

INSTRUCTOR GUIDE  
FOR  
RESCUE SWIMMER REFRESHER COURSE

Q-050-0604

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JANUARY 2004



## FOREWORD

This Instructor Guide contains lesson plans and other materials necessary for conducting training and is an adjunct to the initial Curriculum Outline. It is intended to be used by instructors when conducting refresher RSSTP training.

The information contained in the lesson plans is considered essential and must be taught in its entirety, no deviations are authorized. Instructors are free to personalize their presentations with amplifying information provided such personalization does not detract from the training experience or cause the training day to go beyond the time allotted.

Where conflict occurs between a technical publication and the information contained herein, the technical publication shall take precedence. In the interest of standardization, it is requested that all such conflicts be brought to the attention of the RSSTP Model Manager as expeditiously as possible.

### Drop on Request (DOR)/Training Time Out/Student Safety Policy.

All students shall be briefed on the "DOR" and "Training Time Out" policy prior to commencement of training.

#### **DROP ON REQUEST (DOR)**

##### For Instructors:

Ensure all students are briefed on DOR policy and procedures voluntary high/moderate-risk courses. The following briefing shall be given prior to commencing the course (i.e., course indoctrination, welcome aboard brief, etc.) and should not be repeated unless there is a long break in the course (e.g., Christmas holidays):

For Instructors and Students:

1. Policy. In all cases where a student states a desire to DOR from voluntary training based on concern for personal well-being, appropriate action shall be initiated, including removal from training, referral of the student for medical, counseling, or remedial action as appropriate, and review of the training environment, including training techniques. The scope and depth of these actions shall be determined by the nature of the complaint and the risk incurred in the training. A written summary of actions taken shall be made a permanent entry to the student's service record. In no case shall a student be coerced or threatened to induce him or her to return to training following a DOR.

2. Procedures. After removal from voluntary training, the student shall submit a written request detailing the reasons for DOR. The request should clearly indicate that the student wants to DOR (e.g., I, (name), desire to be removed from training in XYZ course for the following reason(s): ...). A standard Special Request/Authorization Form (NAVPERS 1336/3 (Rev. 9-75)) may be used. The request shall be submitted directly to the training or division officer and shall become a part of the student's training record. If a student was being processed for an Academic Review Board (ARB) action prior to the DOR, the ARB shall take precedence. In any case, the student shall be removed from training.

a. Training or Division Officer's Interview. The loss of an able student from training or the continuation in training of a student who is unlikely to complete the program represents a waste of valuable resources, assets, time, and effort. Often, students who DOR do not give the real or complete reasons for their requests. The interviewer, using no overt or implied coercion or threats, shall make a reasonable effort to determine:

(1) The real motivation for the request;

(2) If the decision to DOR is the result of some training factor which may lead other students to DOR. If so, can training be changed to alleviate this factor without adversely affecting program objectives?

(3) If the student desires to re-enter the program.

(4) If student retention is warranted, are there actions (counseling, change of instructor, or special assistance) which might cause the student not to DOR? Are such actions justified in view of the impact upon the overall training program and upon other students?

b. The interview need only be detailed enough to satisfy the CO, OIC, or DOT that the student understands the gravity of DOR, and that the reasons for the DOR are known or that further questioning is unlikely to reveal additional information.

c. No one in the DOR chain shall refuse to forward a request or to remove the student from training, nor shall anyone delay a request in an effort to arrive at the cause of the DOR, or threaten/coerce a student to reconsider.

3. Post-Interview Procedure. If, after the interview, a student still desires to DOR, the interviewer shall refer the him/her to the reviewing officer for further interviews or administrative action. A signed, written summary of the interview and recommended actions shall be provided by the interviewing officer to the reviewing officer.

4. Administrative Procedure. The administrative procedures for disposition of a DOR attrite are the same as those for a disenrollment. There is, however, no requirement for a formal ARB.

#### **TRAINING TIME OUT (TTO)**

##### For Instructors:

1. Ensure all students are briefed on TTO policy and procedures prior to each high or moderate-risk evolution or laboratory. For multi-day or all-day evolutions, TTO shall be rebriefed prior to the start of training following major breaks, such as mealtimes. Evolution-specific TTO procedures should be added where needed. These procedures should be standardized to conform with established fleet distress indicators where appropriate (e.g., standard small arms range procedures, diving distress signals, etc.). Emphasis

shall be placed on specific verbal and nonverbal signals to be used by students and instructors.

2. A TTO may be called in any training situation where a student or instructor expresses concern for personal safety or requests clarification of procedures or requirements. TTO is also an appropriate means for a student to obtain relief if he or she is experiencing pain, heat stress, or other serious physical discomfort.

3. Instructors are responsible for maintaining situational awareness and shall remain alert to signs of student panic, fear, extreme exhaustion, or lack of confidence that may impair safe completion of the training exercise. Instructors shall cease training immediately when they consider such action appropriate.

4. Following a TTO, the situation shall be examined and additional explanation and instruction shall be provided as needed to allow safe resumption of training. Once the lead instructor on scene is fully apprised of the problem, he/she shall direct all training to cease or training with unaffected students to continue, based on the situation.

5. If a student refuses to participate in training after being instructed or after an unsafe condition has been corrected, or uses TTO excessively to disrupt training, that student shall be removed from training and referred for further counseling or administrative processing.

### Basic TTO Student Briefing:

A Training Time Out (TTO) may be called by any student or instructor in any training situation where they are concerned for their own or another's safety, or they request clarification of procedures or requirements. TTO is also an appropriate means for a student to obtain relief if he or she is experiencing pain, heat stress, or other serious physical discomfort. The purpose of the TTO is to correct the situation of concern, provide clarifying information, or remove the student or instructor from the possible hazardous environment. A TTO may be signaled with the abbreviation TTO, the words Training Time Out, crossed hands in a (T), a raised clenched fist, or other specific signals which will be briefed prior to a specific lab, test, or exercise. If the TTO signal is not acknowledged, the signaler shall shout "Time Out" (or other action as required by the training activity). The instructor shall attempt to relieve and remove the student from the possible hazardous environment. If an adequate number of instructors are available to allow training to continue safely, the lead instructor may elect to do so. However, if this is not practical, training will be stopped until the situation is corrected.

The training time out signal shall be:

Verbal: Calling "time out," "training time out," or "time."

In those cases where a verbal TTO may not be heard, the following nonverbal signals shall be used.

- Nonverbal:
- (1) Forming a "T" with the hands overhead.
  - (2) Moving to the side of the pool, holding on to the side of the boat (bay operations), or any other action that effectively removes the student from training.
  - (3) If the student/instructor is in a hold underwater, they shall pinch their partner to signal a release and will surface, immediately using one or more of the above signals.

Instructors: Water Survival (Bay) - Radio/loud speaker call and/or forming a "T" with the hands overhead.

Water Training (Pool) - Long blow on whistle and/or forming a "T" with the hands overhead.

Dry Land/physical training - Forming a "T" with the hands overhead.

In cases where a student refuses to participate in training after a TTO has occurred, they will be removed from training and referred to the officer in charge (OIC) for appropriate administrative processing. Students who appear to be abusing the TTO procedures may be referred to the OIC for disposition. The commanding officer or executive officer will determine if further training is warranted.

3. Student Safety. Anytime a student shows signs of panic, fear, extreme fatigue, or lack of confidence, instructors shall stop the training, identify the problem, and determine to continue or discontinue training. Instructors shall be constantly alert for any unusual behavior that may suggest that a student is having difficulty. They shall immediately act to ensure the student's safety.

TABLE OF CONTENTS

FRONT PAGE

Foreword.....iii  
Drop on Request/Training Time Out .....iii  
Safety Notice.....ix  
Mishap/Hazard Reporting Policy.....ix  
How to Use the Instructor Guide.....x

LESSON PLANS

UNIT 1.0 Course Introduction and Safety

- 1.1 Course Introduction
- 1.2 Pool Safety Regulations

UNIT 2.0 Standard First Aid and American Red Cross CPR  
for the Professional Rescuer

- 2.1 American Red Cross CPR for the Professional Rescuer
- 2.2 Practical First Aid Training/Mock Trauma

UNIT 3.0 Rescue Equipment Devices and Publications

- 3.1 Rescue Devices
- 3.2 Survivor Marker/Locator Devices
- 3.3 SAR Publications and Reports
- 3.4 Navy and Air Force Aircrew Survival Equipment, Harnesses, and Associated Hardware

UNIT 4.0 Lifesaving and Parachute Disentanglement

- 4.1 Lifesaving Approaches/Carries
- 4.2 Front/Rear Head Hold Release and Escape



incorrectly, either knowingly or unknowingly, by people who fail to exercise sufficient foresight, who lack the requisite training, knowledge, or motivation, or who fail to recognize and report hazards.

2. A mishap is any unplanned or unexpected event causing personnel injury, occupational illness, death, material loss or damage, or an explosion of any kind whether damage occurs or not.

3. A hazardous condition is any situation which if allowed to go unchecked or uncorrected, has the potential to cause a mishap.

4. A near miss is when a mishap is avoided merely by chance.

5. It is the responsibility of all Department of Defense personnel to report all mishaps, near misses, and any unsafe or unhealthy (hazardous) condition. If a mishap, hazardous condition, or near miss occurs, the student shall inform the instructor immediately.

6. Instructors will report all hazardous conditions and near misses to the command Training Safety Officer via their divisional/departmental Training Safety Officer. Hazard and injury reports shall be submitted on the appropriate form.

#### HOW TO USE THE INSTRUCTOR GUIDE

1. This Instructor Guide is designed to fit in a standard three ring binder, from which the instructor may teach. The Master Course Schedule, Annex D of the Curriculum Outline of Instruction, should be reviewed prior to conducting RSSTP training.

2. Following the completion of training, students shall be offered the opportunity to complete a Student Critique. Space has been provided for the student to give his/her name if desired.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

1.0 Upon completion of this unit of instruction, the student will demonstrate knowledge of the requirements for Rescue Swimmer School Training Program (RSSTP).

LESSON PLAN NUMBER: 1.1

LESSON TOPIC: Course Introduction

ALLOTTED LESSON TIME: 6.0 Classroom

ENABLING OBJECTIVES:  
Completely supported by this lesson topic:

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor

1.1 Identify the OPNAVINST 3130.6 series requirements for RSS training.

INSTRUCTIONAL REFERENCES:

1. NWP 3-50.1, Naval Search and Rescue Manual
2. OPNAVINST 3710.7, NATOPS General Flight and Operating Instructions
3. OPNAVINST 3130.6, Naval Search and Rescue (SAR) Standardization Program
4. CNETINST 1500.20, Safety Procedures for Conducting Training

1.2 Identify the NWP 3-50.1 series as it applies to RSS training.

1.3 Identify and adhere to all safety precautions used during training.

1.4 State the DOR/TTO policies and procedures.

CRITERION TEST: None.

HOMEWORK: None.

INSTRUCTIONAL AIDS:

1. Course Schedule

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. Take class muster.
4. State question and answer policy.

Check for new students, students at risk.

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.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. Lesson Overview

Briefly outline material to be covered.

- a. Lesson Topic: Course Introduction
  
- b. Major Teaching Points:
  - (1) Course Overview
  - (2) Requirements and Restrictions
  - (3) Drop On Request/Training Time Out Policies and Procedures
  - (4) Administrative Procedures and Regulations
  - (5) Safety Precautions
  - (6) Mishap/Near-Miss/Unsafe Condition Reporting Procedures

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

A. Course Overview

1. Applicability: The Rescue Swimmer Refresher Course is designed for individuals who have graduated from Rescue Swimmer School and are reporting to a Rescue Swimmer billet from a non-swimmer billet.
2. Goals: Students in the course will receive refresher training in Rescue Swimmer procedures and will learn of recent developments in equipment and procedures.
3. Evaluation: Students must demonstrate correct Rescue Swimmer procedures during lab evaluations and demonstrate adequate physical fitness for Rescue Swimmer duties.
4. Schedule.

Review locally prepared schedule with students. Emphasize evaluations to be performed, criteria to be met, graduation, etc.

B. Requirements and Restrictions

**NOTE**

The requirements and restrictions listed are taken directly from the current OPNAV Instruction 3710.7 and OPNAV Instruction 3130.6. Type Commanders may direct more stringent requirements and restrictions for their personnel.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

1. Refresher training (CAT II) is for previously qualified rescue swimmers who have not performed the duties of a rescue swimmer for a period of one year or more. This two week course will familiarize the student with new or updated procedures and equipment. Regualification in CPR for the Professional Rescuer will be included.
2. Following participation in Rescue Swimmer training, entries shall be made in the appropriate training jacket.
3. The NWP 3-50.1 is the Naval Search and Rescue Manual. It promotes and maintains standardization of SAR procedures, equipment, and techniques. Course content is mandated by this manual and should be used in conjunction with student guide.

Provide one copy of the NWP 3-50.1 to each student for use during the course.

C. Drop On Request/Training Time Out Policy

1. Drop On Request (DOR) Policy  
  
All RSSTP courses are designated as high risk training and are voluntary. Accordingly, students have the option to individually request termination of training.

Read verbatim the DOR policy written in this curriculum's Front Matter Forward on page 3 or from CNET Instruction 1500.20D.

Discuss thoroughly with IUT's this policy from the standpoint of students and as future instructors.

Emphasize DOR is in effect for the duration of the course.

Solicit questions.

DISCUSSION POINT

2. Training Time Out (TTO) Policy

A TTO may be called in training situation whenever a student or instructor expresses concern for personal safety or a need for clarification of procedures or requirements exists.

RELATED INSTRUCTOR ACTIVITY

Read verbatim the TTO policy written in this curriculum's Front Matter Forward on page 3 or from CNET Instruction 1500.20D.

Discuss valid signals for a TTO in the RSSTP, including: verbal statements such as "TTO", or nonverbal statements such as hands crossed in a "T", pinching of a training partner while submerged, grabbing the pool edge. When an instructor gives life saving aid to a student it MUST be accepted.

Instructors are responsible for awareness and shall remain alert to signals of student panic, fear, extreme exhaustion, or lack of confidence that may impair safe completion of the training exercise. Instructors shall immediately cease training when they consider such action appropriate.

Following a TTO, the training situation shall be examined and additional

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

explanation/instruction will be provided as necessary to allow safe resumption of training.

D. Administrative Procedures and Regulations

1. Purpose of Student Screening forms, student critiques, "medical up chits".
2. In-water screening/testing, remedial training.
3. No alcohol consumption in the 12 hours prior to training.
4. Security precautions available for personal valuables.

E. Safety Precautions

1. Inform students of any known hazardous conditions that exist in the training environment, and of their responsibility to report any unsafe/unhealthy condition they may discover to the training staff.
2. Inform students of the location of emergency equipment, fire exits, and the local procedures used in the event of a fire or other emergencies.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

F. Mishap/Near-Miss/Unsafe Condition Reporting Procedures

1. A mishap is any unplanned or unexpected event causing personnel injury, occupational illness, death, material loss or damage, or an explosion of any kind whether damage occurs or not.
2. A hazardous condition is any situation which if allowed to go unchecked or uncorrected has the potential to cause a mishap.
3. A near miss is when a mishap is avoided merely by chance.
4. It is the responsibility of all Department of Defense personnel to report all mishaps, near misses, and any unsafe or unhealthy (hazardous) condition(s). If a mishap, hazardous condition or near miss occurs the student shall inform the instructor immediately. OPNAV 5100/11 Form with instructions are available for formal reporting.

Explain mishap and unsafe condition reporting options and locations of drop boxes for anonymous report submission.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

None.

EVALUATION

None.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

CLASSIFICATION: Unclassified

LESSON TOPIC NUMBER: 1.2

LESSON TOPIC: Pool Safety Regulations

ALLOTTED LESSON TIME: 1.0 Classroom

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor

INSTRUCTIONAL REFERENCE:

Standard Operating Procedures

INSTRUCTIONAL AID:

Swimming Pool or classroom

TERMINAL OBJECTIVE:  
Completely supported by this lesson  
topic:

1.0 Upon completion of this unit of  
instruction, the student will  
demonstrate knowledge of the  
requirements for Rescue Swimmer  
School Training Program (RSSTP).

Enabling Objective:  
Completely supported by this lesson  
topic:

1.5 State the general pool safety  
regulations.

CRITERIA TEST: None.

HOMEWORK: None.

INTRODUCTION

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

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.

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Pool Safety Regulations

b. Major Teaching Points:

- (1) General Pool Safety Regulations
- (2) Water Exit
- (3) Emergency Situations
- (4) Shallow Water Blackout

PRESENTATION

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

A. General Pool Safety Regulations

1. No person with any type of skin fungus, open sores or contagious disease is allowed in the pool without consent of the SAR Corpsman.
2. No running or skylarking.
3. Glass containers are not allowed on the pool deck or locker room at anytime.
4. Prior to entering the pool, all personnel shall take a shower.
5. Students will wear UDT swim trunks, T-Shirt (optional) and either shorty wet suit or wet suit top during pool training. Additionally, a LPU-28 will be worn during mask, fin, and snorkel training.
6. No smoking except in designated areas.
7. Whistle Blasts:
  - a. One Whistle Blast - Instructor needs attention.
  - b. Multiple Whistle Blasts - Emergency. Follow instructions of staff.
8. No jewelry (i.e., rings, chains, etc.).

Stress importance.

Designate the appropriate location for student muster after pool egress in case of an emergency

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

9. No diving unless specifically told.
10. Ladders shall be utilized to exit the pool unless specifically told other wise.
11. Take off fins before standing or walking on the pool deck.
12. Ensure all pool drain covers are installed prior to commencing any disentanglement training.
13. If parachute is to be used for night time evolutions the apex shall be marked with a chemlight.

Ensure all pool exits are marked with chemlights.

Ensure all light switches are marked IAW pool deck night set up procedures.

Ensure phone is properly marked with a chemlight, flashlights available to expedite call procedures is highly recommended. This will allow the person making the emergency call the ability to see the phone buttons even before the lights are turned on.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

14. Students shall wear an activated chemlight attached to their swim mask whenever they are in the pool in a night time evolution. If available, student chemlights should be different in color from other chemlights being used for lighting other devices.
15. If different color lighting devices are being used ensure this is briefed prior to start of night time evolutions.
16. Students shall use ear wash after all swimming events.

B. Emergency Situations

1. Anytime you are in trouble, yell for help.
2. If a person is in actual danger the instructor only will enter the water to render assistance.
3. If you see anyone in trouble inform an instructor immediately.

Explain seriousness of this directive.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Shallow Water Blackout

1. Shallow water blackout can be caused by the effects of hyperventilation.
  
2. Shallow water blackout (passing out under water) can cause death.
  
3. Hyperventilation is strictly prohibited.

Explain hyperventilation:  
Breathing excessively to reduce carbon dioxide produced by metabolism. Carbon dioxide levels in the blood provide stimulus to breath. Suppressing this stimulus can result in hypoxia causing unconsciousness.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

Turn to cover page for objectives.

A. State Lesson Objectives

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

Utilize procedures during entire course of instruction while training is being held in pool.

