles Bitts Blowers - major outline if not in fan room Boats - length and type, number of persons and whether propelled by engine Booms, Boat Booms, cargo - length and capacity, in plan view and inboard profile, including boom rests Builder, ship (on capacity plan) Bulkheads, all - identify watertight and main vertical zone (MVZ) only Buoyancy apparatus - outline and capacity Bulwarks Capstans Cargo holds, on capacity plan -bale cubic feet volume, V.C.G. and L.C.G. Chain pipes Chocks Cleats Clipping rooms - identification number and use only Cowls, ventilation Compartments, all - identification number and use, together with an outline of all major equipment Berthing - Berths, total number per tier (2-high, 3-high, etc.) and berthing capacity Cold storage - allocation, capacity and temperature range (on capacity plan) Hospital - berths, type of berth and berthing capacity Messing - seats, tables, seating capacity, type of tables equipment, etc. Staterooms - passenger, permanent staff and crew: outline of berths, furniture, equipment, etc., and capacity of each stateroom

Stores - allocation and capacity, outline of shelves, bins, etc. Work area, sponsor - Ident. No. and use, indicate ship's service outlets only, unless area contains major equipment. (winch, cable drums, etc.) Conversion table - showing cubic feet, gallons and barrel equivalents for one long ton of each liquid for which tankage is provided. (capacity plans only) Cranes - type and capacity Davits Deadweight scale (capacity plans only) Debarkation nets Debarkation stations and lifeboat floodlights - location and identification number Deck heights (inboard profile and capacity plan) Deck loading, (pounds per sq. ft.) - all deck hatches and inner bottom (on capacity plan only) Design, ship's (on capacity plan) Diesel oil filling station Dimensions & data -principal items for ship (Capacity Plan and Docking Plan) Doors - location and swing of all doors, type notations at all watertight, weathertight, fumetight, airtight, and fire doors - handwheels for watertight tight doors Drinking fountains Ducts - interior ventilation on plan view, major vertical only **Dumbwaiters** Electrical shore connection Elevators Expansion joints Fair leads Fan - ventilation, major (only if not in fan room) Fire hoses Fire stations - identification number Frame numbers - all plans, each fifth frame Fresh water filling stations Fuel oil filling stations Fueling-at-sea stations Gratings - exterior, walkway, etc Gypsy heads Hatches, cargo and stores -size, type and material of covers (Designate whether hatch covers are quick opening and type) Hawse pipes Helo Plat - indicate lights, landing pattern and deck making Hoist Inflatable lifeboats - number, stowage and capacities Insulation -temperature and sound Ladders - inclined, vertical rungs, accommodation embarkations, debarkation or jacob's Leadsmen platforms Lifeboats and life saving devices -size and capacity, including tabulation on capacity plans Light ship - displacement (on capacity plans) Lights, navigation Locked cargo - bale cubic feet volume Lockers - life preserver, deck gear, line throwing, damage control, etc. Manholes, access and passing scuttles soft patches, bolted plates, etc. - outline and type Manning scale -capacity plans only

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Masts, spars and booms -length and capacity of cargo booms. (Maximum heights of masts from base line on outboard profile only) Midship mark - location from nearest frame on all plans Navigation lights - identification, distance fore/aft and height above uppermost continuous deck Navigation equipment -plan view, major items only Passenger accommodations -military and civilian (tabulated on capacity plans) Plimsoll mark - capacity plan and outboard profile Ports, freeing - plan view and outboard profile. Clear opening on plan view, (width and heiaht) Propellers - outline on outboard profile, outline spare where stowed on deck plans Radar Antenna (outboard profile only) Radio yards and antennas (outboard profile only) Railing - type and extent, number of courses Rudder - outline on outboard and inboard profiles Scuttle, Passing Searchlights - type and size Shrouds and stays - location at deck fittings only, and outboard profile Side ramps, portable -type, material and size. Show stowage on plan view Skylights **Smokepipes** Sounding machine and boom Steam shore connection Stern ramp - clear opening on plan view (width and height) Tanks - on arrangement plans: All access manholes, identification no. and type - on capacity plans: capacity in tons for fuel tanks - 95% full, together with V.C.G. and L.C.G. and tank identification No. and type Transfer at sea stations Trunks - plan view - access and ammunition, centerline trunks on inboard profile Uptakes and casings Ventilators, cowl or other Wildcats Winches - deck, vang and topping Winch controls - outline on plan view and elevation Windlass Windshields Wood deck - extent only

