

LESSON PLAN

January 2007

COURSE TITLE: Surface Rescue Swimmer
Courses, A-050-0500

TERMINAL OBJECTIVE:
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

LESSON TOPIC NUMBER: 4.1

LESSON TOPIC: Rescue Swimmer's Equipment

ALLOTTED LESSON TIME: 1.0 Classroom

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor
1 Laboratory Instructor

INSTRUCTIONAL REFERENCE:

1. NAVAIR 13-1-6 Series Manuals
2. NTTP 3-50.1, Naval Search and Rescue Manual
3. OPNAVINST 3710.7, NATOPS General Flight and Operating Instruction
4. NAVAIR 16-30PRC-149-1

INSTRUCTIONAL AID:

1. Trainee Guide

3.0 Upon completion of this unit of instruction, the student will demonstrate the proper rescue techniques of military and civilian personnel, day or night, utilizing appropriate SAR equipment for at-sea, as outlined in NTTP 3-50.1 and OPNAVINST 3130.6 series, without injury to personnel or damage to equipment.

Enabling Objectives:
Completely supported by this lesson topic:

- 3.24 State requirements for the maintenance of rescue swimmer's 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.
 - a. Wet Suit
 - b. Mask, Fins and Snorkel
 - c. Surface Rescue Swimmer's harness
 - d. LPU-28 (SAR-1)

2. Wet Suit Ensemble
3. Mask, Fins and Snorkel
4. Surface Rescue Swimmer's Harness
5. LPU-28 (SAR-1)
6. Parachute bag

CRITERION TEST: Written test.

HOMEWORK: None

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

INTRODUCTION:

A. Establish Contact

Display name and lesson topic.

1. Introduce self, give rank, current job.
2. State background, schools, duty stations, etc..
3. State question and answer policy.
4. Reiterate the training time out policy.

B. State Lesson Objectives

Turn to cover page of Lesson Plan and paraphrase objectives.

C. Establish Readiness

1. Motivating Statements

Establish importance and relevance of lesson material using personal experience or anecdote.

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Rescue Swimmer's Equipment

b. Major Teaching Points:

(1) Rescue Swimmer's Equipment

DISCUSSION POINT

(2) Rescue Swimmer's Equipment Maintenance
PRESENTATION:

A. Rescue Swimmer's Equipment

1. Wetsuit Ensemble

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

RELATED INSTRUCTOR ACTIVITY

Show students each item of the wetsuit ensemble.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

b. Shall be the five finger type.

(6) Hood

a. Worn at the swimmer's discretion.

b. Reduces chill factor generated by rotor wash.

c. Reduces heat loss through the head. Sixty percent of all body heat is lost through the head.

Emphasize that cold water in the ears can cause dizziness, fainting, or disorientation.

d. Minimum of a wetsuit top shall be worn during all rescues.

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

(1) When water temperature is above 50° F and air temperature is above 32° F (wind chill corrected), full wetsuits shall be worn at the commanding officer's discretion.

(2) Whenever the water temperature is below 50° F or air temperature is 32° F (wind chill corrected) or below, full anti-exposure protection is mandatory.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. U.S. Divers Wrap Around Mask

Display

- a. Allows rescue swimmers to see clearly underwater by providing an air space in front of the eyes.
- b. Double skirted for comfort and optimum seal.
- c. Wrap around offers a wide field of view and greater peripheral vision.
- d. Plastic adel clamp on top of mask provides means to attach the four-inch General Purpose Chemical light to the swimmer.
- e. Mask fogging is prevented by coating the interior of all three lenses with commercial mask lens defogger, toothpaste, or saliva.
- f. Mask shall be tied off on either the left or right shoulder strap of the rescue swimmers harness and not passed through the neck of the SAR-1 Vest. The mask shall not be tied off to the LPU-28.

Emphasize use of four-inch General Purpose Chemical light. Using the six-inch High Intensity Chemical light will reflect off mask glass and cause vision problems.

Demonstrate.

3. U.S. Divers Rocket Fins

Display

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Fins provide greater propulsion, speed, power and mobility. U.S. Divers Rocket Fins are the only authorized fins.
 - 1. Slots or vents:
 - a. Redirect the flow of water through the fin and toward the tip.
 - b. Most efficient when used with the flutter kick.
 - c. Fins have a stiff blade, which may cause calf cramps.
4. U.S. Divers Snorkel
- a. Permits the rescue swimmer to breathe easily while conducting in water operations.
 - b. Barrel can be straight or gently curved.
 - c. Flexible hose connects barrel to mouthpiece.
 - d. Snorkel attaches to mask strap with a snorkel keeper.
5. Surface Rescue Swimmer's Harness

Explain to students how to stretch out calf cramps in pool with fins on.

Display

Demonstrate positioning snorkel and mask on head

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Incorporates one lifting device attached to the harness.

- b. Lifting "V" ring.
 - (1) Located center of chest.
 - (2) Attaches to rescue hook.

- e. Has left and right riser pockets which contain the following equipment:
 - (1) Two six-inch General Purpose Chemical lights for signaling or illumination of rescue devices.
 - a. Carried in the left riser pocket
 - (2) Two four-inch High Intensity Chemical lights for use with the swimmers mask.
 - a. Carried in the left riser pocket.
 - (3) J-hook Knife
 - (a) Used only as a last resort to cut shroud lines.
 - (b) Carried in the right riser pocket.

Display Swimmer's Harness and show location of equipment.

Demonstrate.

Demonstrate

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (c) Has curved end for safety.
 - (4) One Strobe Light
 - (a) Located on right shoulder strap.
 - (b) Used for emergency signaling by the rescue swimmer.
 - (c) Covered with a blue lens for swimmer identification.
 - (6) Scabbard Knife, attached to chest strap.
 - 6. LPU-28 (SAR-1)
 - a. Provides emergency flotation for the rescue swimmer. SAR-1 may also be used to provide flotation for survivor.
 - b. Provides a minimum of 30 pounds of buoyancy.
 - c. Single cell construction.
 - d. Velcro on right shoulder is for attaching strobe light or the AN/PRC-149 to the LPU-28.
 - e. Storage pouch is in front.
 - f. Normal inflation is through the oral
- Demonstrate
- Display example point out components
- Demonstrate

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

inflation tube, emergency inflation is accomplished with a CO2 cartridge.

- g. Relief valve under storage pouch alleviates over inflation.

B. Rescue Swimmer's Equipment Maintenance

1. Care and Preventative Maintenance

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

Refer to MSDS (Material Safety Data Sheet) on all hazardous materials.

2. Inspection Intervals for Rescue Swimmers Equipment

- a. By the swimmer prior to flight or deployment.
 - 1. Look for signs of deterioration

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Dry rot, corrosion
- b. Tears, worn or broken components
- c. Quarterly by the rescue swimmer as per
Maintenance Requirement Cadrs (MRC's).

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY:

A. State Lesson Objectives.

Turn to cover page for objectives.

B. Review Major Teaching Points.

Briefly summarize.

EVALUATION: None

Issue Gear Prior To Lesson
Plan 4.2

ASSIGNMENT: None

1. Mask
2. Fins
3. Snorkel