EVALUATION

None.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

2.0 Upon completion of this unit of instruction, the student will administer Standard First Aid per NAVEDTRA 12081 standards and CPR per current American Red Cross standards without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 2.1

LESSON TOPIC: American Red Cross CPR for  
the Professional Rescuer

ALLOTTED LESSON TIME: 4.5 Classroom  
4.5 Laboratory

Enabling Objectives:  
Completely supported by this lesson topic:

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety Personnel as required per Annex E  
of Curriculum Outline

2.1 Respond to an emergency per current American Red Cross standards.  
2.2 Administer CPR per current American Red Cross CPR for the Professional Rescuer standards.

INSTRUCTIONAL REFERENCES:

1. American Red Cross CPR for the Professional Rescuer Instructor's Manual
2. American Red Cross CPR for the Professional Rescuer Audiovisual

CRITERION TEST:

Written knowledge test and practical skills test per American Red Cross standards.

HOMEWORK: None

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

INSTRUCTIONAL AIDS:

1. American Red Cross CPR for the Professional Rescuer Manual
2. VCR and Monitor
3. Blankets
4. Resuscitation Masks
5. Bag-valve Masks
6. CPR Mannequins (Adult, Child, and Infant)

INTRODUCTION

Display name and lesson topic.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

A. Establish Contact

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 for medical concerns:
  - 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?

Refer questionable cases to the department's senior medical representative for disposition.

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.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. Lesson Overview

Briefly outline material to be covered.

- a. Lesson Topic: American Red CPR for the Professional Rescuer
- b. Major Teaching Points:
  - (1) Adult CPR
  - (2) Child CPR
  - (3) Infant CPR
  - (4) 2 Person CPR
  - (5) Bag-valve Mask Resuscitation

PRESENTATION

A. CPR for the Professional Rescuer

Administer American Red Cross CPR for the Professional Rescuer course. Refer to current ARC directives.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

Students will practice segments of the CPR for the Professional Rescuer course under the supervision of an ARC Instructor during the course.

EVALUATION

A. Practical skills test.

B. Written test.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

CLASSIFICATION: Unclassified

LESSON PLAN NUMBER: 2.2

LESSON TOPIC: Practical First Aid  
Training/Mock Trauma

ALLOTTED LESSON TIME: 2.0 Classroom  
1.0 Laboratory

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety personnel as required per Annex E  
of Curriculum Outline

INSTRUCTIONAL REFERENCES:

1. NAVEDTRA 12081, Standard First Aid  
Training Course
2. NAVSEA 0994-LP-001-9010, U.S. Navy  
Diving Manual, Volume 1,

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

- 2.0 Upon completion of this unit of  
instruction, the student will  
administer Standard First Aid per  
NAVEDTRA 12081 standards and CPR per  
current American Red Cross standards  
without injury to personnel or  
damage to equipment.

Enabling Objectives:  
Completely supported by this lesson  
topic:

- 2.3 Respond to an emergency per current  
American Red Cross standards.
- 2.4 Administer CPR per current American  
Red Cross standards.
- 2.5 Administer Standard First Aid per  
NAVEDTRA 12081 standards.
- 2.6 Administer Practical First Aid in a  
mock trauma (moulage) scenario.

CRITERION TEST:

Job Sheet 2.2 Checklist

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

INSTRUCTIONAL AIDS:

HOMEWORK: None

1. Contents of Level "A" Medical Kit
2. Rescue Litter/Search and Rescue  
MEDEVAC Litter
3. Moulage Kit
4. Blankets
5. Gauze, Rolls and Pads
6. Triangular Bandages
7. Splints
8. CPR Mannequins

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.

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Practical First Aid  
Training/Mock Trauma

b. Major Teaching Points:

(1) Purpose of First Aid for Rescue Swimmers

(2) Basic Order of Treatment

(3) Hemorrhage Control

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (4) Secondary Survey
- (5) Treating Shock
- (6) Spinal Injuries
- (7) Underwater Injuries

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

- A. Purpose of First Aid for Rescue Swimmers
  - 1. Save life.
  - 2. Prevent further injury.
  - 3. Preserve resistance and vitality.
  - 4. Basic principles which further the purposes of First Aid:
    - a. Act quickly, but effectively.
    - b. Reassure the survivor in a calm manner.
    - c. Reveal only enough of the survivor's injuries to the survivor to insure cooperation.
    - d. Don't talk to others of the survivor's injuries while the survivor is in hearing range.
    - e. If survivor is in danger of further injury, remove from danger quickly and smoothly.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

B. Basic Order of Treatment

1. If the survivor is in the water and not breathing, give two full breaths. If physically able, do not interrupt artificial ventilation until the survivor is in the rescue platform.
2. If survivor is unconscious or has ejected, always treat as a possible head, neck and/or back injury. The spine shall be stabilized prior to moving the survivor whenever circumstances permit.

**NOTE**

As a SAR swimmer, your primary objective is to get the survivor into the rescue platform before attempting any advanced first aid.

3. Advanced first aid begins once the survivor is in the rescue vehicle.
  - a. Conduct primary survey
    - (1) Establish a working airway, breathing and circulation.
    - (2) Stop severe hemorrhage
    - (3) Place cervical collar on the survivor if spinal injury is suspected
  - b. Conduct secondary survey

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Hemorrhage Control

1. Hemorrhage Control is performed by the following five methods:
  - a. Direct pressure
  - b. Elevation
  - c. Bandage
  - d. Pressure Points
  - e. Tourniquet

DEMONSTRATE  
DEMONSTRATE  
DEMONSTRATE  
DEMONSTRATE

**WARNING**

**When practicing on a simulated survivor, do not tighten tourniquet.**

2. Applying a tourniquet
  - a. When you use a tourniquet you risk sacrifice of a limb in order to save a life.
  - b. Tourniquets are only placed on the extremities (arms and legs). They are normally placed 1 to 1.5 inches above the wound.
  - c. Write down time and location of tourniquet, place on front of survivor's shirt.

Demonstrate how to apply a tourniquet.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- d. Write a capital "T" on the survivor's forehead.
- e. Leave tourniquet visible.
- f. Never use string or wire or thin material. Use a ready made or improvised material at least one inch wide.
- g. Tighten only enough to stop the bleeding.
- h. Never loosen unless advised by a physician.

D. Secondary Survey

- 1. During the secondary survey, examine the survivor from head to toe and treat for further injuries that are found.
  - a. Remove only enough of the survivor's clothing to ensure a thorough survey, yet not chill the victim.
  - b. Rip or cut clothes along a seam to expose injury.

Demonstrate head to toe exam.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. The treatment of secondary injuries and illness is a combination of first aid and common sense.
  - a. The basic order of treatment can vary depending on the situation and injuries.
  - b. If the survivor is having trouble breathing, place the survivor in a comfortable position (semi-seated) which allows treatment and does not worsen his injuries. If this position will make the injuries worse, and the survivor can breathe okay until treated, treat injuries first.

**NOTE:**

Place in semi-seated position only if neck and back injuries are not expected.

3. Facial/Scalp Wounds
  - a. Ensure that the tongue, injured soft tissue, or other material, does not block the airway causing a breathing obstruction.
  - b. Position the survivor so that blood will drain out of the mouth and nose.
  - c. Remember that facial wounds, as well as scalp wounds, bleed freely. Do not let that scare you and keep you from properly treating the survivor.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. Open (Compound) Fracture
  - a. An open fracture is a broken bone with an open wound.
  - b. Treat the wound first. Most bleeding can be stopped by applying direct pressure on the wound or by applying digital pressure at the appropriate pressure point.
  - c. Dress the wound.
  - d. Do not attempt to set a broken bone.
5. Once the survivor is aboard the rescue platform, the medical equipment available to the rescue swimmer is the Level "A" medical kit. Nomenclature and quantity is described in the NWP 3.50-1 manual.
6. Keep rescue vehicle commander informed of survivors condition to include the following pertinent information:
  - a. Age
  - b. Sex
  - c. Blood type/Allergies/Medications (if known)
  - d. State all injuries

Display the components of the medical kit.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

E. Treating Shock

1. Most survivors will be in shock.

**WARNING**

**In a rescue situation from a water environment, the survivor may be placed in a litter and hoisted horizontally to prevent the effects of hydrostatic squeeze.**

2. Hydrostatic Squeeze
  - a. Caused by the relief of outside water pressure against the body.
  - b. Removal from the water has similar effect as shock or near shock, and causes a pooling of blood in the extremities increasing shock.
3. Position survivor for transport in the rescue vehicle in one of the following five positions.
  - a. Traditional Shock Position -

Feet are elevated above the level of the heart. Use this position unless the survivor's injuries indicate the use of another position.
  - b. Flat on Their Back Position -

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

Use when serious head injuries or spinal injury is suspected. Position the survivor on their back, keeping the body as straight as possible. Maintain in-line stabilization for the head and neck.

c. Semi-Sitting Position -

Used for survivor with difficulty breathing, or with superficial head, neck, or chest injuries. Not to be used if you suspect head, neck or spinal injuries.

d. Knee's Flexed Position -

Used for survivor with abdominal injuries. Lie survivor on their back and raise their knees to approximately 45 degrees. This will ease tension on the abdominal muscles.

e. Side Position -

Used for survivor with nausea and vomiting, bleeding from mouth, large amounts of oral secretions or an open (sucking) chest wound, survivor is placed on the injured side.

F. Underwater Injuries

1. May occur anytime a survivor breathes compressed gases underwater.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Helicopter Emergency Egress Device Systems (HEEDS).
  - b. Seat Pan Oxygen.
  - c. Self-Contained Underwater Breathing Apparatus (SCUBA).
2. Two life threatening conditions may occur.
- a. Air embolus.
  - b. Decompression sickness (the BENDS).
3. Signs and Symptoms
- a. Air Embolus
    - (1) Dizziness
    - (2) Blurred vision
    - (3) Chest pain
    - (4) Disorientation
    - (5) Personality change
    - (6) Paralysis or weakness
    - (7) Bloody froth from mouth or nose
    - (8) Convulsions

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. Decompression Sickness (BENDS)
  - (1) Unusual fatigue or weakness
  - (2) Skin itch
  - (3) Pain in the arms, legs, or torso
  - (4) Dizziness
  - (5) Coughing
  - (6) Shortness of breath
  - (7) Numbness, tingling or paralysis

4. Treatment

- a. Both air embolus and decompression sickness require urgent recompression.
- b. Administer CPR if required.
- c. Keep airway open. Survivor may vomit.
- d. Keep survivor lying down (left side down) and quiet. Embolism bubble will rise away from heart in this position.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

5. Transportation
  - a. Unpressurized aircraft fly at lowest safe altitude and limit altitude changes.
  - b. Ensure rescue vehicle commander contacts hyperbaric chamber before arrival of survivor.
  - c. Keep rescue vehicle commander informed of survivors condition.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

None.

EVALUATION

Job sheet 2.2 Checklist

Perform checklist twice.

ASSIGNMENT

None.

**JOB SHEET CHECKLIST 2.2**

**PRACTICAL FIRST AID/MOCK TRAUMA**

Student Name: \_\_\_\_\_

PRACTICE / FINAL

Total Time: \_\_\_\_\_

**A. CRITICAL AREAS**

- 1. Primary Survey: \_\_\_\_
    - a. A.B.C.'s \_\_\_\_
    - b. Life Threatening Injuries \_\_\_\_
  - 2. Spinal Management: Cervical Collar \_\_\_\_
  - 3. Shock Position: Correct Position \_\_\_\_
- 

**B. SECONDARY AREAS Maximum score of **20** (Circle One , 0-2: 0-Poor 1-Average 2-Above Average)**

- 1. Knowledge of Level "A" Medical Kit:
    - a. Location of gear : ( 2, 1, 0 )
    - b. Gear properly utilized: ( 2, 1, 0 )
  - 2. Survey:

	<u>Primary</u>	<u>Secondary</u>
a. Performed correctly: ( 2, 1, 0 )	__Head __Arms	__Head __Nose
b. Thorough: ( 2, 1, 0 )	__Neck __Pelvis	__Eyes __Abd
	__Chest __Groin	__Ears __Neuro
	__Back __Legs	
  - 3. Dressings:
    - a. Proper Dressing: ( 2, 1, 0 )
    - b. Correctly Applied: ( 2, 1, 0 )
  - 4. Splinting:
    - a. Correct Splint: ( 2, 1, 0 )
    - b. Properly Applied: ( 2, 1, 0 )
  - 5. Patient Report:
    - a. Correct Order: ( 2, 1, 0 )
    - b. Proper Information: ( 2, 1, 0 )
- Total: \_\_\_\_\_ (Min Passing Score: 16)

\_\_Age \_\_ Ethnic Group \_\_ Gender \_\_ Approx Weight \_\_ Allergies  
\_\_ Medication \_\_ Blood Type \_\_ Injuries \_\_ Shock Position



LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

CLASSIFICATION: Unclassified

LESSON PLAN NUMBER: 3.1

LESSON TOPIC: Rescue Devices and  
Procedures

ALLOTED LESSON TIME: 1.5 Classroom  
5.0 Laboratory

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety personnel as required per Annex E  
of Curriculum Outline

INSTRUCTIONAL REFERENCES:

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

INSTRUCTIONAL AIDS:

1. Double Rescue Hook
2. Modified Rescue Strop

TERMINAL OBJECTIVE:

Partially supported by this lesson topic:

- 3.0 Upon completion of this unit of instruction, the student will select and use the appropriate rescue devices, describe the use of survivor marker/locator devices per NWP 3-50.1, use applicable publications to obtain required information relative to Rescue Swimmer procedures, and operate and remove Navy and Air Force Aircrew survival equipment, harnesses and associated hardware, without injury to personnel or damage to equipment.

Enabling Objectives:

Completely supported by this lesson topic:

- 3.1 Demonstrate the proper methods of communication between the Rescue Swimmer and the Rescue Platform per NWP3-50.1:
  - a. hand signals
  - b. radio communication
- 3.2 Demonstrate the functional operation of the following rescue devices per NWP 3-50.1:
  - a. Double Rescue Hook

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- |    |  |     |  |
|----|--|-----|--|
| 3. | Rescue Net   | b.  | Modified Rescue Strop  |
|    |  | c.  | Rescue Net   |
| 4. | Rescue Litter/SAR MEDEVAC Litter,<br>Trail Line and Gloves | d.  | Rescue Litter/SAR MEDEVAC<br>Litter, Trail Line and<br>Gloves                          |
| 5. | Rescue Seat  | e.  | Rescue Seat  |
|    |  | f.  | Hoisting Vest  |
| 6. | Hoisting Vest  | 3.3 | Place simulated victim into the<br>following rescue devices in a water<br>environment: |
|    |  | a.  | Double Rescue Hook   |
|    |  | b.  | Modified Rescue Strop  |
|    |  | c.  | Rescue Net   |
|    |  | d.  | Rescue Litter/SAR MEDEVAC<br>Litter  |
|    |  | e.  | Rescue Seat  |

CRITERION TEST:

Student will correctly demonstrate procedures as presented in this lesson.

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. 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?

Refer questionable cases to the department's senior 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
2. Lesson Overview
  - a. Lesson Topic: Rescue Devices and Procedures
  - b. Major Teaching Points:
    - (1) Communication Procedures
    - (2) Double Rescue Hook
    - (3) Modified Rescue Strop
    - (4) Rescue Net
    - (5) Rescue Litter/SAR MEDEVAC Litter
    - (6) Rescue Seat
    - (7) Hoisting Vest
    - (8) Inspection and Care of Rescue Devices

Establish importance and relevance of lesson material using personal experience or anecdote.  
Briefly outline material to be covered.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

Instructor note: This presentation may be given in the classroom or on the pool deck. This Lesson Plan is designed for use in Refresher training. Tailor the depth of instruction accordingly.

A. Communication Procedures

1. Efficient communications keeps pilot, hoist operator and swimmer aware of developing rescue situation and allows aircraft to provide needed support to swimmer (i.e., deployment of rescue devices).
2. Hand signals are used whenever radio communications are not possible.
  - a. Primary means of communication between Rescue Swimmer and the aircraft in a maritime environment.
  - b. All crewmembers must be familiar with the meaning of standard hand signals.
3. Radio Communications offer optimal communications.

Demonstrate all signals.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

B. Double Rescue Hook

Display device, indicating hooks and equipment ring.

1. The Double Rescue Hook is the primary rescue device. All other rescue devices can only be utilized with the Double Rescue Hook. In accordance with NAVAIR 13-1-6.5, the large hook, rated at 3,000 lbs., shall be the only hook used to hoist personnel; the small hook, rated at 1,000 lbs., is to be used only for lightweight items such as mail. The equipment ring, rated at 1500 lbs., can be used to hoist light equipment and mail.

2. Night-time Illumination

Attach chemlight strap to equipment ring of the Double Rescue Hook and attach two chemlights to the strap.

3. Procedures for Helo-Deployed Rescue Hook

Walk-through procedures with equipment and "survivor".

**WARNING**

Never touch any rescue device before it is grounded on deck or by water entry, doing so may cause electrical shock. Helicopter rotors can build up a significant static electrical charge.

**WARNING**

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**When connecting to a survivor who has an SV-2 vest, ensure that the chest strap on the survivor is loosened slightly to avoid injury to the survivor.**

- a. If swimmer and survivor are to be hooked directly to the Double Rescue Hook and hoisted simultaneously:
  - (1) Signal for pickup.
  - (2) Allow hook to ground.
  - (3) Hook up survivor.
  - (4) Hook up swimmer.
  - (5) Perform safety check.
  - (6) Signal for "up-hoist".
  
- b. If survivor is to be attached to the gated "D"-ring of the swimmer's harness, and both swimmer and survivor are hoisted by the swimmer's "V"-ring:
  - (1) Attach survivor's gated "D"/"V"-ring to swimmer's "D"-ring.
  - (2) Signal for pickup.
  - (3) Allow hook to ground.

Demonstrate procedure.

Demonstrate procedure.

DISCUSSION POINT

- (4) Hook up swimmer's "V"-ring to large hook of Double Rescue Hook.
- (5) Perform safety check.
- (6) Signal for "up-hoist".

**WARNING**

**Do not place fingers in or around the bumper compressing spring of the Double Rescue Hook, due to the possibility of a crushing injury to fingers or hands during hoisting operations.**

RELATED INSTRUCTOR ACTIVITY

Point out the bumper compressing spring.

C. Modified Rescue Strop

Display device

- 1. Optional rescue device used with Double Rescue Hook. The Modified Rescue Strop is a buoyant device with a red waterproof cordura cover over foam which is designed to accommodate one survivor. A webbing strap runs through the cover and has a "V"-ring at both ends for attaching to the Double Rescue Hook. Two arm retainer straps are attached to the Modified Rescue Strop to hold survivor in the strop.
- 2. Night-time Illumination Two chemlights are attached to the strap. Strap is attached to the Rescue Strop lower "V"-ring by the crewman.
- 3. Procedures for use:

Walk-through procedures with equipment and "survivor".

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Signal for pick-up.
- b. Allow rescue device to touch water.
- c. Approach hoist with survivor in an appropriate carry.

**NOTE**

Arm retainer straps shall be outboard when placing the Modified Rescue Strop on the survivor.

- d. Working behind survivor, pass Modified Rescue Strop free end under survivor's one arm, around the back, under other arm, making sure that the arm retainer straps are placed outboard. Connect Modified Rescue Strop free end lifting "V"-ring to the large hook on Double Rescue Hook.

**NOTE**

Assure strop is positioned tightly under survivor's armpits and positioned on upper half of survivor's back.