(2) <u>Docking Plan</u>. The docking plan shall include all of the following information:

(a) A profile view of the ship, showing all appendages and their size and locations such as centerline and bilge keels, blisters, bleeder plugs, shaft, shaft struts, propeller and rudder. Diaphragms, shell openings and major transverse bulkheads are to be shown. All openings in shell which are capable of discharging sewage while in drydock shall be so indicated. Profile view also shall include notes in the vicinity of sonar domes, rudder and similar removable appendages, specifying the distance below the bottom of the keel and the clearance required for their removal. In addition, the clearance required beyond the stern reference point for the removal of the shaft shall be required. The rise and location of the bow, the height of the bow and the stern frame and the ship's frame spacing also shall be correctly indicated.

(b) A plan view of the ship showing size, location and extent of centerline keel, bilge keels and other appendages, location of shell openings, major longitudinals, transverse and longitudinal bulkheads. Single and pier type side and centerline blocking, to adequately support the ship while in drydock, shall be shown. Distances from stern reference point to keel block and side block for two docking positions shall be noted.

(c) Transverse sections of the ship showing the contour of the ship and center keel, size and location of bilge keel and side docking blocks.

(d) A table of offsets of bilge keels, longitudinals, longitudinal bulkheads, side and centerline keel blocks, as required.

(e) A list of shell openings and bleeder plugs showing sizes and locations from stern reference point, half breadths and heights above (or below) bottom of keel.

(f) A table of principal dimensions, including displacements and other properties for docking.

(g) A design waterline, forward and aft perpendiculars and all draft marks and plimsoll marks.

(h) A table showing maximum allowable bearings on centerline and side blocks.

(i) Sections as required, to illustrate the transverse blocking arrangement, especially in cases where high blocking is required.

(3) <u>Diagrammatic Ventilation Plan</u>. The below items are to be correctly located and designated on ventilation arrangement plans.

Fans (with CFM)	Dampers
Motors	Terminals
Controls	Terminal deliveries (CFM)
Ducts	Radiators
Louvres	Heaters
Cooling Coils	
Convectors	

In addition, a ventilation schedule shall be given which shall indicate system numbers, compartments served, type, size, CFM, BTU rating, etc., and all pertinent data for all the above equipment.

(4) <u>One-Line Diagram - Electrical Distribution Systems</u>. The one-line diagram shall include, but shall not be restricted to the following items:

(a) Type and size of all generators including motor-generators.

(b) Type and size of all generator cable, bus-tie cables, power and lighting feeder and branch circuit cables.

(c) Power, lighting and I.C. communication panelboards showing number of circuits and rating of all energy consuming devices such as motors, heaters, galley and laundry equipment, electronic and navigation equipment, cable equipment, etc.

(d) Type and capacity of all transformers.

(e) Type and capacity of all storage batteries and associated chargers.

(f) Rating of all circuit breakers and switches indicating interrupting capacity, frame and trip size and fuse size.

(g) Location, type and sizes of all transformers, generators, motor-generators, motors, controllers, ventilation fans, switchboards, group control centers, solid state rectifiers and inverters, panelboards, batteries, galley and laundry equipment, etc., shall be indicated.

(h) All circuit breakers, contactors and relays equipped with shunt or undervoltage trip features or other remote control devices shall be indicated.

(i) Identify all power, lighting and I.C. circuits as to number or symbol.

(j) Cable, circuit breakers, switch and fuse sizes shall be indicated at each circuit.

(5) <u>Fire Control Display Plans</u>. Provide Fire Fighting Plans, prepared in accordance with 46 CFR Subparts 35, 78 and 97, to crew and shore response teams to manage casualty control situations while pier side. Fire Fighting Plans shall be suitable for mounting onboard ship or for binding into a booklet, capable of being stored rolled (per USCG regulations) and standard H size. By using standard-symbols, the following for each deck:

(a) General arrangement plans.

(b) Fire retardant bulkheads.

(c) Manual alarm and fire extinguishing systems and appliances.

(d) Fire doors and means of access to the different compartments.

(e) Ventilation systems including the location of the dampers, location of the remote means of stopping the fans and the identification of the fans serving each section.

(f) Indicate cargo compartments that are "specially suitable for vehicles."

(g) Fire control stations.

