

**OUTLINE SHEET 4.1
RESCUE SWIMMER'S EQUIPMENT**

INTRODUCTION:

During rescue operations the rescue swimmer has certain types of equipment that he/she will use to aid in the recovery of a survivor. This unit of instruction will describe the various types of equipment and the usage of each.

ENABLING OBJECTIVES:

- 3.24 State requirements for the maintenance of rescue swimmers equipment per current NAVAIR 13-1-6 series manuals/Maintenance Requirement Cards (MRC's).
- 3.25 Explain the functional operation of rescue swimmer's equipment per NTTP 3-50.1:
 - a. Wet Suit
 - b. Mask, Fins, and Snorkel
 - c. Surface Rescue Swimmer's Harness (HBU-11)
 - d. LPU-28(SAR-1)

TOPICE OUTLINE:

RESCUE SWIMMER'S EQUIPMENT:

A. Wetsuit Ensemble

- 1. Preferred commercial grade
- 2. Neoprene rubber sandwiched by non-chaffing nylon
- 3. Consist of:
 - a. Jacket with long sleeves.
 - b. Trousers, Farmer John type
 - c. " _____ " assembly
 - d. Booties
 - (1) Worn with fins to protect the _____.
 - (2) Worn at the discretion of the rescue swimmer, unless atmospheric conditions dictate otherwise.
 - e. Gloves
 - (1) Worn at the swimmer's discretion.

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(2) Shall be the _____ finger type.

f. Hood

(1) Worn at the swimmer's discretion.

(2) Reduces chill factor generated by rotor wash.

(3) Reduces heat loss through the head. ____ percent of all body heat is loss through the head.

4. _____
_____.

5. Entire wetsuit shall be worn as per OPNAVINST 3710.7, specifically:

a. When water temperature is above ____ F and air temperature is above ____ F (wind chill corrected), full wetsuits shall be worn at the commanding officers' discretion.

b. Whenever the water temperature is below 50F or air temperature is 32 F (wind chill corrected) or below, full _____ protection is mandatory.

B. U.S. Divers Wrap Around Mask

1. Allows rescue swimmers to see clearly underwater by providing an air space in front of the eyes.

2. Double skirted for comfort and optimum seal.

3. Wrap around offers a wide field of view and greater _____ vision.

4. Plastic adel clamp on top of mask provides means to attach the _____ High Intensity Chemical Light to the swimmer.

5. Mask fogging is prevented by coating the interior of all three lenses with commercial mask lens defogger, toothpaste, or _____.

6. Mask _____ tied off on either the left or right shoulder strap of the rescue swimmer's harness and _____ passed through _____ of the SAR-1 Vest. The mask shall not be tied off to the LPU-28.

C. U.S. Divers Rocket Fins

1. Fins provide greater propulsion, speed, power and mobility. U.S. Divers Rocket Fins are the only _____ fins.

a. Slots or Vents:

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- (1) Redirect the flow of water through the fin and toward the tip.
- (2) Most efficient when used with the flutter kick.

- (3) Fins have a stiff blade which may cause calf cramps

D. U.S. Divers Snorkel

- 1. Permits the rescue swimmer to breathe easily while working in the _____.
- 2. Barrel can be straight or gently curved.
- 3. Flexible hose connects barrel to mouthpiece.
- 4. Snorkel attaches to mask strap with a snorkel keeper.

E. Surface Rescue swimmer's Harness HBU-11

- 1. Incorporates one lifting devices attached to the harness.
- 2. Lifting "V" ring
 - a. Located center of chest.
 - b. Attaches to rescue hook.

- 3. Has left and right riser pockets which contain the following equipment:
 - a. Two six-inch General Purpose Chemical Lights for signaling or illumination of rescue devices.
 - (1) Carried in the _____ riser pocket.
 - b. Two four-inch High Intensity Chemical Lights for use with the swimmer's mask.
 - (1) Carried in the _____ riser pocket.
 - c. J-hook Knife
 - (1) Used only as a last resort to cut _____.
 - (2) Carried in the right riser pocket.
 - (3) Has curved end for safety.
 - d. One Strobe Light
 - (1) Located on _____ shoulder strap
 - (2) Used for emergency signaling by the rescue swimmer.
 - (3) Covered with a _____ for swimmer identification.

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(a) Scabbard knife, attached to chest strap.

F. LPU-28 (SAR-1)

1. Provides emergency flotation for the rescue swimmer. SAR-1 may also be used to provide flotation for _____.
2. Provides a minimum of _____ lbs of buoyancy.
3. Single cell construction.
4. Velcro on right shoulder is for attaching strobe light or the _____ to the LPU-28.
5. Storage pouch is in front.
6. Normal inflation is through the _____ inflation tube, emergency inflation is accomplished with CO2 cartridge.
7. Relief valve under storage pouch alleviates over inflation.

RESCUE SWIMMER'S EQUIPMENT MAINTENANCE:

A. Care and Preventative Maintenance

1. _____ rinse all equipment.
2. Hang in a cool, dry, windless place.
3. After drying hand fold wet suit loosely.
4. Lubrication:
 - a. Coat zippers, mechanical parts, and fins with _____ spray lubricant.
 - b. Do not expose mask, fins, and snorkel to direct _____ unnecessarily as this will accelerate the deterioration of the silicone rubber.

B. Inspection interval for rescue swimmers equipment

1. By the swimmer prior to flight or deployment.
 - a. Look for signs of deterioration.
 - Dry rot, corrosion.
 - Tears, worn or broken components.

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2. Quarterly by the rescue swimmer as per Maintenance Requirement Cards (MRC's).