**WARNING**

**Arm retainer straps shall always be used when hoisting with the rescue strop. This prevents the survivor's arms from raising and the survivor from slipping out of the rescue strop.**

- e. Connect the arm retainer strap, by

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

passing the arm retainer straps over the survivor's arms, route under the Modified Rescue Strop, and across the survivor's chest.

**WARNING**

**Arm retainer straps shall be routed under the Modified Rescue strop after they are passed over the survivor's arm.**

- f. Connect the snap hook arm retainer strap to the "V"-ring arm retainer strap. Pull webbing on the "V"-ring arm retainer strap until the arm retainer straps are secured tightly around the survivor's arms.

**WARNING**

**The possibility exists for an unconscious survivor or physically incapacitated survivor to slip through the Rescue Strop if their arms are not secured at the side with the arm retainer straps.**

- g. If swimmer is to be hoisted, attach swimmer's "V"-ring to large hook of the Double Rescue Hook.
- h. Perform safety check.
- i. Signal for "up-hoist".
- j. The Rescue Swimmer may use his feet to stabilize entry of a conscious survivor

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

into the aircraft, but shall not release the survivor's arms until:

- (1) The survivor is securely on the aircraft deck.
- (2) The hoist operator signals that he has the survivor in positive control within the aircraft.

D. Rescue Net

Display device.

- 1. Conically-Shaped Bird Cage

**WARNING**

**In order to utilize the net, the front support rods must be locked in place to prevent the net from collapsing on the survivors. Collapsing of net could result in the survivor(s) drowning.**

Demonstrate locking support rods into place.

- 2. Primarily used for multiple rescues.
- 3. Never send unconscious victim up alone in Rescue Net.
- 4. Flotation for two persons.
- 5. A "V"-strap is provided for securing the net in the rescue vehicle door.
- 6. Night-time Illumination

Two chemlights are attached to the strap. Chemlight straps are attached to the nylon rope just above the middle frame flotation

DISCUSSION POINT

on both sides of the net opening.

7. Procedures:

- (a) Signal for net.
- (b) Allow device to ground.
- (c) Place Rescue Net opening directly in front of the Rescue Swimmer without disconnecting it from the rescue hook.
- (d) Place survivor in a collar/equipment tow and swim into Rescue Net backwards while positioning the survivor on either side of the net facing out.
- (e) Ensure that survivor's body is entirely in the net. Instruct survivor not to exit the net until directed by crewman in helicopter.

**WARNING**

**Survivor shall not attempt to get out of the Rescue Net until directed by the crewman.**

- (f) Place one arm across the net.
- (g) Signal for up-hoist.
- (h) When net reaches the helicopter, the crewman shall hook up the safety strap from the rescue net to the decking of the helicopter. The crewman shall assist the survivor inside the

RELATED INSTRUCTOR ACTIVITY

Demonstrate procedures

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

helicopter.  
E. Rescue Litter/SAR MEDEVAC Litter

1. Litter Characteristics:

- a. Both are for use with suspected back injuries and unconscious survivors.

Display Litter.

**WARNING**

**An aircrewman who has ejected and/or is unconscious may potentially have a spinal injury, assess the situation and treat accordingly. Loss of ABC's or other life threatening injuries will take precedence over a spinal injury.**

- b. Both are designed to be used over land or in water with flotation assemblies.
- c. Rescue Litter requires a flotation kit for over water use. When flotation is installed litter floats with patients head slightly reclined from the vertical.

**WARNING**

**If survivor is wearing the bright orange Quick Donning Anti-Exposure Suit it may counteract the self-righting feature of the Rescue Litter and the SAR MEDEVAC Litter.**

- d. Both have a two piece Rescue Litter Hoisting Sling which are attached to the Double Rescue Hook. Sling is color coded short red to head and long white to feet.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- e. The SAR MEDEVAC Litter folds in half to reduce space requirements and is more easily used for rappelling and backpacking. It weighs approximately 40 pounds. It can be vertically hoisted with its own sling, making it especially useful in mountainous and restricted access situations. It has replaced the Neil Robertson Litter for use on submarines, and is an alternative to the Rescue Litter.
  
- f. Night-time Illumination  
Two chemlights are attached to each strap. One Strap is attached to the head of the litter; one to the foot of the litter.
  
- g. Both litters utilize a "trail line" controlled by the swimmer in the water to control litter deployment and stabilize the litter during hoisting.
  - (1) One hundred and twenty feet in length.
  - (2) Three eighths inch thick polyethylene, diamond-braided rope.
  - (3) Weak link for breakaway capability.
  - (4) Gloves and line are deployed

Display SAR MEDEVAC Litter, indicating features.

Display trail line assembly and gloves.

DISCUSSION POINT

together via a five pound shot bag.

2. Securing Survivor to the Rescue Litter:
  - a. Rescue Litter has five restraint straps. They are stowed with four retaining straps.
  - b. Procedure for securing survivor:
    - (1) Position survivor in litter.
    - (2) Place the top restraint strap under the arms but over the chest and attach to the fitting on the left side.
    - (3) Next, working from the chest strap down, secure the rest of the restraint straps.
    - (4) Once the restraint straps are secured, attach the chest pad over the survivor's arms. The rescue swimmer may encounter some difficulty if the survivor has inflated flotation. However, the survivor's flotation is not to be removed or deflated. Instead, remove chest pad from litter and continue with rescue, if practical swimmer will return chest pad back to helicopter when hoisted.
3. Securing survivor to the SAR MEDEVAC Litter:

RELATED INSTRUCTOR ACTIVITY

Demonstrate each procedure as it is presented.

Display SAR MEDEVAC Litter

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Litter will need to be assembled by hoist operator prior to lowering to swimmer.
- b. Litter has integral cervical collar and head restraint, four patient restraint straps, one chest flotation pad assembly strap, and one foot restraint assembly.
- c. Procedure for securing survivor:
  - (1) Position survivor in litter.
  - (2) Place the top restraint strap under the arms but over the chest and attach to fitting on the left side.
  - (3) Next, working from the chest strap down, secure the rest of the restraint straps.
  - (4) Once the restraint straps are secured, attach the flotation pad assembly over the arms. The rescue swimmer may encounter some difficulty if survivor has inflated flotation. However, flotation shall not be removed. Instead, remove flotation pad assembly from litter and continue with rescue, if practical swimmer

securing features.

Demonstrate each procedure as it is presented.

DISCUSSION POINT

will return chest pad assembly  
back to helicopter when hoisted.

- (5) Properly adjust foot restraint  
assembly.
- (6) Secure head restraint assembly if  
possible. Do not remove  
survivor's helmet if neck or back  
injury is suspected.

4. General Litter Procedures:

- a. Signal for litter. (Trail line will be  
deployed first.)

**WARNING**

**The weight bag shall be deployed so as not to  
strike Rescue Swimmer or survivor.**

RELATED INSTRUCTOR ACTIVITY

Demonstrate procedures.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. The hoist operator shall deploy the trail line ensuring that it is attached to the litter.

**WARNING**

**The Rescue Swimmer shall wear trail line gloves in order to prevent rope burns to the hands.**

- c. Rescue Swimmer shall wear trail line gloves.
- d. The Rescue Swimmer shall pull on the trail line gently until the entire line is deployed.
- e. Signal "thumbs-up" indicating ready for litter.
- f. Use the trail line to control the litter and pull it into position as it is lowered.
- g. Allow rescue device to touch water.
- h. Disconnect hoisting slings from rescue hook, placing hoisting slings outside litter. Do not allow hoisting slings to foul restraining straps.
- i. The Rescue Swimmer shall guide the survivor into the positioned rescue litter using the collar tow or equipment carry.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- j. Position survivor on litter, adhering to warning regarding survivor's buoyancy and the self righting feature of the litter.

**WARNING**

**If the survivor is wearing a buoyant antiexposure suit such as the Imperial dry suit, it will affect the flotation characteristics of the litter and may negate the self-righting feature.**

- k. Secure survivor using procedures appropriate to the litter.
- l. Ready the Rescue Litter Hoisting Sling and signal the aircraft to move in for pick-up.
- m. Hook the Rescue Litter Hoisting Sling (both sides) to the large hook.
- n. Conduct pre-hoisting safety check, ensuring survivor is securely within litter, litter is attached to large hook, tending line is attached to the proper side of the litter (aircraft dependent), swimmer is wearing gloves, and cable is clear and not wrapped around litter or swimmer.
- o. Signal for pick up.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- p. Swimmer remains in water, taking a slight strain on trail line, stabilizing the hoist, and keeping the litter oriented parallel to the aircraft. Upon reaching the rescue platform, maneuver survivor aboard per platform specific procedures.
- q. When the litter is at the aircraft entrance, the swimmer shall use the trail line to maneuver the litter such that survivor's head enters the aircraft per specific platform.
- r. With the litter and trail line on board, the crewman shall lower the hoist cable and recover Rescue Swimmer.

F. Rescue Seat

Display device.

- 1. Two folding flukes for sitting.
- 2. Bright orange flotation collar for high visibility.
- 3. Swimmer or survivor must lower the flukes.
- 4. Two adjustable yellow straps with friction adjusters.
- 5. Used for both land and sea rescue.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

6. Night-time Illumination: There is no available place to attach the chemlight strap to the Rescue Seat. The chemlights shall be attached to the rescue hook during night operations.
7. Procedures for use:
  - a. Signal for device.
  - b. Allow device to ground.
  - c. Pull down fluke and have survivor sit on it, facing the rescue seat.

Demonstrate hand signal for device.

**WARNING**

**If hoisting an unconscious survivor with the rescue seat, the rescue swimmer shall be hoisted along with the survivor.**

**NOTE:**

If survivor is wearing an inflated LPU life preserver, the waist lobes may need to be disconnected prior to attaching the adjustable safety strap.

- d. Position riders, pass adjustable safety strap under rider's arms and around their back and secure strap to the V-ring and tighten until survivor is secured against flotation collar.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- e. Have the survivor wrap arms and legs around the flotation collar.
- f. Perform safety check.
- g. Signal for "up-hoist".

**NOTE**

If the rescue swimmer elects to be hoisted with survivor, the rescue swimmer shall wear the safety strap in the same manner as survivor.

G. Hoisting Vest

Display vest.

- 1. The hoisting vest is not a water rescue device.
- 2. Nylon fish net vest.
- 3. Adjustable for each survivor.
- 4. Used for over-land recovery or ship to ship transfer. If used for overwater hoist, flotation must be placed over the vest.
- 5. Night-time Illumination: There is no available place to attach the chemlight strap to the Hoisting Vest. The chemlight strap shall be attached to the rescue hook on all night operations.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

6. Procedures for use:
  - a. Place survivor in vest. Place flotation over hoisting vest.
  - b. Perform safety check.
  - c. Signal for "up-hoist".
  - d. Trail line procedures may be used with this device.

H. Rescue Equipment Inspection and Care

1. Visual Inspection Prior to Use
  - a. Inspect fabric for cuts, deterioration, and abrasion.
  - b. Inspect seams for proper adhesion and stitching.
  - c. Inspect all hardware for security of attachment, corrosion, damage, wear, and if applicable, ease of operation.
  - d. Check for sharp edges and projections.
  - e. Ninety day inspection cycle for equipment conducted by maintenance personnel.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. Care After Use
  - a. Fresh water wash all gear after use.
  - b. Per NAVAIR 13-1-6.5, the Rescue Strop must be inspected after every immersion in salt water.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

Initial students practice procedures dry-land until comfortable.

Break initial students into small groups for dry land practice.

Students place "survivor" into the following rescue devices in a pool environment.

Students practice skills in water under observation and instruction of an in-water instructor. Instructor demonstrate skills as required.

- a. Double Rescue Hook
- b. Modified Rescue Strop
- c. Rescue Net
- d. Rescue Seat
- e. Rescue Litter/SAR MEDEVAC Litter

EVALUATION

Student utilize the procedures presented in this lesson to place a student "survivor" into the following rescue devices in a pool environment:

In-water instructor evaluate students ability to correctly perform the procedures presented in this lesson.

- a. Double Rescue Hook
- b. Modified Rescue Strop
- c. Rescue Net
- d. Rescue Seat
- e. Rescue Litter/SAR MEDEVAC Litter

ASSIGNMENT: None

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

3.0 Upon completion of this unit of instruction, the student will select and use the appropriate rescue devices, describe the use of survivor marker/locator devices per NWP 3-50.1, use applicable publications to obtain required information relative to rescue swimmer procedures, and operate and remove Navy and Air Force Aircrew survival equipment, harnesses and associated hardware, without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 3.2

LESSON TOPIC: Survivor Marker/Locator  
Devices

ALLOTTED LESSON TIME: 1.0 Classroom

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor

INSTRUCTIONAL REFERENCES:

1. NWP 3-50.1 Naval Search and Rescue Manual
2. NAVAIR 00-80T-101, NATOPS Survival Manual
3. NAVAIR 11-15-7, Pyrotechnic, Screening, Marking, and Countermeasure Devices

Enabling Objective:  
Completely supported by this lesson topic:

INSTRUCTIONAL AIDS:

1. MK-25 Marine Location Marker
2. MK-58 Marine Location Marker
3. Electric Marine Marker Light

- 3.4 Describe the purpose and hazards of the following survivor marker locator devices per NWP 3-50.1:
  - a. MK-25 Marine Location Marker
  - b. MK-58 Marine Location Marker
  - d. Electric Marine Marker Light
  - e. MK-13/MK-124 MOD 0 Day/Night Distress Flare
  - f. MK-79 Pencil Flare
  - g. Signal Mirror
  - h. Sea Dye Marker
  - i. AN/PRC-125 Radio

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. MK-13/MK-124 MOD 0 Day/Night Distress Flare
5. MK-79 Pencil Flare
6. Signal Mirror
7. Sea Dye Marker
8. AN/PRC-125 Radio

CRITERION TEST: None.

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.

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Survivor Marker/Locator Devices

b. Major Teaching Points:

(1) MK-25 Marine Location Marker

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (2) MK-58 Marine Location Marker
- (3) MK-13/MK 124 MOD 0 Flares
- (4) MK-79 Signal Kit Personal Distress  
(Pencil Flare)
- (5) Electric Marine Marker Lights
- (6) Signal Mirror
- (7) Sea Dye Marker
- (8) AN/PRC-125 Radio

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

A. MK-25 Marine Location Marker

Display Marker.

1. Launched by aircraft or ships to provide day or night reference points to the position of survivors.

**WARNING**

**Never throw flare out when in hover because of valve plug possibly striking aircraft or personnel.**

**WARNING**

**Should fuel be observed or suspected to be present in the water, pyrotechnic devices SHALL NOT BE USED due to ignition hazards.**

2. Produces smoke and a limited amount of light, fumes are caustic.
3. Burn time is 10 to 20 minutes.

EMPHASIZE that ALL flares burn "white hot" and can cause serious burns if allowed to come into contact with skin.

B. MK-58 Marine Location Marker

Display Marker.

1. Launched from surface craft or aircraft.
2. This marker is intended for night/day use. Makes a long-burning, smoke and reference point marking on the ocean surface.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- 3. It produces a yellow flame and white smoke.
- 4. It burns for 45 minutes.

C. MK-13/MK 124 MOD 0 Flares

- 1. This signal is used for day or night distress signalling as appropriate by personnel on land or at sea.
- 2. Emits orange smoke for day use and red flames for night use.
- 3. Burn time for each is approximately 20 seconds.

Display Flare.

- 4. MK-124 is the replacement for the MK-13 and is intended use is the same as MK-13, but is designed for single hand operation.

Display Flare.

D. MK-79 Signal Kit Personal Distress (Pencil Flare)

Display Flare.

- 1. Intended to be used by downed air crewmembers or personnel in life rafts as a distress signalling device.
- 2. Produces a single red star display at a minimum altitude of 250 feet.
- 3. Burns for a minimum of 4.5 seconds.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- |    |   |                 |
|----|---|-----------------|
| E. | Electric Marine Marker Lights   | Show Lights.    |
|    | 1. Same as lights that are attached to life rings aboard ship.                              |                 |
|    | 2. Launched by aircraft or ships as a visual reference of survivor position.                |                 |
|    | 3. Poses no hazard to the swimmer.  |                 |
|    | 4. Battery powered and produces a flashing light.   |                 |
|    | 5. Can be used at rescue sites where fuel is in the water.                                  |                 |
| F. | Signal Mirror   | Show Mirror.    |
|    | 1. Carried by pilots and crewmembers for day distress signaling.                            |                 |
|    | 2. Poses no hazard to swimmers.   |                 |
| G. | Sea Dye Marker  | Display Marker. |
|    | 1. Carried by pilots and crewmembers to provide day reference points for survivor location. |                 |
|    | 2. No direct hazard, but undiluted dye crystals can stain and cause eye/skin irritation.    |                 |
|    | 3. Produces highly visible fluorescent green dye.   |                 |

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

H AN/PRC-125 Rescue Swimmer Radio

Show students the AN/PRC-125.

1. Provides reliable two-way communication between SAR platform and the Rescue Swimmer in the water.
2. Designed as an optional method of communication device used as a back-up to standard Rescue Swimmer hand signals.
3. May be used as an emergency signalling locator device should the Rescue Swimmer become separated from the SAR platform.
4. Consist of the following components:
  - (a) Receiver/Transmitter
  - (b) Control Unit and Cable
  - (c) Speaker/Microphone
5. Receiver/Transmitter stows in LPU-28 storage pouch, cable exits top right corner of pouch. Control Unit attaches to enlarged velcro on right shoulder of LPU-28.
6. Operation is similar to the PRC-90. Function Switch has the following positions.
  - (a) Off
  - (b) 243.0 (MHZ) Voice

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (c) 243.0 (MHZ) Beacon Only
- (d) 282.8 (MHZ) Voice
- 7. Designed for hands free operation. Press to Talk (PTT) button can be operated with either hand or chin.
- 8. Effective Ranges:
  - (a) Swimmer to Swimmer - One nautical mile
  - (b) Swimmer to Aircraft:
    - 1. Up to six nautical miles with 100 ft Aircraft altitude.
    - 2. Thirty nautical miles with 5,000 ft Aircraft altitude.
- 9. Has optional earphone for use in high ambient noise areas.
- 10. Radio is completely waterproof, but does not float.
- 11. Receiver will function completely submerged as long as approximately one inch of the antenna is above the water surface.
- 12. Do not disassemble any part of the radio. This will break the watertight integrity of the radio and render it inoperative.

Explain line of sight theory.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

None.

EVALUATION

None.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

3.0 Upon completion of this unit of instruction, the student will select and use the appropriate rescue devices, describe the use of survivor marker/locator devices per NWP 3-50.1, use applicable publications to obtain required information relative to rescue swimmer procedures, and operate and remove Navy and Air Force Aircrew survival equipment, harnesses and associated hardware, without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 3.3

LESSON TOPIC: SAR Publications and Reports

ALLOTTED LESSON TIME: 1.0 Classroom

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor

INSTRUCTIONAL REFERENCE:

NWP 3-50.1, Naval Search and Rescue Manual

Enabling Objectives:  
Completely supported by this lesson topic:

INSTRUCTIONAL AIDS:

1. NAVAIR 13-1-6.5, Rescue and Survival Equipment
2. ATP-10, NATO SAR Manual
3. NWP-42, Shipboard Helicopter Operating Procedures
4. Joint Pub 3-50, National Search and Rescue Manual.
5. NWP 3-50.1, Naval Search and Rescue Manual

3.5 Identify the short title and content of publications applicable to a Rescue Swimmer.

3.6 Complete a rescue report SAR form 3-50.1/1 when given a rescue scenario.

CRITERION TEST: None.