(6) <u>Machinery Arrangement Plans</u>. Plans shall show elevation and section views of main and auxiliary machinery boilers and cargo pump rooms. Principal units are to be identified and located. The following items shall be included on the drawings:

All units of propulsion machinery, gears, shafting, and line bearings Boilers, uptakes and air ducts Generators Pumps, motors, heat exchangers, condensers, compressors and starting air receivers Fans and main vent ducts outlined Piping of large sizes such as salt water injection to main and auxiliary condensers and shell connections Throttle valves, valve manifolds and valves 12" and larger Control stations - main gauge board, switchboards, and alarm panels Platforms and ladders Fuel and lube oil purifiers Workshops Machinery stores and spares (if in mach'ry space) Reservations for removals and access Handling equipment such as trolleys, hoists and rails Service tanks such as lube oil, fuel oil, hot water, air, etc.

(7) Electrical System Load and Power Analysis. Plan shall include the following:

Name of equipment Number of units Rated horsepower of equipment Connected KW Shore KW Cruising KW Functional KW Emergency connected KW Load factor (8) Interior Communication (I.C) System Block Diagram and Lighting Systems One-Line Diagram. The diagrams shall be prepared generally in the format of enclosures (4) and (5). The diagrams shall show the ship's I.C. and lighting system completely in diagrammatic format and include information relative to vendor model number, cable sizes, material list, location of hardwares on the ship, reference to technical manual where applicable. It is intended that the I.C. block diagram serve as the key document for the ship's I.C. system from which equipment modifications, maintenance and repair actions can be generated. It is intended that the lighting system One-Line Diagram assist the ship's crew in the maintenance and repair of the ship's lighting system.

(9) Tank Capacity Tables

(a) COMSC shall acquire one set of master tank capacity tables for the design of any new MSC ships. One set of tables shall then be sent to the Area Command having administrative control or to the Contract Operator, as applicable, for each new ship in service. The tables shall be arranged and contain the following information in the order given on one or more sheets:

1. cover sheet containing title block and showing ship, class, and number;

<u>2</u>. index of tanks giving tank number, frame location, contents, and page number(s) of capacity tabulation;

 $\underline{3}$. summary of fuel oil or salt water ballast, diesel oil, fresh water, and other tankage carried;

 $\underline{4}$. table of conversion factors listing cubic feet, gallons, and barrel equivalents for one ton of each liquid carried; and

5. sounding and ullage with tank capacity of all tanks.

(b) The tables shall be typed and supplied on 8 1/2" x 11" pages (drawing size "A" or "B"). The smaller pages may be combined on a single sheet to facilitate filing. Each separate page shall have 1/4" margin on three sides and a 1" margin on the left or top side for binding into a booklet. Combined pages may eliminate the 1" border separating the tables. Pages may have printed lines to block out even feet of soundings. Pages shall be headed with the tank name and number, frame location and tank contents. Fuel oil, diesel oil and lube oil shall be given in gallons and barrels. Fresh water and salt water shall be given in gallons and tons. Soundings and corresponding ullages shall be listed at 3" increments, the sounding column to the left and the ullage column toward the right of each page. Each page shall be divided into three vertical areas indicating tankage

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at even trim, 3 foot trim aft and 6 foot trim aft. The bottom of the last page for each tank shall indicate:

	<u>1</u> . Lowest point of tank above molded base line =		
	<u>2</u> . Ht. of zero sounding above lowest point of tank =		
	<u>3</u> . Sounding plate located on deck, side, frame		
plate =	<u>4</u> . Total length of sounding tube from zero sounding to top of sounding and		

5. A small scale plan view of the tank showing its relation to centerline of ship, frame numbers and location of sounding tube.

(10) Piping Systems Diagrams

(a) The major components of the systems shall be depicted on deck plans and/or profile views in their approximate locations in relation to the ship and associated components. These diagrams shall show, when significant, flow rate, temperature, pressure and all devices which measure, control or modify the flow. Pumps, heat exchangers, valves, gages, etc. shall be clearly identified. Fluid symbols shall be in accordance with ANSI standards. The diagrams shall contain a pump/compressor etc. data table indicating the service, capacity and pressure of each pump within the system. The diagrams shall use symbols in accordance with ANSI standards and contain a table showing the symbol for the components within the diagram. Notes describing special features of components, and their identification, which are unique to the system operation shall be included.

(b) The diagrams shall be drawn on standard size drafting sheets with drawing numbers assigned. They shall be drawn with sufficient density and clarity that reduce copies eleven inches high may be used in the Engineer's Operating Manual/Ships Information Book. Identification and title of piping installation drawings shall be included in the list of references.

