

Standard Operating Procedures Manual
City of Poquoson Fire and Rescue



**City of Poquoson
Fire and Rescue**

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SPECIAL OPERATIONS

SOP#: SO 5.00

Title: Helicopter Assistance

Effective Date: 01/01/2009

Revised Date: 01/01/2009



Fire Chief's Signature



City Manager's Signature

HELICOPTER ASSISTANCE

I. PURPOSE

The purpose of this Directive is to provide criteria and procedures for coordination and landing of aircraft in a Landing Zone Area (LZ).

This SOP is not all-inclusive and cannot encompass all situations that may be encountered.

II. POLICY

Air ambulance service shall be requested in accordance with established Peninsula EMS Council's Patient Care Protocols and Policies and Procedures, as needed, for critically ill or injured patients when time is critical to their survival.

Mutual Aid Helicopter Assistance for non-medical incidents (land and water searches, etc.) may be requested through the Emergency Communications Center (ECC).

III. PROCEDURES

A. When requesting helicopter assistance, on-scene personnel shall provide the following information to the Emergency Communications Center:

- Type of incident (i.e., extrication, water rescue, search, etc.)
- Exact Location of incident (including nearest cross street)
- Unit Number
- Number of patients/victims if applicable
- Mutual Aid contact channel

B. The Landing Zone Supervisor shall direct LZ operations and select and establish a Landing Zone. The Landing Zone Supervisor shall report to the Incident Command Post (ICP) or the Transportation Group of the ICP in large scale operations. The Landing Zone Supervisor shall:

- Assign personnel and a fire unit to establish a LZ
- Ensure sufficient LZ size
- Maintain LZ security
- Maintain Radio Contact with incoming helicopters
- Coordinate loading and transport of patients with the Transportation Group.

C. Once the helicopter is airborne and within range, initial contact will be made with the LZ Supervisor. The LZ Supervisor shall be prepared to provide the following information to the flight crew BEFORE landing:

- Obstructions at and near the LZ (e.g. towers, telephone lines, etc.)
- Wind direction and ground wind gusts
- Hazmat patients to determine transportation capacities (if applicable)
- Special landing considerations at Hazmat incidents (e.g., upwind)

- D. The Ground Guide shall wear turnout gear and proper eye and hearing protection. Utilizing hand held directional wands from the LZ kit, the Ground Guide shall:
- Stand with his/her back to the wind and with arms raised over the head to indicate the landing direction.
 - As the helicopter turns into the wind and begins descent, the Ground Guide should begin directing the approach, using the approved hand signals.
 - The Ground Guide should be far enough from the touchdown area so that eye contact can be maintained with the pilot. If the pilot remains at a low hover and is turning the helicopter for a specific reason, the ground guide needs to move with the nose of the aircraft in order to remain in view of the pilot and out of harms way of the tail rotor.
- E. Once landed, the LZ operations personnel will assist the helicopter crew by providing security to the helicopter, or with any other requests.
- F. Fire Department personnel shall assist the helicopter crew as needed.

IV. LANDING ZONE REQUIREMENTS

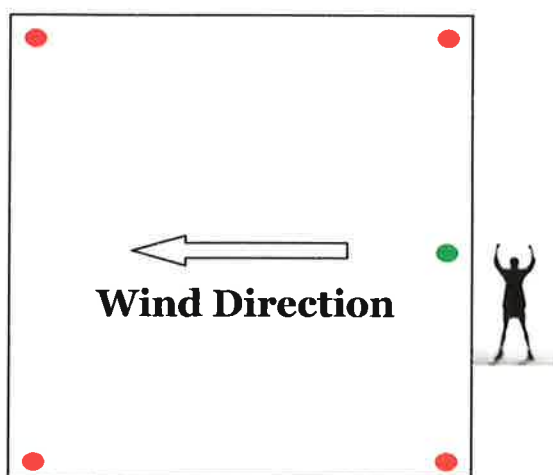
A. Establishing the Landing Zone (LZ)

- Helicopters require a minimal landing zone of 100' by 100' square, both day and night landings
- The LZ should be flat, firm and free of debris.
- The LZ and approach and departure path shall be clear of people, vehicles and all obstructions that endanger the helicopter (e.g. trees, communications tower, telephone lines, etc.).

- The LZ shall be established upwind of any potential hazardous materials.

B. Marking the Landing Zone (LZ)

- Daytime landing zone requirements are relatively simple. Attempt to set up the largest open unobstructed landing zone possible such as a field, parking lot, dual lane boulevard or median strip, preferably an area which will produce the least amount of flying debris due to prop wash.
- Nighttime landings require that the border of the zone be marked by five (5) lights. Flares are NOT to be used. A square pattern of at least 100 feet minimum is required. Place one red light in each corner of the landing zone with a green light centered on the upwind side (Fig. 2). Flood or spot lights should not be aimed up at the landing helicopter, but should illuminate the ground of the landing site. In setting up landing zones be certain that you don't place vehicles in such a manner that will obstruct the approach or departure path of the aircraft.