HOMEWORK: Complete Rescue Report for given scenario.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

6. NWP 3-22.5, SAR TAC
7. OPNAVINST 3130.6, Naval Search and Rescue (SAR) Standardization Program
8. Blank copies of Rescue Report (SAR Form 3-50.1/1, Appendix A of NWP 3-50.1)

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

There are several publications which will aid you in doing your job. These publications provide needed information about all phases of search and rescue. By becoming familiar with the manuals you will become a well-rounded surface rescue swimmer.

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

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- 2. Lesson Overview
  - a. Lesson Topic: SAR Publications and Reports
  - b. Major Teaching Points:
    - (1) NAVAIR 13-1-6.5, Rescue and Survival Equipment
    - (2) ATP-10, NATO SAR Manual
    - (3) NWP-42, Shipboard Helicopter Operating Procedures
    - (4) Joint Pub 3-50, National Search and Rescue Manual
    - (5) NWP 3-50.1, Naval Search and Rescue Manual
    - (6) NWP 3-22.5, SAR TAC
    - (7) OPNAVINST 3130.6, Naval Search and Rescue (SAR) Standardization Program
    - (8) Locating SAR Reference Publications

Briefly outline material to be covered.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

A. NAVAIR 13-1-6.5, Rescue and Survival Equipment Show manual.

Purpose of each volume is to provide technical information related to configuration, application, function, inspection, and maintenance of a particular category of aircrew safety and survival equipment.

B. ATP-10, NATO SAR Manual Show manual.

1. Manual deals with operations based upon the doctrine of search and rescue. It presents the techniques and procedures for Allied SAR problems.

2. Rescue swimmers should be aware of this manual and familiarize themselves with it.

C. NWP 42, Shipboard Helicopter Operating Procedures Show manual.

1. This publication sets forth the mandatory operational procedures and training requirements for the employment of helicopters.

2. Chapter 4 - General Helicopter Rescue Operations is probably the chapter in the NWP 42 most often referred to. It contains:

a. Paragraph 4.1.4 - SAR requirements for Shipboard operations.

b. Appendix H - Specific Helicopter

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

passenger egress diagrams

- |    |  |              |
|----|--|--------------|
| D. | Joint Pub 3-50, National Search and Rescue Manual  | Show manual. |
|    | 1. Implements national SAR plan and promulgates U.S. Federal Forces, Military and Civil in coordinating or participating in SAR operations.  |              |
|    | 2. Manual provides common procedures, techniques, and terminology so that any military and civilian combination of forces can effectively accomplish SAR missions.                 |              |
| E. | NWP 3-50.1, Naval Search and Rescue Manual.  | Show manual. |
|    | 1. The most frequently used SAR publication.   |              |
|    | 2. This manual is intended to promote and maintain standardization of SAR procedures and techniques within the U.S. Navy.  |              |
|    | 3. These procedures shall serve as a basis for <u>SAR evaluation programs</u> . Therefore, it is essential that this manual be maintained and readily available to unit personnel. |              |

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. Items covered in this manual are:
  - a. Search and Rescue Equipment
  - b. Aviation Maritime SAR Procedures
  - c. Rescue Swimmer Procedures
  - d. Surface Vessel SAR Procedures
  - e. SAR Medical Procedures
  - f. Rescue Report (SAR Form 3-50.1/1)

Show form in NWP 3-50.1. Emphasize that it must be correctly completed ASAP following a rescue. (Students will have an opportunity to fill in a copy of the form during the application portion of the lesson.)

- F. NWP 3-22.5, SAR TAC
  1. Promotes standardized, efficient, and sound SAR tactics.
  2. Every SAR capable ship and aircraft carries this publication.
- G. OPNAVINST 3130.6, Naval Search and Rescue (SAR) Standardization Program
  1. Purpose: To implement standardization in Naval (SAR) policies, procedures, training and evaluation programs.

Show publication.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. SAR evaluations aviation units.
3. SAR evaluations surface units.
4. Annual requalification.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

A. Completing the Rescue Report (SAR Form 3-50.1/1), scenario one.

Provide a rescue scenario to students, help them complete the report.

B. Completing the Rescue Report (SAR Form 3-50.1/1), scenario two.

Provide a second rescue scenario to students, assign it as homework.

EVALUATION

None

ASSIGNMENT

Complete Rescue Report for given scenario.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course Q-050-0604

Terminal Objective:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

3.0 Upon completion of this unit of instruction, the student will select and use the appropriate rescue devices, describe the use of survivor marker/locator devices per NWP 3-50.1, use applicable publications to obtain required information relative to rescue swimmer procedures, and operate and remove Navy and Air Force Aircrew survival equipment, harnesses and associated hardware, without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 3.4

LESSON TOPIC: Navy and Air Force Aircrew Survival Equipment, Harnesses and Associated Hardware

ALLOTTED LESSON TIME: 2.0 Classroom

INSTRUCTIONAL SUPPORT:

INSTRUCTIONAL REFERENCES:

1. NAVAIR 13-1-6.5, Rescue and Survival Equipment
2. NAVAIR 13-1-6.7, Aircrew Personnel Protective Equipment
3. NWP 3-50.1, Naval Search and Rescue Manual

Enabling Objectives:  
Completely supported by this lesson topic:

- 3.7 Perform the procedures for removing the following assemblies:
  - a. Helmet assemblies
  - b. RSSK/SKU assemblies
  - c. Oxygen mask assemblies
  - d. Survival vest/flotation assemblies

INSTRUCTIONAL AIDS:

1. HGU 33 Series Helmet
2. SPH-3C Helmet
3. MBU-12/P Oxygen Mask Assembly
4. RSSK/SKU
5. SV-2 Series Vest
6. HGU-55 Series Helmet
7. SRU-21 Series Survival Vest

3.8 Operate hardware associated with parachute harnesses.

3.9 Remove parachute harnesses.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

8. LPU-21
9. LPU-9
10. LPU-2/10
11. CWU-17 Torso Harness
12. USAF Koch Fitting
13. J-1 Capewell Fitting
14. USAF BA-18/22 Quick Donning Back Pack  
Type Parachute
15. LPU-30
16. PCU Parachute Restraint Harness  
Assembly
17. NB-6/8 Parachute Container and  
Harness
18. Koch Fitting with Seawater Activated  
Release System (SEAWARS) Installed

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.

Briefly outline material to be covered.

2. Lesson Overview

- a. Lesson Topic: Navy and Air Force Aircrew Survival Equipment, Harnesses and Associated Hardware.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. Major Teaching Points:
- (1) Navy Aircrew Survival Equipment
  - (2) Air Force Aircrew Survival Equipment
  - (3) PCU-Parachute Restraint Harness Assembly
  - (4) NB-6/8 Back Pack Type Parachute with Quick Donning Harness
  - (5) NB-6/8 Harness Hardware
  - (6) Seawater Activated Release System (SEAWARS)
  - (8) USAF Parachute Harnesses and Hardware

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

A. Navy Aircrew Survival Equipment

1. Anti-Exposure Suits

- a. Anti-Exposure Suits and Dry Suits are worn under the flight suit.
- b. Imperial Wetsuit (Quick-Donning)
  - (1) Bright orange in color.
  - (2) Worn over the flight suit clothing.

2. Flight Helmets

- a. HGU-33 through 52 Series Helmet
  - (1) Primary Navy helmet in use today by fixed wing aircrew.
  - (2) HGU-33 is basic helmet, different number designations denote specific aircraft applications (i.e., HGU-33P is for F-18'S).
  - (3) May be configured with one or two visors
    - (a) Tinted
    - (b) Clear

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (4) Oxygen mask connects with Bayonet fittings.
  - (5) HGU-37 helmet assembly has a VTAS (Visual Target Acquisition) sight assembly mounted on the visor and has separate sensor electrical cable and communication cord on the rear of the helmet that must be removed/cut before removing RSSK/SKU.
- b. SPH-3C, and HGU-54 through 64 Series Helmet
- (1) This is the primary Navy helmet for rotary wing aircrews.
  - (2) SPH-3C is the basic helmet, different number designations denote specific helicopter applications (i.e., HGU-54 is for the AH-1).
  - (3) Provides better sound attenuation from high frequency vibrations than the HGU-33 Series helmet.
  - (4) Dual Visor - tinted and clear.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

3. MBU-12 Series Oxygen Mask
  - a. Form fits to face.
  - b. Attaches to helmet with bayonet fitting.
  - c. Oxygen supply hose connects to RSSK/SKU or Aircraft console.
  - d. To disconnect hose from RSSK/SKU, lift the knurled locking ring and pull firmly on the supply hose.
  - e. The mask should always be disconnected from the helmet first to eliminate any possibility of suffocating the aircrewman.
4. Rigid Seat Survival Kit/Seat Kit Unit (RSSK/SKU)
  - a. Attaches aviator to ejection seat.
  - b. Has a bottom which separates from the top portion by pulling yellow and black handle on right hand side.
  - c. Contains LR-1/LRU-18, emergency locator transmitter, and other items of survival gear.
5. Survival Vest
  - a. SV-2 Series.
  - b. Nylon multi-pouched vest containing

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

general and medical survival items.

- c. Those used by helicopter and propeller aircraft, have a chest strap and a lifting V-ring for hoisting sewn into the vest.
- d. Designed to incorporate the LPU 21-24 and FLU-8 Series flotation gear. Can be inflated by CO<sub>2</sub> or orally.
- e. Inflation of the LPU is done by pulling the beaded toggles at the waist.
- f. The FLU-8A/P equipped life preserver will have four warning labels that will read:

**WARNING**

**AUTOMATIC INFLATION DEVICE INSTALLED FOR USE WITH  
EJECTION SEAT AIRCRAFT ONLY!**

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- g. The FLU-8A/P is a self-contained Cartridge Activated Device (CAD) which provides automatic inflation of the life preserver upon water entry. It is used by aircrew who wear the PCU parachute restraint harness assembly flying ejection seat equipped aircraft. The automatic activator is designed to prevent drowning in the event the crew member is incapacitated and/or is not able to manually activate the LPU. The FLU-8A/P will inflate the life preserver with 8-15 seconds upon immersion into seawater. The FLU-8A/P is a backup system only. The primary mode of life preserver inflation is manual.

6. Flight Deck Personal Vest (MK-1/LPU-30)

- a. Inflated by CO<sub>2</sub> or orally.
- b. Pull cord for CO<sub>2</sub> inflation on right hand side at bottom of vest.
- c. Oral inflation on right side of chest.

B. Air Force Aircrew Survival Equipment

1. HGU-55 Series Helmet

- a. Primary flight helmet used by the Air Force.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. Identical to Navy Fixed Wing Helmet (HGU-33).
  - c. Oxygen mask attaches via bayonet fittings.
  - d. May be configured with a single soft visor or a dual hard visor.
2. MBU-12 Oxygen Mask Assembly
- a. Identical to Navy Oxygen mask.
  - b. Bayonet fittings secure mask to helmet.
  - c. Oxygen mask supply hose connects to a manifold block mounted on the right shoulder strap of the CW-17 Torso Harness. To disconnect the hose turn the locking ring counter-clockwise while pulling on the hose.
  - d. The mask should always be disconnected from the helmet first to eliminate any possibility of suffocating the aircrewman.
3. Seat Survival Kit
- a. Identical to Navy RSSK.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. Attached to the aircrewman's parachute harness by quick-disconnect buckles. These are released by depressing a button in the center of the buckle, as in automobile seat belts.
4. SRU-21 Series Survival Vest
- a. Nylon multi-pouched vest containing general and medical survival items.
  - b. One piece garment worn independently of all other survival equipment.
5. Flotation
- a. LPU-9 Series
    - (1) Worn in conjunction with CW-17 Torso Harness by aircrew flying ejection seat equipped aircraft.
    - (2) One piece garment worn over the torso harness and survival vest.
    - (3) Consists of two separate cells, mounted waist high one above each hip. Each cell has its own CO<sub>2</sub> cartridge and activation toggles. Can also be inflated manually with oral inflation tube.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

b. LPU-2 and LPU 10 Series

- (1) Worn in conjunction with BA-18/22 Parachute Harness by aircrew's flying larger fixed wing aircraft (i.e., C-130, C-141, C-5, KC-10) not equipped with ejection seats.
- (2) One piece garment worn under the parachute harness.
- (3) Consists of two separate cells, mounted waist high one above each hip. Each cell has its own CO<sub>2</sub> cartridge and activation toggles. Can also be inflated manually with oral inflation tube.

C. PCU-Parachute Restraint Harness Assembly

Show students PCU.

1. Worn by Carrier-based tactical jet aircrew who use ejection seats for emergency egress.
2. The harness is a self contained one piece garment that can have pockets for survival equipment sewn directly into the harness. Flotation is also attached to the harness.
3. A gated D-ring for lifting is located under the right koch fitting.
4. The male portion of the koch fitting assembly is located on the right and left upper chest area.

Show students D-ring.

Show students koch/mini-koch fittings and their operations.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

5. Lap belt with mini-koch fittings is located on the front lower panel. Used to secure the RSSK/SKU to the survivor.
  6. Friction adapter is used for chest strap adjustments.
  7. Gated D-ring is used to attach the aviator to the double rescue hook for hoisting.
  8. Koch fittings and mini-koch come in male and female assemblies.
    - a. Koch fittings used to attach parachute to the parachute restraint harness. The male end of the Koch fitting is attached to the PCU-parachute restraint harness, the female end is attached to the riser assembly.
    - b. Mini-koch fittings used to attach lap belt assembly to the rigid seat survival kit (RSSK/SKU).
- D. NB-6/8 Back Pack Type Parachute with Quick Donning Harness
1. Used by larger land based fixed wing aircraft (e.g., C-130, P-3).
  2. Normally only worn in anticipation of bailout. Harness is easily adjusted to any crew member.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

3. Harness is worn over the SV-2 and flotation.
4. Secured/Removed by the use of the three quick ejector snaps and "V" rings, one at the chest, and one for each leg.

E. NB-6/8 Harness Hardware

1. Parachute harness strap adapter used for shoulder adjustments.
2. Friction adapter is usually used for chest strap and adjustments.
3. Three quick ejector snaps are connected to three "V" rings on leg straps and chest strap.

Two types of Quick Ejector Snaps: Friction and Non-friction.

F. Seawater Activated Release System (SEAWARS)

1. Designed to automatically release the parachute upon immersion in seawater.
2. Is a back-up system intended to aid the survivor if injured, or where there is not enough time to manually release parachute as in low altitude ejection.
3. A totally self-contained, automatic release system.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. Will separate the canopy release fittings from the parachute risers releasing the parachute within two seconds after complete immersion into seawater.
5. Consists of two SEAWARS units that weigh seven and one half ounces each.
6. Installed on the female end of the koch fittings on the parachute risers. If SEAWARS fails to operate, the koch fittings can be released by normal means. The SEAWARS does not pose any threat to the rescue swimmer.

G. USAF Parachute Harnesses and Hardware

1. CW-17 Torso Harness
  - a. Worn by tactical jet aircrew who use ejection seats for emergency egress. Similar in appearance to the Navy NB-6/8 quick donning harness.
  - b. Secured in place by three quick ejector snaps and "V" rings, one at the chest, and one for each leg.
  - c. Survival Vest and flotation are worn over the torso harness. The parachute must be disconnected where the riser attaches to the harness.
  - d. Harness hardware varies with aircraft.

Show USAF version of Koch Fitting and operation.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (1) A-10, F-4, and F-15 use a Koch fitting similar in appearance and operation to what the Navy uses. On USAF Torso Harness, female end is attached to harness, and the male end is attached to the parachute riser. May have SEAWARS installed.
- (2) F-16 uses the Frost fitting to attach the aviator to the parachute. Male end is attached to the harness, female end is attached to parachute risers.
- (3) F-5 and T-38 use the J-1 Capewell fitting.

Show J-1 Capewell fitting and how it releases.

- 2. BA-18/22 Quick-Donning Back Pack Type Parachute
  - a. Used by larger fixed wing aircraft (e.g., C-130, C-141, C-5, KC-10) not equipped with ejection seats.
  - b. Identical in appearance to the Navy NB-6/8 Back Pack type parachute.
  - c. Normally only worn in anticipation of bailout. Harness is easily adjusted to any crew member.
  - d. Harness is worn over survival vest and flotation.
  - e. Hardware is the similar to the NB-6/8.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

None.

EVALUATION

None.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

CLASSIFICATION: Unclassified

LESSON PLAN NUMBER: 4.1

LESSON TOPIC: Lifesaving Approaches/  
Carries

ALLOTTED LESSON TIME: 1.0 Classroom  
5.0 Laboratory

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety personnel as required per Annex E  
of Curriculum Outline

INSTRUCTIONAL REFERENCES:

1. NWP 3-50.1, Naval Search and Rescue Manual
2. Annex E - Instructional Management Plan

INSTRUCTIONAL AIDS:

1. Twelve Foot Deep Pool
2. Fins
3. Mask

TERMINAL OBJECTIVE:

Partially supported by this lesson topic:

- 4.0 Upon completion of this unit of instruction, the student will demonstrate approach and carry procedures to a survivor, release and escape procedures, and a rescue in preparation for a recovery per NWP 3-50.1 without injury to personnel or damage to equipment.

Enabling Objectives:

Completely supported by this lesson topic:

- 4.1 List procedural steps for the rear surface approach to a conscious survivor.
- 4.2 Demonstrate the rear surface approach to a conscious survivor in a simulated rescue situation.
- 4.3 List procedural steps for the front surface approach to a passive/unconscious survivor.
- 4.4 Demonstrate front surface approach to a passive/unconscious survivor while in a simulated rescue situation.

DISCUSSION POINT

4. Snorkel
5. LPU-28(SAR-1)
6. Rescue Swimmer's Harness
7. Shorty wet suit or wet suit top

RELATED INSTRUCTOR ACTIVITY

- 4.5 List the procedural steps for the underwater approach to an active/conscious survivor.
- 4.6 Demonstrate underwater approach to an active/conscious survivor while in a simulated rescue situation.
- 4.7 List procedural steps for the cross chest carry.
- 4.8 Demonstrate the cross chest carry of a survivor while in a simulated rescue situation.
- 4.9 List procedural steps for the collar tow/equipment tow of a survivor.
- 4.10 Demonstrate collar tow/equipment tow to a survivor while in a simulated rescue situation.

CRITERION TEST: Student will correctly demonstrate the procedures presented in this lesson.

HOMEWORK: None.

INTRODUCTION

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

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. 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?

Refer questionable cases to the department's senior 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.

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Lifesaving Approaches/  
Carries

b. Major Teaching Points:

(1) Rear Surface Approach

(2) Underwater Approach

(3) Front Surface Approach

(4) Cross Chest Carry

(5) Controlled Cross Chest Carry

(6) Collar Tow and Equipment Tow

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

A. Rear Surface Approach

Demonstrate

1. Most common approach used by rescue swimmers. The rear surface approach should be used for all conscious survivors.
2. Approach the survivor with head out of the water and eyes on the survivor.
3. Upon reaching 6 to 8 feet of distance from the survivor, execute a quick reverse.
4. Attempt to establish communications, reassuring the survivor. If survivor appears unresponsive, splash or yell to get his/her attention.
5. Secure survivor in a cross-chest or equipment carry.

