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OPNAVINST 3501.177B
N42
13 Feb 2015

OPNAV INSTRUCTION 3501.177B

Subj: REQUIRED OPERATIONAL CAPABILITIES AND PROJECTED
OPERATIONAL ENVIRONMENT FOR POWHATAN (T-ATF 166)
CLASS FLEET OCEAN TUG

Ref: (a) OPNAVINST C3501.2K
(b) NTRP 1-03.5

Encl: (1) Projected Operational Environment (POE) for
POWHATAN (T-ATF 166) Class Fleet Ocean Tug
(2) Required Operational Capabilities (ROC) for
POWHATAN (T-ATF 166) Class Fleet Ocean Tug

1. Purpose. To issue the required operational capabilities (ROC) and the projected operational environment (POE) for the POWHATAN (T-ATF 166) Class Fleet Ocean Tug. This instruction is a complete revision and should be reviewed in its entirety. Significant changes include incorporating Electronic Warfare (EW), Force Health Protection (FHP) and Information Operations (IO) as separate mission areas.

2. Cancellation. OPNAVINST 3501.177A.

3. Discussion. Enclosures (1) and (2) provide the necessary details to describe the mission areas and operational capabilities for which the POWHATAN Class Fleet Ocean Tug was designed and organized as required by reference (a). This instruction provides resourcing agencies with the information they need concerning T-ATF 166 Class mission requirements, capabilities, and the types and locations of expected operations. Enclosure (2) should be utilized in determining ROC within each primary and secondary mission area. Primary mission area readiness ratings (M-Ratings) should be reported utilizing the Defense Readiness Reporting System-Navy (DRRS-N) per reference (b).

4. Action. Fleet commanders shall periodically review enclosures (1) and (2) and submit changes to the Director, Strategic Mobility and Combat Logistics (Attn: N42) when

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capability of the POWHATAN (T-ATF 166) Class Fleet Ocean Tug is significantly altered. Change recommendations should include comments on the expected Activity Manning Document (AMD) impact.

5. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per Secretary of the Navy Manual 5210.1 of January 2012.

A handwritten signature in black ink, appearing to read "P. H. Cullom". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

P. H. CULLOM
Vice Admiral, U.S. Navy
Deputy Chief of Naval Operations
(Fleet Readiness and Logistics)

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PROJECTED OPERATIONAL ENVIRONMENT (POE)
FOR
POWHATAN (T-ATF 166) CLASS FLEET OCEAN TUG

1. The POWHATAN (T-ATF 166) Class Fleet Ocean Tug's primary mission is to support worldwide advanced force operations. The ship will be employed to tow battle damaged ships to safe havens, support salvage and diving operations, and perform open ocean oil spill pollution abatement operations.
2. The most demanding operating environment anticipated for the T-ATF 166 is operations at sea in wartime in cooperation with designated joint/allied forces, including operations involving land and sea-based aviation.
3. Peacetime forward operations in littoral areas are equally demanding. These operations are frequently characterized by confined and congested water and air space occupied by friends, adversaries, and neutrals - making identification and coordination profoundly difficult. In this environment, adversaries can concentrate and layer their defenses. In an era when some third world countries possess sophisticated weaponry, surprise attack by submarines, coastal missiles, mines, sea-skimming cruise missiles and theater ballistic missiles must be anticipated. In the myriad variations of this littoral conflict environment, a substantial percentage of operations are expected to be performed in joint/allied scenarios.
4. The ship is capable of performing all assigned primary mission areas simultaneously while maintaining Readiness Condition I (Battle Readiness), IIS (Combat Salvage), III, (Wartime, Forward Deployment Cruising Readiness), IV (Peacetime Cruising Readiness) or V (Inport Readiness).
5. T-ATF 166 Class is capable of performing towing, salvage, diving, sub-rescue support, oil spill, and rescue and assistance at sea. Repairs can be performed if augmented with material, equipment, and personnel.
6. T-ATF 166 Class is capable of performing all maintenance for which ship's company is assigned responsibility.
7. T-ATF 166 Class is capable of providing firefighting assistance to other ships.

