



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

IN REPLY REFER TO

OPNAVINST 3501.197B
N422
3 April 1998

OPNAV INSTRUCTION 3501.197B

From: Chief of Naval Operations

Subj: REQUIRED OPERATIONAL CAPABILITIES (ROC) AND PROJECTED
OPERATIONAL ENVIRONMENT (POE) FOR THE T-AOT OCEAN TRANSPORT
TANKER

Ref: (a) OPNAVINST C3501.2J

Encl: (1) Projected Operational Environment for the T-AOT
(2) Required Operational Capabilities for the T-AOT

1. Purpose. To issue the Required Operational Capabilities (ROC) and Projected Operational Environment (POE) for the T-AOT. This instruction is a substantial revision and must be completely reviewed.

2. Cancellation. OPNAVINST 3501.197A.

3. Summary of changes:

- a. Updated per reference (a)
- b. Added ROC's: C2W4, MOB 7.15, NCO 3.5, STS 4.1
- c. Deleted ROC's: CCC 6.4, CCC 7
- d. Changed: ASU 4.1, ASU 4.4, ASU 4.7, MOB 1, MOB 3.2, NCO 3.2, NCO 11.2, NCO 11.3, STS 2.5

4. Discussion. Enclosures (1) and (2) define the ROC and POE for the T-AOT per reference (a). The T-AOT ships comprise both commercially-owned and -operated ships chartered by the U.S. Government, and Government-owned ships operated by civilian crews, all under the administrative control of the Commander, Military Sealift Command (COMSC). The following guidelines apply to the format and interpretation of the ROC/POE:

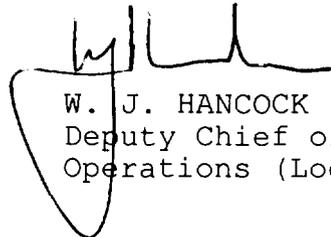
a. There is a wide variety of design configurations among the T-AOTs. This instruction applies generically to all configurations. There is no requirement for specific ROCs and POEs tailored to each configuration.

b. As commercial ships, the T-AOT class ships are civilian manned in accordance with regulatory requirements, and time charters or operating contracts. The conditions and reporting

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symbols in this instruction are to be interpreted as defining the level of functional capability to be achieved, but will not determine manning levels for these vessels.

5. Action. Fleet Commanders in Chief, Commander in Chief, U.S. Transportation Command and COMSC are requested to periodically review enclosures (1) and (2), and to recommend changes to the Chief of Naval Operations, (Attn: N42).


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OPNAV (N122H, N3/N5, N311ND, N4, N40, N42 (25), N8, N80, N85, N86)
Maritime Administration
Commander in Chief, U.S. Transportation Command

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**PROJECTED OPERATIONAL ENVIRONMENT FOR
THE T-AOT OCEAN TRANSPORT TANKER**

1. At sea in wartime.
2. Capable of loading, transporting, preserving and storing on-station bulk petroleum products.
3. Capable of conducting Maritime Prepositioning Force (MPF) and Assault Follow-On Echelon (AFOE) operations, including cargo discharge either in the stream using the Offshore Petroleum Discharge System (OPDS), or at a pier.
4. Capable of getting underway on 24 hour notice after normal protracted periods on station, at anchor, or alongside a pier (prepositioning ships only).

