

## WHAT TO DO WHEN THE HELICOPTER ARRIVES

Designate one person to ensure security and to communicate with the pilot during the call. This person should be in touch with dispatch via phone, or in contact with the pilot via radio.

## PREPARING THE PATIENT

Warmth is paramount to all injured patients. If you are able to get a layer between them and the ground, it improves heat retention over just covering alone. The patient should also be at least 100 feet back from the LZ to protect them from blowing snow, dirt and debris.

## AFTER DEPARTURE

After the helicopter departs, the LZ needs to remain clear and secure for 5 minutes. In the event of an emergency or difficulties, the helicopter may have to return to the secure area. For this reason, keep open communications with the helicopter or dispatch.

## SAFETY RULES

- LZ coordinator will stay in communication with pilot from time of contact through departure of the aircraft. The LZ coordinator's responsibilities are to maintain security of the LZ and coordinate group movements with the pilot.
- Do not point spotlights, headlights, and/or hand held lights directly at the helicopter.
- Eye and ear protection should always be worn around the aircraft.
- Secure all loose clothing and gear.
- People not assisting with the patient must be kept 100 feet away from the aircraft.
- Proceed toward the aircraft ONLY if signaled by the pilot or flight crew.
- When rotor blades are moving, ONLY approach the aircraft when escorted by a flight crew member.
- NEVER approach the helicopter from the rear/tail section. This is a very dangerous area.
- ONLY flight crew members will open and close the aircraft doors.
- Nothing should be carried/extended over shoulder height.
- Patient loading is accomplished from the left side of the aircraft in the feet first direction.

## WHEN TO CALL

In any emergency, contact local emergency services first by dialing 9-1-1. LifeFlight of Maine is a critical care air ambulance for injuries or illnesses that require rapid transport to a hospital. It is only appropriate to contact LifeFlight directly for life threatening or time critical illnesses or injuries. The decision to send the helicopter may be reviewed by medical staff prior to launch.

## WHAT TO REPORT

### 1. Agency name or location, contact person, phone number

### 2. Scene specifics:

- Mechanism of injury and number of patients
- Patient's approximate age and weight
- Physical address or location, Delorme map page and grid
- Latitude/longitude or GPS coordinates, if available
- Landmarks
- Radio frequency, if available, and ground contact name.

### 3. LZ specifics:

#### WIRES

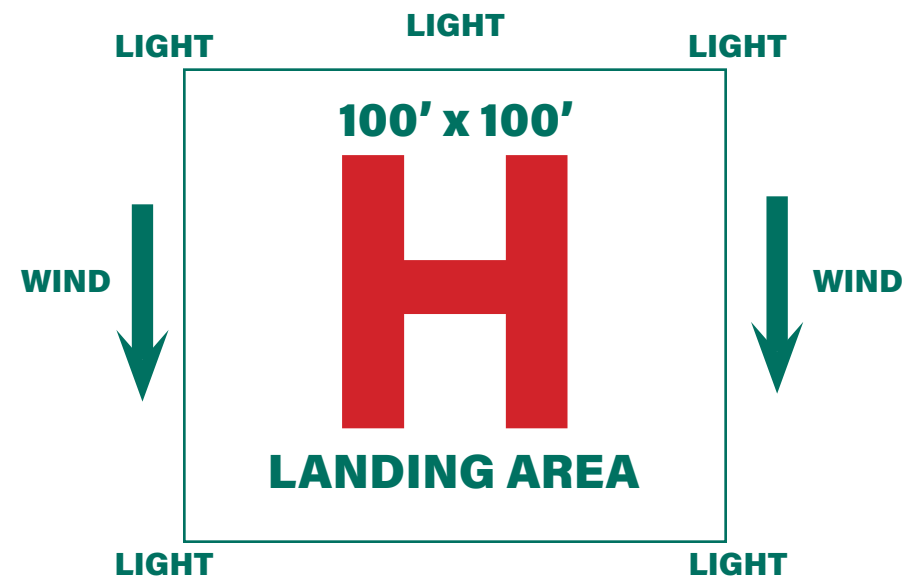
- Any type of wire, cable, clothes line or rope in the air or laying on the ground near the LZ
- Power or telephone lines
- Antenna and guy wires

