

LESSON PLAN

JANUARY 2004

COURSE TITLE: Aviation Rescue Swimmer  
Courses, Q-050-0600  
Q-050-0602

CLASSIFICATION: Unclassified

LESSON TOPIC NUMBER: 4.4

LESSON TOPIC: Alternate Rescue Devices

ALLOTTED LESSON TIME: 1.0 Classroom

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor

INSTRUCTIONAL REFERENCE:

1. NWP 3-50.1, Navy Search and Rescue Manual
2. NAVAIR 13-1-6.5, Rescue Equipment

INSTRUCTIONAL AIDS:

1. Trainee Guide
2. Helicopter Rescue Equipment Case (BGU-8/N)
3. Hoisting Gloves
4. Crewman Safety Belt
5. Cable Grip (Chicago Grip)

TERMINAL OBJECTIVE:

Partially supported by this lesson topic:

- 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 and overland rescues, as outlined in NWP 3-50.1 and OPNAVINST 3130.6 series, without injury to personnel or damage to equipment.

Enabling Objectives:

Completely supported by this lesson topic:

- 3.32 State the requirements for maintenance of emergency rescue equipment per NAVAIR 13-1-6 series and current maintenance requirement cards (MRC's).
- 3.33 Describe the functional operation of the following Emergency Rescue Equipment per NWP 3-50.1:
  - a. Helicopter Rescue Equipment Case (BGU-8/N)
  - b. Hoisting Gloves
  - c. Crewman Safety Belt
  - d. Cable Grip (Chicago Grip)
  - e. Chemical Lights
  - f. Chemical Light Strap
  - g. Rescue Litter Sling Assembly

6. Chemical Lights
7. Chemical Light Strap
8. Rescue Litter Sling Assembly
9. Hoist Quick Splice
10. Pneumatic Rescue Hand Tool/Handheld Cable Cutter
11. Blanket
12. Cranial Assembly
13. Level A Medical Kit

- h. Hoist Quick Splice
- i. Pneumatic Rescue Hand Tool/Handheld Cable Cutter
- j. Blanket
- k. Cranial Assembly
- l. Level "A" Medical Kit

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.

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.

a. Alternate Rescue Equipment is used by the crew in conjunction with the rescue devices during rescue operations.

2. Lesson Overview

Briefly outline material to be covered.

**The wave generator may be used during all non-testable portions of this lesson as approved by the Training Chief.**

a. Lesson Topic: Alternate Rescue Equipment

b. Major Teaching Points:

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

1. Helicopter Rescue Equipment Case (BGU-8/N)
2. Hoisting Gloves
3. Crewman Safety Belt
4. Cable Grip (Chicago Grip)
5. Chemical Lights
6. Chemical Light Strap
7. Rescue Litter Sling Assembly
8. Hoist Quick Splice
9. Pneumatic Rescue Hand Tool/Handheld Cable Cutter
10. Blanket
11. Cranial Assembly
- 12 Level A Medical Kit

PRESENTATION:

- |  |  |  |
|--|--|--|
| A. Helicopter Rescue Equipment Case (BGU-8/N)  |  | Show students Helicopter Equipment Case slide on screen. |
| 1. Has 10 labeled pockets for storage of helicopter rescue equipment.                                |  |  |
| 2. Can be secured from support rails, tie down rings, etc., inside the cabin of the helicopter..     |  |  |
| 3. Items found in this case will be discussed in order from top to bottom throughout in the lecture. |  | Explain that items are found in the NWP 3-50-1           |
| B. Chemical Lights   |  |  |
| 1. Two types currently in use:   |  | Show students both chemical lights.                      |
| a. 30 minute high-intensity  |  |  |
| b. 12 hour general purpose   |  |  |
| 2. Self contained, compact, easily stored.   |  |  |

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

3. Emit Omni-directional light.
4. Windproof, waterproof, nonflammable and require no batteries.

C. Crewman Safety Belt

**WARNING**

**Crewman safety belts shall not be worn when strapped into a seat.**

1. Primarily used as a safety device by the crew while performing hoisting operations in the aircraft doorway
2. Provided with pull tabs and adapters for size adjustment.
3. Latch-link assembly for easy donning.
4. Meshed to the back of the belt is a length adjustable nylon strap with a snap hook for attachment to a tie down fitting.

