

POLICY #155: EMERGENCY MEDICAL SERVICE HELICOPTER OPERATIONS

I. PURPOSE

- A. To establish standardized procedures for prehospital utilization and evaluation of Emergency Medical Service (EMS) Helicopters operating in the County of San Luis Obispo (SLO) as a specialized resource providing EMS and prehospital patient transport. The intention of this policy is not to be absolute, but to create guidelines for EMS helicopter operations. MEDCOM, SLU ECC, flight crew, and the discretion of any responding or on-scene first responders will take priority over all guidelines listed herein.

II. SCOPE

- A. This policy excludes EMS helicopter operations limited to search and rescue and interfacility transfers.

III. DEFINITIONS

- Emergency Medical Services Aircraft - "Emergency Medical Services Aircraft" or "EMS Aircraft" or "EMS Helicopter" as used in this policy means any aircraft utilized for the purpose of prehospital emergency patient response and transport. EMS aircraft includes air ambulances and all categories of rescue aircraft (Title 22, Division 9, Chapter 8, Article 1, §100279)
- Air Ambulance - An "Air Ambulance" as used in this policy means any aircraft specially constructed, modified or equipped, and used for the primary purpose of responding to emergency calls and transporting critically ill or injured patients whose medical flight crew has, at a minimum, two (2) attendants certified or licensed in advanced life support (Title 22, Division 9, Chapter 8, Article 1, §100280).
- Rescue Aircraft - "Rescue aircraft" as used in this policy means an aircraft whose usual function is not prehospital emergency patient transport, but which may be utilized, in compliance with EMS policies, for prehospital emergency patient transport when use of an air or ground ambulance is inappropriate or unavailable. Rescue aircraft includes ALS rescue aircraft, BLS rescue aircraft and Auxiliary rescue aircraft. (Title 22, Division 9, Chapter 8, Article 1, §100281).
- Advanced Life Support Rescue Aircraft - An "Advanced Life Support Rescue Aircraft" or "ALS Rescue Aircraft" as used in this policy means a rescue aircraft whose medical flight crew has, at a minimum, one attendant certified or licensed in advanced life support (Title 22, Division 9, Chapter 8, Article 1, §100282).
- Basic Life Support Rescue Aircraft - A "Basic Life Support Rescue Aircraft" or "BLS Rescue Aircraft" as used in this policy means a rescue aircraft whose medical flight crew has, at a minimum, one attendant certified as an Emergency Medical Technician-IA (EMT-IA) with at least eight hours of hospital clinical training and whose field/clinical experience specified in Section 100074(c) of Title 22, California Code of Regulations,

is in the aeromedical transport of patients (Title 22, Division 9, Chapter 8, Article 1, §100283).

- Auxiliary Rescue Aircraft - An "Auxiliary Rescue Aircraft" as used in this policy means a rescue aircraft which does not have a medical flight crew, or whose medical flight crew do not meet the minimum requirements established for BLS rescue aircraft (Title 22, Division 9, Chapter 8, Article 1, §100284).
- Expedited Launch Zone: Areas identified as having or greater ground transportation time to a Specialty Care Center with a heliport/helistop, where transportation by EMS helicopter would result in a timesaving of at least ten (10) minutes over the ground transport. SLU ECC and the County of SLO EMS Agency (EMS Agency) retain and regularly update the County of SLO Expedited Launch Zone (Attachment A). The expedited launch zones are guidelines and are not intended to be absolute. An EMS Helicopter may be requested or launched in areas not defined within the expedited launch zones.
- Heliport/Helistop: An area of land, water, or structure used or intended to be used for the landings and takeoffs of helicopters and includes its buildings and facilities, if any, as approved by the State of California, Department of Transportation, Division of Aeronautics.
- Emergency Landing Zone: the term used to designate an "emergency landing site" of an EMS aircraft by a public safety official.
- Incident Commander (IC): The highest-ranking representative or designee, on scene, of the public safety agency statutorily responsible for incident or scene management.
- SLU ECC: The San Luis Obispo Unit Emergency Command Center which coordinates the response of all EMS helicopters to the scene of all medical and trauma emergencies within the County of SLO where the patient's location is known, and a nearby emergency landing zone can be reasonably assured.
- Specialty Care Center: A hospital designated and/or approved by the EMS Agency that provides specialized medical services.
- Time and Need: Considerations defined for quality improvement purposes in EMS Agency Policy #100: Continuous Quality Improvement.

