

**OUTLINE SHEET 4.10  
INANIMATE OBJECT RECOVERY**

**ENABLING OBJECTIVES:**

- 3.45 List the procedures for recovering a REXTORP/Drone.
- 3.46 List the safety precautions for recovering a REXTORP/Drone.
- 3.47 Perform procedures for recovering a REXTORP/Drone.

**TOPIC OUTLINE**

**A. OSCAR**

- 1. Description
  - a. Kapok filled mannequin.
  - b. Typically bright orange.
  - c. Used for training of ship's personnel.
- 2. Recovery Method (Commanding Officer's decision)
  - a. Normally from the forecastle by deck division with grapnel hook.
  - b. Alternate methods are from the forecastle or rescue boat with rescue swimmer (method of choice for this topic).
- 3. Procedures
  - a. Swimmer is deployed from forecastle (via rescue strop) or from rescue boat.
  - b. Rescue swimmer should complete disentanglement procedures (to hone skills).
  - c. Recover via rescue strop or litter to forecastle or into rescue boat.
- 4. Safety Precautions

When in close proximity of the rescue vehicle, inanimate objects shall be kept between the swimmer and the rescue vehicle to provide a buffer zone. OSCAR poses no danger to the swimmer. However, the swimmer should not "drop his guard" and become lax. Ever present dangers are:

- a. Ship's hull.
- b. Rescue boat propeller or screw.

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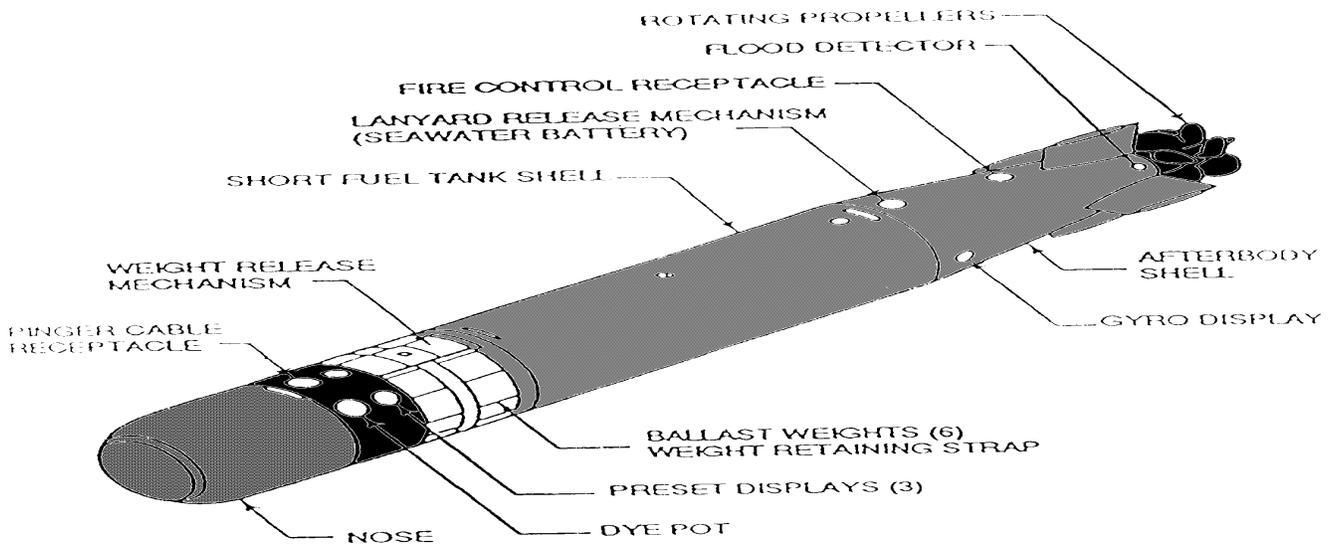
- c. Sea predators or jellyfish.
- d. Sea state.

**B. Torpedoes**

**WARNING**

OTTO Fuel II is highly toxic, failure to observe all safety precautions contained in SW515-AO-010/MK46 could result in injury or death.

The only torpedo that the rescue swimmer is authorized to enter the water to recover is the REXTORP (MK46 training shape). The hazards of Otto Fuel II, used in other torpedoes, make a waterborne recovery too dangerous.