D. Cable Grip (Chicago Grip)

1. Used in the event of a hoist drum malfunction or a bird's nest to hoist cable.
2. Capable of supporting 1000 lbs.
3. Attaches to crewman safety belt to take weight off hoist assembly during a hoist failure.
4. Procedures for use can be found in chapter 1 of NWP 3-50.1 series.

Show students safety belt.

Demonstrate.

Show students cable grip.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

E. Chemical Light Strap

Show Chemical light strap to students.

1. Nylon strap with three snap hooks.
2. One snap hook on each end and one in the middle.

F. Hoisting Gloves.

Show Hoisting Gloves to students.

1. Made of heavy-duty leather.
2. Used to prevent injuries to crew chief's hands while guiding hoisting cable.

G. Rescue Litter Sling.

Show Rescue Litter Slings to students.

1. Consists of two sets of two 5/32-inch cables.
2. One set for each side of litter.
3. Each set consists of a lifting ring and two locking carabiners.

**CAUTION**

**Attach short legs (red colored carabiners) to the head end of litter and attach long legs (white colored carabiners) to the foot end of litter when attaching sling assembly to the rescue litter.**

H. Hoist Quick Splice.

Show Hoist Quick Splice to students.

1. Flat rectangular aluminum plate with rounded corners and attached double rescue hook.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- |   |  |
|---|--|
| 2. Used when hoist cable breaks or has been cut.  |  |
| 3. Bitter end of the severed cable is threaded through five numbered holes and secured with a stainless steel clip. | Demonstrate.                                   |
| 4. Procedures for use can be found in chapter 1 of the NWP 3-50.1 series.   |  |
| I. Pneumatic Hand Tool.   | Show Pneumatic Hand Tool to students.          |
| 1. Designed for cutting heavy webbing.  |  |
| 2. Can be used by rescue swimmer for cutting parachute risers.  |  |
| 3. Has jaw for prying open or breaking canopies.  |  |
| 4. Contains a 3000 psi nitrogen cartridge in the handle chamber.  |  |
| 5. Procedures for use can be found in chapter 1 of NWP 3-50.1 series.   |  |
| 6. Hand-held Cable Cutter can be used as a replacement.   | Show Hand Held Cable Cutter to students.       |
| J. Blanket and Cranial Assembly.  | Show Blanket and Cranial Assembly to students. |
| 1. Blanket  |  |
| a. Standard wool blanket 6x8 ft.  |  |
| b. Used for treatment of hypothermia.   |  |

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. Cranial Assembly.
  - a. Cloth helmet with chin strap designed to incorporate protective devices.
  - b. Rigid plastic with cushion liners that snap on for head protection.
  - c. Sound attenuators for hearing protection.
  - d. Goggles for eye protection.

K. Life Rafts.

1. Used when numerous survivors are at the rescue scene.
2. Can support four times the rated capacity if survivors are placed around outside of raft.
3. Can also be used for staging survivors during disentanglement.
4. Discard life raft if it becomes a hindrance to the rescue.
5. Discard rafts by puncturing prior to leaving scene.

**NOTE**

An empty floating raft could start an unnecessary rescue effort.

**WARNING**

Rotor wash could blow an empty floating raft into the helicopter rotor system.

DISCUSSION POINT

L. Level A Medical Kit.

1. Designed for use by the rescue swimmer and the crew chief.
2. Carried on all SAR capable helicopters.
3. Rescue Swimmer shall have a working knowledge of all contents.

RELATED INSTRUCTOR ACTIVITY

Show Level A Medical Kit to students.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY:

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

EVALUATION: Written test.

ASSIGNMENT: None