#### OBSTACLES

- Such as trees, antennas, livestock, vehicles, signs, poles

#### TERRAIN

- Surface type (snow or ice, asphalt, sand, dirt, mud, tall or short grass), and presence of possible debris such as light snow, loose dirt or grass



# INFORMATION FOR DEVELOPING A LANDING ZONE



For more information contact

**The LifeFlight Foundation**

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207-230-7092

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[www.lifeflightmaine.org](http://www.lifeflightmaine.org)

Aviation services provided by



## SELECTING THE SITE

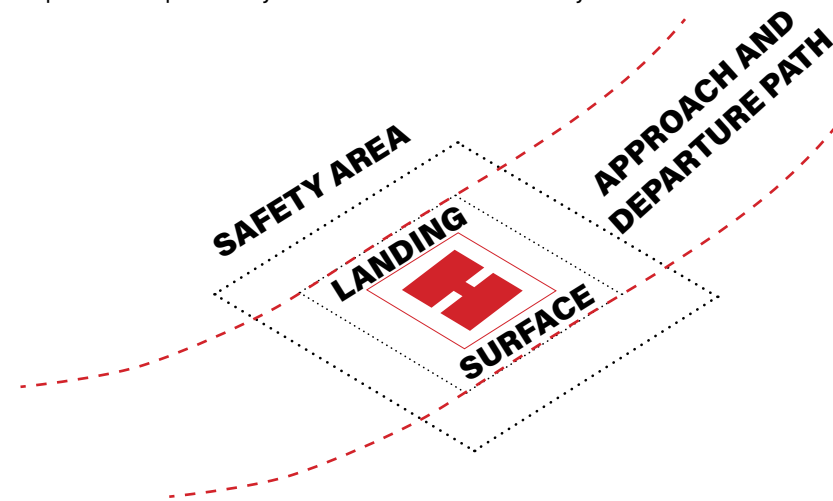
The best landing sites are obviously those that require minimal construction of landing surfaces and safety area, or removal of ground or aerial hazards. Areas such as natural openings or meadows and naturally dry spots such as knolls or ridgelines make the best sites. The site should be as flat as possible and have an unobstructed route for approach and departure. When selecting the site, impact on the environment, wildlife and the surrounding community should be taken into consideration. Hand construction of the site minimizes ground disturbance and helps to maintain the natural drainage.

## BUILDING THE LANDING SITE

The landing surface needs to be a paved or firmly packed flat surface (maximum 8 degree slope) with a minimum measurement of 30 feet by 30 feet. This area accommodates the wheels and clearance under the body of the aircraft for antennas and lights. While the ideal landing surface is paved to allow for winter snow clearing, a well-packed gravel base with grass cover is acceptable. Having this area well-packed decreases settling of the aircraft into soft ground, making the landing zone safer. To assist the flight crew with spotting the landing site, an "H," either painted on pavement or on stones embedded in the surface, may improve visibility of the site from the air.

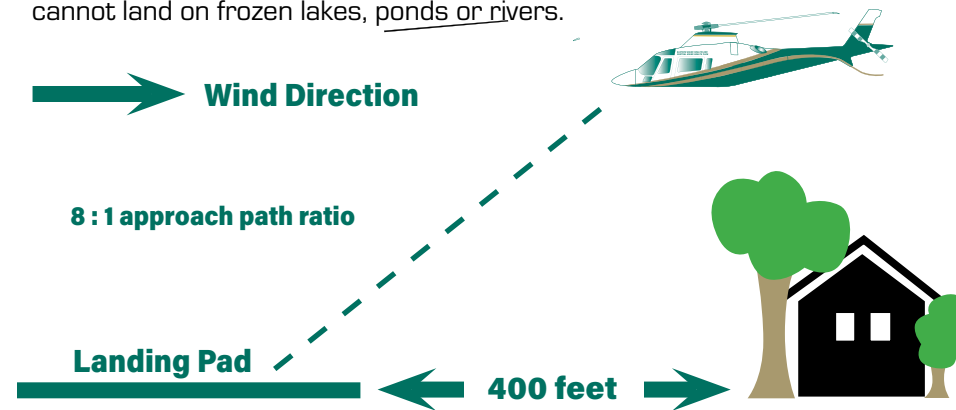
## SAFETY AREA

The safety area is a cleared, flat (slope < 8 degrees) area extending beyond the landing surface with a minimum measurement of 100 feet by 100 feet. This needs to be clear of trees and large brush or non-collapsible vegetation such as alders. Small ground cover and grass should be left to help control dust, snow and blowing debris. Trees that are removed from this area should be cut off flush to the ground and any large holes created by removal of rocks should be filled in. This area should also be as flat as possible without large mounds, ditches or excess slope as the pilot may orient the tail rotor in any direction.