REQUIRED OPERATIONAL CAPABILITIES (ROC)
 FOR
 POWHATAN (T-ATF 166) CLASS FLEET OCEAN TUG

1. The T-ATF 166 Class ship's mission is to provide towing, salvage, diving and rescue services to the fleet at sea. Accordingly, the following primary (P) and secondary (S) warfare mission areas are assigned:

T-ATF 166									
CCC	EW	FHP	FSO	INT	IO	MOB	MOS	NCO	SUW
P	S	S	S	S	S	P	S	S	S

<u>CCC</u> :	Command, Control, and Communications	<u>IO</u> :	Information Operations
<u>EW</u> :	Electronic Warfare	<u>MOB</u> :	Mobility
<u>FHP</u> :	Force Health Protection	<u>MOS</u> :	Missions of State
<u>FSO</u> :	Fleet Support Operations	<u>NCO</u> :	Non-Combat Operations
<u>INT</u> :	Intelligence Operations	<u>SUW</u> :	Surface Warfare

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

a. Condition I: Battle Readiness. While in Condition I the ship shall be capable of meeting the following criteria: able to keep all installed systems manned and operating for maximum effectiveness; and required to accomplish only minimal maintenance - that routinely associated with watch standing and urgent repairs. The maximum expected continuous crew endurance for Condition I is 24 hours.

b. Condition IIS: Combat Salvage. Condition IIS is a special readiness condition applicable only to salvage and rescue ships. This is the highest state of salvage readiness in which enemy forces are present, imminent or a probable threat. Condition IIS is set for sustained diving, salvage, debatching, and/or emergency towing operations. The MSC crew and embarked Mobile Diving and Salvage Unit (MDSU) or Explosive Ordnance Detachment (EOD) are in two-section watches with an opportunity for 4 to 6 hours of rest per day. The ship is limited by crew endurance to 72 consecutive hours of salvage operations followed

by 48 hours of Condition III operations to refuel, and to perform maintenance and urgent repairs. Only mission-essential urgent repairs are expected to be performed during Condition IIS.

c. Condition III: Wartime/Increased Tension/Forward Deployed Cruising Readiness. 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; and able to accomplish all normal underway maintenance, support and administrative functions. The minimum expected crew endurance for Condition III is 60 consecutive days, with opportunity for eight hours of rest provided per crew member per day.

d. 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 only to the extent necessary for safe and effective ship control, propulsion and security; and able to accomplish all normal underway maintenance, support and administrative functions. Maximum advantage is taken of training opportunities. Expected endurance is not constrained by personnel. Able to immediately change readiness posture to Condition I, IIS, or III is expected.

e. Condition V: In-Port Readiness. Designated in-port 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 to the extent necessary for effective operation as dictated by the existing situation; Able to man watch stations as required to provide adequate security; Able to meet anticipated in-port emergencies and to perform in-port functions as prescribed by unit ROCs; and able to accomplish all required maintenance, support, and administrative functions. Maximum advantage is taken of training opportunities. Subject to the foregoing requirements, the crew should be provided maximum opportunity for rest, leave and liberty.

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.

a. CAPABILITIES

(1) "F"="Full." The capability is to be fully achieved. For operational functions (watches), this means that installed equipment or systems shall be fully manned to design capability. For support functions, sufficient manning is provided to ensure effective accomplishment of all included tasks. The achievement is to be sustained for the duration of the condition unless modified by an "A" or "E."

(2) "L"="Limited." The capability is to be only partially realized. (Note: "P" for "Partial" is no longer a symbol). 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.

b. MODIFIERS

(1) "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 or off-duty personnel including teams and details to achieve the required degree of capability. This symbol is always associated with an "F" or "L" and establishes a requirement for personnel to be trained, available and on call to augment existing watch stations as required.

(2) "E"="Special Teams." 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 that does not require continuous watch manning. Teams and details as set may either supplement or replace all or part of the existing watch organization. Man overboard and replenishment details are two examples.

(3) Ship's Company and External Personnel Resources. Normally using an "A" or an "E" requires no amplifying statement

as their meanings are predefined. However, in the case of the T-ATF 166 as well as other classes that routinely embark external resources, the meaning may not be clear as to whether the augmentation should be provided by ship's company or an external resource.

MODIFIER	CAPABILITY	
	FULL	LIMITED
None	Manned to design capacity for duration of condition	Manned to less than design 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

4. This ROC/POE instruction shows:

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

REQUIRED OPERATIONAL CAPABILITIES

T-ATF 166 CLASS		I	IIS	III	IV	V
COMMAND, CONTROL AND COMMUNICATIONS (CCC)						
CCC 2 COORDINATE AND CONTROL THE OPERATIONS OF THE TASK ORGANIZATION OR FUNCTIONAL FORCE TO CARRY OUT ASSIGNED MISSIONS.						
CCC 2.8	Function as on-scene commander for a search and rescue (SAR) operation. V(L) - Plan and train.	F	F	F	F	L
CCC 3 PROVIDE OWN UNIT'S COMMAND AND CONTROL FUNCTIONS.						
CCC 3.3	Provide all personnel services, programs and facilities to safeguard classified material and information.	F	F	F	F	F
CCC 3.4	Carry out emergency destruction of classified material and equipment rapidly and efficiently. IIS, III, IV, V(L) - Augmentation required from off-watch personnel.	F	F/A	L/A	L/A	L
CCC 3.11	Establish voice communications with supported forces. V(L) - Plan and train.	F	F	F	F	L
CCC 6 PROVIDE COMMUNICATIONS FOR OWN UNIT.						
CCC 6.1	Maintain tactical voice communications. III, IV, V(L) - Augmentation required from off-watch personnel.	F	F	L/A	L/A	L/A
CCC 6.3	Maintain multi-channel cryptographically covered teletype/ data receive circuits. V(L) - Augmentation required from off-watch personnel.	F	F	F	F	L/A

