

4.16 Helicopter Operations

Scope- When a decision by command has been initiated for the intervention of the aeromedical network, command shall establish an air operations sector.

Selecting a Landing Zone (LZ)- An area should be selected large enough to land a helicopter. The landing surface should be flat and firm, free of debris that would blow up into the rotor system.

The landing area should be free of people, vehicles, and obstructions such as trees, poles, and wires. Keep in mind that wires cannot be seen from the air. The landing area must be free of stumps, brush, posts and large rocks.

- A. Touchdown Area: For a small helicopter, the touchdown area should be a square measuring 100' x 100'. Medium size helicopters should have an area measuring 125' x 125'. For large helicopters, the area should measure 200' x 200'
- B. Wind Direction and Touchdown Area: Consider the wind direction. Helicopters land and take off into the wind. The approach and departure path must be free of obstructions such as wires, poles, antennas, trees, etc. If there are obstructions, this information must be relayed to the pilot as soon as possible. The LZ shall be marked with five lights/flares-one in each corner and one indicating wind direction. Flares can be obtained from law enforcement personnel or vehicle emergency lights can be used

Personnel Safety and Night Landing- All spectator and non-essential emergency personnel shall keep at least 200 feet from the touchdown area. All emergency equipment shall be kept at least 100' from the LZ. All persons working around the helicopter shall wear full protective clothing including eye protection. (SCBA are not required.) Helmets must have chinstraps secured. (Loose equipment may be blown into the rotor system.) If the LZ is extremely dusty, an engine company should wet down the LZ. When the helicopter has landed, do not allow anyone to approach the aircraft, always follow directions of flight crew.

For night landings, assure that spotlights, floodlights, and hand lights used to define the LZ are not pointed toward the helicopter. Turn off all non-essential lights. White lights such as spotlights, flash bulbs, and high beam headlights ruin the pilot's night vision and temporarily blind him/her. Red lights, however, are very helpful in finding accident location and do not affect the pilot's night vision.

Ground Guide- When the helicopter is spotted, one person shall be delegated to guide the helicopter in to a safe landing. This person shall stand with his back to the wind with their arms raised over his head to indicate the landing direction.

As the helicopter turns into the wind and begins a descent, the ground guide should begin directing the approach using approved hand signals. The ground guide should be far enough from the touchdown area to maintain eye contact with the pilot.

Helicopter Safety- When working around helicopters, never approach helicopters from the rear. Always approach and depart the aircraft from the front so you can see the pilot, and he

can see you. (90 degree angles is recommended)

When approaching helicopters, remember to keep low to avoid the main rotor. Winds can cause the rotor to flex downward.

If the helicopter is located on a slope, approach and depart from the down-slope side only.

When the helicopter is loaded and ready for takeoff, keep the departure path free of vehicles and spectators. If an emergency should occur, the helicopter would need this area to execute a landing.

Once the helicopter has landed, do not approach the helicopter. The crew will approach you when it is safe to do so.

No one is permitted to go near or touch the helicopter. Security is necessary for safety.

Eye protection is mandatory whenever working in or around a helicopter.

Hazardous Materials- Helicopter crews must be told of hazardous materials on the scene to avoid contamination of the crew. Of special concern are toxic, poisonous, flammable, explosive, irritating, or radioactive in nature. Helicopter crews do not carry protective suits or breathing apparatus to protect them from hazardous materials.

Always inform the flight crew of hazardous chemicals or gases. Never assume they have been informed. If the aircraft were to fly through the hazardous gases, the crew could be poisoned and/or the engines could develop mechanical problems. Informing the flight crew reduces the risk of a hazardous chemical or gas being spread to a larger area due to rotor wash.