IV. POLICY

- A. The designated ordering point for all EMS helicopters is SLU ECC.
- B. SLU ECC will coordinate EMS helicopter requests and cancellations.
- C. EMS helicopters must have the capability to communicate and maintain communications with SLU ECC, EMS providers (responding and on-scene), base hospitals and other appropriate facilities or agencies.
- D. Patient transport by EMS helicopter should meet both the "time and need" criteria outlined in this policy, but ultimately, it is SLU ECC, the IC, or the flight crew's discretion.

- E. EMS helicopter service providers must develop and participate in a QI program in cooperation with the EMS Agency and other EMS system participants as outlined in the EMS Agency Policy # 100: Continuous Quality Improvement. This includes active participation in the EMS Agency Quality Improvement Work Group. All 9-1-1 EMS helicopter medical responses will be reviewed both clinically and operationally.

V. PROCEDURE

- A. Mode of transport is primarily an operational decision. As such, EMS personnel will comply with operational direction from the IC regarding mode of transport, see SLOEMSA Policy #200: Scene Management.
- B. The closest and most appropriate available EMS Helicopter that is fully staffed, fueled, supplied, and prepared to immediately respond to an EMS helicopter request shall be dispatched except in the following circumstances:
 - 1. When there is known or high likelihood for need of an EMS Rescue Helicopter, or when a nearby emergency landing zone cannot be reasonably assured, then an EMS Rescue Helicopter should be dispatched.
 - 2. If more than one EMS Helicopter is located at the same location and the response does not require an EMS Rescue Helicopter, then SLU ECC shall dispatch using the following priority:
 - a. Air Ambulance
 - b. ALS Rescue Helicopter
 - c. BLS Rescue Helicopter
 - d. Auxiliary Rescue Helicopter
- C. SLU ECC will initiate the dispatch process of EMS helicopters with other EMS responding agencies when an incident is located in the expedited launch zone, or the scene location is difficult or inaccessible by ground transport, which could result in a prolonged response and transport, or in the dispatchers judgement air transport is likely to be 10 minutes faster than ground transport, and there is a credible report of one (1) or more of the following conditions:
 - 1. High-risk motor vehicle accidents.
 - a. Major damage to vehicle e.g. head-on/entrapment.
 - b. Patient ejection (partial or complete) from an automobile.
 - c. Greater than three (3) patients.
 - d. Motor vehicle rollover.
 - e. Deceased/ 1144 / CPR in progress on the same scene as the patient.
 - f. Auto vs. Pedestrian.
 - g. Incident involving bus, train, or plane.
 - h. Child (age 0–9 years) unrestrained or in unsecured child safety seat.

-
2. Rider separated from transport vehicle with significant impact (eg, motorcycle, ATV, horse, etc.)
 3. Pedestrian/bicycle rider thrown, run over, or with significant impact.
 4. Fall from height > 10 feet.
 5. Gunshot wound (GSW)/Stabbing.
 6. Burn patients.
 7. Industrial or agricultural accident.
 8. Crush injuries.
 9. Amputation or vascular compromise in a limb.
 10. Active bleeding requiring a tourniquet or wound packing with continuous pressure.
 11. Pregnancy complications, including seizures/convulsions.
 12. Drowning/submersion.
 13. Any injured or ill patients in an area inaccessible to, or with an extended ETA.
 14. Unconscious
 15. Other situations that are not covered, but the dispatcher believes the condition of the patient is critical or has the potential to become critical.
- D. Cancellation request of EMS helicopter response.
1. SLU ECC may request to cancel an EMS helicopter when:
 - a. The IC, in consultation with the most medically qualified first responder on scene, determines it is no longer needed.
 - b. Once an EMS helicopter has been dispatched, and a second EMS helicopter becomes available that reports an ETA at least five (5) minutes less than the ETA of the first EMS helicopter, SLU ECC may cancel the first EMS helicopter.
 2. SLU ECC will notify the transport provider(s) and/or responding personnel of any cancellation request or situational updates.
 3. The flight crew, as the highest medically trained pre-hospital personnel operating within the county EMS system, may decide to continue responding and assess the patient at their discretion.
- E. Responding or on-scene first responders may request an EMS helicopter when both "time and need" criteria are met, or according to first responder discretion.
1. Time Criteria should meet one (1) or more of the following:
 - a. Transport by EMS helicopter would result in savings of at least ten (10) minutes over ground transport. (Destination criteria for Specialty Care Centers should be taken into consideration.)
 - b. The scene location is difficult or inaccessible by ground transport, which could result in a prolonged response and transport.

