

Fire Chiefs' Association of Broward County Standard Operating Guidelines

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Subject: Helicopter Safety

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I. Communication Procedures:

The standard dispatch for an Air Rescue assignment should be one (1) engine company and one (1) rescue. The need for additional units should be dictated by the incident circumstances. It should be kept in mind that the unit assigned as the heli-spot (HS) group may need all of its personnel to properly secure the HS site. This may create the need for additional units to address patient care needs. Dispatchers should not take it upon themselves to modify this assignment, nor should they suggest modification of the assignment. As with any Fire Department assignment, the only personnel who can modify the assignment are Uniformed Fire Department Officers.

II. Heli-spot Procedures:

Rescue Units, when requesting an Air Rescue assignment, should not concern themselves with an HS unless they know of one at or very near the incident site. The rescue personnel should concern themselves with proper and rapid patient packaging. In the event that the unit assigned as the HS group experiences difficulties in finding an HS, they should wait until Air Rescue arrives. Air Rescue has a better vantage point in choosing an HS, and its personnel will advise the HS group.

In the event that the HS is remotely located and appears to be safe for landing, the Pilot in Command (PIC) may elect to land without the assistance of an HS sector. This does not mean that the unit assigned to the HS should be canceled. These team members will be utilized for security, safety, and patient loading once the helicopter is on the ground. The Pilot in Command (PIC) is both legally and operationally responsible for the safety of the aircraft. There-fore, the final decision of the suitability of the HS site is that of the PIC.

When setting up an HS, there are several things to keep in mind:

- A. The HS should be set up as to facilitate takeoffs and landings into the wind. (Do not rely on dispatch for correct wind direction; use visual indicators.)
- B. If the HS group Officer in Command (OIC) is not sure of the wind direction or the direction from which the helicopter should approach, then he/she should wait until the helicopter is in the area and confer with the Air Crew on this decision.
- C. The approach and departure ends of the HS should be clear of obstacles (any object more than 40 feet tall that is within 100 feet of the HS).
- D. Debris such as wood, cans, and plastic should be removed from the HS. Flying debris can do damage to both the helicopter and personnel on the ground.
- E. To minimize the hazard of blowing sand and dust, the HS should be hosed down (may be hosed down as necessary).

- F. Once the helicopter has landed, the Marshaller should post a minimum of **one tail rotor guard** (two, if available). This person should be someone other than the Marshaller. The Marshaller shall remain at his/her post until the aircraft departs.
- G. No *unauthorized* personnel shall be permitted to approach the helicopter. This is the general responsibility of all Fire Department personnel, but it is most definitely the overall combined responsibility of the PIC and the HS group OIC.
- H. The HS group should assure that the Rescue Unit personnel are supplemented with an appropriate number of personnel to assist in the safe and efficient loading of patients into the helicopter.
- I. Once the helicopter has landed, the Marshaller should confer with the Air Crew as to the helicopter's departure.
- J. It is not necessary to have a hose line pulled and charged. In the event of a catastrophic event involving the helicopter, tactics and strategy will be left up to the Incident Commander.

The Marshaller is one of several tools that are at the disposal of the PIC for the accomplishment of a safe landing and departure. The PIC considers several factors when making an approach or departure into a confined area. As a consequence, he/she may not always follow the exact direction of the Marshaller.

Note that most approaches will be to the ground, not to a hover. The PIC, at his/her discretion, may elect to land without the assistance of a Marshaller and may request that the Marshaller remain clear of the HS until after the helicopter has landed. If the PIC does not follow the exact direction of the Marshaller, be assured there are reasons for his/her actions.

A. Marshalling Hand Signals

- 1. Marshalling.
 - a. Positioning.
 - 1) The Marshaller will stand at the outer edge of the HS perimeter on the windward side, with his/her back to the wind.
 - b. The Apparatus Lieutenant/Captain will have the primary responsibility for the marshalling duties
 - c. An additional fire fighter who is assigned to the Marshaller will maintain constant radio contact with the helicopter as well as visual and verbal contact with the Marshaller.
 - d. Remain in eye contact with the pilot at all times.
 - e. Do not approach the helicopter; remain vigilant at your post.
- 2. Equipment.
 - a. Helmet with chin strap tightly secured.
 - b. Goggles on or visor down.
 - c. Gloves.
 - d. Full bunker gear with collar up.
 - e. Flash lights with wands for night operations.
- 3. Safety precautions and procedures.
 - a. Stay well clear of the tail rotor area.
 - b. Use caution when traversing uneven terrain.
 - c. Approach the helicopter in the pilot's field of vision and ONLY after an "All
 - d. Clear" signal has been given by a helicopter crewmember.

