



**Division 05** **Emergency Medical**

**Chapter 05 – Aeromedical Evacuation (MEDEVAC)**

February 2009

**POLICY**

This General Order establishes guidelines for the request and utilization of aeromedical evacuation (MEDEVAC) resources for the transportation of patients to appropriate medical facilities.

**DEFINITIONS**

**Helispot** – NIMS Definition for a temporary location where helicopters can land and load and offload personnel. (NIMS) This is formerly known as a landing zone or “LZ.”

**MEDEVAC** – Medical Evacuation

**Protocol** – Current edition of the Maryland Medical Protocol for Emergency Medical Service Providers

**SYSCOM Helicopter Communications (SYSCOM)** – MIEMSS is responsible for MEDEVAC helicopter communications. All MEDEVAC helicopters transporting patients to / from medical facilities within Maryland are required to communicate with SYSCOM. A Maryland State Police (MSP) Duty Officer is stationed in SYSCOM to dispatch MSP helicopters.

**PROCEDURES**

**1. Emergency Medical Service Operations**

Emergency medical service providers may request MEDEVAC resource when patients meet criteria for aeromedical transportation as described within the Maryland Medical Protocol for Emergency Medical Service

Providers. The Incident Commander forwards the request through Public Safety Communications (PSC). Public Safety Communications notifies SYSCOM with this information and the most appropriate resource(s) are dispatched to the scene.

Transportation decision is based on the following:

- Clinical Needs
  - Protocol - Trauma Decision Tree
- Specialty Referral Center location/relative estimated ground transport time
  - 30 minute – Attachment 1
  - 60 minute – Attachment 2
- Availability of Aeromedical Resource
  - Weather Conditions

Information to be conveyed when making the initial request:

- Patient(s)
  - Number of Patients
  - Approximate Age(s) and Sex(s)
  - Chief Complaint(s)/Specialty Referral Type
  - Trauma Category (if appropriate)
  - Approximate Weight(s), if multiple patients
- Helispot (Landing Zone)
  - Designated Helispot
  - Required Additional Resources
  - ADC Map Coordinates, if available



**2. Patient Status Reports**

The flight EMS provider may request more specific patient information such as level of consciousness and airway status. The Incident Commander or designee should be made aware of this information as soon as possible.

If air transport is not possible due to weather conditions, ground transport will be necessary to the closest appropriate hospital. Providers should contact medical facilities and specialty referral centers through EMRC to discuss treatment and transportation options based on patient condition.

Should the flight EMS Provider request assistance during the flight, the Incident Commander or ranking officer at the helispot shall designate a BLS provider to assist with MEDEVAC transport. In cases where the flight paramedic specifically requests an ALS provider, a member of the ALS crew will assist. Prior to helicopter departure, arrangements shall be made to reunite providers with their units once the transport has been completed.

Following a MEDEVAC transport, all units shall return their units to a state of readiness as soon as possible and return to service.

**3. Helispot Operations**

The Incident Commander is responsible for establishing a safe and appropriate helispot.

Helispot Requirements:

- Minimum 100 foot x 100 foot area
- Solid, level ground
- Free of overhead obstructions
- Free of ground obstructions
- Free of loose debris

- Clear approach and take off path
- Any exceptions or issues must be communicated directly to the flight crew

Suppression Operations:

- One Engine Company with minimum staffing.
- Control helispot area to prevent vehicular and pedestrian traffic
- Survey the area to identify and/or remove loose material
- Prepare for rescue and fire suppression should a mishap occur
  - Locate and anticipate water supply
  - Don full PPE
  - Consider flammable liquids firefighting
  - Units should not commit to a fixed location or deploy hose lines.
- Shine no lights at the aircraft

**REFERENCES**

Maryland Medical Protocols for EMS Providers  
  
 Interagency Coordination  
 Maryland State Police Aviation Section  
 United States Park Police Aviation  
 MedStar  
 LifeFlight