T-ATF 166 CLASS		I	IIS	III	IV	V
CCC 6.5	Maintain full duplex, cryptographically covered high frequency teletype/data circuits. V(L) - Augmentation required from off-watch personnel.	F	F	F	F	L/A
CCC 6.6	Process messages. V(L) - Augmentation required from off-watch personnel.	F	F	F	F	L/A
CCC 6.7	Maintain underwater Communications. Note: Full capability requires a Mobile Diving and Salvage Unit (MDSU) Company be embarked.		F		F	
CCC 6.10	Maintain voice/computer data cryptographically covered satellite communication circuits. V(L) - Augmentation required from off-watch personnel.	F	F	F	F	L/A
CCC 6.12	Maintain internal communications systems.	F	F	F	F	F
CCC 6.19	Provide tactical, secure voice or data communications.	F	F	F	F	F
CCC 9 RELAY COMMUNICATIONS.						
CCC 9.3	Relay electronic communications. V(L) - Augmentation require from off-watch personnel.	F	F	F	F	L/A
CCC 19 REPAIR OWN UNIT'S CCC EQUIPMENT.	 I, IIS, III, IV, V(L) - Emergency Repairs to equipment critical to ship's mission. May require standing down selected personnel from their Condition I or IIS Stations.	L	L	L	L	L