- e. Use low crouch when approaching and departing the helicopter.
- f. Do not use road flares. Do not shine spotlights or headlights at the helicopter or into the HS. The pilot will utilize the "night sun" to light up the HS as needed. Shining lights or strobes at the HS may cause vertigo, night blindness, or seizures of the pilot.

B. Rescue Unit Procedures:

The Rescue Unit OIC has the primary responsibility of patient care and should not become overly concerned with the availability of an appropriate HS. The following points should be kept in mind when deciding on Air Rescue as the mode of transport for the patient:

- 1. Make the decision to transport by air early. Have Air Rescue dispatched by the Incident Commander. Even if you are not sure that a patient meets the established criteria for air transport, place Air Rescue on standby status. You can always cancel the standby.
- 2. It is imperative that the ground Rescue Unit contact the receiving facility prior to Air Rescue's on-scene arrival. This will preclude any delay in transportation in the event the receiving facility cannot accept the patient. This early advisory is also necessary to allow the hospital time to prepare for an Air Rescue arrival. Air Rescue may monitor the medical channel and receive patient information while it is given to the receiving facility from the ground Rescue Unit.
- 3. Relaying information concerning HS location and any hazards is a priority (this information may be relayed to the Air Rescue team after they are airborne). The only patient information that the Rescue Unit needs to advise the Incident Commander about when requesting Air Rescue is the number of patients and the designated receiving facility. The ground Rescue Unit should not spend time advising Air Rescue of patient conditions over the incident frequencies. That time would be better spent communicating with the receiving facility.
- 4. There is no reason to provide the Air Rescue crew with a completed EMS Run Report. This may create an undue delay in the transportation of the patient. A "hard copy" of whatever information you do have should be provided to the Flight Medic.
- 5. All bandages and dressings shall be affixed securely
- 6. The patient will be secured to a backboard with a minimum of three (3) straps, unless contraindicated by his/her medical condition. If the patient is unruly, place an additional strap above the knees. Having a patient lie on a backboard with the head immobilized and nothing securing the body is unacceptable. In the event that straps are not available, another method of securing the patient should be improvised.
- 7. A minimum of four (4) personnel, one of whom will be a member of the Air Rescue crew, will carry the stretcher. Each member of this team should have a helmet with face shield and chin strap in place when loading the patient.
- 8. If the patient is difficult to carry, a stretcher may be utilized, provided the sheets, pillow, and mattress are removed.
- 9. The key to saving a trauma patient who requires surgical intervention is speed. Do not delay transport for invasive procedures other than those necessary to maintain the patient's airway. Most invasive procedures can be done while enroute to the Trauma Center.
- 10. Be aware of the time you are on the scene with the patient. Attempts at certain procedures may be perceived as progressing at a rapid pace, but in reality they are taking an extended period of time that can better be used in moving the patient.
- 11. Advise the Air Rescue Unit if you have any need for additional equipment or assistance (e.g., for managing patient airway difficulties).
- 12. Remain at the incident side (or at least 100 feet from the HS) until the helicopter has landed.
- 13. Absolutely no personnel should approach the helicopter unless cleared "in" by an Air Rescue crew member.

- a. Do not approach the helicopter with a patient unless escorted by an Air Rescue crew member.
- b. It is the responsibility of all Fire/Rescue/EMS personnel to ensure that any and all unauthorized persons are prevented from approaching the helicopter. This is usually accomplished with visual and verbal warnings, but in some instances may require physical intervention.
- 14. In the event that the Air Rescue crew requires assistance with patient care, the ground paramedic in charge of patient care will accompany the patient during air transport. In this event, the ground paramedic, with Air Crew approval, will bring any equipment necessary to affect patient care during air transport. Any additional Fire/Rescue personnel will be determined by the Air Rescue crew and the ground paramedic in charge of patient care.

References

Broward County Aeromedical Transport Program
Miami-Dade Air Rescue Assignment Procedures
U.S. Coast Guard Helicopter Procedures
The heli-spot shall be a minimum of 100' × 100' (HS size may be increased by local protocol).

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