-
2. Need Criteria should meet one (1) or more of the following:
 - a. Patient requires a higher level of care not available by ground ambulance, e.g., blood, pediatric intubation, surgical intervention, medications, or a base physician requesting air transport directly to a higher level of care or specialty care.
 - b. Responding first responders may request with a credible report of one (1) or more of the following conditions:
 - (1) Conditions as outlined under section V Procedures B, 1-14 above.
 - (2) Responding first responders' discretion.
 - c. On-scene responder's assessment determines one (1) or more of the following conditions (some conditions may require advanced life support level of training):
 - (1) Patient assessment meets the criteria of EMS Agency Policy #153: Trauma Patient Triage and Transport.
 - (2) Patient assessment meets the criteria of EMS Agency Policy #152: STEMI Patient Triage and Destination.
 - (3) Any hemodynamically compromised pediatric patient.
 - (4) Patient assessment identifies any of the following:
 - Altered mental status with no response to prehospital treatment.
 - Severe respiratory compromise or respiratory arrest.
 - Complications of childbirth, e.g., breech, abnormal presentation, massive blood loss, neonatal distress.
 - Signs and symptoms of medical hypotension unresponsive to treatment.
 - (5) Patient assessment reveals unilateral weakness/paralysis, facial droop, or any signs/symptoms of CVA. (Time will be measured for flight to nearest hospital.)
 - (6) Patient requires code 3 transport to the hospital.
 - (7) EMS provider discretion
 - F. EMS helicopter transportation may not be for patients contaminated by hazardous material.
 - G. Patient destination should be in accordance with the EMS Agency destination and triage policies, including Policy #151: Destination, Policy #152: STEMI Triage and Destination, and Policy #153: Trauma Patient Triage and Destination; however, it is ultimately the flight crew's discretion to transport the patient to any higher level of care outside the county.