(11) <u>Damage Control Display Plans</u>. Provide Damage Control (DC) Display Plans to assist DC personnel in casualty control operations. Laminate the DC display plans on both sides with clear plastic, capable of being mounted in DC Central, Secondary DC Central and, if space permits, the DC Lockers. Furnish the front sheet with a matte surface that will permit writing thereon with black or colored grease pencils. The drawing shall have a light gray or flat, non-reflecting white background with black lines

and figures or appropriate color coding. By using standard symbols, show on the DC display plans the following information:

(a) A damage control zone chart (ships subdivision) in color isometric (2D) vies, size to be determined on a ship-by-ship basis (preferably one H size drawing), detailing the following information:

- <u>1</u>. General arrangement plans for each deck.
- 2. Each compartment labeled by name and number.
- <u>3</u>. Water/smoke tight zones (shaded) of the ship.
- <u>4</u>. Means and access to compartments and other deck.
- 5. Watertight closures and fittings.
- <u>6</u>. Location of sound powered phone connections.

(b) For new construction ships, show damage control systems drawings in color isometric (2D) view, size F (28" by 40") and overlaid on the ship's isometric subdivision drawing, for the following systems:

<u>1</u>. <u>Firemain and Fire Fighting System</u>. Detail the layout of the firemain system, the connections to the AFFF, sprinkling and wash down system, location of control panels and valves and the areas, indicated by color shading, protected by AFFF and Fixed Gas extinguishing systems. Provide separate colors for each system.

<u>2</u>. <u>Ventilation System - Supply and Recirculation</u>. Detail the layout of the supply and recirculation ducting. Provide separate colors for each system.

<u>3</u>. <u>Ventilation System - Exhaust</u>. Detail the layout of the exhaust ducting.

<u>4</u>. <u>Fuel Oil Fill, Transfer and Service System</u>. Detail the layout of the fuel oil fill, transfer and service system. Provide separate colors for each system.

5. <u>Bilge and Ballast System</u>. Detail the layout of the Bilge and Ballast system.

<u>6</u>. <u>Cargo Oil Fill and Transfer System (if applicable</u>). Detail the layout of the cargo oil fill and transfer system. Provide separate colors for each system.

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(c) For existing ships, the DC system drawings format shall be determined on a case-by-case basis. Drawings shall be size F (28" by 40") and consist of, at minimum, the systems listed above.

3. Maintenance

a. <u>Selected Record Plans and Tank Capacity Tables</u>. The activity retaining the master set of selected Record Plans for a specific ship is responsible for maintaining those drawings to reflect the current configuration of the ship. When modifications, alterations or the normal review process necessitate changes to the drawings, the required revisions shall be changes to the drawings, the required revisions shall be accomplished as expeditiously as possible. The Area Commander or Contract Operator, upon receipt of Selected Record Plans and Tank Capacity Tables, shall shipcheck these plans and tables for conformance with actual installations aboard the particular ship to which they apply. The Area Commander shall subsequently be responsible for maintaining these plans and tables.

(1) <u>Selected Record Plans</u>. Drawings shall be revised to suit all changes required by the shipcheck. Revisions shall be made similar to the original in format and content, and in such a manner that good reproductions can be made. Plan corrections shall be recorded in the revision column. Plans verified without changes shall also certify in the revision column that the plan has been shipchecked.

(2) <u>Tank Capacity Tables</u>. Tables shall be checked for total capacity, total length of sounding tubes, location of sounding tubes, number of tanks, tank locations and all other data given in the tables. Corrections shall be neatly printed or typed to match the style used on the original. New sheets shall be developed where extensive changes are necessary.

b. <u>Trim and Stability Booklets</u>. MSCENTACT Technical Division shall have sole responsibility to maintain the Trim and Stability Booklets. Ship alterations or conversions affecting ballast, compartment volumes, centers-of-gravity or Light Ship displacement requiring changes in the Trim and Stability Booklet shall be recorded in the revision column. The revised booklet shall then be submitted to the U.S. Coast Guard for approval, if required.

c. <u>List of Selected Record Plans</u>. Administrative Area Commanders shall notify MSCCENTACT Technical Division, annually on the status of all Selected Record Plans under their cognizance by providing the following information:

(1) ship I.D.