T-ATF 166 CLASS		I	IIS	III	IV	V
CCC 20	CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNITS CCC CAPABILITIES. I, IIS(L) - Emergency repairs to equipment critical to ship's mission. May require standing down selected personnel from their Condition I or IIS Stations.	L	L	F	F	F
ELECTRONIC WARFARE (EW)						
EW 3	CONDUCT EP OPERATIONS					
EW 3.7	Implement appropriate/directed electromagnetic acoustic EMCON.	F		F	F	
EW 3.8	Transition rapidly from one EMCON condition to another.	F		F	F	
EW 3.9	Monitor own unit compliance with EMCON condition in effect.	F		F	F	
FORCE HEALTH PROTECTION (FHP)						
FHP 23	PROVIDE MEDICAL CARE TO ASSIGNED AND EMBARKED PERSONNEL.					
FHP 23.1	Conduct sick call.		F		F	F
FHP 23.2	Conduct physical examinations.		F		F	F
FHP 23.4	Conduct basic ward care. I, IIS, III, IV, V(L) - For use in emergency cases when medical evacuation is not possible or when return to duty can be expected in a short time.	L	L	L	L	L
FHP 23.5	Conduct sanitation and safety inspections.		F		F	F
FHP 23.6	Conduct occupational health/safety and preventative medicine programs and training using the following personnel: (a) Medical services officer.		F		F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FHP 23.9	Conduct medical administrative/maintenance services: (a) Maintain adequate Medical supplies for appropriate level health care. (b) Perform routine medical administrative services.		F		F	F
FHP 23.10	Conduct on-site emergency medical treatment during hazardous evolutions including flight quarters and UNREP/refueling operations.	F	F	F	F	F
FHP 23.17	Identify, equip and maintain suitable spaces to provide medical care.	F	F	F	F	F
FHP 23.18	Identify, equip and maintain adequate storage spaces for medical equipment and supplies.	F	F	F	F	F
FHP 23.19	Provide medical care, triage and resuscitation commensurate with health care provider credentials using the following personnel: (a) Medical services officer.	F	F	F	F	F
FHP 24 PROVIDE FIRST AID ASSISTANCE.						
FHP 24.1	Identify, equip and maintain appropriate first aid spaces.		F		F	F
FHP 24.2	Train assigned personnel in first aid, self and buddy aid procedures.		F		F	F
FHP 25 PROVIDE TRIAGE OF CASUALTIES/PATIENTS.						
FHP 25.1	Identify, equip and maintain suitable triage spaces.	F	F	F	F	F
FHP 25.2	Train assigned and embarked personnel in triage care.		F		F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FHP 25.3	Provide administrative support for augmentation personnel/ associated equipment that are assigned to triage and decontamination stations. All (L) - Limited to available space.	L	L	L	L	L
FHP 25.4	Train designated non-medical personnel to assist in triage management care for chemical, biological, and radiological (CBR) contamination casualties.	F	F	F	F	F
FHP 25.5	Train designated non-medical personnel in CBR casualty decontaminated procedures.	F	F	F	F	F
FHP 25.7	Provide medical treatment for CBR casualties. All (L) - Limited to minor treatment/aid.	L	L	L	L	L
FHP 26	PROVIDE MEDICAL/SURGICAL TREATMENT FOR CASUALTIES/PATIENTS.					
FHP 26.1	Identify, equip and maintain suitable resuscitation spaces.	F	F	F	F	F
FHP 26.2	Train assigned and embarked personnel in resuscitation.		F		F	F
FHP 26.5	Identify, equip and maintain suitable spaces for minor surgery.	F	F	F	F	F
FHP 26.6	Identify, equip and maintain suitable operating room(s) for use by the following personnel: (a) Medical services officer.	F	F	F	F	F
FHP 27	PROVIDE MEDICAL, SURGICAL, POST-OPERATIVE AND NURSING CARE FOR CASUALTIES/PATIENTS.					
FHP 27.1	Provide hospital beds. (a) Small number general care.	F	F	F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FHP 27.5	Provide surgery by primary Care medical officer. All(L) - Minor/emergency surgery by physician's assistant/ medical service officer.	L	L	L	L	L
FHP 27.10	Provide recovery beds.	F	F	F	F	F
FHP 27.11	Conduct convalescent ward care. V(L) - Limited to occupational-related cases.	F	F	F	F	L
FHP 27.13	Provide all support needed to augment personnel/equipment assigned to nursing services. IV(L) - Limited to available space.				L	
FHP 28	PROVIDE MEDICAL REGULATION, TRANSPORT/EVACUATION AND RECEIPT OF CASUALTIES/PATIENTS.					
FHP 28.4	Transport and/or provide for casualty/patient evacuation. I(L), IIS(L), III(L), IV(L), V(L) - Helo.	L/E	L/E	L/E	L/E	L/E
FHP 32	PROVIDE AVIATION/DIVING MEDICINE SERVICES.					
FHP 32.8	Provide treatment for decompression sickness and other accidents. Note: Full capability requires a Diving Medical Technician, Diving Officer, or USN Master Diver be embarked.		F	F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FHP 32.9	Participate in diving exercises and submarine escapes to observe and treat personnel for physical and psychological effects of pressure variations and toxic effects of breathing media. Note: Full capability requires a Diving Medical Technician or Diving Officer be embarked.			F	F	F
FHP 32.15	Provide Diving Medical Officer (DMO) to respond to diving casualties. Note: Full capability requires a Diving Medical Technician, Diving Medical Officer and/or USN Master Diver be embarked.		F	F	F	F
FHP 32.16	Provide recompression chamber services. Note: Full capability requires a Diving Medical Officer be embarked.		F	F	F	F
FLEET SUPPORT OPERATIONS (FSO)						
FSO 3 PROVIDE SUPPORT SERVICES TO OTHER UNITS.						
FSO 3.4	Conduct diver proficiency and requalification/recertification training. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked.		F	F	F	F
FSO 3.5	Provide deep and shallow water diving services, including the maintenance and operations of the deep diving system. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked.		F	F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 5 CONDUCT TOWING/SEARCH/SALVAGE/RESCUE OPERATIONS.						
FSO 5.1	Conduct towing operations.		F	F	F	
FSO 5.2	Conduct salvage operations. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked and may require additional equipment from Emergency Ship Salvage Material (ESSM) or MDSU Table of Allowance (TOA). Support Deep Ocean Search and Recovery Mission. Note: Full capability requires an embarked SUPSALV Contractor.		F F	F F	F F	
FSO 5.3	Conduct rescue operations. Note: Submarine Rescue Operations requires an embarked Deep Submergence Unit. IIS, III, IV(L) - Augmentation required from off-watch personnel.		L/A	L/A	L/A	
FSO 5.5	Act as escort ship to submarines during dives associated with post-shipyard sea trials.		F	F	F	
FSO 5.9	Conduct underwater search operations with divers to unit's depth capability. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked.		F	F	F	

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 5.11	Conduct underwater search operations using towed sonar and/or magnetometer. Note: Full capability requires embarkation of equipment and operators.		F	F	F	
FSO 5.13	Conduct underwater search operations using diver held sonar and/or magnetometer. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked.		F	F	F	
FSO 5.15	Plan/direct towing, search, salvage and/or rescue operations. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked. IIS, III, IV(L) - All Operations, other than diving, augmented by off-watch personnel.		L/A	L/A	L/A	
FSO 5.16	Conduct salvage operations in support of port recovery/harbor clearance. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked. IV(L) - Augmentation required from off-watch personnel.		F	F	L/E	

