

SECTION: G-5

PROTOCOL TITLE: AIR MEDICAL RESPONSE

REVISED: 15 April 2006

General Comments:

While a valuable tool in reducing morbidity and mortality in both medical and trauma patients, air medical transport is both expensive and also carries with it inherent safety risks that are often underestimated.

The use of air medical resources should not be taken lightly, and is done on a case-by-case basis. Many situations that may call for an air ambulance in one case may be better handled by ground transport in another. This protocol is a supplement to, not a replacement for, good judgment.

Indications:

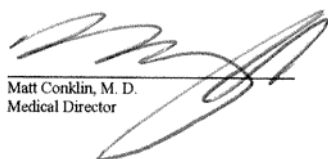
Use of an air medical transport is based on a many considerations including (but not limited to):

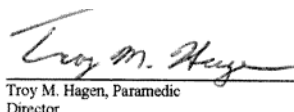
Physiologic Criteria:

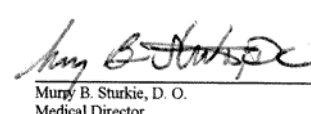
- GCS < 13 (does not follow commands)
- S/S of shock (rapid HR; altered mental status; cool, clammy, pale skin, etc.) Remember hypotension is a late sign of shock.
- Pediatric trauma (may not see s/s of shock until late)
- Geriatric trauma (also may not see s/s of shock until late)
- Hypothermia
- Airway compromise (actual or potential)
- Prolonged transport or delayed ALS response/transport that will have a reasonable likelihood of affecting patient mortality/morbidity
- Pt's demonstrating signs of Acute Coronary Syndrome where ground ALS response is significantly delayed.
- Current or Post cardiac or respiratory arrest situations where ground ALS response is significantly delayed.

Anatomic Criteria:

- Penetrating injuries to the head, neck, chest, abdomen, or thighs.
- 2 or more long bone fractures.
- Limb paralysis
- Limb amputation proximal to the wrist or ankle where bleeding cannot be controlled


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- Trauma combined with burns of > 20%, particularly those involving the face or airway
- Signs of a rupturing aortic aneurism.

Mechanism of Injury:

- High speed MVA
- Prolonged extrication
- Fatality within the same vehicle
- Ejection from vehicle
- Intrusion into the passenger compartment of vehicle by > 12 inches
- Fall greater than 2x patients height
- Mechanism of injury should accompany physiologic an/or anatomic criteria.

Other Criteria

- Area's where access by EMS vehicles or crews is difficult or impossible.

“Stand By” vs. “Launch”.

When the need for air medical transport is suspected but unclear, the air ambulance agency may be placed on “stand-by” (the exact meaning of “stand-by” is usually defined by the air ambulance agency and may or may not include aircraft lift-off).

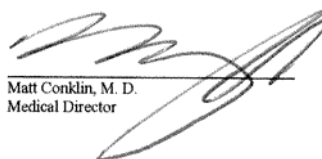
An air ambulance may only be cancelled by EMS personnel who have completed an on-scene patient assessment.

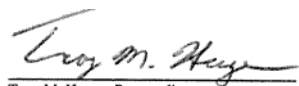
When a supervisor is dispatched with the responding crew, consult with the responding supervisor regarding air medical response.

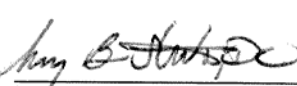
Air Medical Request's by other Agencies or off duty personnel.

There are times when off-duty EMS personnel, or other public safety/medical personnel, request an air-medical response prior to ACEMS (or QRU) personnel arrival on scene. At times, air medical response may seem unnecessary based on initial dispatch information, location of call, or capabilities of the responding EMS units.

While not prohibited, it is generally not prudent to cancel an air ambulance prior to arriving on scene. The responding medic may place the air ambulance on standby pending an assessment by an on-scene EMS provider (ACEMS or QRU), but all due consideration should be given to the request to launch an air medical Response.


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Membership Programs & Patient Preference.

QRU's and ACEMS personnel in Ada County should refrain from specifying which air medical service they desire when requesting a helicopter. Dispatch maintains a rotating roster for the next available service to be called.

