# Jackson Hole Fire/EMS
# Operations Manual

| | |
|---|---|
| Approved by: _Willy Watsabaugh_ <br> Willy Watsabaugh, Chief | **Title:** **Helicopter Usage** <br> Division: 14 <br> Article: 7 |
| Approved by: _W. Smith_ <br> Will Smith, MD, Medical Director | Revised: 1/17/2013 <br> Pages: 3 |

## PURPOSE

To ensure the safe and prudent usage of helicopters on emergency scenes. Helicopters can be an invaluable tool in the management of emergency operations. These circumstances may include the care and transport of the critical patient, management of wildland fires, or for operational management of large natural or manmade disasters. They do, however, present a greatly increased risk to personnel in the air and on the ground, which must be weighed against the potential benefit. Multiple considerations need to be balanced when requesting a helicopter to an emergency scene. Some of these may include: mission objective, medical/trauma patients with significant illness/injury, remote location, weather factors and safety of the landing zone, are just a few.

## SECTION I – CRITERIA FOR MEDICAL TRANSPORT BY HELICOPTER

On-line Medical Control is a resource for pre-hospital providers to consult when considering a request for medical helicopter transport. Such a request should be **considered** for patients meeting any of the following criteria in a remote location or other extenuating circumstances (this is not an exhaustive list):

**Trauma Patients**
- GCS<12.
- Signs and/or symptoms of shock of any type.
- Penetrating injury to head, neck, chest, or abdomen.
- Suspected spinal injury with neurological deficit.
- Suspected skull fracture or closed head injury
- Compromised airway or respiratory difficulty.
- Major chest, abdomen or pelvic injury.
- Crush or amputation of extremity.
- Special populations – very young or old
- Prolonged extrication or remote location.

**Environmental**
- Over 20% TBSA partial and full thickness burns.
- Burns over face, chest, feet or hands, joints or groin.
- Heat stroke or severe hypothermia.
- Significant mammal related trauma.

**Medical Patients**
- Altered mental status.
- Acute coronary syndromes.
- Unstable cardiac rhythm and/or blood pressure.
- Respiratory distress or failure.
- Diabetic Ketoacidosis, Severe drug overdose.
- Status asthmaticus or status epilepticus.

## SECTION II – FLIGHTS BY JHFEMS MEMBERS

In certain circumstances it may be advantageous for JHFEMS personnel to fly in a helicopter for operational management, support, or for provision of patient care. Agencies could include the Teton County Sheriff's Office Search and Rescue, US Forest Service, National Park Service, regional Air Medical service or military unit.

These circumstances may include, but are not limited to:
- Provision of a medical care provider to a remote location.
- Incident aerial reconnaissance (Wildland fire, natural disaster, etc.).
- Transportation of Fire/EMS personnel to a remote location to provide services.

Fire/EMS personnel must be properly prepared as follows:
- Receive a briefing by the helicopter manager/pilot prior to a mission.
- Personnel will be managed by the pilot and crew, following all directions provided.
- Personnel must be equipped and clothed for the particular hazards that may be encountered such as inclement/cold weather, wildland fire, or spending the night in a remote location.
- Must be qualified/trained for the given situation (ex: Wildland fire Red Card, Avalanche safety and rescue, etc).
- Fire/EMS personnel will wear Personal Protective Equipment as required by the agency managing the flight and must wear a flight helmet when one is provided.

## SECTION III –HELICOPTER REQUEST PROCEDURE

Requests for a Helicopter transport should be made through Teton County Sheriff's Dispatch. Designate a Heli Spot Coordinator (HSC) to set up landing zone (LZ), communicate with helicopter, and ensure LZ safety. The HSC should gather and pass onto dispatch the following information:

- **Location**. Lat/Long coordinates (preferred), if unavailable then utilize cross streets, prominent features, or other location markings. Dispatch may be able to aid with coordinates of predetermined LZs.
- **Communication**. Radio frequency and call sign of LZ
- **Weather**. Estimate of cloud ceiling height, estimate of visibility distance, temperature, winds.
- **Patient status**. Number of patients and weight, age, mechanism, illness/injury, condition, any special considerations.
- **Hazards**. Always inform pilot and crew of **HAZ-MAT**, power/telephone lines, antennas.

## SECTION IV – LANDING ZONE SET-UP

The Heli-Spot Coordinator (HSC) is responsible for ensuring a safe and appropriate landing zone (LZ). The set up will usually be handled by the HSC, but may be delegated to qualified persons on scene. However accomplished, the ultimate responsibility for this task falls to the HSC.

An LZ should be:
- 100 feet by 100 ft (may be slightly smaller on some occasions)
- Level as possible – must be less than 8 degrees of slop.
- Hard surface; grassy; hard-packed snow. Avoid loose dirt, dust or powder snow.
- Free of overhead obstructions; wires, antennas, poles.
- Clear of debris and other hazards, and anything that could be blow or dislodged by rotor wash.
- HAZ-MAT. Find a site at least ¼ to 1 mile upwind from the accident if hazardous materials are present. Avoid low areas where vapors may collect. Pt must be decontaminated before flight.
- Plan for alternate LZs (pilot may determine LZ to be unsuitable).

## SECTION V – LANDING ZONE SAFETY

- Night LZs require increased situational awareness.

- Establish radio contact with airship on approach and describe location, lighting, hazards, overhead wires, slope, surface conditions, wind direction and speed.
- Maintain radio contact at all times until helicopter has landed, loaded and departed scene.
- **Always avoid tail rotor.** Do not approach from upslope and only when directed by flight crew.
- **Alert pilot of any hazards at any time.**

See diagrams below for optimal LZ set-up and approach hazards.

This diagram is specifically for nighttime landings.
*Note the 3 lights on the wind direction side.*