

LESSON PLAN

JANUARY 2004

COURSE TITLE: AVIATION RESCUE SWIMMER
COURSES, Q-050-0600
Q-050-0602

TERMINAL OBJECTIVE:
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

LESSON TOPIC NUMBER: 3.8

LESSON TOPIC: Disentanglement procedures
(Jet aircraft)

ALLOTTED LESSON TIME: 1.5 Classroom
6.0 Laboratory

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

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor
1 Laboratory Instructor
Safety personnel and additional instructors as required per Annex E, Staffing Requirements, of Curriculum Outline.

ENABLING OBJECTIVES:

Completely supported by this lesson topic:

INSTRUCTIONAL REFERENCES:

1. NWP 3-50.1, Naval Search and Rescue Manual
2. NAVAIR 13-1-6 Series Manual

- 3.14 List disentanglement procedures for personnel wearing Jet aircraft survival equipment.
- 3.15 Demonstrate disentanglement procedures for personnel wearing Jet aircraft survival equipment in day/night conditions.

CRITERION TEST: Job Sheet 3.6, written test.

HOMEWORK: None

INSTRUCTIONAL AIDS:

1. Trainee Guide
2. 2 Parachute Restraint Harness, PCU-33
3. 2 LRU-1 Life Raft
4. 2 Parachute Assemblies
5. 2 Helmets
6. 2 RSSK/SKUs
7. Chem.-lights (Yellow & Blue)
8. Flashlights
9. Whistle
10. Pool
11. Rescue Swimmer's Equipment

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

INTRODUCTION:

1. Introduce self; give rank, current job
2. State background, schools, duty stations etc.
3. State question and answer policy
4. Review Training Time Out policy
5. Ask the following questions:
 - a. Has anyone gone to the hospital/branch clinic for treatment within 24 hours, and are you taking any medications?
 - b. Has anyone taken over-the-counter medications within 24 hours?
 - c. Are there any potentially disqualifying illnesses/conditions for which you are currently being evaluated?

Display name and lesson topic

Refer questionable cases to department medical representative for disposition.

B. State Lesson Objectives

Turn to cover page of Lesson Plan and paraphrase objectives.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Establish Readiness

1. Motivating Statements

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

Aviation personnel who have bailed out of or ejected from their aircraft and are entangled in the parachute present the rescue swimmer with both the greatest challenge and the greatest danger. The swimmer must act swiftly and efficiently in disentangling the survivor before the parachute sinks and the survivor is pulled down with the parachute.

2. Lesson Overview

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

a. Lesson Topic: Disentanglement Procedures

b. Major Teaching Points:

Briefly outline material to be covered.

Disentanglement procedures for the parachute restraint harness, PCU-33.

PRESENTATION:

NOTE

Equipment worn by the survivor determines the procedures to be used in parachute.

WARNING

Inhalation of composite fibers resulting from aircraft fires and/or aircraft material damage may be harmful to rescue personnel. If smoke is present, the rescue swimmer shall be deployed up-wind and will approach the aircraft in a manner as to avoid any smoke. Discard wets suit if it becomes impregnated with composite fibers.

WARNING

The parachute should never be allowed to come between the rescue swimmer and the survivor, as the rescue swimmer could lose sight of the survivor or could become entangled in the parachute or suspension lines.

A. Disentanglement procedures for PCU/33, Integrated Torso Harness

1. **ASSESS** situation to determine if survivor(s) are conscious, unconscious, passive or active. Assessing the situation begins before water entry. The situation may change at any moment.
2. **ESTABLISH** communication to determine the condition of the survivor and make approach. Ask, "Are you

Write key words on board

Day entry - Enter from platform

Night entry - Lowered from platform

State the rear surface

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

OK"? The rescue swimmer shall continually evaluate the medical condition of a survivor during the entire course of a rescue.

approach is preferred.

3. Grasp survivor's harness between the shoulder bladders and pull survivor into the wind and away from parachute. Obtain control of survivor "ICIC".
4. Remove oxygen mask. CLEAR head, neck, and chest area. If survivor is conscious ask about any known injuries or conditions.
 - a. If survivor is still wearing oxygen mask completely remove it from both bayonet fittings and push mask through chest strap, away from survivor.

Stress "In Close In Control", **ICIC**.

NOTE

CHECK FOR BREATHING. Give two breaths if required. Continue giving rescue breaths during disentanglement not to exceed 60 seconds between breaths until survivor is hoisted free of water.

5. CHECK FLOATATION (inflate manually or orally if necessary).
6. DISENTANGLEMENT from head to toe, checking for injuries during disentanglement process.
 - a. Disconnect parachute risers by releasing shoulder Kock fittings.
 - b. Remove parachute risers and throw them to the

Demonstrate operation of Kock fittings.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

side, ensuring they do not fall back onto survivor.