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 5.17	Prepare a vessel or craft to be towed. Note: Assumes an unmanned point-to-point open ocean tow. IIS, III, IV(L) - Augmentation required from off-watch personnel.		L/A	L/A	L/A	
FSO 5.18	Augment a towing vessel in the conduct of towing operations. I, IIS, III, IV(L) - Augmentation required from off-watch personnel.	F/A	F/A	F/A	F/A	
FSO 5.19	Provide qualified personnel to conduct underwater ships husbandry cutting and welding. Note: Full capability requires a MDSU Company, other USN Dive Unit, or SUPSALV Ships Husbanding contractor divers Be embarked.		F	F	F	F
FSO 6 SUPPORT/CONDUCT SEARCH AND RESCUE (SAR) OPERATIONS IN A COMBAT/NON-COMBAT ENVIRONMENT.						
FSO 6.2	Conduct combat/noncombat SAR operations by surface ships. IIS, III, IV(L) - Augmentation required from off-watch personnel.		L/A	L/A	L/A	
FSO 6.4	Recover man overboard. I, IIS(L) - Search and recovery requires augmentation by securing other battle stations. III, IV, V (L) - Search and recovery requires augmentation from off-watch personnel.	L/A	L/A	L/A	L/A	L/A

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 6.6	Conduct search and rescue operations (including operations involving submarine disaster/rescues). Note: Rescue operations involving diving require embarked divers detachment. All other operations performed by ship's force augmented by off-watch personnel. IV(L) - Augmentation required from off-watch personnel.		F/A	F/A	L/A	
FSO 6.7	Conduct general surveillance.	F	F	F	F	
FSO 6.8	Acquire and display general distress data.	F	F	F	F	
FSO 6.9	Report situational assessment.	F	F	F	F	
FSO 7 PROVIDE EXPLOSIVE ORDNANCE DISPOSAL (EOD) SERVICES.						
FSO 7.6	Render safe U.S. and foreign explosive ordnance underwater. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.8	Recover and conduct initial technical evaluation of ordnance encountered underwater. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.14	Locate/detect underwater ordnance. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.16	Conduct scuba diving operations. Note: Full capability requires an EOD detachment be embarked.		F	F	F	

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 7.17	Conduct surface supplied diving operations to unit's depth capability. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.25	Conduct hull searches to detect mines using divers. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.26	Coordinate hull searches to detect mines using divers. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 7.30	Conduct port recovery/harbor clearance operations. Note: Full capability requires an EOD detachment be embarked.		F	F	F	
FSO 20 PROVIDE FLEET TRAINING SERVICES.						
FSO 20.8	Recover exercise torpedoes/drones.			F	F	
FSO 20.21	Recover service mines. Note: Full capability requires an EOD detachment be embarked.			F	F	
FSO 20.22	Recover non-service mines and mine simulators. Note: Full capability requires a diver detachment be embarked.			F	F	
FSO 20.24	Provide technical guidance, training and assistance to fleet units in underwater ship salvage and aircraft recovery. Note: Full capability requires a MDSU Company and/or Underwater Ship Husbandry Divers be embarked.		F	F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 20.25	Provide technical guidance, training and assistance to fleet units in underwater cutting and welding operations. Note: Full capability requires a MDSU Company or other USN Dive Unit be embarked.		F	F	F	F
FSO 20.32	Provide evaluation and training of master diver candidates prior to assignment of orders to master diver school. Note: Full capability requires a MDSU Company be embarked.				F	F
FSO 20.33	Provide technical guidance, training and assistance to fleet units in underwater hull husbandry. Note: Full capability requires a MDSU Company and/or Underwater Ship Husbandry Divers be embarked.		F	F	F	F
FSO 20.34	Provide technical guidance, training and assistance to fleet units in diving operations, including recompression chamber services. Note: Full capability requires a MDSU Company be embarked.		F	F	F	F
FSO 51	REPAIR OWN UNIT'S FSO-RELATED EQUIPMENT. I, IIS(L) - Repairs to equipment critical to ship's salvage and towing mission only. III, IV, V(L) - Augmentation Required from off-watch personnel.	L	L	L/A	L/A	L/A