The front surface approach will be used for unconscious survivors.

B. Underwater Approach

**WARNING**

**Do not use the underwater approach if survivor is still wearing a parachute.**

1. Approach survivor from the rear, with head out of the water and eyes on the survivor.
2. Upon reaching a distance of six to eight feet from the survivor, execute a surface dive and swim under the survivor.

Appraise situation and prepare to execute.

**NOTE**

When wearing a wetsuit the swimmer must be aware

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

of the added buoyancy of the wetsuit and avoid premature surfacing.

3. Execute a half turn (the survivor's back should be towards the Rescue Swimmer) and surface.
4. While surfacing place survivor in a controlled cross-chest carry.

C. Front Surface Approach

1. Effective for passive or unconscious survivors. The front surface approach should be the Rescue Swimmer's first choice when approaching an unconscious survivor.
2. Approach the survivor, with head out of the water and eyes on the survivor.
3. Upon reaching an arms length to survivor, execute a quick reverse.
4. Reach across with your hand grasping the back of survivor's identical wrist (i.e., right hand grabs right wrist, and left on left wrist).

Instructor uses a student to visually emphasize the procedures while discussing them.

Elaborate on importance of quick reverse.

Instructor should have students perform dry land drills until proficient then progress to the pool phase.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. Pull survivor's wrist in front of swimmer's body, turning the survivor onto his back.
5. Begin kicking to plane out survivor.
6. When the survivor's back is fully turned, the Rescue Swimmer places the survivor in a cross-chest or equipment carry.

D. Cross Chest Carry

1. From a position behind the survivor's shoulder, the rescuer reaches across the chest and pulls the survivor from under the armpit with the back of the rescuer's hand.
2. The survivor's shoulder is then tucked securely into the rescuer's armpit and the arm firmly grasped against the survivor's chest.
3. The Rescue Swimmer turns to the side with the hip directly against the small of the survivor's back. The swimmer strokes vigorously with his legs, using a flutter kick to provide propulsion.

**NOTE**

This procedure may be difficult to perform on aircrewmen due to their flotation and survival equipment.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. Should the survivor be aggressive, the rescuer shall lock his/her free hand under the survivor's armpit.

Demonstrate and explain that doing this step is a **Controlled Cross Chest Carry.**

- E. Collar Tow or Equipment Carry

**WARNING**

**Do not grasp survivor in a manner which may result in restricted breathing or circulation.**

1. Grasp the survivor's shirt collar or flight equipment from behind and between the shoulder blades with a straight arm locked at the elbow.
2. The Rescue Swimmer assumes the side stroke position and strokes vigorously with the legs, using a flutter kick.

SUMMARY

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

A. Have students pair up on pool deck and conduct dry land drills on approaches and carries.

B. Two instructors will conduct in water demonstration of approaches and carries.

Students will be staged in the pool to provide an unobstructed view of the demonstration.

C. Students will practice approaches and carries in the deep end under instruction.

D. Students will then be paired up and demonstrate each approach and carry.

One in water instructor per group will evaluate each student for proficiency of skill demonstrated.

**NOTE**

The possibility of a panicky survivor grasping the Rescue Swimmer in a front or rear head hold exists. The Rescue Swimmer must be prepared to act quickly to effect a release/escape and continue rescue efforts. A person drowning will commonly attempt to grasp and climb up on top of anything close enough for them to reach. This action results in the rescuer being forced underwater. The natural impulse for the rescuer is to attempt to keep their head above water

Prior to in-water drill practice, inform students that a "pinch" from the rescuer means for the "survivor" to let go immediately.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

in order to breathe. A rescuer without personal flotation would quickly become exhausted and possibly aspirate water in an attempt to support the survivor.

Students lined up on one side of the pool will assume the role of survivor and the other side will assume the role of rescuer. Alternate until all students have performed as rescuer for all skills. When directed by instructor, students will perform the skill assigned by the instructor in the deep end. Repeat until students have practiced all required skills.

Instructor critique and individualized instruction of students. Instructors shall evaluate student's performance by observing underwater (one instructor per evolution) using mask, snorkel and fins.

Instructors may demonstrate skills as a rescuer while using a student as a survivor. Instructors shall not NORMALLY assume the role of survivor. However, instructors may act as survivors if there is not enough students to perform the skills or for extra instruction only after all other means of instructions have failed and only with the permission of the pool deck safety monitor.

In-water instructors will carry a rescue tube or torpedo buoy during practice and testing of approaches and carries.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

EVALUATION

Performance criteria tests.

ASSIGNMENT

None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

4.0 Upon completion of this unit of instruction, the student will demonstrate approach and carry procedures to a survivor, release and escape procedures, and a rescue in preparation for a recovery per NWP 3-50.1 without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 4.2

LESSON TOPIC: Front/Rear Head Hold  
Release and Escape

ALLOTED LESSON TIME: 1.0 Classroom  
3.0 Laboratory

Enabling Objective:  
Completely supported by this lesson topic:

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety personnel as required per Annex E of Curriculum Outline

- 4.11 List procedural steps for the front/rear head hold release.
- 4.12 Demonstrate the front/rear head hold release while in a simulated rescue situation.
- 4.13 List procedural steps for the front/rear head hold escape.
- 4.14 Demonstrate the front/rear head hold escape while in a simulated rescue situation.

INSTRUCTIONAL REFERENCES:

1. NWP 3-50.1, Naval Search and Rescue Manual
2. Annex E - Instructional Management Plan

INSTRUCTIONAL AIDS:

1. Twelve Foot Deep Pool
2. Fins
3. Mask
4. Snorkel

CRITERION TEST:

Students will correctly demonstrate the procedures presented in this lesson.

HOMEWORK: None.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

5. LPU 28
6. Rescue Swimmer's Harness
7. Shorty wet suit or wet suit top

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. 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?

Refer questionable cases to the department's senior medical representative for disposition.

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.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- 2. Lesson Overview
  - a. Lesson Topic: Front/Rear Head Hold Release and Escape
  - b. Major Teaching Points:
    - (1) Front Head Hold Release
    - (2) Front Head Hold Escape
    - (3) Rear Head Hold Escape
    - (4) Rear Head Hold Release

Briefly outline material to be covered.

If approaches are done correctly, these procedures should not have to be used.

Releases and escapes are taught as a precaution.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

Demonstrate all procedures as they are presented.

A. Front Head Hold Release

1. Suck - take a quick "bite" or breath of air.
2. Tuck - tuck chin down and to the side.

**NOTE**

Head is turned away from survivor's face.

3. Duck - Rescue Swimmer extends arms outward, moving them upward rapidly several times which will produce downward movement, submerging the survivor and swimmer.
4. If the survivor's head is on the right of Rescue Swimmer's head, Rescue Swimmer brings right arm up and over encircling arm and places hand securely against survivor's right cheek, the little finger against the side of survivor's nose and thumb hooked under the jaw.

**NOTE**

If survivor's head is at the rescuer's left side, the method is reversed.

5. The remaining hand is brought up beneath the survivor's other arm seizing it in a grip with the thumb just above the elbow.

Explain use of pressure point.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

6. In one continuous motion, the survivor's head is pressed out and around with the right hand while the left hand is lifting the survivor's arm over the Rescue Swimmer's head and sweeping it across the far side. This is a pressing movement and it is continued until the survivor's back is to the rescuer.
7. The left hand continues to hold the arm until the right hand can be shifted from the survivor's face to the chest and brought into a controlled cross-chest carry.

**NOTE**

If survivor's head is at the rescuer's left side, the method is reversed.

8. If survivor places a scissors lock on the Rescue Swimmer with the legs, the scissors rarely is held after the head hold is released. However, if it is not released the Rescue Swimmer uses one hand between the ankles to unlock the cross feet.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

B. Front Head Hold Escape

1. Suck - take a quick "bite" or breath of air.
2. Tuck - tuck chin down and to the side.
3. Duck - Rescue Swimmer extends arms outward, moving them upward rapidly several times which will produce downward movement, submerging the survivor and swimmer.
4. Without pause, the Rescue Swimmer places both hands on the front of survivor's hips with the heels of the hands against the body, fingers extended and thumbs grasping the survivor's sides. By forcefully pressing and extending the arms, the Rescue Swimmer pushes the survivor's body back and up towards the horizontal position. This leverage will loosen the survivor's grasp.
5. By tucking the chin inward and hunching the shoulders, the Rescue Swimmer's head is freed. Survivor is then pushed away.
6. Rescue Swimmer surfaces to reassess the situation.

Explain that with an escape the swimmer will have to approach the survivor again and with a release the survivor will continuously be in control.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Rear Head Hold Release

1. Suck - take a quick "bite" or breath of air.
2. Tuck - tuck chin down and to the side.
3. Duck - Rescue Swimmer extends arms outward, moving them upward rapidly several times which will produce downward movement, submerging the survivor and swimmer.
4. Rescue Swimmer places both hands on survivor's wrist, either top or bottom, and pulls toward Rescue Swimmer's hips, rotating the hand and sliding the other hand up to the survivor's elbow.
5. By twisting inward and down on the survivor's wrist and pushing the survivor's elbow upward, the grip is released. Survivor's fore arm is straight across survivor's back and survivor is in front of Rescue Swimmer.
6. From this position behind survivor, Rescue Swimmer shall place survivor in controlled cross-chest carry.

Explain this is perhaps the worst situation a swimmer can encounter.

Explain that with an escape the swimmer will have to approach the survivor again and with a release the survivor will continuously be in control.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

D. Rear Head Hold Escape

1. Suck - take a quick "bite" or breath of air.
2. Tuck - tuck chin down and to the side.
3. Duck - Rescue Swimmer extends arms outward, moving them upward rapidly several times which will produce downward movement, submerging the survivor and swimmer.
4. Rescue Swimmer brings the hands up to underside of each of the survivor's elbows. While keeping chin tucked in and hunching the shoulders, Rescue Swimmer pushes forcefully upward freeing the head.
5. Survivor is then pushed back away. Swimmer turns to face survivor, prepared to prevent subsequent grasps.
6. Rescue Swimmer swims well out of reach of survivor, surfaces, and decides which rescue procedures to use.

Explain that with an escape the swimmer will have to approach the survivor again and with a release the survivor will continuously be in control.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

- A. State Lesson Objectives
- B. Review Major Teaching Points

Turn to cover page for objectives.  
Briefly summarize.

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 a poor teaching 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 ARC:

1. Struggle to keep the face above 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. Struggles at the surface, unable to move forward, for approximately 20 to 60 seconds before submerging.

**IN NO CASE WILL THE SURVIVOR CHASE THE RESCUE SWIMMER.**

**THE STUDENT'S EYES WILL REMAIN OPEN DURING ALL PHASES OF LIFESAVING TRAINING.**

- A. Students are broken up into small groups proportional to available instructors and perform dry-land drills under instruction.

Review TTO policy and emphasize pinch.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- B. Two in water instructors will demonstrate required skills and procedures.
- C. Students pair up in the deep end. Instructor will designate skill to be practiced.
- D. On the instructors command, the first student will swim out 5-10 yards act as the swimmer. On the instructors command, the second student in line drops the mask and snorkel, and acting as the "panicky survivor", will approach the "swimmer" and place him in the designated head hold.
- E. As required, review characteristics of panicking survivor. Survivor should be as realistic as possible.
- F. The "swimmer" will execute the designated escape or release procedure.
- G. Alternate until all students have practiced all required skills.

Students will be staged in the pool as to provide an unobstructed view of the demonstration.

EVALUATION

- A. Wearing full gear as described in application, students will correctly demonstrate the procedures presented in this lesson. During evaluation, instructors shall use mask, snorkel, and fins to observe students underwater. Instructors shall not normally assume the role of a survivor.

ASSIGNMENT: None.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

TERMINAL OBJECTIVE:  
Partially supported by this lesson topic:

CLASSIFICATION: Unclassified

4.0 Upon completion of this unit of instruction, the student will demonstrate approach and carry procedures to a survivor, release and escape procedures, and a rescue in preparation for a recovery per NWP 3-50.1 without injury to personnel or damage to equipment.

LESSON PLAN NUMBER: 4.3

LESSON TOPIC: Parachute Disentanglement

ALLOTTED LESSON TIME: 1.0 Classroom  
12.0 Laboratory

INSTRUCTIONAL SUPPORT:

1 Classroom Instructor  
1 Laboratory Instructor  
Safety personnel as required per Annex E 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 Manuals

- 4.15 List the procedures for parachute disentanglement for the Quick Fitting and Integrated Torso Harnesses as outlined in NWP 3-50.1
- 4.16 Demonstrate procedures for parachute disentanglement for the Quick Fitting and Integrated Torso Harness.
- 4.17 List the procedures for parachute disentanglement from a ballooned canopy.
- 4.18 Demonstrate procedures for executing parachute disentanglement for the ballooned canopy.

INSTRUCTIONAL AIDS:

1. Integrated Torso Harness
2. Quick Donning Back Pack Harness
3. LRU-1 Life Raft
4. Parachute

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- |                                   |   |
|-----------------------------------|---|
| 5. SKU/RSSK                       | 4.19 List procedural steps for survivor emergency flotation for both conscious/unconscious survivor.                        |
| 6. Helmets                        |   |
| 7. SV-2/LPU-21/LPU-28/LPU-30/MK-1 | 4.20 Demonstrate emergency flotation procedures for a conscious/unconscious survivor while in a simulated rescue situation. |
| 8. Multi-person raft              |   |
| 9. MBU-12 Oxygen Mask             |   |
| 10. SAR Tactics Handout (4.3 HO)  | 4.21 List the procedures for parachute disentanglement for multiple victim rescue.  |
|                                   | 4.22 Demonstrate the procedures for parachute disentanglement for the multiple victim rescue.                               |
|                                   | 4.23 List the specific dangers of a night parachute disentanglement during a rescue scenario.                               |
|                                   | 4.24 Demonstrate a night parachute disentanglement IAW NWP 3-50.1   |

CRITERION TEST:

Student will correctly demonstrate the procedures presented in this lesson.

HOMEWORK: None.

INTRODUCTION

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

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. 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?

Refer questionable cases to the department's senior 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

Aviation personnel who have bailed out 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.

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

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Parachute Disentanglement

b. Major Teaching Points:

- (1) Disentanglement Procedures for Quick Fitting Harness
- (2) Disentanglement Procedures for the Integrated Torso Harness
- (3) Bubbled Canopy Procedures
- (4) Emergency Flotation Procedures
- (5) Raft Extraction Procedures
- (6) SAR Tactics Basic Guidelines

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

**NOTE**

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

**WARNING**

**The parachute shall 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.**

**NOTE**

Should the survivor be entangled in a submerged parachute and the rescue swimmer is unable to extract the survivor in sufficient time. The survivor may then be attached to the rescue hook by the rescue swimmer. This helps maintain the survivor's head above the water while the rescue swimmer disentangles the parachute. Under no circumstances shall the survivor be hoisted out of the water while the parachute is attached

- A. Disentanglement Procedures for Quick Fit Harness, US Navy Chest Pack, and Back Pack Harness.
  - 1. ASSESS situation to determine if survivor(s) are conscious, unconscious passive, or active. Assessing the situation begins before water entry.
  - 2. ESTABLISH communication to determine the

Emphasize the repeated steps, but in lesser detail

Inform students that situation may change at any moment.

State that rear surface

DISCUSSION POINT

condition of the survivor and make approach.

3. Grasp survivor's harness between the shoulder blades and pull survivor into wind and away from parachute. Obtain control of survivor "ICIC."
4. Remove OXYGEN MASK if applicable.

**NOTE**

Check for breathing. Give two breaths if required. Continue giving rescue breaths during disentanglement not to exceed 60 seconds between breaths until survivor hoisted free of water.

**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.**

5. CLEAR head, neck and chest area. If survivor is conscious ask about any known injuries or conditions.

**WARNING**

**Survivor may be wearing the LPP-1 flotation device; therefore, Rescue Swimmer shall disconnect the chest quick ejector snaps before inflating the device. Inflating the LPP-1 before disconnecting ejector snaps could crush survivor's chest.**

**NOTE**

If the survivor is wearing a chest pack, one of

RELATED INSTRUCTOR ACTIVITY

approach is preferred.

Stress "in close in control" (ICIC).

DISCUSSION POINT

the butterfly spring snaps that connect the pack to the harness, must be released to gain access to the chest quickly.

6. Disconnect survivor's quick ejector snap and INFLATE flotation (manually or orally, if necessary).
  - a. When the SPH-3C or HGU-54/P helmet is worn with the LPP-1/1A life preserver, do not inflate vest until chin strap is loosened or helmet is removed.

**NOTE**

Suspension lines shall be cut only if necessary. Utilize a pocket shroud cutter.

7. DISENTANGLEMENT head to toe check for injuries during disentanglement procedures.
  - a. Remove shoulder straps-clear arms, cross arms on survivor's chest.
  - b. Using spine as a reference submerge and proceed hand over hand along the back, always keeping one hand on survivor, and release the survivor's quick ejector snaps on survivor legs.

RELATED INSTRUCTOR ACTIVITY

Display and demonstrate operation of quick ejector snap.

Explain to students the hazards involved using an open-blade knife while cutting suspension lines.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

If survivor has a suspected back injury. Use the side of the survivor as a reference, proceed hand over hand along the side, keeping one hand on the survivor, remove all debris, suspension lines, and leg quick ejector snaps.

- c. Remove the parachute suspension lines from the survivor using the spinal cord as a reference, submerge and proceed hand over hand along the back, always keeping one hand on survivor. Submerge as many times as necessary to remove all suspension lines.

Indicate that this is different, there are no Koch fittings to release risers and SKU to get rid of on this harness.

**WARNING**

**Do not use the washboard method if survivor has back injury.**

- 8. TOW survivor clear, if the survivor is still not free of the harness or parachute, use the washboard method.
  - a. With both hands hold the survivor by the back of flotation device.
  - b. In quick succession, push and pull survivor fore and aft. Make sure that the survivor's head is kept above water.
- 9. Discard RAFT (if applicable)
- 10. Perform FINAL CHECK to ensure that all shroud lines and parachute are clear.

Emphasize importance of final check especially if swimmer inadvertently swims into parachute.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**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.

- 11. SIGNAL rescue platform.
- 12. As the rescue platform is approaching, ensure the area is clear. Connect survivor's "V" ring to Rescue Swimmer's harness.

B. Disentanglement procedures for 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.
- 3. Grasp survivor's harness between the shoulder blades and pull survivor into wind and away from parachute. Obtain control of survivor "ICIC."
- 4. Remove OXYGEN MASK if applicable.

Write key words on board or show transparency.

State that rear surface approach is preferred.

Stress "in close in control" (ICIC).

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

Check for breathing. Give two breaths if required. Continue giving rescue breaths during disentanglement not to exceed 60 seconds between breaths until survivor hoisted free of water.

**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.**

5. CLEAR head, neck and chest area. If survivor is conscious ask about any known injuries or conditions.
  
6. INFLATE floatation (if necessary)
  
7. Perform DISENTANGLEMENT from head to toe.
  - a. Disconnect parachute risers by releasing shoulder Koch fittings and place survivors arms across their chest.
  