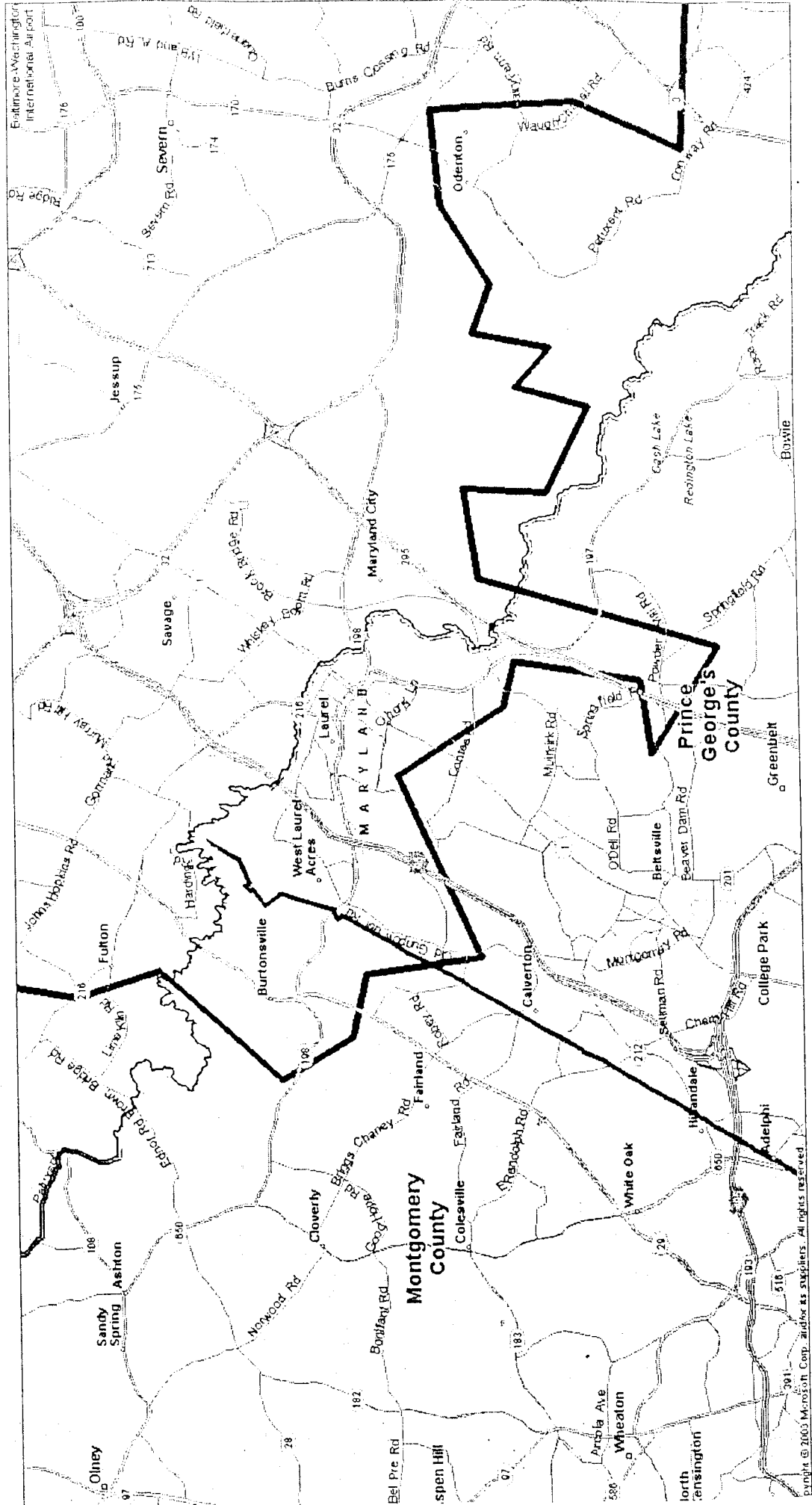
**FORMS/ATTACHMENTS**

Ground Transport Estimate Maps:  
 Attachment 1 – 30 minute map  
 Attachment 2 – 60 minute map  
 Attachment 3 – Maryland State Police Aviation Division – Helicopter Safety Bulletin  
 Approved Landing Sites