Therefore, when the patient's preference is not known, then the request shall simply be for an "air ambulance".

Rarely, however, patients may express a preference for a particular air medical service. This is often a result of program membership. If air transport is medically necessary and the patient's condition would not be compromised by the preferred provider's response time and clinical capability, the patient's request should be honored. If the preferred air medical service is not available, then the next available service will be notified. It should be noted that both the SARMC LifeFlight and Air Saint Luke's air medical programs have reciprocal membership agreements and honor each other's membership programs.

Landing Zones & Safety

In Ada County, landing zones are often handled by law enforcement or the fire service. In some cases ACEMS personnel may be required to establish their own landing zones.

In an effort to standardize safe scene operations, Idaho's air ambulance agencies have developed the following basic landing zone (LZ) and safety guidelines.

Types of Landing Zones: Landing zones fall into three basic categories, listed here in order of general safety.

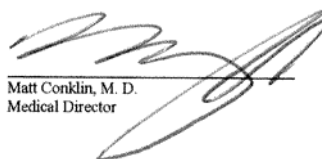
- Established helipads. Usually located at airports or hospitals, heliports are generally constructed with consideration to size, slope, and surface, as well as approach and departure paths.
- Pre-established (or designated) landing area's (PELA). These are essentially pre-arranged rendezvous locations. By pre-planning specific LZ sites with the air medical provider, the pilots are given the opportunity to survey the area ahead of time to identify potential hazards.
- On-scene landing zones. Having the aircraft land at the scene typically offers the most expedient evacuation of the patient. Care must be taken to insure a suitable and safe LZ is prepared.

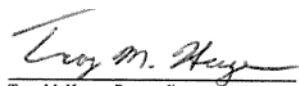
Landing Zone Officer. The most important component of safe scene operations is the LZ Officer. He is responsible for the safety of the responding aircraft(s), the LZ set up, and basic communication with the crew. The LZ officer should be someone not directly involved in patient care. This position may have a different title in the National Incident Management System (NIMS).

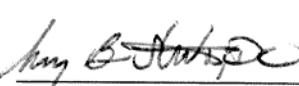
Landing Zone Preparation

The following criteria are generally considered "ideal". If local conditions necessitate deviation, consult the pilot as soon as possible.

- Size - The preferred size of landing zone is 100 ft. X 100 ft. (60 foot absolute minimum).
- Slope - The slope of the ground should be no more than 5 degrees (gentle slope).


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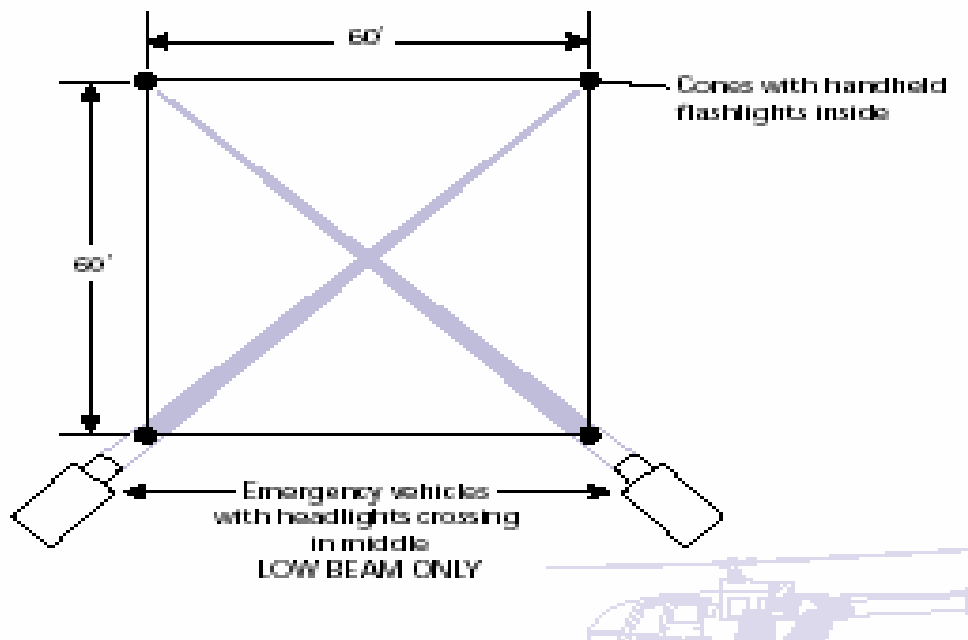