T-ATF 166 CLASS		I	IIS	III	IV	V
FSO 55	MAINTAIN READINESS BY PROVIDING FOR TRAINING OF OWN UNIT'S PERSONNEL.	F	F	F	F	F
INTELLIGENCE (INT)						
INT 1 SUPPORT/CONDUCT INTELLIGENCE COLLECTION						
INT 1.3	Support/conduct imagery intelligence information collection. I, IIS, III, IV, V(L) - Augmented by special detail. Requires securing selected personnel from watch stations in Conditions I and IIS.	L/E	L/E	L/E	L/E	L/E
INT 4 CONDUCT OCEAN SURVEILLANCE OPERATIONS AGAINST TARGETS OF INTEREST.						
INT 4.1	Detect and locate targets of interest. I, IIS, III, IV, V(L) - Augmented by special detail. Requires securing selected personnel from watch stations in Conditions I and IIS.	L/E	L/E	L/E	L/E	L/E
INT 4.3	Track targets of interest. I, IIS, III, IV, V(L) - Augmented by special detail. Requires securing selected personnel from watch stations in Conditions I and IIS.	L/E	L/E	L/E	L/E	L/E
INFORMATION OPERATIONS (IO)						
IO 4 PLAN AND IMPLEMENT OPERATION SECURITY (OPSEC) MEASURES.						
IO 4.11	Execute OPSEC measures.	F	F			
IO 6 PLAN AND CONDUCT COUNTERSURVEILLANCE, COUNTERTARGETING AND MILITARY DECEPTION OPERATIONS.						
IO 6.7	Conduct naval operational deception operations using tactics, operations, exercises or physical means.	F	F	F	F	F/A

T-ATF 166 CLASS		I	IIS	III	IV	V
IO 14 REPAIR OWN UNIT'S IO EQUIPMENT.		L	F	L	F	F
I, IIS(L) - Emergency repairs to equipment critical to ship's mission. May require standing down selected personnel from their Condition I or R stations.						
IO 16 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S IO CAPABILITIES.		L	F	L	F	F
I, IIS(L) - Emergency repairs to equipment critical to ship's mission. May require standing down selected personnel from their Condition I or R stations.						
IO 25 MILDEC						
IO 25.5	Execute military tactical deception actions using technical means (electronic, acoustic, visual, electro-optical). V(L) - Plan and train.	F	F	F	F	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	F	F	
MOB 1.6	Maintain necessary machinery redundancy to enhance survival in high threat areas.	F	F	F	F	
MOB 3 PREVENT AND CONTROL DAMAGE.						
MOB 3.1	Control fire, flooding, electrical, structural, propulsion and hull/airframe casualties. IIS, III, IV, V - Augmentation required from off-watch personnel.	F	F/A	F/A	F/A	F/A

T-ATF 166 CLASS		I	IIS	III	IV	V
MOB 3.2	Counter and control Chemical, Biological and Radiological (CBR) contaminants/agents. V(L) - Reduced capacity due to personnel ashore.	F	F	F	F	L
MOB 3.3	Maintain security against unfriendly acts. Note: Full capability requires an Embarked Security Team.	F	F	F	F	F
MOB 3.5	Provide damage control security/surveillance. Note: Watch station personnel provide surveillance. Augmentation may be required by off-watch personnel.	F/A	F/A	F/A	F/A	F/A
MOB 3.6	Conduct underwater hull security inspections. Note: Full capability requires a diver detachment be embarked.	F	F	F	F	F
MOB 3.8	Provide emergency breathing devices per ship's allowance.	F	F	F	F	F
MOB 5	MANEUVER IN FORMATION.	F	F	F	F	
MOB 7	PERFORM SEAMANSHIP, AIRMANSHIP AND NAVIGATION TASKS.					
MOB 7.1	Navigate under all conditions of geographic location, weather and visibility. IIS, III, IV - Augmentation may be required from off-watch personnel.	F	F/A	F/A	F/A	
MOB 7.2	Conduct precision anchoring. IIS, III, IV - Augmentation required from off-watch personnel.		F/A	F/A	F/A	

T-ATF 166 CLASS		I	IIS	III	IV	V
MOB 7.3	Get underway, moor, anchor and sortie with duty section in a safe manner. V(L) - Deployed, duty section fully capable. Not deployed, recall of personnel required.					L
MOB 7.6	Abandon/scuttle ship rapidly. V(L) - Plan and train.	F	F	F	F	L
MOB 7.7	Provide life boat/raft capacity per unit's allowance.	F	F	F	F	F
MOB 7.8	Tow or be towed. Note: Automatic Towing Machine (ATM) or Traction Winch (TW) may be used for towing portion of this requirement. I(L) - May require standing down of selected personnel from Condition I stations. IIS, III, IV (L) - Augmentation required from off- watch personnel. Conduct Bollard Pull Test Note: Requires certified Bollard and Load Cell. IV (L) - Augmentation required from off-watch personnel.	L	L/A	L/A	L/A	L/A
MOB 7.16	Recover man overboard (shipboard or boat). I(L) - May require standing down of selected personnel from Condition I stations. IIS, III, IV, V(L) - Augmentation required from off-watch personnel.	L	L/A	L/A	L/A	L/A