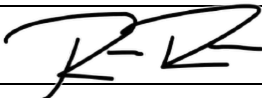

VI. AUTHORITY

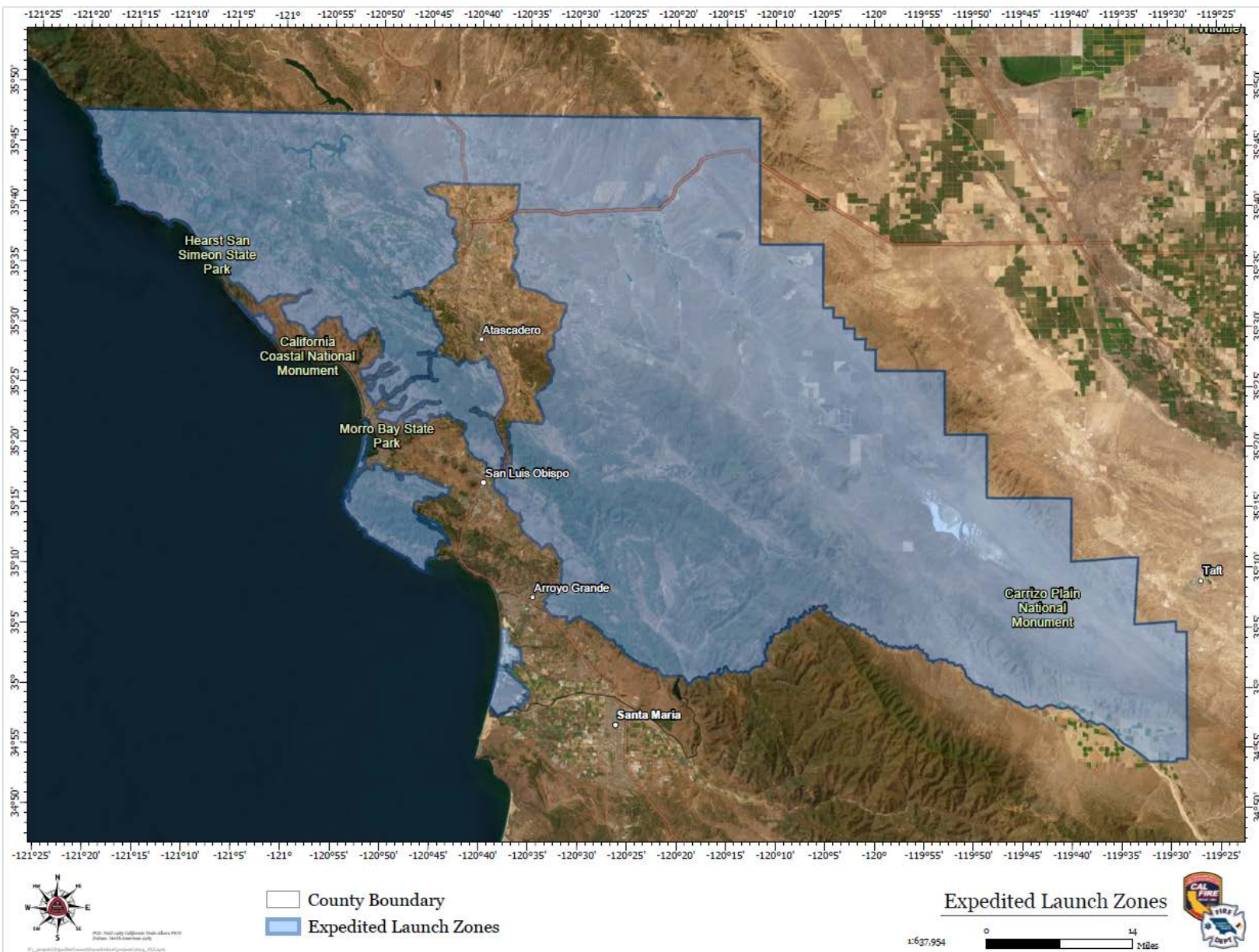
- California Health and Safety Code, Division 2.5
- California Code of Regulations, Title 22, Division 9
- California Emergency Medical Services Authority Prehospital Emergency Medical Service Aircraft Guidelines #144

VII. ATTACHMENTS

- A. Expedited Launch Zones Map.
- B. Emergency Landing Zone Selection.

Approvals:

EMS Agency, Administrator	
EMS Agency, Medical Director	



Emergency Landing Zone Selection

1. Choose an area in which the surface is flat, firm, and free of loose debris. If dust is suspected, wet down the area with water and inform the flight crew of this potential hazard.
2. Follow these general guidelines for landing zone dimensions.
Daytime: 100 ft X 100 ft
Nighttime: 125 ft X 125 ft
3. The emergency landing zone should be free of people, animals, and vehicles. Special attention should be given to ensure that the zone is free of overhead obstructions such as wires, poles, and antennas. The surface of the zone should be free of stumps, irrigation equipment or any other obstruction that could interfere with the helicopter's landing gear. The landing zone official should delegate personnel as required for adequate crowd control.
4. During nighttime conditions, illuminate the emergency landing zone by positioning vehicle headlights toward the center of the zone. NEVER use flares or other items that can be easily blown by the helicopter downwash.
5. Consider HOTSAB for emergency landing zones.
H- Hazards
O- Obstructions
T- Terrain
S- Surface
A- Animals
W- Weather/wind