(2) drawing number and revision

(3) revision date

(4) estimated completion date of next revision

4. Active Mimic Diagrams Displayed on Engine Room Consoles

a. Mimic diagrams are used on the T-A0187, T-AGS39 and T-AG0S19 class vessels as posted hard board or CRT display and monitoring in the engine room spaces. The diagrams involve the use of computer soft and hardware to correct CRT display information relating to piping, valve positions, tank levels and other machinery related functions.

b. When changes are to be made to the involved systems, the proper transalt request must be submitted in accordance with reference (a) and should include the changes that will have to be made to the mimic panels. A sample of the diagrams are as follows:

Main Engine Injector Cooling Water System

" Lube Oil System
" Rocker Lube Oil System
" Jacket Water Cooling System
Fuel Oil Transfer System
Center Fresh Water Cooling System
Auxiliary Steam & Condensate System
Cargo/Ballast System

c. Ample scheduling (six months) time should be allotted for correction of the diagrams and replacement of the software and/or printed circuit boards by the manufactures and revision of the instruction manuals. Reservations for manufactures technical representatives and procurement of software/circuit boards should be on a ship class basis. This will preclude maintaining different sets of boards and would result in lower cost and available boards.

d. Selected Record Diagrams which are mimicked on control consoles are to be annotated "MODIFICATION TO SYSTEMS REQUIRING REVISION TO THIS DRAWING SHALL BE ACCOMPANIED BY REVISION TO APPROPRIATE DIAGRAM ON CONTROL CONSOLE MIMIC SOFTWARE/HARDWARE.

5. Distribution

a. <u>General</u>. Plans and booklets shall be reproduced and distributed by the organization responsible for their maintenance after certification and approval.

(1) <u>Folding of Copies</u>. Before distribution, all copies, except booklets, tables and reproducibles, shall be folded accordion fashion with the title facing out. Folded size shall not exceed 15" x 9." Reproducibles shall be forwarded rolled or flat for A & B size drawings.

(2) <u>Distribution of Plans</u>. Distribution of Plans shall be as follows:

#NEW PLANS OR REVISED/CERTIFIED PLANS

TYPE OF BOOKLETS OR INSTRUCTIONS	SHIP (PRINTS)	ALL AREA COMMANDERS, SUBAREA COMMANDERS AND CONTRACT OPERATORS	MSCCENTACT TECH, DIV. OFFICE
Selected Record Plans	2	1	1
Tank Capacity Tables	2	1	1
Trim and Stability Booklets	1	1	1

Master drawings to MSC contracting officer or alternate address designated.

b. Area Commanders shall make distribution of reproducible copies, prints and/or aperture cards to MSCCENTACT, Subarea Commanders and the ship, as appropriate upon completion of any SRPs revision action. MSCCENTACT has similar responsibility for revision and distribution of SRPs for USNS contract-operated ships.

c. The ships force and Contract Operators shall return a "marked" copy or sketch to the cognizant office responsible for maintenance of SRPs indicating modifications or discrepancies.

d. <u>Change of Administrative Control</u>. When the administrative control of a ship is transferred, the former Area Commanders shall transfer to the new Area Commanders all master drawings of Selected Record Plans, Tank Capacity Tables and Booklet of General Plans, by certified or registered mail.

e. <u>Change of Contract Operators</u>. When a ship is transferred, the former Contract Operators shall transfer to the new Contract Operators all drawings and prints by certified or registered mail.

f. <u>Transfer of Fleet Support Ships</u>. When fleet support ships are transferred to MSC, the Ships' Planning Yard shall be requested to transfer originals/reproducibles of all drawings. Originals Selected Record Drawings will be the minimum accepted.

g. <u>Inactivation</u>. When a ship is inactivated or otherwise removed from MSC cognizance, the Area Commanders or Contract Operators shall forward by certified or

registered mail, master drawings of all Selected Record Plans, Booklet of General Plans and Tank Capacity Tables to:

COMMANDING OFFICER MILITARY SEALIFT COMMAND CENTRAL TECHNICAL ACTIVITY (N74) 901 M STREET SE WASHINGTON DC 20398-5541

h. <u>Reactivation</u>. When a ship is reactivated, COMSC shall forward to the cognizant Area Commanders or Contract Operators all drawings of Selected Record Plans and Tank Capacity Tables.

i. <u>Disposition of Ship Plans</u>. Drawings in the ship's blue print file shall not be removed under any circumstances. When a ship is inactivated all drawings, booklets and operating instructions shall be stowed in a secured compartment.