T-ATF 166 CLASS		I	IIS	III	IV	V
MOB 10 REPLENISH AT SEA.						
MOB 10.1	Receive vertical replenishment. Note: Hover-only operations. III, IV(L) - Augmentation required from off-watch personnel.			L/A	L/A	
MOB 10.2	Receive fuel while underway (alongside method). III, IV(L) - Augmentation required from off-watch personnel.			L/A	L/A	
MOB 10.3	Receive munitions and provisions while underway. III, IV(L) - Augmentation required from off-watch personnel.			L/A	L/A	
MOB 10.4	Receive potable and/or feed water while underway. III, IV(L) - Augmentation required from off-watch personnel.			L/A	L/A	
MOB 10.6	Receive fuel while underway (astern method). III, IV(L) - Augmentation required from off-watch personnel.			L/A	L/A	
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. I, IIS(L) - Battle messing only.	L	L	F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
MOB 12.2	Ensure the operation of the potable water system in a manner consistent with approved sanitary procedures and standards.	F	F	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	F	F
MOB 12.5	Monitor health and well being of the crew to ensure that habitability is consistent with approved habitability procedures and standards.	F	F	F	F	F
MOB 12.6	Ensure that 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	F	F
MOB 17	PERFORM ORGANIZATIONAL LEVEL REPAIRS TO OWN UNIT'S MOB EQUIPMENT. I, IIS(L) - Repairs to equipment critical to ship's mission only.	L	L	F	F	F
MISSIONS OF STATE (MOS)						
MOS 1	PERFORM NAVAL DIPLOMATIC PRESENCE OPERATIONS.					
MOS 1.2	Conduct force/unit tours for foreign dignitaries.			F	F	F

T-ATF 166 CLASS		I	IIS	III	IV	V
MOS 1.3	Conduct systems demonstrations for foreign dignitaries. III, IV, V(L) - Augmentation required from off-watch personnel and embarked units.			L/A	L/A	L/A
MOS 1.4	Conduct foreign port calls.					F
MOS 1.6	Conduct receptions for foreign dignitaries during port calls.					F
MOS 1.8	Participate in military exercises with allied nations.			F	F	
MOS 1.9	Participate in military exercises with non-allied nations.			F	F	
MOS 1.10	Participate in or provide participants for foreign/allied commemorative or ceremonial events.			F	F	F
MOS 2 PROVIDE HUMANITARIAN ASSISTANCE.						
MOS 2.2	Provide emergency flooding/firefighting assistance. Note: Full capability requires a MDSU Company be embarked. I(L)- may require standing down selected personnel from Condition I stations. IV, V(L) - Augmentation required from off-watch personnel or embarked units.	L/A	F	F	L/A	L/A
MOS 2.3	Provide EOD assistance. Note: Full capability requires an EOD detachment be embarked.		F	F	F	F
MOS 2.4	Provide disaster assistance and evacuation.			F/A	F/A	F/A
MOS 2.12	Provide for embarkation, identification and processing of evacuees.			F/A	F/A	F/A
MOS 2.13	Provide care, feeding and berthing of evacuees.			F/A	F/A	F/A

T-ATF 166 CLASS		I	IIS	III	IV	V
MOS 2.14	Provide transportation for evacuees to designated safe havens or onward processing centers.			F/A	F/A	F/A
NONCOMBAT OPERATIONS (NCO)						
NCO 2 PROVIDE ADMINISTRATIVE AND SUPPLY SUPPORT FOR OWN UNIT.						
NCO 2.1	Provide supply support services. I(L) - Emergency supply support services.	L	F	F	F	F
NCO 2.5	Provide messing facilities. I(L) - Battle messing only.	L	F	F	F	F
NCO 2.6	Provide ship's service facilities. IIS(L) - Assistance required from off-watch personnel.		L	F	F	F
NCO 2.8	Provide personnel for living space maintenance.			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.			F	F	F
NCO 3.3	Provide small arms storage area.	F	F	F	F	F
NCO 3.4	Maintain preservation and cleanliness of topside and internal spaces.			F	F	F
NCO 3.5	Provide for proper storage, handling, use and transfer of hazardous materials.	F	F	F	F	F
NCO 5 CONDUCT METEOROLOGICAL, HYDROGRAPHIC AND/OR OCEANOGRAPHIC COLLECTION OPERATIONS OR SURVEYS.						
NCO 5.1	Collect and disseminate meteorological information. I, IIS, III, IV, V(L) - Limited to synoptic reports.	L	L	L	L	L

