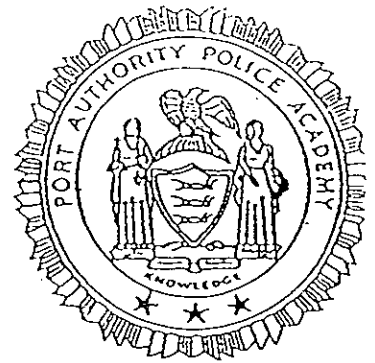


PORT AUTHORITY POLICE ACADEMY



LESSON PLAN



SECTION : MARINE

LESSON TITLE : HELICOPTER-EMERGENCY HOISTING OPS.

TRAINEE LEVEL : BASIC

OBJECTIVES : Upon completion of this section the trainee will be able to state verbally and demonstrate;

1. General hoisting Procedures
2. all safety procedures
3. Emergency breakaway procedure

METHOD OF INSTRUCTION : Lecture, Demonstration, Practical Exercise

TRAINING AIDS : Deadman stick, goggles, helmet, video tape

CLASSROOM REQUIREMENT : VCR, T.V., Boat, Chalk Board

TIME : 2 Hour

REFERENCES : USCG Boat Crew Seamanship Manual

PREPARED BY : William F. Oorbeek

DATE: 1/18/94

APPROVED BY :

DATE:

SIGNATURE

I. INTRODUCTION

Name, Background, Training,
Experience

II. MOTIVATION

Recovery of an unconscious or severely injured victim from the water requiring immediate medical attention may justify transport of a person by helicopter to the nearest medical facility or triage area. Transferring an injured person from a boat to the basket or litter lowered by cable from a helicopter may appear easy on television, but in fact is often a tense operation in adverse sea and wind conditions.

III. STATEMENT OF OBJECTIVES

Upon completion of this section the trainee will be able to state verbally and demonstrate;

- A. General Hoisting Procedures
- b. All safety Procedures
- C. Emergency Beakaway Procedure

1. General Hoisting Procedures

a. hoists are made from the stern of boat

...pilot has a clear view of forward superstructure and mast of boat

b. whenever possible complete planning of the hoist with the pilot before the helicopter is overhead

...because of noise level voice/radio communication may be ineffective.

c. the boat should be underway with the relative wind 30 to 60 degrees off the port bow

...provides the pilot with sufficient wind velocity

...provides the hoist operator with a full view during approach

NOTE: the pilot will advise boat operator of heading and speed

d. hoisting is accomplished from the starboard side of the helicopter (helo hovering off the port side of the boat).

e. once in position the hoist operator gives the pilot maneuvering instructions for guiding the litter or basket to the boat below

2. PROCEDURE PRIOR TO THE HOISTING OPERATION

a. brief the crew regarding type of hoist

...basket, stoke's litter, or sling

b. ensure all crew members are properly clothed and equipped

...helmet

...goggles

...PFD - mustang suit/vest

...Deadman stick

NOTE: DOWNWASH OF A HELICOPTER IS EXTREMELY POWERFUL AND IS CAPABLE OF BLOWING A CREW MEMBER OVER THE SIDE. ADDITIONALLY, THE DOWNWASH HAS THE SAME EFFECT AS A WIND CHILL FACTOR AND, IF THE RIGHT CONDITIONS EXIST, CAN CAUSE HYPOTHERMIA.

c. all loose gear properly stowed or secured.

...downwash can blow loose equipment over the side and light objects, such as clothing, can be caught in the recirculating air currents and could be sucked into the helo's turbine engines.

d. establish communications with the helicopter

...number of people aboard aircraft/boat(rescue)

...arrangements for conduct of the hoist before helicopter is overhead

...arrangements for **EMERGENCY BREAKAWAY PROCEDURE**

3. PROCEDURE DURING HOISTING OPERATION

a. coxswain in communication with helo

b. two crewmen on deck

c. do not touch the hoisting cable, basket, or litter until it has been grounded (static electricity). ie: contact with your boat, water, or deadman stick

Instructor Notes:

Content Activity:

d. do not attach trail lines, basket, slings, or hoisting cable to your boat

e. do not attempt to hook onto the hoisting hook until slack exists in the hoist cable to allow for relative motion between the helo and the boat

f. always unhook hoisting equipment before moving it inside of boat

WARNING

Never attach, tie, or secure anything to the boat which is also attached to the helicopter.