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**REQUIRED OPERATIONAL CAPABILITIES (ROC) FOR
THE T-AOT OCEAN TRANSPORT TANKER**

1. The T-AOT mission is to provide transportation and storage of bulk petroleum products. The mission requires each ship to be capable of conducting Maritime Prepositioning Force (MPF) operations from in stream, pierside, afloat prepositioning and point-to-point ocean transport. All ships are capable of consolidation while alongside. Those ships that are part of the Merchant Ship Naval Augmentation Program (MSNAP) have added underway replenishment mission capabilities for alongside delivery of fuel. Accordingly, the following primary and secondary mission areas are assigned:

T-AOT						
ASU	CCC	FSO	LOG	MOB	NCO	STS
S	S	S	P	P	S	P

2. Required Operational Capabilities (ROCs) are reported under readiness conditions having major significance in determining the unit's total manpower requirements. The following summarizes conditions covered:

Condition III. Wartime/Increased Tension/Deployed Cruising Readiness

Systems are manned to a level sufficient to counter possible threats. While in Condition III, the ship shall be capable of meeting the following criteria: able to keep installed systems manned and operating as necessary to conform with prescribed ROCs; able to accomplish all normal underway maintenance, support and administrative functions.

Condition IV. Peacetime Cruising Readiness

While in Condition IV, the ship shall be capable of meeting the following criteria: able to keep installed systems manned and operating to the extent necessary for safe and effective ship control, propulsion, and security; able to accomplish all normal underway maintenance, support and administrative functions. Maximum advantage is taken of training opportunities.

Condition V. Inport Readiness

Designated inport maintenance and training period. While in Condition V, the ship shall be capable of meeting the following criteria: able to keep installed systems manned and operating

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to the extent necessary for effective operation as dictated by the existing situation; able to man watchstations as required to provide adequate security; able at all times to meet anticipated inport emergencies and to perform inport functions as prescribed by unit ROCs; able to accomplish all required maintenance, support and administrative functions. Maximum advantage is taken of training opportunities.

3. ROC symbols are used to specify the desired level of achievement of readiness or other work for or during a particular readiness condition. Readiness normally applies to watches and/or evolutions, while other work refers to non-watch activity such as performing maintenance or running the galley.

CAPABILITIES

"F" = "Full" The capability is to be fully achieved. For operational functions (watches), this means that installed equipment or systems will be fully manned to design capability. The achievement is to be sustained for the duration of the condition unless modified by an "A" or "E".

"L" = "Limited" The capability is to be only partially realized. Even though only limited capability is realized, it is to be sustained for the duration of the condition unless modified by an "A" or "E". Every "L" must be supported by a limiting statement specifying the limitation.

MODIFIERS

"A" = "Augmentation" The capability is to be either fully or partially achieved for a limited time during the condition.

The capability is achieved by using off-watch personnel and is always associated with an "F" or "L".

"E" = "Special Team" The capability is to be either fully or partially achieved for a limited time during the condition.

The capability is achieved by using off-watch special teams or details. This symbol is always associated with an "F" or "L" and denotes a capability which does not require continuous watch manning.

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Modifier	CAPABILITY	
	FULL	LIMITED
None →	Manned to design capacity for duration of condition	Manned to less than designed capacity for duration of condition
A →	Temporarily manned to design capacity using off-watch personnel	Temporarily manned to less than design capacity using off-watch personnel
E →	Temporarily manned to design capacity using a special team	Temporarily manned to less than design capacity using a special team

Staff/External Personnel Resources. Normally, using an "A" or an "E" requires no embellishing statement as their meanings are predefined. However, in some cases, the meaning may not be clear as to whether the augmentation should be provided by staff personnel or the external resource.

This ROC/POE instruction shows:

- If the resource is ship's company, no elaboration or statement is provided.
- If the resource is external for "F", a Note is added to the ROC stating the resource.
- If the resource is external for "L", the resource is added to the limiting statement.