  - b. Using spinal cord of the survivor as a reference, submerge and proceed hand over hand, always keeping one hand on the survivor, and remove all suspension lines. Submerge as many times as required to remove suspension lines.

Display and demonstrate operation of Koch fittings.

Emphasize: Submerge as many times as necessary to complete the following steps, this does not have to be accomplished in one breath.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

Suspension lines shall be cut only if necessary.  
Utilize a pocket shroud line cutter.

**WARNING**

**If survivor has a suspected back injury. Use the side of the survivor as a reference, proceed hand over hand along side, remove all debris, suspension lines and minikoch fittings.**

- c. Release oxygen hose from SKU/RSSK (if necessary). Then release SKU/RSSK mini-koch fittings in survivor's lap.
- d. Continue disentanglement procedures.

**WARNING**

**Do not use washboard method if survivor has back injury.**

- 8. TOW survivor clear of parachute. If still entangled, Step 7 must be repeated or washboard method may be used. Cut shroud lines as a last resort.
- 9. Perform FINAL CHECK to ensure that all shroud lines and parachute are clear.
- 10. Discard RAFT. Liferaft must be discarded prior to final check.

Explain washboard method and importance of not cutting shroud lines.

DISCUSSION POINT

**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.

11. SIGNAL rescue platform.
  - a. DAY Arm raised, thumbs up.
  - b. NIGHT Arm raised, waving high intensity chemlight.
12. As the helicopter is approaching, ensure the area is clear. Connect survivor's gated "D" ring to Rescue Swimmer's harness.

C. Ballooned Canopy Procedures

1. Establish communications during approach to survivor.

**WARNING**

**Do not go under canopy; it may collapse and trap survivor and swimmer.**

2. Determine survivor's position under the canopy by looking underwater or by establishing communications and swim to chute edge closest to survivor and opposite the apex, then execute a quick reverse.
3. Lift edge of canopy and gather it into hook of one arm or pull on a shroud line to bring survivor to edge of canopy.

RELATED INSTRUCTOR ACTIVITY

Emphasize importance of final check especially if swimmer inadvertently swims into parachute.

Explain ballooned canopy.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

4. With free arm, turn survivor around and grip back of harness.
5. In one motion, pull survivor back and remove parachute canopy from over their head.
6. With survivor out from under the parachute, continue to pull survivor into the wind and away from the parachute canopy.
7. When well clear of parachute canopy, use disentanglement procedures applicable to type of harness the survivor is wearing.

D. Survivor Emergency Flotation Procedures

**NOTE**

When survivor has damaged or no flotation, the swimmer may give up his/her SAR-1 vest. If the swimmer chooses to give up flotation, the following conscious and unconscious survivor procedures shall be used:

1. Conscious Survivor
  - a. Approach the survivor and establish communications, using the front surface approach.
  - b. Upon reaching a distance of 6 to 8 feet from the survivor, execute a quick reverse.
  - c. Remove swimmer's mask, unclip and remove SAR-1, and then replace mask.
  - d. Inflate SAR-1, hold onto end of SAR-1

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

strap, and pass to survivor. Instruct survivor to place SAR-1 over head with pocket facing out.

- e. While survivor is donning SAR-1, the swimmer shall swim around to the right and behind survivor with strap in right hand.
  - f. Place left hand cross-chest under SAR-1 and grasp buckle. Bring strap under both arms and clip into buckle. Tighten strap.
  - g. Perform disentanglement procedures.
  - h. Complete rescue using normal procedures.
2. Unconscious Survivor.
- a. Approach the survivor using the front surface approach and establish communications or determine unresponsiveness.
  - b. Upon reaching a distance of an arm's length from the survivor, execute a quick reverse.
  - c. Remove swimmer's mask, unclip and remove SAR-1, and then replace mask.
  - d. Inflate SAR-1, place swimmer's right through neck hole with pocket facing in.
  - e. Use front surface approach.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

Remove survivor's oxygen mask/helmet/cranial if applicable.

- f. Place SAR-1 over survivor's head with pocket facing out. This is done with the right arm while keeping survivor in a left-hand cross-chest carry.
- g. Place left hand cross-chest under SAR-1 and grasp buckle. Bring strap under both arms and clip into buckle. Tighten strap.
- h. Check for breathing. Give two breaths if required.
- i. Perform disentanglement procedures.
- j. Complete rescue using normal procedures.

E. Raft Extraction Procedures

**WARNING**

**Liferaft must be discarded prior to final check.**

**NOTE**

The point at which disentanglement in the liferaft becomes unfeasible is the point where the swimmer should extract the survivor from the raft. Once the survivor is in the water, the swimmer resumes disentanglement procedures from where the swimmer left off.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- A. Three effective methods of removing the survivor from the raft are as follows:

**WARNING**

**Do not use this method if the survivor has a possible back injury.**

- 1.a. The swimmer positions behind the survivor, the swimmers knees will be against the liferaft and will have a firm grasp of the survivors harness/flight suit between the shoulder blades.
- b. Simultaneously, the swimmer pulls the survivor up and over the raft lobe and pushes down and away with knees against the raft lobes.
- c. Once the survivor is in the water, continue disentanglement procedures.

**WARNING**

**Do not use this method if the survivor has a possible back injury.**

- 2.a. The swimmer positions himself behind the survivor, and will have a firm grasp of the survivors harness/flight suit between the shoulder blades.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. The swimmer will roll the survivor and raft either to the left or right. Inform the survivor if practical. Normally the swimmer will rock the survivor/raft twice to the side to gain momentum. The third time, the swimmer will roll the survivor into the water. Next, the swimmer immediately rights the survivor.
- c. Continue disentanglement procedures from where previously left off.

**WARNING**

**Use the following method if survivor has a possible back injury.**

- 3.a. Swimmer positions himself behind the survivor with a firm grasp of the survivors harness/flightsuit.
- b. With one hand, the swimmer removes his knife while maintaining control of the survivor with the other, and uses the knife to deflate the raft.

**WARNING**

**This is done well clear of the survivor ensuring not to injure the survivor or swimmer.**

- c. While raft is deflating, swimmer stows knife.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- d. Swimmer tows survivor clear of the raft and continues disentanglement procedures.

F. SAR Tactics Basic Guidelines

Give handout to students (4.3 HO)

1. Access the situation from Rescue Platform

- a. Rule #1 NEVER PASS A SURVIVOR
- b. Rule #2 SURVEY ALL SURVIVORS ON THE SCENE
- c. Rule #3 WORST RIDES UP FIRST

Read from handout

Read from handout

Read from handout

**NOTE**

Safeing a man-overboard/free floater consists of head, neck and chest, inflate flotation or buddy tow them to a raft and have them board it or hold on to the side.

Safeing a quick fit harness/backpack consists of a head, neck and chest, release chest quick-ejector, check flotation, sweep shoulder straps off.

Safeing a PCU torso harness consists of removing O2 mask, head, neck and chest, check flotation, and releasing shoulder koch fittings.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

A. Ensure students receive the classroom instructions and observe a dry-land demonstration prior to any practical experience.

TRAINING: Instructor performs dry-land procedures and slowly disentangles a survivor wearing a standard parachute harness, while another RSS instructor talks through the procedures.

B. Instructor shall observe and critique the performance of each student for successful disentanglement and rescue of survivor/survivors. Instructors shall vary scenarios, ensuring realistic situations. Instructors may draw from personal experiences. Simulated scenarios are as follows:

Students (staff instructor if there is not enough students to play survivor) shall serve as "passive" survivors. They shall wear all aircrew flight equipment for the standard parachute harness. Survivors shall have an inflated LPU on and have several shroud lines around their legs and several over their heads.

1. A simulated conscious Man-Overboard without any flotation. The student simulating the Man-Overboard shall wear a wetsuit and a non-inflated LPU-28/LPP-1/LPU-30/MK-1 for minimum flotation.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. A simulated unconscious aircraft passenger wearing a partially inflated LPU-28/LPP-1 and cranial/helmet.
  
3. A simulated survivor wearing a NB series quick donning back pack type parachute with fully inflated LPU-21 and helmet.

Students outfitted in complete Rescue Swimmer gear will line up on the side of the pool and one at a time shall enter the water using standard water entry procedures.

Instructor shall ensure all pool drain covers are installed prior to commencing any disentanglement training.

EVALUATION

Student will correctly demonstrate the procedures presented in this lesson.

ASSIGNMENT

None.

## SAR TACTICS BASIC GUIDELINES HANDOUT (4.3)

### ASSESS THE SITUATION FROM THE RESCUE PLATFORM

#### ***RULE NO. # 1- NEVER pass a survivor by.***

Establish communication to determine whether or not survivor is passive, active, conscious or unconscious. Execute approach, obtain positive "ICIC", perform head neck & chest and inflate survivors' flotation or chose to surrender yours if they do not have any or it is damaged beyond use.

EXAMPLE: If first survivor you come upon is passive and /or cooperative, be assertive and verbalize instructions such as grabbing a hold of or boarding a raft, taking off flight equipment. (This is referred to as "staging" or "safeing" your survivor and will provide flotation). Acknowledging their presence and assisting them is the objective.

Utilize the exact order of disentanglement procedures if you succeed in getting the survivor to remove his/her gear using verbal communication.

Conversely, if you come upon your first survivor and he/she is in a panicky "freaked out" state, execute the underwater approach (if there is no parachute in the immediate vicinity), and gain control with a controlled cross-chest carry. Remember to do head neck & chest and inflate their flotation. (This action alone may be enough to calm survivor.).

#### ***RULE NO. # 2- SURVEY ALL SURVIVORS ON THE SCENE.***

Swim to next closest survivor and provide assistance if needed. A basic rule of thumb is to make sure that the survivor has adequate flotation before you move on to your next survivor. \*("Staging" or "safeing" your survivor).

**Once again, establishing verbal communication between your survivors is essential in determining who needs your immediate assistance and others that are in no obvious danger.**

DO NOT "ping pong" back and forth between survivors. This is a term used by instructors that simply means swimming back and forth between survivors without really making progress towards the ultimate objective of getting survivors to the rescue platform.

#### ***RULE NO. # 3- WORST RIDES UP FIRST!***

**After all survivors are staged, identify the most injured survivor and perform complete disentanglement procedures from start to finish, including a final check and get em to the rescue platform.** If you remove any gear or shroud lines from a survivor you must do a final check no matter which type of survivor it is.

**Continue on in this order and you cannot go wrong.**

\*NOTE

**Safeing a man-overboard /free floater consists of head, neck & chest, inflate flotation or buddy tow them to a raft and have them board it or hold on to its' side.**

Safeing a quick fit harness/ backpack consists of a head, neck & chest, release chest quick-ejector, check flotation, sweep shoulder straps off.

Safeing a PCU torso harness consists of removing O2 mask, head, neck & chest, check flotation and releasing shoulder koch fittings.

LESSON PLAN

JANUARY 2004

COURSE TITLE: Rescue Swimmer Refresher  
Course, Q-050-0604

CLASSIFICATION: Unclassified

LESSON PLAN NUMBER: 4.4

LESSON TOPIC: Swimming Proficiency,  
Conditioning and Timed  
Swims

ALLOTTED LESSON TIME: 6.0 Laboratory

INSTRUCTIONAL SUPPORT:

1 Laboratory Instructor  
Safety personnel as required per Annex E  
of Curriculum Outline

INSTRUCTIONAL REFERENCES:

1. CNET P1552/16, U.S. Navy Water  
Survival Instructor's Manual
2. Annex E - Instructional Management  
Plan

INSTRUCTIONAL AIDS:

1. Swimming Pool
2. Swim Fins
3. Booties
4. UDT Trunks

TERMINAL OBJECTIVE:  
Completely supported by this lesson  
topic:

5.0 Upon completion of this unit of  
instruction, the trainee, while  
wearing UDT swim trunks, T-shirt  
(optional), mask, fins, booties,  
snorkel, LPU-28, shorty wet suit/wet  
suit top and Rescue Swimmer's  
harness, will develop stamina,  
endurance, and perfect stroke  
mechanics in a swimming pool without  
injury to personnel or damage to  
equipment.

Enabling Objective:  
Completely supported by this lesson  
topic:

- 5.1 Perform Swimming, Proficiency, and  
Conditioning drills in accordance  
with the Lesson Guide
- 5.2 Perform Timed Swim evolutions in  
accordance with the Lesson Guide.

CRITERION TEST: Job Sheet 4.4 Check list

HOMEWORK: None

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

5. White T-Shirt (optional)
6. Rescue Swimmer's Harness
7. LPU-28/UDT Vest
8. Mask
9. Stopwatches
10. Snorkel
11. Wetsuit

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. 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?

Refer questionable cases to the department's senior 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

The purpose of this training is to develop stamina and endurance by gradually building strength and perfecting stroke mechanics.

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

2. Lesson Overview

Briefly outline material to be covered.

a. Lesson Topic: Swimming Proficiency,  
Conditioning and Timed Swims

b. Major Teaching Points:

(1) Swimming Proficiency Drills

(2) Swimming Conditioning Drills

(3) Timed Swims

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

PRESENTATION

A. Swimming Proficiency Drills

1. Swim continuously for 10 minutes alternately using the crawl and the side stroke.
2. Swim continuously for 15 minutes alternately using the crawl and the side stroke.
3. Swim continuously for 30 minutes alternately using the crawl and the side stroke.

Conduct stretch set on pool deck IAW lesson plan 5.1 prior to all swim events.

Swim proficiency drills may be administered through out the course. Explain the proper form for the strokes.

B. Swimming Conditioning Drills

1. Swim 25, 50, 75, and 100 meter sprints on the surface.
2. Swim 25 meters underwater surfacing for only one breath. (maximum of four times)
3. Swim 25 meters underwater without surfacing. (No more than two times to avoid shallow water blackout).

Perform not more than three swimming conditioning drills during a training day. Drills shall not be repeated during the same day.

A 30 second break to each student must be given prior to that student completing another sprint or event, unless otherwise noted.

Explain procedures for swimming underwater and surfacing for a breath.

Explain the necessity of being able to hold a breath and swim under water when rescuing a victim.

DISCUSSION POINT

4. Swim 25 meters on the surface, having students compete against each other. (Maximum of five times)
5. Perform 200 meter conditioning buddy tow, instructor will choose the appropriate carry.

RELATED INSTRUCTOR ACTIVITY

Losing students shall not compete more than three times during drill #4.

During timed swims, one instructor will be designated as a timer/lap counter. Additional instructors will be performing as safety observers. Students with severe muscle cramps, hyperventilation, suspected water aspiration, or any other potential safety problem will be removed immediately, seen by medical authorities if applicable, and scheduled for retest. A minimum of two instructors will be on the pool deck at all times, one located on each side of the pool. An additional instructor is required for each 10 students or any portion thereof.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Timed Swims

Timed swims shall be administered in sequence as per lesson plan.

1. 500 Meter Swim/400 Meter Buddy Tow

To be administered during week one of course.

- a. Students may utilize crawl or side stroke for 500M, and equipment tow or cross-chest carry for buddy tow.
- b. Complete the 500M swim in under 11:30 minutes.
- c. Complete the 400M buddy tow in under 17:30 minutes.

Students shall be given a 5 minute break between the swim and buddy tow.

Swimmer will be in full rescue swimmer's gear. Survivor may be in wetsuit to expedite training.

2. 500 Meter Swim/400 Meter Buddy Tow.

To be administered during week one of course.

- a. Students may utilize crawl or side stroke for 500M, and equipment tow or cross-chest carry for buddy tow.
- b. Complete the 500M swim in under 11 minutes.
- c. Complete the 400M swim in under 17 minutes.

Students shall be given a 3 minute break between the swim and buddy tow.

Swimmer will be in full rescue swimmer's gear. Survivor may be in wetsuit to expedite training.

DISCUSSION POINT

3. 500 Meter Swim/400 Meter Buddy Tow.
  - a. Students may utilize crawl or side stroke for 500M, and equipment tow or cross-chest carry for buddy tow.
  - b. Complete the 500M swim and 400M B/T in under 27 minutes.

RELATED INSTRUCTOR ACTIVITY

To be administered during week two of course.

Students will move into the 400M buddy tow without interruption.

Swimmer will be in full rescue swimmer's gear. Survivor may be in wetsuit to expedite training.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

B. Review Major Teaching Points

Briefly summarize.

APPLICATION

Perform Swim Proficiency, Conditioning Drills and Timed Swims.

EVALUATION

Job Sheet 4.4 Checklist.

ASSIGNMENT

None.

Job Sheet 4.4 Checklist

Timed Swims and Buddy Tows

TRAINEE NAME/RATE \_\_\_\_\_ SSN

CLASS

Evaluation Instructions Critical Steps: Observe trainee performing each event. Watch for correct use of equipment and adherence to safety regulations. Indicate trainee's performance by writing in the time and circling either Pass or Fail.

SAFETY - Failure to adhere to all safety requirements will result in automatic failure of the performance tests.

TIMED SWIMS

- |       |   |                   |                   |           |
|-------|---|-------------------|-------------------|-----------|
| 4.4-1 | Complete 500 Meter Swim within 11:30 minutes, and 400 Meter Buddy Tow within 17:30 minutes. There shall be a 5 minute break between Swim and Buddy Tow. | TIME 500<br>_____ | TIME 400<br>_____ | PASS/FAIL |
| 4.4-2 | Complete 500 Meter Swim within 11 minutes, and 400 Meter Buddy Tow within 17 minutes. There shall be a 3 minute break between Swim and Buddy Tow.       | TIME 500<br>_____ | TIME 400<br>_____ | PASS/FAIL |
| 4.4-3 | Complete 500 Meter Swim and 400 Meter Buddy Tow within 27 minutes. Swim will be immediately followed by Buddy Tow.                                      | TIME<br>_____     |                   | PASS/FAIL |

LESSON PLAN

JANUARY 2004

COURSE TITLE: Aviation Rescue Swimmer  
Courses, Q-050-0604

TERMINAL OBJECTIVE:  
Completely supported by this lesson  
topic:

CLASSIFICATION: UNCLASSIFIED

LESSON PLAN NUMBER: 5.1

LESSON TOPIC: Principles of Physical  
Fitness and Dry Land Conditioning Program

ALLOTTED LESSON TIME: 2.0 Classroom  
6.0 Laboratory

INSTRUCTIONAL SUPPORT:

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

INSTRUCTIONAL REFERENCES:

1. OPNAVINST 3130.6, Naval Search and Rescue (SAR) Standardization Program.
2. Exercise Physiology McArdle, Katch and Katch.
3. Navy Basic Weight Training National Strength and Conditioning Association, 2000.
4. Sports Medicine, Prevention,

6.0 Upon completion of this unit of instruction, the student will perform the Rescue Swimmer Refresher Physical Training/Testing requirements outlined in the Physical Training Lesson Plan 5.1, without injury to personnel or damage to equipment.

Enabling Objectives:  
Completely supported by this lesson  
topic:

- 6.1 Describe the fundamentals of physical conditioning exercises.
- 6.2 Perform the proper physical conditioning exercises in accordance with the lesson plan and master course schedule.
- 6.3 State the importance of proper technique and form when utilizing weight lifting equipment.
- 6.4 Demonstrate proper techniques for developing and maintaining overall muscular strength utilizing weight lifting equipment.

DISCUSSION POINT

Evaluation, Management and  
Rehabilitation, Roy/Irvin.

5. Total Fitness for Life, Cooper.
6. Naval Aerospace Medical Institute  
Staff Exercise Physiologists
7. Essentials of strength training and  
Conditioning.

