



FIRE PROTECTION TRAINING

Procedures Handbook 4300

AIRCRAFT

TOPIC: Rotary Wing Aircraft (Helicopters)

TIME FRAME: 1:00

LEVEL OF INSTRUCTION: Level I

BEHAVIORAL OBJECTIVE:

Condition: Given a written quiz

Behavior: The student will confirm knowledge of the safety hazards, considerations and procedures associated with working around helicopters.

Standard: With a minimum of 80% accuracy

MATERIALS NEEDED:

- White board and erasable pens
- Audio visual equipment
- Appropriate visual aids and handouts
- Video, "Helo Safe" (NFES 2090), NWCG

REFERENCES:

- CAL FIRE, Aviation Management Procedures Handbook (8300)
- CAL FIRE, Basic Helitack Operations and Safety

PREPARATION:

The use of helicopters has become an integral part of fire control operations; however, like any other piece of firefighting equipment there are definite rules for safety when using the helicopter. Although helicopters are a limited statewide resource, the chances are good that you may be working with or around helicopters. Helicopters are a very valuable tool for ground personnel, especially in the areas of water drops and troop movement. They can save a lot of work, but they are also dangerous. You must know the hazards and the requirements of working around these machines.



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ROTARY WING AIRCRAFT

PRESENTATION	APPLICATION
<p>I. TERMINOLOGY</p> <ul style="list-style-type: none">A. Helitack, Fly CrewB. Helicopter, CopterC. Helibase, Helispot, Helitack BaseD. Helicopter coordinator, Helibase Manager, Helispot ManagerE. HelitenderF. Main rotor, tail rotorG. Skids<ul style="list-style-type: none">1. Rigid tank, bucketH. Seat belts and shoulder harnesses <p>II. USE</p> <ul style="list-style-type: none">A. Reconnaissance, mapping (recon)B. Crew transportation (air lift)C. Internal cargo transportationD. EvacuationE. Water/foam/retardant dropsF. Search and rescueG. Helitorch or Spherical Ignition DeviceH. External sling loads	<p>NOTE: Hand out Student Information Sheet #1</p>



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PRESENTATION	APPLICATION
<p>III. SAFETY</p> <p>A. Crew transport operation – when approaching or departing aircraft</p> <ol style="list-style-type: none">1. Follow all instructions of the Helitack Crew in charge2. Get the pilot's attention and permission before approaching the helicopter3. Always approach or depart in a crouched position<ol style="list-style-type: none">a. Gusts of wind could cause the main rotor blades to drop dangerously close to the ground4. Always approach so that you are in full view of the pilot, never from the rear of the helicopter5. Safety helmet shall be secured on your head with chin strap under your chin<ol style="list-style-type: none">a. If no chin strap, your safety helmet will be held securely in your hand to prevent it from being blown away and/or up into the rotor blast6. Never approach or depart a helicopter from ground that is upslope from the main rotor. When turning at high speed or under bad lighting conditions, rotors are almost invisible7. Keep clear of the main and tail rotors at all times. Do not walk to rear of helicopter when entering or exiting	<p>NOTE: Hand out Student Information Sheet #2</p>



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<ul style="list-style-type: none">8. Carry all long handled tools in such a manner that the handles will not be inadvertently raised into the rotor path<ul style="list-style-type: none">a. Horizontally, below the waist B. Working or waiting around a helispot<ul style="list-style-type: none">1. Stay at least 100 feet away from helicopters at all times<ul style="list-style-type: none">a. Unless you have a specific job that requires otherwiseb. Your presence can cause confusion and disrupt the pilot's concentration2. Do not face a landing helicopter unless you are wearing goggles3. Do not remain in an area that is constantly under the flight path of any helicopter4. No smoking within 100 feet of the helicopter or the fueling areas5. Learn and use the standard helicopter hand signals C. In-flight safety<ul style="list-style-type: none">1. Use the seat belt and keep it secured until the pilot instructs you to leave the helicopter2. Make sure all loose gear is held to prevent them being blown from the helicopter s3. Never slam the doors of a helicopter	<p>Demonstrate proper hand tool carry</p>



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<ul style="list-style-type: none">a. Door handles must be turned to close and secure4. Do not let any of your gear get in the way of the pilot or controls5. Never throw ANYTHING out of a helicopter6. Do not talk to the pilot unless necessary, particularly during take-off and landingD. Hazards<ul style="list-style-type: none">1. Water drops<ul style="list-style-type: none">a. Can be up to 2000 gallonsb. If you can't exit drop area, assume drop position<ul style="list-style-type: none">1) Lie facedown, head toward drop, hand on helmet, hand on tool, away from trees2. Sling loads<ul style="list-style-type: none">a. Stay away from flight path	



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SUMMARY:

Helicopters are valuable tools for firefighters. A safe working knowledge is necessary to prevent serious injury to firefighting personnel operating near helicopters.

EVALUATION:

A written quiz.

ASSIGNMENT:

Review your notes and student information sheets in preparation for the upcoming quiz.