4. TYPES OF HOISTS

a. direct method

...no line, basket, stoke's litter, or sling dropped directly to boat

b. trail line

...poly prop. line with weight attached to object being lowered

...pull in line hand over hand

...guide object and cable until on board

...coil line on deck

...after lift use trail line to guide cable (hand over hand)

5. EMERGENCY BREAKAWAY PROCEDURE

NOTE: EMERGENCY BREAKAWAY PROCEDURE will be set during pre-hoist communication

a. should an emergency arise the coxswain will direct the crew to:

...the coxswain will transmit the

Instructor Notes:

Content Activity:

word BREAKAWAY

- ...push all equipment and
line over the side toward
the helicopter
- ...maneuver the boat to
starboard
- ...helo maneuvers to port



LESSON PLAN

SECTION : MARINE

LESSON TITLE : MAN OVERBOARD

TRAINEE LEVEL : BASIC

OBJECTIVES : Upon completion of this section the trainee will be able to :

- A. Properly sound the Man Overboard alarm
- B. Communicate with the Coxswain while taking appropriate action to recover victim
- C. As Coxswain maneuver vessel to recover victim from Port, Starboard, and Stern position.

METHOD OF INSTRUCTION : Lecture, Demonstration, Practical Exercise

TRAINING AIDS : Mannequin, Life Ring

CLASSROOM REQUIREMENT : Chalk Board, Boat

TIME : 4 Hours

REFERENCES : USCG Boat Crew Seamanship Manual

PREPARED BY : William F. Oorbeek

DATE: 1/04/94

APPROVED BY :

DATE:

SIGNATURE

I. INTRODUCTION

Name, Background, Training, Experience

II. MOTIVATION

A MAN OVERBOARD can happen at anytime and in any weather conditions. Even the best swimmers can become dis-oriented in the water after falling overboard.

III. STATEMENT OF OBJECTIVES

Upon completion of this lecture the Trainee will be able to:

A. Properly sound the Man Overboard Alarm

B. Communicate with the Coxswain while taking appropriate action to recover victim.

C. As a Coxswain maneuver vessel to recover victim from Port, Starboard, and Stern position.

MAN OVERBOARD

NOTE: ACT IMMEDIATELY

A. GENERAL MAN OVERBOARD

1. First Crewmember to realize man overboard

a. sound the alarm and state side of the boat individual went over

ex. ... "man overboard starboard side"

b. maintain sight of person

c. throw floatable-(life ring) over the side indicated

...victim may use as float

...serves as a reference point (datum)

d. point at and continue to point at victim...coxswain may not hear you but will see point.

e. constant report to coxswain giving location until coxswain has sight of subject

ex...contact at 5 o'clock, 50 yds.

...contact at 3 o'clock, 45 yds.

2. Coxswain - upon hearing the "MAN OVERBOARD" alarm the coxswain takes the following action (all at about the same time)

a... "Man overboard port (starboard)" - momentarily backdown on both engines and turn in direction indicated in the alarm.(keeps props. away from victim)

c. Coxswain will brief crew on how the recovery will be made and on which side.

...because of cut out recoveries will be made on Port side whenever possible

B. THE APPROACH

1. Make best speed in returning to victim (once in sight)

2. Slow boat as finale approach is made.

3. Nearly D.I.W. (dead in water) when the overboard person comes along side.

4. Generally...position boat on the weather side of victim so that the boat is set by the wind or seas toward the person rather than away.

...Severe conditions may dictate approach from leeward with the bow into the seas/wind for control.

NOTE: NEVER have the screws turning when victim is next to boat. If maneuvering is a must turn the bow toward the person, swinging the stern and screws away.

C. RECOVERY - Physical condition of victim will dictate type of recovery.

1. Uninjured and Conscious

a. throw heaving line

b. haul in victim

2. Injured and/or unconscious

a. maneuver as close as possible

b. use boat pole to pull in

victim

c. attempt to attach line to
victim (many victims are lost
at this stage of rescue)

d. if needed try to immobilize
injured body part.

NOTE: ENTER WATER AS A LAST RESORT

**WOULD NOW HAVE TWO PEOPLE IN
WATER**

RESCUE SMALL NUMBER OF PEOPLE SAME AS MAN OVERBOARD