RELATED INSTRUCTOR ACTIVITY

CRITERION TESTS:

Pass Rescue Swimmer Fitness Test.

HOMEWORK: None

INSTRUCTIONAL AIDS:

1. Trainee Guide
2. Classroom
3. Overhead projector
4. PT Area (including pull-up bars and  
exercise mats or grass)
5. Whistle
6. Stop Watch
7. Running Trail/Area
8. Radio
9. Weight Training facility

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. (Lab only) State training time out policy.
5. (Lab only) 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. Does anyone have a potentially disqualifying illness/conditions?

Refer questionable cases to the department's senior medical representative for disposition.

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.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

2. Lesson Overview

Briefly outline material to be covered.

- a. Lesson Topic: Principles of Physical Fitness and Rescue Swimmer Dry Land Conditioning Program
- b. Major Teaching Points:
  - (1) Principles of Physical Fitness

PRESENTATION

A. Principles of Physical Fitness

- 1. Objectives of Rescue Swimmer conditioning program.
  - a. Achieve a level of conditioning which allows the Rescue Swimmer to operate for 30 minutes in a sea state of three (minimum). There is no substitute for practical preparation, but a comprehensive dry land conditioning program will assist toward this goal.
  - b. Pass the Rescue Swimmer Fitness Test (Per OPNAVINST 3130.6).
  - c. Enhance performance of Rescue Swimmer duties while reducing risk of injury to self or survivor.
- 2. Job performance is enhanced for the Rescue Swimmer by maintaining the following:
  - a. Wellness: Is an approach to optimal health

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

and emphasizes the swimmer's deliberate effort to stay healthy and achieve the highest potential for well being. Wellness is an ongoing process which requires daily decisions in areas of proper nutrition, stress management, disease prevention, substance abuse control, and physical fitness.

- b. Physical Fitness: Is defined as the general capacity to adapt and respond favorably to physical effort. A physically fit rescue swimmer is able to perform normal daily activities effectively and have enough energy remaining to complete the SAR mission.

3. General Principles

**NOTE**

Aviation Rescue Swimmers are not unlike multi sport athletes in that they must be able to perform a variety of physically demanding tasks on land and in water. The Aviation Rescue Swimmer requires a variety of training workouts, which focus on different goals. Because of the high level of multi dimensional fitness required by the Rescue Swimmer 6-10 training sessions per week may be required.

- a. Overload - System must be stressed to loads greater than it is accustomed to in order to improve.

Increase resistance, repetitions, intensity, or duration during exercise.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- b. Specificity - Effects of exercise limited to system being stressed. To be a good swimmer, you must swim.
- c. Progression - Is continually applying overload to experience gain. (Trng. effect)

4. Aerobic Conditioning

- a. Includes aerobic endurance, cardiorespiratory fitness, cardiopulmonary fitness, and heart rate training. Aerobic exercise requires large amounts of oxygen, large muscle groups, is rhythmical in nature, and should be maintained over time at a moderate intensity.
- b. Examples include swimming, running, bicycling, etc. Weight lifting and most team sports are not aerobic activities.
- c. A good aerobic training program conforms to the F-I-T-T principle:
  - (1) Frequency - Minimum three times a week. If exercising daily, "Cross-Train" (alternate different activities) so skeletal muscles are not over-trained.
  - (2) Intensity - Heart and breathing rate must be accelerated, but only to a level which can be maintained for extended periods of time. This is 60%

Ask students for examples of aerobic activities which can be done aboard ship, such as jumping rope, stationary cycles, treadmills, etc.

Write F, I, T, and T on board.

Fill in "Frequency".

Fill in "Intensity".

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- 75% of an individual's maximum heart rate. As a general guideline, an exerciser should be breathing hard yet still able to talk while performing aerobic activities.

(3) Type - Must be an aerobic activity.

Fill in "Type".

(4) Time - Continuous exercise for a minimum of 20 minutes.

Fill in "Time".

5. Anaerobic Conditioning

a. Activities which are not long term or rhythmic in nature. They allow the body to recover between efforts. Many team sports and strength/speed training are considered anaerobic.

Ask for examples.

b. Two workouts a week can build strength (given sufficient intensity).

**WARNING. Do not exercise the same skeletal muscle group on successive days. Minimum 48 hours rest is required between workouts to avoid over-use injuries and optimize gains.**

c. A muscle which is too fatigued to contract can still be exercised using a technique called "negatives".

For example, an exerciser performing pull-ups will reach a point where he/she can no longer lift themselves. The partner then assists (or "spots") the exerciser by QUICKLY lifting him/her all the way up. The

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

exerciser SLOWLY returns to the starting position. Do not rest at the top or bottom of the cycle. This process can be repeated until the muscle achieves total failure.

6. Ideal Workout

- a. An adequate warm-up period (light jogging, jumping jacks) increases the core temperature 1-2°, warming up the muscles for more effective stretching and exercise.
- b. Slow, steady stretching reduces the risk of strains and improves performance. Avoid ballistic (jerking) stretches - they can cause strains. Avoid unsupported bending at the waist - it can cause back trouble.
- c. Training period - aerobic or anaerobic.
- d. A cool-down period of light exercise helps the body return to its normal state.

7. Preventing Dehydration

**WARNING**

**Exercisers, especially in hot, humid environments, are especially vulnerable to dehydration. Up to two quarts of water per hour may be lost through sweating during exercise and one quart per day is lost through urine.**

- b. Drink large amounts of clear, non-alcoholic, non-caffeinated, non-carbonated beverages before, during and after exercise.
  - (1) Water: The recommended amount for adults is ten 8oz cups during a normal

Seek examples from students - many are not aware that caffeine in colas, etc. is a diuretic causing urination.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

day.

- (2) Sports drinks with less than 8% dissolved sugar.

Make your own: 1 gallon water, 6 oz sugar, 1 TBSP salt, flavored Kool-Aid sweetened with fructose (not sugar).

- (3) Six to eight ounces of fluid consumed every 20 minutes of exercise can help replenish the sweat lost during exercises.

- c. By the time an active individual feels thirsty, he/she is behind the "dehydration power curve."

**NOTE**

The best indication of adequate hydration is clear to light yellow urine.

8. Exercises to avoid.

- a. Knee care. Avoid exercises which require the knee to bear weight while bent beyond 90 degrees.
- b. Back care.
  - (1) Avoid unsupported bending at the waist (i.e., standing toe touch).
  - (2) Avoid doing flutter kicks, leg levers, and horizontal scissor kicks in excessive amounts. These common exercises, mistakenly thought to

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

strengthen the abdominal, predominantly work the Illio Psoas (hip flexor) muscles. These muscles are attached to the top front of the leg, wrap around outside the hip, and attach to the back of the pelvic girdle. Over-developed hip flexors cause a lordotic (sway-backed) spinal curve and result in lower back pain.

9. Rest and Basic Nutrition

- a. The Rescue Swimmer School is a very demanding physical program. Hard workouts without adequate rest or nutrition will result in over-use injuries and illness.
- b. Adequate rest is vital if muscles are to recover and gain strength.

Seven to nine hours of uninterrupted sleep is adequate for many adults, however, participants in this program need to "listen to their body" and get more sleep as required.

- c. Proper nutrition provides the Rescue Swimmer with the energy required to perform duties.

- (1) Carbohydrates: Provide energy and is the main fuel source to the cells within the body. Glucose is the main product of carbohydrate digestion. Carbohydrates are usually referred to as the following:

Ask students for examples of carbohydrates, such as grains (bread and pasta), rice, potatoes, etc.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Simple: Derive from fruits and sugars. IE. Soda, candy, cake, ECT.
- b. Complex: Derive from vegetables, grains, fruits, and beans. Most of your diet should come from complex carbohydrates.

(2) Avoid fatty, fried, and oily foods.

Unhealthy snack food should be avoided as much as possible.

10. Conclusion

- a. The Rescue Swimmer School Dry Land Conditioning program is a comprehensive, total body workout designed by an exercise physiologist from the Naval Aeronautical Medical Institute. Special emphasis is given to muscle groups utilized in Rescue Swimming, specifically the pulling muscles of the upper body and the muscles in front of the thigh (which power the flutter kick).
- b. The principles of this unit apply to the training environment and the fleet.

Refer students to Information Sheet (2.1-1) in Trainee Guide to follow during explanation of Stretch and Calisthenics sets.

SUMMARY

A. State Lesson Objectives

Turn to cover page for objectives.

DISCUSSION POINT

B. Review Major Teaching Points

RELATED INSTRUCTOR ACTIVITY

Briefly summarize.

APPLICATION OF RESCUE SWIMMER DRY LAND CONDITIONING PROGRAM.

Basic philosophy

The calisthenics and strength training program was designed to exercise muscles identified as being utilized while performing Rescue Swimmer duties.

All instructors shall complete the exercises with the students. The Lead Instructor will remain in the front and ensure correct form/pace are utilized, except during strength training exercises.

STRETCHING AND CALISTHENICS:

Before beginning dry land conditioning, ensure heat index does not preclude exercise.

Calisthenics shall be performed per the lesson plan and the Master Course Schedule. Conduct a stretch set followed by only one repetition of the calisthenics routine, group-paced run, and a cool down stretch set with water breaks between evolutions. (Requiring students to bring a full squeeze bottle to PT will reduce the time between events, increasing the effectiveness of the program. Stretching and the calisthenics routine shall take place in a designated area utilizing exercise mats, non-sloping sandy area or grass.

All stretches and calisthenics are initiated by the lead instructor stating the number of repetitions, the type of exercise, and by giving the commands "ready . . . begin".

Example: "30 four-count jumping jacks-ready-begin".

The exercises shall be performed in a smooth, continuous manner with an emphasis on correct form. The instructor shall state the intermediate counts as indicated in the text by "One", "Two", or "Up", "Down", etc. The students shall call out the completed repetition by stating the number of repetitions completed as indicated in the text by "(Count)".

There will be two different sets of stretching, one will be for calisthenics and running and the other will be for strength training and swimming. One set of stretches will be sufficient for the day depending on which exercise routine that is being performed. The time length for holding a specific stretch shall be no less than 15 seconds.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**STRENGTH TRAINING:**

Strength training workout will be conducted in two alternating day groups Core Exercises and Auxiliary Exercises (i.e. Core-Tuesday, Auxiliary -Thursday). Perform 2-3 sets of 8-12 repetitions for each exercise. All repetitions will be performed in a slow and controlled manner.

Machines and alternate strength training equipment that perform the same exercise may be used in place of free weights. However, to experience the full benefits of the strength training program, free weights should be used to develop the stabilizing muscles as well as the primary muscle. **When performing Dead Lifts, begin with a moderate weight level to prevent over exertion of lower back muscles.**

**RUNNING:**

Running sets will be performed for a specific distance with a maximum increase of 15% mileage per week. The first week will have a maximum distance of 6 miles (2 miles per run) and thus increasing 15% distance per week thereafter (i.e. 2<sup>nd</sup> week 6.9 miles/2.3 miles per run, 3<sup>rd</sup> week 7.9 miles/2.6 miles per run, 4<sup>th</sup> week 9 miles/3 miles per run).

During runs faster runners may be allowed to circle back to pick up slower runners, or be allowed several short sprints during the course of the continuous run to increase intensity and training effect. Terrain runs can be incorporated to provide variety and increases the difficulty of the running session. Due consideration shall be given to the course to ensure student safety.

Brief stops for calisthenics exercises (i.e. push-ups, crunches, flutter kicks) can be included during the course of the run. **This may include up to three exercises in the calisthenics exercise routine, and not to exceed the PT level the class is currently training under.**

Interval run: Interval training runs are best conducted on a quarter mile track. However,

DISCUSSION POINT

a safe running route with marked distances is sufficient. The interval training session is performed by running quarter mile intervals at a fast pace (near maximum), followed by a 1-4 minute recovery period. Two to four intervals are an adequate training stimulus. Interval running may only be done once a week and not to be combined with endurance running. No calisthenics are to be performed between running intervals.

RELATED INSTRUCTOR ACTIVITY

STRETCH SET FOR CALISTHENICS AND RUNNING(15 Sec.)

POST RUN COOL DOWN STRETCHES (30 SEC.)

ANKLE ROTATIONS, 10 EACH DIRECTION EACH ANKLE  
JUMPING JACKS, 30 FOUR-COUNT  
ROTATOR CUFF STRETCH  
TRICEPS STRETCH  
QUADRICEPS STRETCH  
INSIDE HURDLER STRETCH  
GROIN STRETCH  
KNEE TO CHEST  
BOTH KNEES TO CHEST  
BACK TWIST  
CALF STRETCH  
ACHILLES STRETCH

QUADRICEPS STRETCH  
INSIDE HURDLER STRETCH  
GROIN STRETCH  
KNEE TO CHEST  
CALF STRETCH  
ACHILLES STRETCH

CALISTHENICS SET (REPETITIONS FOR LEVELS I, AND II FOLLOW)

PULL-UPS (5, 6)  
FOUR-COUNT LUNGES (15, 18)  
PUSH-UPS (25, 30)  
BENT KNEE SIT-UPS (20, 25)

DISCUSSION POINT

PULL-UPS (5, 6)  
TWO-COUNT SQUATS (15, 18)  
WIDE ARM PUSH-UPS (25, 30)  
CRUNCHES (25, 30)  
TWO-COUNT QUADRUPED RAISES (15, 20)  
FOUR-COUNT OBLIQUE CRUNCHES (15, 18)  
FOUR-COUNT SUPERMANS (15, 18)  
FOUR-COUNT FLUTTER KICKS (25, 30)  
TRICEPS PUSH-UPS (15, 20)  
CALF RAISES (30, 35)  
CROSS KNEE OBLIQUE CRUNCHES (15, 18)  
EIGHT-COUNT BODY BUILDERS (10, 12)  
HIP FLEXOR STRETCH, 30 SECONDS EACH LEG

RELATED INSTRUCTOR ACTIVITY

STRETCH SET FOR STRENGTH TRAINING AND SWIMMING  
(15 Sec.)

PUSH-UPS, 10  
ARM CIRCLES, 10 SECONDS EACH DIRECTION  
FLUTTER KICKS, 25  
LUNGES, 10  
CRUNCHES, 15

POST SWIM/STRENGTH TRAINING STRETCHES  
(30 Sec.)

ROTATOR CUFF STRETCH  
CHEST STRETCH  
TRICEP STRETCH  
QUADRICEP STRETCH  
INSIDE HURDLER STRETCH

DISCUSSION POINT

ABDOMINAL STRETCH  
ROTATOR CUFF STRETCH  
CHEST STRETCH  
TRICEP STRETCH  
QUADRICEP STRETCH  
INSIDE HURDLER STRETCH  
KNEE TO CHEST  
BOTH KNEES TO CHEST  
BACK TWIST

RELATED INSTRUCTOR ACTIVITY

KNEE TO CHEST  
BOTH KNEES TO CHEST  
BACK TWIST  
CALF STRETCH

STRENGTH TRAINING EXCERSISES

CORE EXERCISES

PULL-UPS (5, 6)  
SQUATS  
DEAD LIFTS  
MILITARY PRESS  
BENT OVER ROW  
BENCH PRESS  
BENT KNEE SIT-UPS (20, 25)  
CRUNCHES (20, 25)  
CROSS KNEE OBLIQUE SIT-UPS (15, 18)

AUXILIARY EXCERSISES

SEATED CABLE ROW  
TRICEPS CABLE PRESS DOWNS  
INCLINE BENCH PRESS  
DUMBBELL BICEPS CURL  
LEG PRESS  
LAT PULL DOWNS  
BENT KNEE SIT-UPS (20, 25)  
CRUNCHES (25, 30)  
CROSS KNEE OBLIQUE SIT-UPS (15, 18)

A. Stretch

1. Ankle Rotations

Announce and lead.

a. Purpose - To stretch ankle tendons prior to jumping jacks.

b. Action:

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (1) From a sitting position cross left leg over right knee, place left hand on left ankle, with right hand grasp toes of right foot and rotate each direction 10 times making as large a circle as possible.
- (2) Switch and repeat other ankle.
- 2. 30 Four-count Jumping Jacks
  - a. Purpose - warm and limber up.
  - b. Action:
    - (1) "Ready" Stand with arms at side. Begin.
    - (2) "One" Raise arms overhead relatively straight, feet slightly wider than shoulder width:
    - (3) "Two" Return to ready position.
    - (4) "Three": as "One".
    - (4) "(Count)": as "Two".
- 3. Rotator Cuff Stretch Announce and lead.
  - a. Purpose - stretch back of shoulder.
  - b. Action - from a standing position, reach right arm straight out. With left hand, grasp right arm just above the elbow. Pull right arm across body ensuring thumb pointed

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- up.
- c. Repeat other arm.
4. Triceps Stretch Announce and lead.
- a. Purpose - stretch back of arm.
  - b. Action - bring arm up and back so that elbow is pointing upward and the hand rest between the shoulder blades. Gently pull arm toward the midline behind the head to stretch the tricep muscle. Do not use back of head for leverage:
  - c. Repeat other side.
5. Quadriceps Stretch Announce and lead.
- a. Purpose - stretches quadriceps muscles (front of thigh).
  - b. Action - Lie on stomach. Bend right leg at knee and grasp right ankle with right hand. Pull foot towards thigh. Do not allow foot to be pulled out to side. Ensure knees stay together.
  - c. Repeat other leg.
6. Inside Hurdler Stretch Announce and lead.
- a. Purpose - stretch hamstrings (back of

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- thigh).
- b. Action - from seated position, bend left leg such that foot is directly in front and approximately 6" from body. Stretch right leg straight out WITH KNEE AND FOOT POINTING STRAIGHT UP. Reach hand over right foot, slowly bend trunk forward from hips. Keep back and neck in-line; DO NOT BEND HEAD DOWN. Repeat other leg.
7. Groin Stretch Announce and lead.
- a. Purpose - stretch groin muscles.
  - b. Action - seated position with feet pulled in, soles of feet together, heels approximately 6" from body, hands on ankles, elbows on upper leg. Leaning trunk forward slightly, WITH BACK AND NECK STRAIGHT, apply gentle pressure with elbows.
8. Knee-to-Chest Stretch Announce and lead.
- a. Purpose - stretches gluteal and hamstrings.
  - b. Action - On flattened back with head down, raise right leg. Keeping left foot on deck, grasping the leg with both hands placed behind the knee, pull leg toward chest.
  - c. Repeat other leg.
9. Both Knees-to-Chest Stretch Announce and lead.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Purpose - stretch lower back.
  - b. Action - laying on back, place hands behind knees and pull to chest. Tilt pelvis off deck.
10. Back Twist Announce and lead.
- a. Purpose - stretch lower back and torso.
  - b. Action - from seated position, stretch left leg straight out. Hook right foot over left leg near knee. Reach left arm across body and use right leg for leverage; gently twist trunk to right.
  - c. Repeat other leg.
11. Calf and Achilles stretch. Announce and lead.
- a. Purpose - stretch calf and Achilles tendon.
  - b. Action - With feet approximately 5' from bulkhead, legs straight, lean forward and place both hands on bulkhead. Adjust foot placement as required to provide sufficient stretch.
  - c. Repeat with bent legs, shifting stretch to Achilles tendon.
12. Arm Circles

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Purpose - Warm up and stretch the shoulder muscles.
  - b. Action - Extend arms out to the side level with the shoulders and rotate 6-inch circles for 10 seconds forward and backwards. Repeat steps with 24-inch circles.
13. Abdominal Stretch
- a. Purpose - stretch abdominal muscles.
  - b. Action - While lying in the prone position, raise the upper body, by placing the upper body weight on the elbows. Next, raise the upper body farther by pushing up with the palms of the hands. Lower slowly.
14. Chest Stretch
- a. Purpose - stretch pectoralis and deltoid muscles.
  - b. Action - The chest stretch is a partner assisted exercise. Have your partner stand behind you and grasp both of your arms at your wrists. Your arms should be extended at your side and your palms facing forward. Your partner then pulls your arms back slowly and smoothly until you feel the stretch in your pectoralis and deltoid muscles. The stretch is held for the prescribed amount of time and released slowly.