T-ATF 166 CLASS		I	IIS	III	IV	V
NCO 5.2	Collect and disseminate hydrographic information. I, IIS, III, IV, V(L) - Limited to synoptic reports.	L	L	L	L	L
NCO 5.3	Collect and disseminate oceanographic information including bathythermograph operations. I, IIS, III, IV, V(L) - Limited to synoptic reports.	L	L	L	L	L
NCO 8	SERVE AS A PLATFORM FOR OPERATIONAL TEST AND EVALUATION OF SYSTEMS, EQUIPMENT AND TACTICS.					
NCO 8.1	Provide technical assistance for installed test and evaluation equipment. III, IV, V(L) - Augmentation required from off-watch personnel and may also require shore-side tech assist.			L	L	L
NCO 8.2	Perform the evaluation functions set forth in the appropriate test plans. III, IV, V(L) - Augmentation required from off-watch personnel and may also require shore-side tech assist.			L	L	L
NCO 10	PROVIDE EMERGENCY/DISASTER ASSISTANCE.					

T-ATF 166 CLASS		I	IIS	III	IV	V
NCO 10.1	Provide emergency flooding/ firefighting assistance to another unit. Note: Full capability requires MDSU or other USN unit be embarked. I(L) - May require standing down of selected personnel from Condition I stations. IV,V(L) - Augmentation required from off-watch personnel or embarked units.	L/E	F/E	F/E	F/A	F/A
NCO 10.3	Provide EOD assistance. Note: Full capability requires an EOD detachment be embarked.	F	F	F	F	F
NCO 10.4	Provide disaster assistance and evacuation.			F/A	F/A	F/A
NCO 25 CONDUCT MARINE ENVIRONMENTAL PROTECTION.						
NCO 25.1	Detect oil or hazardous chemical spill.	F	F	F	F	F
NCO 25.2	Report spills to proper authority.	F	F	F	F	F
NCO 25.3	Conduct pollution abatement operations. Conduct Oil Spill Containment operations I, IIS, III, IV, V(L) - Limited to shipboard and small area waterborne pollution control. Ship is not equipped with a boom. May require augmentation from off-watch personnel.	L/A	L/A	L/A	L/A	L/A

T-ATF 166 CLASS		I	IIS	III	IV	V
NCO 45 PROVIDE ANTI-TERRORISM DEFENSE.						
NCO 45.1	Assimilate and disseminate intelligence on terrorist activities directed at U.S. Navy installations, ships and personnel.	F	F	F	F	F
NCO 45.2	Request and receive a threat assessment.	F	F	F	F	F
NCO 45.3	Declare general warnings of possible terrorist activity (THREATCON).	F	F	F	F	F
NCO 45.5	Conduct screening of non-assigned personnel and materials entering the unit or facility using: (a) Logical means (validation of identification, documentation, personal recognition, etc.) (b) Physical means (searches, metal detection, explosive detection, etc.)			F	F	F
NCO 45.10	Disseminate anti-terrorism defense instructions that include provisions for appropriate perimeter barriers, access control, surveillance and intruder detection, anti-terrorism response force including a crisis action team, and evacuation.			F	F	F
NCO 45.11	Conduct hostage survival and Code of Conduct training.			F	F	F
NCO 45.12	Direct, conduct and assess unit anti-terrorism exercises consistent with potential and/or actual threat environment.			F	F	F

T-ATF 166 CLASS	I	IIS	III	IV	V
SURFACE WARFARE (SUW)					
SUW 1 USING ANTISURFACE ARMAMENTS, ENGAGE SURFACE THREATS.					
SUW 1.6 Engage surface ships with minor caliber gunfire. Note: Full capability requires an Embarked Security Team (EST).	F	F	F	F	
SUW 4 DETECT, IDENTIFY, LOCALIZE AND TRACK SURFACE SHIP TARGETS.					
SUW 4.1 Detect, localize and track surface contacts with radar. IV, V(L) - Plan and train.	F	F	F	L	L
SUW 4.4 Detect, identify, classify and track surface contacts visually. IV, V(L) - Plan and train.	F	F	F	L	L
SUW 4.7 Identify surface contacts visually. V(L) - Plan and train.	F	F	F	L	L
SUW 6 DISENGAGE, EVADE AND AVOID SURFACE ATTACK.					
SUW 6.2 Employ evasion techniques. V(L) - Plan and train.	F	F	F	F	L
SUW 6.3 Employ Emission Control (EMCON) procedures. V(L) - Plan and train.	F	F	F	F	L
SUW 14 REPAIR OWN UNIT'S SUW EQUIPMENT I(L) - Emergency repairs to equipment critical to ship's mission. May require standing down selected personnel from their Condition I stations.	L	F	F	F	F