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REQUIRED OPERATIONAL CAPABILITIES

		III	IV	V/IP
ANTI-SURFACE SHIP WARFARE (ASU) .				
ASU 4	DETECT, IDENTIFY, LOCALIZE, AND TRACK SURFACE SHIP TARGETS.			
ASU 4.1	Detect, localize, and track surface contacts with radar.	F	F	-
ASU 4.4	Detect, identify, classify and track surface contacts visually.	F	F	-
ASU 4.7	Identify surface contacts.	F	F	-
ASU 6 DISENGAGE, EVADE, AND AVOID SURFACE ATTACK.				
ASU 6.2	Employ evasion techniques.	F	F	-
ASU 6.3	Employ EMCON procedures.	F	F	F
COMMAND AND CONTROL AND COMMUNICATIONS (CCC) .				
CCC 3	PROVIDE OWN UNIT'S COMMAND AND CONTROL FUNCTIONS.			
CCC 3.3	Provide all necessary personnel services, programs, and facilities to safeguard classified material and information. L- Limited classified document storage facilities and civilian crew training.	L	L	L
CCC 3.4	Carry out emergency destruction of classified material and equipment rapidly and efficiently. L - Limited availability of destruction equipment.	L	L	L
CCC 6	PROVIDE COMMUNICATIONS FOR OWN UNIT.			
CCC 6.1	Maintain tactical voice communications.	F	F	F
CCC 6.2	Maintain visual communications. L - Limited capability of civilian crew.	L	L	-
CCC 6.6	Process messages. L - Limited equipment availability.	L	L	L
CCC 6.12	Maintain internal communications systems.	F	F	F
CCC 6.19	Provide tactical, secure voice or data communications. L - Minimum of INMARSAT STU-III.	L	L	L

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REQUIRED OPERATIONAL CAPABILITIES (continued)

C2W4	IMPLEMENT OPERATIONS SECURITY (OPSEC) MEASURES AND CONDUCT MILITARY DECEPTION ACTIONS.			
C2W4 4.11	Plan, coordinate and control implementation of OPSEC measures.	F	F	F
C2W4 4.12	Execute OPSEC measures.	F	F	F
FLEET SUPPORT OPERATIONS (FSO) .				
FSO 6	SUPPORT/CONDUCT SEARCH AND RESCUE OPERATIONS IN A COMBAT/NON-COMBAT ENVIRONMENT.			
FSO 6.2	Conduct combat/non-combat SAR operations by surface ships. L - Limited capability of civilian crew.	L	L	-
FSO 6.4	Recover man overboard. F/E - Special detail required for hoisting/lowering lifeboats.	F/E	F/E	F/E
FSO 6.7	Conduct general surveillance. L - Limited capability of civilian crew.	L	L	-
FSO 9	PROVIDE MEDICAL CARE TO ASSIGNED AND EMBARKED PERSONNEL.			
FSO 9.10	Conduct on-site emergency medical treatment during hazardous evolutions including flight quarters, underway replenishment/refueling, and amphibious assault boat operations. L - Limited medical treatment capabilities. No dedicated doctor/corpsman/nurse normally onboard.	L	L	L
FSO 10	PROVIDE FIRST AID ASSISTANCE.			
FSO 10.1	Identify, equip, and maintain appropriate first aid spaces.	F	F	F
FSO 10.2	Train assigned personnel in first aid, self aid, and buddy aid procedures.	F	F	F
FSO 10.3	Train stretcher bearers.	F	F	F
FSO 20	PROVIDE FLEET TRAINING SERVICES.			
FSO 20.6	Act as the delivery or receiving ship for underway replenishment training. L - MFDS ships only.	L	L	-
LOGISTICS (LOG) .				
LOG-1	CONDUCT UNDERWAY REPLENISHMENT.			
LOG 1.7	Transfer DFM underway by Alongside/Astern method. L/E - Capable of delivery by Astern refueling only. Special replenishment detail required.	L/E	L/E	-

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REQUIRED OPERATIONAL CAPABILITIES (continued)