7. **SWEEP ARMS**, ensuring that survivor's arms are completely clear of debris. Once it has been verified that the survivor's arms are clear, cross the arms across the survivor's chest.
8. **SIDE CONTROL**, using the side of the survivor as a reference, proceed hand-over-hand along the:
 - a. Left side. Move down towards the legs removing any shroud lines along the way. Release the Oxygen hose (if applicable) from RSSK, and then disconnect mini-Koch fitting on lap.
 - b. Move back up the left side and go down the right side toward the legs, removing any shroud lines along the way. Disconnect the mini-Koch fitting on lap. This releases the RSSK.
 - c. Move back down the left side and ensure there are no entanglements around the survivor's left leg. Repeat for right leg.
9. Tow survivor clear of parachute and **DISCARD RAFT** (if applicable).

Emphasize that this process should be repeated as many times as necessary to completely disentangle survivor.

NOTE

At the discretion of the rescue swimmer the raft may be punctured with a knife and sunk before, during, or after the survivor has been removed.

WARNING

Loss of ABC's is a serious life threatening condition requiring immediate medical treatment. This condition takes precedence and survivor should be recovered by fastest means possible.

NOTE

The litter should be the primary recovery device if survivor is an ejected aviator or other survivor suspected of having a spinal injury based on swimmer's evaluation.

10. Perform **FINAL CHECK**, head to toe to ensure that all shroud lines and parachute suspension lines are clear.

11. **SIGNAL** rescue platform.
 - a. Day - Arm raised, thumb up
 - b. Night - Arm raised, waving high intensity chemlight.

12. As the helicopter is approaching

Emphasize importance of the final check especially if swimmer inadvertently swims into parachute. If any material is removed during the final check, another final check will be accomplished until no entanglements are found.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Ensure the AREA CLEAR.
 - b. Establish a left-hand cross-chest carry, grasping survivor's gated "D" ring in your left hand.
 - c. With your right hand connect rescue swimmer's snap hook to survivor's "D"ring.
 - d. Maintain left-hand cross-chest carry while grasping rescue swimmer's lifting "V" ring in your left hand.
13. Allow RESCUE HOOK TO TOUCH WATER, discharging static electricity.
 14. USE APPROPRIATE PROCEDURES for rescue device selected.
 15. Perform SAFETY CHECK on rescue device, signal up hoist.

NOTE

If rescue scenario involves E-2C Hawkeye aircrew, all of the procedural steps are identical with those of ejection seat aircraft. The difference in gear is purely mechanical and will require deviations in technique only.

APPLICATION:

NOTE

It is unrealistic for a survivor to act aggressively and chase the rescue swimmer. This is an impractical simulation of an active drowning victim as defined by the American Red Cross (Lifeguarding Manual, pg. 56). GAO Report (pg. 17) calls "belligerent and aggressive victims is a poor method and an ineffective way to mentally condition students to perform under stress". Survivors SHALL be briefed to exhibit the following characteristics as detailed by the American Red Cross:

1. Struggle to keep the face above the water in an effort to breathe.
2. Have arms extended to the side, pressing down for support. There is no supporting kick.
3. Have a vertical body position in the water.
4. Struggle at the surface, unable to move forward, for approx. 20 to 60 seconds before submerging.

IN NO CASE WILL THE SURVIVOR CHASE THE RESCUE SWIMMER.

- A. Instructor performs a day water entry and proceeds to

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

slowly disentangle a survivor wearing an integrated torso harness, while another instructor talks the students through the procedures. Set up rescue scenarios in the deep end of the pool.

Ensure students receive the classroom instruction and observe an in-water demonstration of the integrated torso harness prior to any practical experience.

B. Instructors shall observe and critique the performances of each student for successful disentanglement and rescue of survivor.

1. Simulated conscious pilot wearing a torso harness, under a ballooned canopy.
2. Simulated unconscious pilot wearing a torso harness, with a deflated canopy in water/raft.
3. Test out student, using either one of the two preceding evolutions.

NIGHT SCENARIO SAFETY NOTES: In the event of an emergency, any instructor will sound multiple whistle blasts. The student guarding the emergency lights will turn them on.

Brief to students prior to night disentanglement scenarios.

The tower or pool deck safety observers/instructors will point out the student/instructor in distress.

The instructor/safety swimmer nearest the scene shall immediately proceed to the student/instructor in distress and render assistance.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

In the event that safety swimmer requires assistance, only a qualified instructor will enter the water to assist.

ALL STUDENTS ON THE POOL DECK SHALL FREEZE AND HOLD THEIR POSITION. THOSE STUDENTS IN THE WATER SHALL SWIM TO THE SIDE OF THE POOL AND FREEZE.

Prior to securing from the emergency, the primary instructor shall muster and account for all students and ensure pool is clear of all students.

During the night evolution: the student will complete a hook up of a free floater to a rescue strop, complete a Torso Harness Disentanglement, and properly secure survivor in a litter.

EVALUATION: Job sheet checklist 3.8, final multi practical and a written test.

ASSIGNMENT: None