DISCUSSION POINT  
CALISTHENICS EXERCISES

RELATED INSTRUCTOR ACTIVITY

1. Pull-Ups

Announce and lead.

a. Purpose: Strengthen the pulling muscles of the upper body: back, biceps, forearms, back of deltoids (shoulders). These muscles are used in the crawl stroke and when hooking survivor to cable.

b. Action:

(1) "Mount bar": Hang from bar, palms facing away.

(2) "Up": Without kicking, pull chin above bar.

(3) "(Count)". Without dropping, steadily lower body to starting position. Monitor number of unassisted pull-ups students perform; recognize gains.

c. Variations. Upon reaching partial failure (unable to lift self), the spotter shall quickly lift the exerciser to the "up" position. The exerciser will slowly lower themselves to the count position. Upon reaching total failure (unable to lift or lower self), the exerciser shall hang on the bar until the group is finished.

WARNING. DO NOT SPOT EXERCISER BELOW THE WAIST. SHOULD THE EXERCISER'S HANDS SLIP, IT IS IMPERATIVE THE FEET ARE FREE TO BREAK THE FALL.

2. Four Count Lunges.

Announce and lead.

a. Purpose. Strengthen the quadriceps for

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

effective flutter-kicking.

b. Action.

- (1) "Ready". Stand with back and neck straight and feet shoulder width apart.
- (2) "One" Take a large step forward with right leg so your leg forms an angle greater than 90 degrees. YOUR KNEE SHOULD NOT BE PAST YOUR FOOT. At the same time, bring your left knee down, almost to the floor (DO NOT LET DOWN KNEE HIT THE DECK).
- (3) "Two" Stand up, returning to starting position.
- (4) "Three" Repeat step one with left foot.
- (5) "(Count)" Stand up, returning to starting position.

3. Pushups

Announce and lead.

- a. Purpose. Strengthen pectoral (chest), shoulder and arm muscles. Rescue Swimmer uses these muscles when pushing a panicking victim away during front head-hold escape.

b. Action.

- (1) "Ready" The "lean and rest" - body is prone, **supported by straight arms on flat hands** approximately shoulder width apart and feet. THE BACK IS STRAIGHT,

Do not let students allow their backs to sway or raise their posteriors.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

NECK IN-LINE, HEAD NEITHER DIPS NOR LOOKS UP. "Begin".

- (2) "Down" Lower body till upper arms are bent at a 90-degree angle.
- (3) "Up" Raise body to starting position.  
"(Count)"

4. Bent Knee Sit-ups

Announce and lead.

a. Purpose. Strengthen abdominal muscles.

b. Action

- (1) "Ready" Starting in the up position, with legs bent at a 90° angle, keep feet on deck, cross arms over chest (hands maintain contact with shoulders).  
"Begin".

5. Two Count Squats.

Announce and lead.

a. Purpose: Strengthen the quadriceps (muscles in front of the thigh), the muscles used in flutter kicking.

b. Action.

- (1) "Ready" Hands on hips, feet shoulder width apart. MAINTAIN STRAIGHT BACK, HEAD LOOKING FORWARD, THROUGHOUT EXERCISE. "Begin".
- (2) "Down" Bend legs to a 90-degree angle.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (3) "Up" Return to ready position.(Count)
6. Wide Arm Push-ups. Announce and lead.
- a. Purpose. Same as regular push-ups, with greater emphasis on chest muscles.
- b. Action.
- All same as push-ups except hands are placed significantly wider than shoulder-width.
7. Crunches. Announce and lead.
- a. Purpose. Strengthen abdominal.
- b. Action.
- (1) "Ready" Lying on back, raise bent legs, knees relaxed. Cross arms over chest, fingers maintaining contact with shoulders. ("Begin").
- (2) "Up" Raise torso off deck until elbows touch thighs. Pause briefly:
- (3) "(Count)" Slowly lower torso only until shoulder blades touch deck. Do not relax abdominal. Minimize time in this position:
8. Quadruped Leg Raises. Announce and lead.
- a. Purpose. Strengthen Hip Extensors.
- b. Action.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (1) Start in a kneeling position with hands flat on the ground and legs forming a 90-degree angle.
  - (2) Slowly raise leg and straighten (one), slowly lower left leg to starting position without touching the deck (two), repeat count as required then switch to opposite leg.
9. Four Count Oblique Crunches. Announce and lead.
- a. Purpose. Strengthen oblique's, the muscles on the sides of the abdominal wall.
  - b. Action.
    - (1) "Ready" Same as regular crunches.
    - (2) "One" Raise and twist torso until right elbow touches left thigh.
    - (3) "Two" Lower body only until both shoulder blades touch deck. Do not relax abdominal.
    - (4) "Three" Raise and twist torso until left elbow touches right thigh, similar to "one".
    - (5) "(Count)" As in two.
10. Four Count Supermans. Announce and lead.
- a. Purpose. Strengthen hip extensors and lower back.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

b. Action:

- (1) "Ready". Lying on stomach, chin off ground, hands forward with palms on deck, feet about shoulder width apart. "Begin".
- (2) "One". Raise left arm and right leg 6 inches off deck and hold position for 3 to 5 seconds.
- (3) "Two". Return to starting position.
- (4) "Three". Raise right arm and left leg 6 inches off deck and hold position for 3 to 5 seconds.
- (5) "(Count)". As in one.

11. Four Count Flutter Kicks.

Announce and lead.

a. Purpose. Strengthens abdominals and hip flexors.

b. Action:

- (1) "Ready". Lying on back, head up, hands (palms down) under the hips, legs extended, feet together 6 inches above the deck. "Begin"
- (2) "One". Lift left leg 18 inches above deck, keeping the leg straight.
- (3) "Two". Lift right leg to same position

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

while returning left to starting position.

(4) "Three". Reverse step (2).

(5) "Count". Shift legs once more.

12. Triceps Push-ups.

Announce and lead.

a. Purpose. Strengthens arms, shoulders and chests with an emphasis on the triceps muscles in back of the upper arm.

b. Action:

(2) "Down" WITH NECK AND BACK IN LINE, HEAD NEITHER RAISED NOR DIPPED, BUTTOCKS NEITHER SWAYED DOWN OR ELEVATED, lower body until arms are bent at a 90-degree arm.

(3) "Up" Maintaining form, raise body.  
"(Count)"

13. Calf Raises.

Announce and lead.

a. Purpose. Strengthen calf muscles.

b. Action:

(1) "Ready" Standing position with feet shoulder width apart and toes pointed forward. "Begin"

(2) "Up" Raise heels off deck and pause briefly.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- (3) "Down" Return to starting position.  
"(Count)"
  
- 14. Cross Knee Oblique Crunches. Announce and lead.
  - a. Purpose. Strengthen abdominal muscles.
  - b. Action:
    - (1) "Ready" Lay down with legs bent with left ankle positioned on right knee and right hand resting on the temple. Left arm is out to the side. "Begin"
  
    - (2) "Up" Raise upper torso and touch right elbow to left knee.
  
    - (3) "Down" Return to starting position. Repeat IAW calisthenics guide.
  
    - (4) Switch and repeat.
  
- 15. Eight-count body builders Announce and lead.
  - a. Purpose. Full-body conditioning.
  - b. Action:
    - (1) "Ready". Stand with arms at side and feet shoulder-width apart. "Begin".
  
    - (2) "One". Squat down to an all fours position. DO NOT LET KNEES BEND PAST 90 DEGREES.
  
    - (3) "Two". Thrust legs out to "lean and

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

rest" position of push-ups.

- (4) "Three". As in push-ups, lower body until arms are parallel to deck.
- (5) "Four". Raise body to "lean and rest".
- (6) "Five". Straddle legs.
- (7) "Six". Bring legs together.
- (8) "Seven". Return to all fours. DO NOT BEND BEYOND 90 DEGREES.
- (9) "(Count)". Return to ready position.

Ensure all students stand fully upright.

16. Hip Flexor Stretch.

Announce and lead.

- a. Purpose. Stretch Illio Psoas muscles.
- b. Action:

- (1) Put right leg well out in front of you, as if in a lunge. Allow left knee to rest on deck. Lower torso and push hips forward, emphasizing stretch on front of left leg. Body should twist slightly.
- (2) Repeat other leg.

B. Instructions for Group Paced Runs

Students shall run continuously, in formation, The pace shall be such that all students can stay with the group, "jodies" can be sung.

According to physiologists, there is "minimal cardio-vascular

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

C. Instructions For Post Run Cool Down Stretches

transfer" between running and swimming. GPRs primarily benefit students by providing esprit de corps and a break from the pool. Accordingly, motivation should be emphasized more than conditioning.

1. All stretches will be conducted IAW initial stretch set criteria.

For maximum benefit, perform stretch set immediately after completion of run.

Stretches to complete are listed on page 2.1-15 of this lesson plan.

D. Description of Strength Routine

INSTRUCTOR NOTES. For maximum benefit, perform the set with minimum rest between exercises. Perform the exercises themselves at the steady pace as demonstrated in the Instructor Course.

The program is designed to provide a good workout to as many participants as possible. Students are to perform all exercises with correct form.

E. Training Safely

- a. Start out slowly and build up progressively over a period of time.
- b. Use correct lifting technique at all times when training.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- c. Wear athletic shoes and appropriate clothing for the activity. Use weightlifting gloves, straps, or chalk whenever there is a risk of slippage.

F. Training Correctly

- a. Use a good grip.
- b. Always lift from a stable position.
- c. Keep the weight close to your body.
- d. Use leg muscles, not the lower back, when lifting a weight from the ground.
- e. Lift in a smooth, controlled fashion.
- f. Exercise through a full range of motion.
- g. Exhale as the weight passes through the "sticking point", the most difficult part of the lift, and inhale during the recovery phase. **Do not hold your breath.**
- h. Ensure bars are evenly loaded, outside collars and locks are secure.
- i. When returning a barbell to a rack (squat, bench press), rest the bar on both sides of the rack before releasing.
- j. Use a spotter (assistance) when needed in the execution of an exercise, when a weight is heavy, lifting overhead, lifting over the body, when inexperienced with a weight or exercise, or when loss of balance may occur.
- k. Adjust bench height, lever arm, and weight for body size and ability before lifting.
- l. Maintain regular training days.

## DISCUSSION POINT

## RELATED INSTRUCTOR ACTIVITY

- m. Do not train if ill.
- n. Train with a partner.
- o. Stretch between weight training exercises whenever muscles feel overly tight.

Conversely, the program is designed so that all students can complete every set (if administered correctly). Some will achieve muscular failure before their classmates. These students actually get the most from the workout. **Inability to perform a given number of repetitions during a workout does not constitute failure to meet a training standard. (The Rescue Swimmer Fitness Test is the only evaluation).**

## STRENGTH TRAINING EXERCISES

### PRESENTATION

1. Squats
  - a. Address the bar while it rests on the rack. Place the bar across the back of the shoulders just below the neck. Place the hands equal distance from the center of the bar and comfortable distance from the shoulders. Hold the chest up and out and pull the shoulder blades together.
  - b. Place the hip under the bar, isometrically contract the back and lift the bar upward off the rack.
  - c. With the aid of a spotter step back and

DISCUSSION POINT

clear of the rack.

- d. Position feet flat on the floor between hip and shoulder width apart, toes outward 15-30 degrees, eye level and looking straight ahead.
- e. Downward movement: When stable begin the downward motion by flexing at the knees and hip, lowering the body until the top of the thighs are parallel to the deck. There should be no pause in the down position.
- f. Upward movement: Push into the floor with the feet while extending the knees and hips at the same rate so that the torso to floor angle remains the same.
- g. Stand up to the starting position and repeat the movement for the prescribed number of reps.

**Note**

Keep the back isometrically contracted. The back should never bow forward. There should be no bouncing at the bottom. The lift should be smooth, controlled and calculated.

2. Deadlifts

- a. Address the bar with feet wider than shoulder width apart, sumo style.
- b. Flex at the hip and knees lowering the butt keeping the back isometricly contracted, flat and at approximately 45 degree to the

RELATED INSTRUCTOR ACTIVITY

Keep feet flat on the deck throughout the exercise.

Pronated or Alternated Grip may be used.  
Alternated Grip: One hand is

#### DISCUSSION POINT

- deck. Grasp the bar with hands equal distance for the center of the bar and the hands inside the knees, palms to the back.
- c. Arms should remain extended, elbows rotated slightly out with shoulders pulled back and ahead of the bar.
  - d. Begin by pressing the feet into the floor extending the knees and hips while maintaining the shoulders and hips a constant relative position to each other and the back in a constant angle with the floor.
  - e. Continue to push with the legs extending the knees and hips so the bar will pass the knees. As the bar passes the knees begin to extend the back until standing completely erect, (legs and back extended) pull the shoulders back only slightly. Do not over exaggerate this movement.
  - f. Decelerate the bar to the ground by doing the lift in reverse.
  - g. Relax and re-address the bar repeat for the prescribed number of reps.

#### RELATED INSTRUCTOR ACTIVITY

pronated, the other supinated.

(Supinated Grip: Underhand with palms facing up)

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**Note**

Do not allow the back to bow. Control the bar all the way to the floor maintaining the back isometrically contracted, flat and at approximately 45 degree to the deck.

3. Military Press

- a. Stand or sit with feet hip width apart. Bar should be resting in the rack. Grasp bar with a grip so that the forearms are perpendicular to the deck and equal distance from the center of the bar.
- b. (IF STANDING) Un-rack the bar by allowing it to rest on the anterior shoulder/upper chest then stand up under the bar and step back, clear of the rack.
- c. Press bar straight up to arms extended position, keep the chin tucked in and down to avoid striking the bottom of the chin.
- d. Lower the bar to chest smoothly and controlled repeat for the prescribed number of reps.

**Note**

Avoid bowing the back. The back should remain straight and isometrically contracted for stability.

4. Bent Over Row

DISCUSSION POINT

- a. Address the bar standing feet hip width apart and grasp the bar equal distance for the center of the bar with a wider than normal grip. Lift the bar from the floor using the dead lift technique to a fully erect posture.
- b. Flex at the knee and forward at the hips, with a slight forward lean, so the torso is at a 45-degree angle with the floor.
- c. With the arms fully extended, the bar should hang so that it will not hit the knees.
- d. Pull the bar to the bottom of the chest with the elbows pointed outward, slight Pause.
- e. Return to start position with arms full extended in a controlled and deliberate way, repeat motion for the prescribed number of reps.

5. Bench Press

- a. Lay on bench with head, shoulder blades and hips touching bench. Feet flat on the floor. There should be minimal or no arch in the low back.
- b. Take bar with a closed/pronated grip at a width so that the forearms are perpendicular to the deck and hands equal distance for the

RELATED INSTRUCTOR ACTIVITY

Closed Pronated Grip:  
Finger and thumb are wrapped (closed) around the

DISCUSSION POINT

center of the bar.

- c. Raise the bar from the rack to an arm extended position over the face.
- d. Lower bar to chest at the nipples, the bar should make contact with your body but allow only a slight pause.
- e. Press the bar up and forward (toward the head) in a slight arcing movement ending at the start position, repeat movement for prescribed number of reps.

6. Seated Row

- a. Seated, with knees slightly bent, holding the handle with both hands, arms extended upper body erect.
- b. Pull the shoulder blades together.
- c. Pull cable handle inward toward bottom of rib cage.
- d. After making contact with the lower ribs extend the arms out again smoothly and controlled to the start position. Repeat movement for prescribed number of reps.

RELATED INSTRUCTOR ACTIVITY

bar. The Pronated, Supinated, and Alternated Grip are examples of a "Closed Grip". **For safety reasons, always use a closed grip.**

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

The upper body should remain erect with little or no forward and backward rocking at the hips.

7. Triceps Press Down

- a. While standing with a pronated grip on a straight or V shaped bar, press the bar down to the start position. Elbows are at the sides of the torso and flexed at a 90 degree angle.
- b. Begin the exercise by pressing the bar down extending the arms while keeping upper arm stationary and against the sides of the torso.
- c. Return the bar to the start position. Elbows at 90 degrees. Repeat movement for prescribed number of reps.

pronated Grip: Overhand with knuckles facing up.

8. Incline Press

- a. Lay on the bench with the head, shoulder blades and hips touching the bench. Feet flat on the floor. There should be minimal or no arch in the lower back.
- b. Grasp the barbell with a closed/pronated grip. Lower the bar until it touches the upper chest. Pause momentarily and press upwards.

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

**NOTE**

Can be performed with dumbbells as well.

- c. Lay on bench with head, shoulder blades and hips touching bench. Feet flat on the floor. There should be minimal or no arch in the low back.
- d. Grasp the dumbbells with a closed/pronated grip. Lower the dumbbells until they are at chest level. Pause momentarily and press upwards.

9. Dumbbell Curls

- a. Stand holding dumbbells by thigh, palms inward and arms extended.
- b. Flex the elbow, bring the forearm toward the same side shoulder. While progressing through the movement, supinate the forearm so the lift finishes palm facing the shoulder and the arm is fully flexed.
- c. Lower dumbbells to start position by extending, smoothly and controlled, the forearm to the fully extended position with arms at the side and palms inward. Repeat movement for prescribed number of Reps.

If weight or bending at the hips is required to raise the weight, too much weight is being used.

10. Leg Press

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

- a. Sit in the machine with the head, shoulder, lower back, and hips pressed against the pads.
- b. Place feet on the platform between hip and shoulder width apart with toes outward 15-30 degrees. Grasp the support handles and extend hip and knees to an almost fully extended position. (knees should be slightly bent) Do not forcefully extend the knee.
- c. Remove the support mechanism and grasp the seat handles again.
- d. Allow the hips and knees to slowly flex and lower the foot platform until the knee angle is less than 90 degrees.
- e. Forcefully extend the legs and hips pushing the platform to the leg extended position, do not forcefully lock out the knee. Repeat movement for prescribed number of reps.
- f. Upon completion of exercise replace the supports and exit the machine.

Forcefully extending the knees will cause the knee to lock-out and possible Hyperextension

11. Lat Pulls

- a. While seated at this exercise machine grasp bar with wide grip. Pull the bar down to the top of the sternum, with only a slight backward lean. Maintain

DISCUSSION POINT

correct body position throughout exercise keeping the torso erect.

- b. Return to the starting position, arms fully extended, repeat movement for prescribed number of reps.

EVALUATION

Perform and Pass the Rescue Swimmer Fitness Test per reference (1).

Recognize the student achieving the highest point total.

ASSIGNMENT

None.

RELATED INSTRUCTOR ACTIVITY