LOG 1.8	Transfer Diesel Fuel Marine (DFM) underway by STREAM. L/E - MFDS ships only. Special replenishment detail required.	L/E	L/E	-
LOG 1.10	Transfer jet fuel underway by STREAM. L/E - MFDS ships only. Special replenishment detail required.	L/E	L/E	-
LOG 2	TRANSFER/RECEIVE CARGO AND PERSONNEL.			
LOG 2.2	Provide facilities and personnel for material, mail and passenger handling.	F	F	F
LOG 2.5	Transfer personnel and light freight by highline. L - MFDS ships only. Special detail required.	L	L	-
LOG 3	PROVIDE SEALIFT FOR CARGO AND PERSONNEL.			
LOG 3.2	Provide small boat services for transfer of personnel, cargo, weapons, provisions and supplies. L - Lifeboat only.	L	L	L
LOG 4	SUPPORT SHIPS AND AIRCRAFT IN SUPPLIES, ORDNANCE AND OTHER SERVICES.			
LOG 4.1	Provide fuel and lubricating oil to another unit. L - MFDS ships only.	L	L	L
MOBILITY (MOB) .				
MOB 1	OPERATE SHIP'S PROPULSION PLANT TO DESIGNED CAPABILITY.			
MOB 1.1	Operate ship's propulsion plant at full power.	F	F	-
MOB 1.7	Transit at high speed.	F	F	-
MOB 1.11	Operate employing diesel engines. L - Motor vessels only.	L	L	-
MOB 3	PREVENT AND CONTROL DAMAGE.			
MOB 3.1	Control fire, flooding, electrical, structural, propulsion, and hull/airframe casualties.	F	F	F
MOB 3.2	Counter and control CBR contaminants/agents. A - When augmented by off-watch personnel.	F/A	F/A	F/A
MOB 3.3	Maintain security against unfriendly acts. L - 72 Hour maximum unassisted.	L	L	L
MOB 3.5	Provide damage control security/surveillance.	F	F	F

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REQUIRED OPERATIONAL CAPABILITIES (continued)

MOB 3.8	Provide emergency breathing devices per ship's allowance.	F	F	F
MOB 7	PERFORM SEAMANSHIP, AIRMANSHIP, AND NAVIGATION TASKS.			
MOB 7.1	Navigate under all conditions of geographic location, weather, and visibility.	F	F	-
MOB 7.2	Conduct precision anchoring.	F	F	-
MOB 7.3	Get underway, moor, anchor and sortie with duty section in a safe manner.	F	F	-
MOB 7.6	Abandon/scuttle ship rapidly.	F	F	F
MOB 7.7	Provide life boat/raft capacity in accordance with unit's allowance.	F	F	F
MOB 7.8	Tow or be towed (towing engine not required). E - Special detail required to tow or be towed.	F/E	F/E	-
MOB 7.9	Operate day and night and under all weather conditions.	F	F	-
MOB 7.14	Moor alongside Amphibious Task Force (ATF) shipping or docks. L - Pier/docks only.	L	L	L
MOB 7.15	Operate in a chemically contaminated environment. L - Civilian crew possesses limited equipment and training.	L	L	L
MOB 10	REPLENISH AT SEA.			
MOB 10.2	Receive fuel while underway (alongside method). L/E - MFDS ships only. Special replenishment detail required.	L/E	L/E	-
MOB 12	MAINTAIN THE HEALTH AND WELL-BEING OF THE CREW.			
MOB 12.1	Ensure all phases of food service operations are conducted consistent with approved sanitary procedures and standards.	F	F	F
MOB 12.2	Ensure the operation of the potable water system in a manner consistent with approved sanitary procedures and standards.	F	F	F
MOB 12.3	Monitor and/or maintain the environment to ensure the protection of personnel from overexposure to hazardous levels of radiation, temperature, noise, vibration, and toxic substances per current instructions.	F	F	F

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REQUIRED OPERATIONAL CAPABILITIES (continued)