## APPROACH AND DEPARTURE PATH

The approach and departure path is basically a way in and out of the landing site. The ideal approach and departure path is an opening into the prevailing wind. Because of varying weather conditions, it is best if the helicopter can approach/ depart from multiple directions. The approach and departure path can be visualized as a pie wedge of eight horizontal feet for every one vertical foot of opening. One way to determine an 8:1 angle is by standing on the landing surface, raising your arm to 45 degrees and then removing obstacles that rise above the plane of your hand in all directions. Of course this will not always be feasible, so aligning the approach/ departure path to the prevailing winds is another option. Locating the landing site near lakes or rivers may provide natural approach/ departure paths; however, it is important to remember we cannot land on frozen lakes, ponds or rivers.



## MAINTAINING THE LANDING AREA

Once you have selected a site and done the necessary construction, some regular maintenance will be necessary. During the summer, vegetation needs to be kept less than one foot high on the entire landing surface area and, if possible, the entire safety area. In winter months, snow needs to be compacted or removed from the landing surface area, making sure to avoid high banks along the sides of the landing area. An inspection of the site is recommended at least once a year. Assure the landing surface is flat and well-packed, the safety area is clear of obstructions such as alders, and the approach/ departure path is free of new growth or man made obstacles such as antennas or wires.

## DOCUMENTATION FOR THE LANDING SITE

Identify the map page and grid numbers from a Delorme Gazetteer and obtain the GPS coordinates of the site. Your smartphone mapping can give you these coordinates. Also identify local landmarks. LifeFlight staff will assist in establishing the documentation of the site and inspecting the site. Make note of any hazards or obstructions that are around the landing site as you will need to report this information to the LifeFlight communications center.

## HOW TO PREPARE THE LANDING ZONE

### WHEN LIFEFLIGHT HAS BEEN CALLED

#### MARKING THE LANDING ZONE

Place a marker on each of the four corners of the 100 foot by 100 foot safety area. This will be the landing zone (LZ). Markers need to be something that is in high contrast to the surrounding ground and needs to be heavy enough not to be blown around by the rotor wash of the helicopter (more than 80 miles per hour). Examples of markers are colored fluid on snow, cones or bags only if they can be weighted down and lights (mostly for night time use). A fifth marker should be placed on the upwind side of the LZ to mark wind direction.

Road flares and other hot or burning items should not be used, due to risk of fire.

### HAZARDS: WALK-AROUND INSPECTION

1. Wires – wires are the most dangerous hazard for helicopter scene work because they are very difficult to see from the air. The location of all wires should be given to dispatch and, if possible, flight crew. Wires also include cables, clothes lines, ropes, and guy wires for antennas. Parking a vehicle under the lines or illuminating the poles at night can help the crew identify the lines.
2. Obstacles – Objects that are near the landing zone that could interfere with landing, such as livestock, debris or traffic, should be secured prior to the helicopter arriving. Obstacles such as signs and poles need to be marked and communicated to the crew.
3. During dry conditions, it is helpful to wet down the area to decrease dust and blowing debris.

### NIGHT PREPARATIONS

Night landings require extra diligence by both the flight crew and the ground personnel involved.

1. Never shine a light at the approaching aircraft.
2. The amount of light needed to mark the touchdown area is not great.
3. Bright white lights can interfere with pilots' night vision.
4. One of the best ways to mark the touchdown area is to place 4 lights (flashlights work well), one in each corner, facing the center of the zone. This draws a large X across the zone which can be seen from the air. Place a fifth light source upwind to show wind direction.
5. Once the pilot confirms the location of the LZ, turn off all unnecessary white lights.