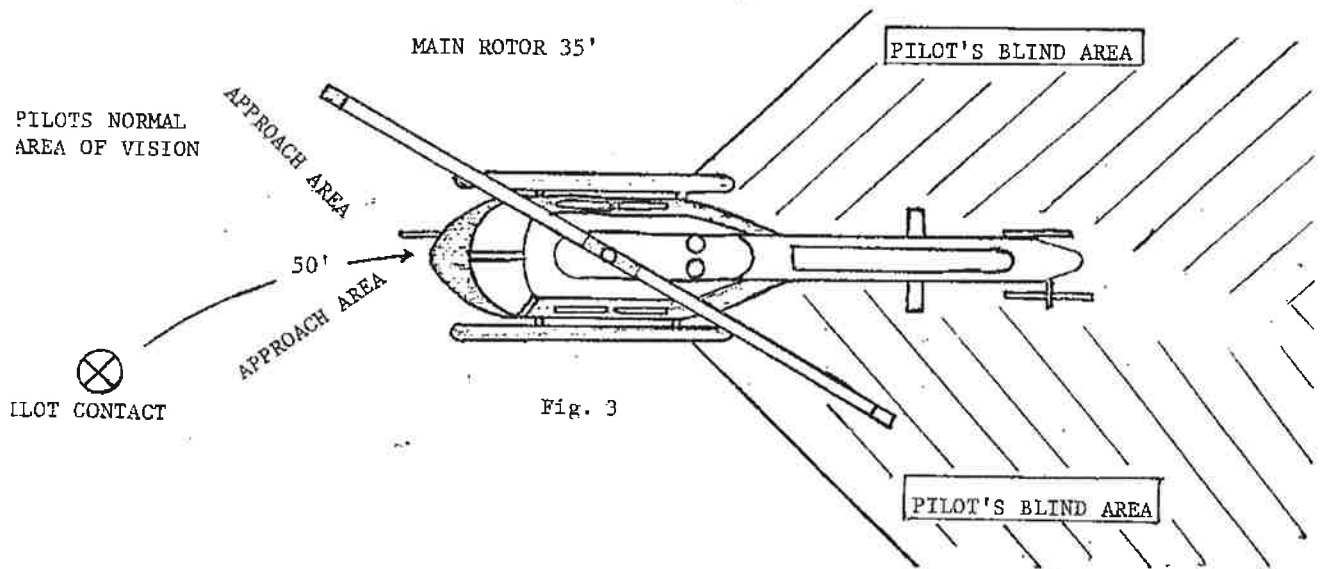
Personnel landing the aircraft should be on the upwind/windward side of the LZ.

C. Approaching the Helicopter

- DO NOT approach until instructed to do so by the crew.
- Always approach and depart a helicopter at the front to remain in view of the pilot.

D. Area security while helicopter is on the ground

- The helicopter is most vulnerable while on the ground. Fire Department personnel will secure the area and have one man in a position to observe the area around the tail rotor. Do not stare at rotor if it's turning. This person should be in a position as indicated to maintain visual contact with the pilot (Fig. 3)



- Under **NO CIRCUMSTANCE** is anyone to approach the helicopter unless directed to by the Pilot. While the helicopter is on the ground all personnel operating in close

proximity will remove all soft headgear. When available personnel should wear helmets with chin straps fastened and face shields down to protect the eyes.

E. Assistance required to load Med-Evac patient

- On occasion crew will need assistance in securing the patient on the litter, carrying him to the helicopter and loading the patient aboard. At the crews instructions, and **ONLY** the crew's instructions, will those people, designated by them, assist in this phase of the operation.

F. General Safety Considerations

- Spectators shall be kept at least 200 feet away from the LZ.
- Public Safety personnel not involved in guiding the aircraft shall remain at least 100 feet away from the LZ.
- Firefighting apparatus shall be available at the scene for fire protection.
- All public safety personnel working near the helicopter shall wear helmets, chin straps secured, hearing and eye protection.
- During incidents occurring at night, the following precautions should be considered:
 - Emergency warning lights on apparatus are useful to the helicopter crew for finding incident scenes at night and should remain on until the crew has a visual on the apparatus.
 - Once the helicopter crew has located the LZ, all non-essential white lights should be turned off. The helicopter lights will provide illumination of the LZ.

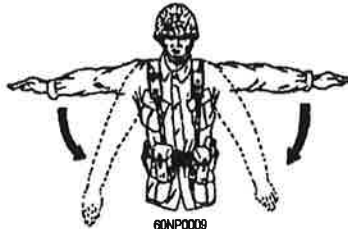
V. LANDING ZONE HAND SIGNALS

Due to the loud noise generated by a helicopter upon approach, the Ground Guide shall use the National EMS Pilots Association approved hand signals below to guide the aircraft down onto its LZ.



60NP0013

Landing Zone UNSAFE



60NP0009

Go Down



60NP0011

Go Up



60NP0008

Move Right/Left



60NP0006

Move Back



60NP0005

Move Forward



Hover



60NP0010

Landed Safely