1. Description of Recoverable Exercise Torpedo (REXTORP)

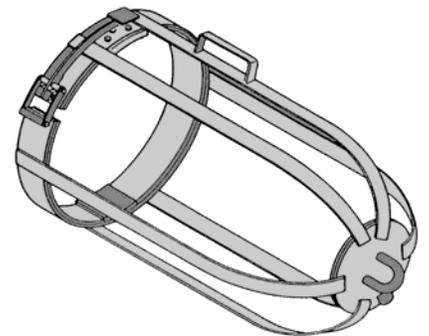
- a. Length – 102”
- b. Diameter – 12.75”
- c. Weight - 517 lbs. with ballast and 337 lbs. without ballast
- d. Fuel - none
- e. Propulsion - none (has two non-functional propellers).

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- f. Ballast - a total of six separate lead weights totaling 180 lbs.
- g. Color -
  - (1) Nose is anodized orange/red.
  - (2) Ballast section is anodized orange with a blue band.
  - (3) All other sections are a natural anodized finish.
  - (4) Propellers are anodized red.
- h. Floating Characteristics When surfaced, the REXTORP floats at a vertical attitude with approximately 10” of the nose exposed above the surface.

2. Recovery Methods

- a. Torpedo Retriever - This method is accomplished with the use of poles, snares, and cages. The weapon is hauled aboard ship via a ramp or crane. The use of a motor whale or RHIB, eliminates the requirement to deploy a swimmer.
- b. Helicopter
- c. Shipboard via davit and hoist (due to weight).
  - (1) Assisted by swimmer (method of choice for this topic).
  - (2) Assisted by boat crew (requires calm seas).



3. Procedures

- a. Swimmer prepares for normal deployment from forecastle or rescue boat.
- b. Swimmer deploys.

**WARNING**

Due to floating characteristics of the REXTORP it is extremely difficult to move in rough water. The swimmer shall never place themselves between the REXTORP and the ship. Injury or death to swimmer could result.

- c. Signal for nose cage(Used because torpedoes do not have an attachment point for the tow line).
- d. Approach and inspect.

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- e. Install nose cage.

**CAUTION**

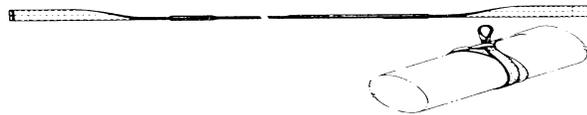
Insure handle on the nose cage is used to prevent injury to hands.

- f. Signal ship or rescue boat to haul REXTORP alongside ship.
- g. Signal ship for hoisting strap.
- h. Install hoisting strap with a double wrap around body of REXTORP at center of gravity (may require adjustment to balance REXTORP).

- i. Signal ship for up hoist.



- j. Swimmer is recovered.



4. Safety Precautions

- a. DO NOT attempt a waterborne recovery of other types of torpedoes due to the hazards of Otto Fuel II.

C. Drones

There are numerous types of drones that the rescue swimmer might recover. A drone is an unmanned flying object used to simulate planes, missiles, etc. For this topic the MQM-74C will be discussed.

1. Description

- a. Length = 12', 7"
- b. Wingspan = 5', 6"
- c. Flotation - nose cone, fuel tank, oil smoke tank, and aft flotation bag.
- d. Color - International orange

2. Recovery Methods

- a. Helicopter
- b. Shipboard via davit and hoist (due to weight).

(1) Assisted by swimmer (method of choice for this topic).

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(2) Assisted by boat crew (requires calm seas).

3. Procedures

- a. Swimmer prepares for normal deployment from forecastle or rescue boat.
- b. Deploy with tow line.
- c. Approach drone with care.
- d. Attach tow line to recovery ring.
- e. Place two half hitches on drones nose with tow line.
- f. Signal ship or rescue boat to haul drone alongside ship.
- g. Signal ship for hoist.
- h. Attach hoist to recovery ring; tow line becomes tag line for swimmer to guide drone.
- i. Signal ship for up hoist.
- j. Swimmer is recovered.

**WARNING**

Watch for the drone parachute. It should release automatically upon impact with the water. If not, it is easily unhooked and allowed to sink. Care should be exercised to avoid the sharp edges of the wings when attaching the tow line to the recovery ring located above the wings.

**D. Miscellaneous**

**WARNING**

If the swimmer is tasked to recover debris from an aircraft mishap, extreme caution should be utilized to avoid injury from hazards and unexpended ordnance, i.e.; parachute ballistic spreaders, ejection seat ordnance, etc.. Information concerning these hazards can be obtained from your ships safety officer and the Material Safety Data Sheet.

- 1. Other objects may range from a bag of garbage to a bale of marijuana.
- 2. Recovery methods; Apply basic drone/rextorp recovery procedures to other objects.
- 3. Rescue swimmers shall not be endangered in order to recover an inanimate object.

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