# Thirty Minute Drive-zone from STC





# MARYLAND STATE POLICE AVIATION COMMAND



## HELICOPTER SAFETY

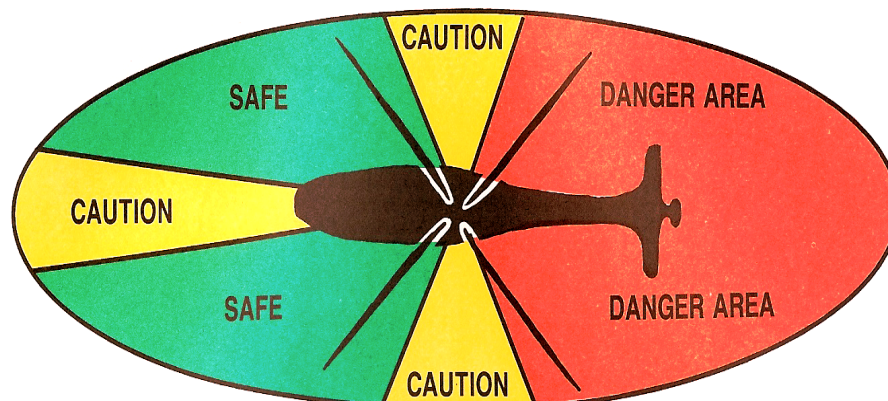
### LANDING AREAS

**A 100 x 100 foot area which is close to the incident scene and free from obstructions is the optimal landing zone:**

- ✓ Obstacles such as wires, poles, signs, etc. can be difficult to see from the aircraft. If wires are present at or near the scene, this information must be relayed to the helicopter crew prior to landing.
- ✓ If the roadway is too narrow, or numerous trees or other obstacles are present, another area must be checked for obstacles and other unsafe conditions before choosing it as an alternate landing site. After the on-scene officer-in-charge has evaluated the area, he should locate the best unobstructed landing site near the scene, and then advise the crew of any unsafe conditions they may encounter during the landing.
  - **NOTE:** In determining landing sites, be aware that helicopter take-offs and landings can be done in a vertical manner; but these landings limit the pilot's visibility of the landing zone (LZ), increase power requirements on the helicopter, may eliminate land back areas should an engine malfunction occur and the approach may be slower which causes extended periods of rotor wash

#### **Additional Tips:**

- ✓ The on-scene officer-in-charge should walk up and down the area on either side of the landing site and check for hazards.
- ✓ All traffic must be stopped in both directions of the roadway, even on multi-lane highways or interstates. Do not allow traffic to use the roadway until after the aircraft has departed. Traffic should be stopped at least 150 feet in both directions from the landing site.
- ✓ Do not recommend landing zones that contain loose material such as gravel. The rotor wash will cause stones or gravel to become airborne, striking personnel and/or damaging vehicles.
- ✓ Do not use flares or cones to mark the landing zone (LZ); they will become airborne during the landing. (Weighted cones/lights that are designed for aircraft operations are acceptable.)
- ✓ The pilot is the final authority when selecting a LZ. On rare occasions, the pilot may override the ground personnel's suggestion and land elsewhere. This decision is usually based on information that is unknown to the ground personnel (i.e., wind, aircraft performance limitations, etc.).





# MARYLAND STATE POLICE AVIATION COMMAND



## HELICOPTER SAFETY

### APPROACHING AIRCRAFT

#### **Personnel should only approach the aircraft under the following conditions:**

- ✓ When accompanying a MSP flight crew member to the aircraft.
  - **Note:** Response personnel are usually limited to four when loading patients. The Trooper/Medic will provide additional guidance for loading, prior to personnel approaching the aircraft.
- ✓ In an emergency situation when it is necessary to render assistance or rescue occupants of the helicopter.
- ✓ ***DO NOT APPROACH THE AIRCRAFT UNLESS THE MAIN ROTOR HAS STOPPED.***
- ✓ Only approach the aircraft from the Safe Zone (see diagram).
  - Never approach the aircraft from the rear areas due to the hazards existing from the tail rotor.
  - If it becomes necessary to go from one side of the aircraft to the other, this will be done by walking around the front of the aircraft, but do not walk under the rotor blades. ***REMAIN CLEAR OF THE REAR AT ALL TIMES!***
- ✓ Personnel shall not wear hats and loose clothing when approaching the aircraft. Do not lift anything above shoulder height (i.e. IV bags).
- ✓ If the aircraft has landed on a slope or hill, care must be taken when approaching the aircraft from the downhill side. Uphill side approaches should be avoided, because the main rotor blade is spinning and is lower to the ground on one side of the aircraft. The Trooper/Flight Paramedic will provide additional guidance in this situation.
- ✓ Never bring the patient to the aircraft prior to advising the Trooper/Flight Paramedic of the patient's information. Very high noise levels found in the general proximity of the aircraft make communication and patient turnover impossible.
- ✓ If debris gets in the eyes and it impairs vision, do not continue approach or egress from the aircraft. Immediately "take a knee" and the Trooper/Medic will assist you.
- ✓ Hearing and eye protection shall be utilized when approaching the aircraft.

### MISCELLANEOUS SAFETY TIPS

#### **Aircraft Doors:**

- ✓ Personnel should not attempt to open or close any aircraft doors. If a person is in the aircraft, they should remain inside until the flight crew member opens the door for them, preventing damage to the aircraft doors and greatly reducing the risk of the doors opening during flight.

#### **Vehicles:**

- ✓ No vehicles or personnel shall be permitted within 150 feet of the aircraft.
- ✓ Do not direct spotlights onto the landing area or at the aircraft, but keep vehicle's emergency lights on.