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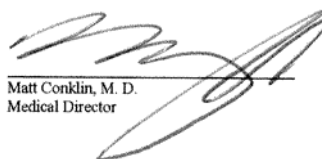
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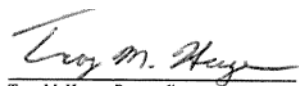
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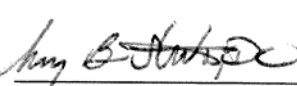
- Surface – The ground must be a firm surface, preferably, with no loose dirt or snow. If necessary, and available, consider wetting down dirt surfaces. Loose snow can be compacted with snowmobiles.
- Hazards/Obstructions: Poles, wires, fences, towers, trees, and unstable ground are all hazards to alert the aircraft to.
 - Hazardous Materials – The presence of hazardous materials **MUST** be relayed prior to their approach to the scene.
 - Clear Area - Area is clear of loose debris, large rocks, posts, stumps, vehicles, people, animals, and other hazards. Caps and hats should be secured.
 - Overhead - Free of overhead obstructions (wires, antennas, poles)
- Marking/Lighting.
 - The four corners of the landing zone should be marked. During the daytime, this can be done with traffic cones. At night, flashlights, “LZ lights” or low-beam headlights can be used. Flares, if used at all, must be used with extreme caution as they present a fire hazard and should be secured to the ground.
 - Identified hazards should be illuminated if possible.
 - **NEVER** direct any lights up at the aircraft or use high-beam headlights.



- The pilot always has the final say with regards to landing zones. He/she may request an alternate site be chosen


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Landing Zone Communications. The landing zone officer is responsible for radio communications with the responding air ambulance. Responsibilities include:

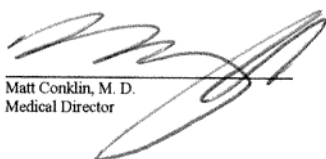
- Assisting the pilot in locating the LZ with simple directions and easily identifiable landmarks. Avoid using directions such as right and left unless the aircraft is directly in sight.
- Advising the pilot of LZ conditions, wind speed and direction and hazards.
- Primary communications between ground and aircraft should be on “State F2”, 155.280, although local “F3” (St. Alphonsus Channel) is available to most services and is a good backup channel. Other channels or methods may be used as the situation demands.
- Hand signals and gestures are discouraged.

Landing Zone safety

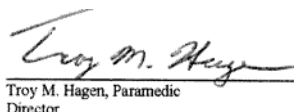
- Ensure no one approaches the aircraft **until specifically directed by the pilot or crew.**
- **Unless otherwise directed,** always approach from the front half of the aircraft (9 o’clock to 3 o’clock), in view of the pilot and while maintaining eye contact. Approach from the downhill side if landed on a slope. When in doubt, wait for a member of the crew to escort you.
- The tail rotor is an especially dangerous area because, due to its speed, the blades may be nearly impossible to see. **NEVER** go near the tail of the aircraft while it is running.
- Rotor wash is the air forced down by the main blades. Creating “winds” near 100 MPH, all loose objects such as hats, sheets, blankets, etc. must be secured.
- Consider dirt and small rocks as potentially becoming airborne hazards and wear appropriate personal protective equipment.
- If you drop something, do not chase it!

Patient Care:

Appropriate patient care should continue until arrival of the crew **at the patient side.** Patient care should not be delayed “because the air ambulance is coming”. After arrival of the air medical crew, EMS personnel should assist as needed within their respective scope of practice.



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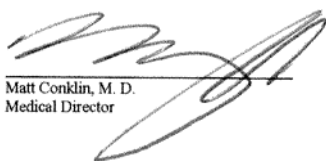
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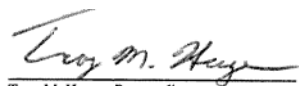
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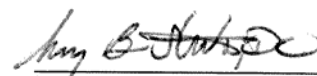
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