MOB 12.5	Monitor the health and well being of the crew to ensure that habitability is consistent with approved habitability procedures and standards.	F	F	F
MOB 12.6	Ensure the operation and maintenance of all phases of shipboard environmental protection systems do not create a health hazard and are consistent with other naval directives pertaining to the prevention of pollution of the environment.	F	F	F
NONCOMBAT OPERATIONS (NCO) .				
NCO 2	PROVIDE ADMINISTRATIVE AND SUPPLY SUPPORT FOR OWN UNIT.			
NCO 2.1	Provide supply support services.	F	F	F
NCO 2.5	Provide messing facilities.	F	F	F
NCO 2.6	Provide ship service facilities.	F	F	F
NCO 2.11	Provide personnel for fuel support.	F	F	F
NCO 3	PROVIDE UPKEEP AND MAINTENANCE OF OWN UNIT.			
NCO 3.1	Provide organizational level preventive maintenance.	F	F	F
NCO 3.2	Provide organizational level corrective maintenance. L - Ship's operators/crew responsible for ship's upkeep and maintenance.	L	L	L
NCO 3.5	Provide for proper storage, handling, use, and transfer of hazardous materials.	F	F	F
NCO 10	PROVIDE EMERGENCY/DISASTER ASSISTANCE.			
NCO 10.1	Provide emergency flooding/fire fighting assistance to another unit. E - Special detail assigned.	F/E	F/E	F/E
NCO 10.4	Provide disaster assistance and evacuation. E - Special detail assigned.	F/E	F/E	F/E
NCO 11	SUPPORT/PROVIDE FOR THE EVACUATION OF NONCOMBATANT PERSONNEL IN AREAS OF CIVIL OR INTERNATIONAL CRISIS.			
NCO 11.1	Support/conduct helicopter/boat evacuation of noncombatant personnel as directed by higher authority from areas of civil or international crisis. L - Boat evacuation only.	L	L	L
NCO 11.2	Provide for embarkation, identification, and processing of evacuees. L - Limited facilities and crew.	L	L	L

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REQUIRED OPERATIONAL CAPABILITIES (continued)

NCO 11.3	Provide care, feeding, and berthing of evacuees. L - Total personnel allowed aboard as per U.S. Coast Guard Certificate of Inspection (COI).	L	L	L
NCO 11.4	Provide transportation for evacuees to designated safe havens or onward processing centers.	F	F	F
NCO 25	CONDUCT MARINE ENVIRONMENTAL PROTECTION.			
NCO 25.1	Detect oil or hazardous chemical spill.	F	F	F
NCO 25.2	Report spills to proper authority.	F	F	F
NCO 25.3	Conduct pollution abatement operations.	F	F	F
STRATEGIC SEALIFT (STS).				
STS 2	LOAD, DISCHARGE AND TRANSPORT PETROLEUM, OIL AND LUBRICANTS (POL).			
STS 2.1	Provide liquid cargo tanks and piping systems suitable for carriage of POL.	F	F	F
STS 2.2	Provide cargo systems with segregation necessary to carry multiple products.	F	F	F
STS 2.3	Maintain ships cargo tanks suitably coated to carry clean POL products.	F	F	F
STS 2.4	Use ship's pumps to discharge POL.	F	F	F
STS 2.5	Use ship's underway replenishment (UNREP) receiving gear to consolidate to another vessel underway. L - MFDS ships only. Special detail required.	L	L	-
STS 2.6	Transport, deploy and retrieve the Offshore Petroleum Discharge System (OPDS). L/E - OPDS tankers only. Special detail required. Requires assist craft and crews from non-organic sources.	L/E	L/E	L/E
STS 2.7	Use ship's installed high pressure boost pumps to discharge cargo fuel to shore through an OPDS. L - OPDS tankers only.	L	L	L
STS 2.8	Provide and deploy appropriate fendering for skin to skin consol operations. L/E - OPDS tankers only. Special detail required.	L/E	L/E	L/E
STS 4	PREPOSITION CARGO.			
STS 4.1	Maintain cargo space, including appropriate environmental control, for prepositioned cargo. L - Prepositioned ships only.	L	L	L