



## EMERGENCY MEDICAL SERVICES (EMS) AIRCRAFT OPERATIONS

### PURPOSE

To establish minimum standards for the integration of EMS aircraft and flight personnel into the EMS prehospital patient transport system. It is recognized that EMS aircraft services are a specialized resource for the transport and care of critically ill and/or injured patients.

### AUTHORITY

Health & Safety Code, Division 2.5, Chapter 4, Article 1, §§ 1797.200, 1797.204, 1797.206, 1797.218, 1797.220, 1797.222  
Health & Safety Code, Division 2.5, Chapter 5, §§ 1798, 1798.2, 1798.6  
Health & Safety Code, Division 2.5, Chapter 6, §§ 1798.100, 1798.102  
Health & Safety Code, Division 2.5, Chapter 6, Article 2.5, §§ 1798.160, 1798.162, 1798.163, 1798.165, 1798.169  
Health & Safety Code, Division 2.5, Chapter 6, Article 3, § 1798.170  
California Code of Regulations, Title 22, Division 9, Chapters 2, 3, 4  
California Code of Regulations, Title 22, Division 9, Chapter 8, Article 1, § 100276 et seq  
Prehospital EMS Aircraft Guidelines, EMSA Document # 144, December 2010  
California Code of Regulations, Title 13, Division 2, Chapter 5, Article 1, § 1105  
California Division of Aeronautics, Title IV, 370.3, Subchapter 2.1, Article 1  
Federal Aviation Regulations (FAR), Title 14, Chapter I, Subchapter F, Part 91, §§ 91.3, 91.11, 91.13

### DEFINITIONS

**EMS Aircraft:** 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.

**Air Ambulance:** means any aircraft specially constructed, modified or equipped, and used for the primary purpose of responding to emergency calls and transporting critically ill and/or injured patients whose medical flight crew has, at a minimum, two (2) attendants certified or licensed in Advanced Life Support (ALS).

**Rescue Aircraft:** means an aircraft whose usual function is not prehospital emergency patient transport but which may be utilized, in compliance with Yolo County Emergency Medical Services Agency (YEMSA) policy, for prehospital emergency patient transport when use of an air or ground ambulance is inappropriate or unavailable. Rescue aircraft includes ALS rescue aircraft, Basic Life Support (BLS) rescue aircraft and auxiliary rescue aircraft.

**ALS Rescue Aircraft:** means a rescue aircraft whose medical flight crew has, at a minimum, one (1) attendant licensed in ALS.

**BLS Rescue Aircraft:** means a rescue aircraft whose medical flight crew has, at a minimum, one (1) attendant certified as an Emergency Medical Technician (EMT) with at least eight (8)



# Yolo County Emergency Medical Services Agency

## EMS Aircraft

Revised Date: September 1, 2018

hours of hospital clinical training and whose field/clinical experience specified in § 10074 (c) of Title 22, California Code of Regulations, is in the aero medical transport of patients.

**Auxiliary Rescue Aircraft:** means a rescue aircraft which does not have a medical flight crew, or whose medical flight crew does not meet the minimum requirements of a BLS rescue aircraft.

**Regional Emergency Coordination Center (ECC):** in this policy means: The Yolo Emergency Communication Agency, City of Davis, University of Davis dispatch agencies which has been designated by YEMSA for the purpose of centralized coordination of the requests for EMS Aircraft to respond to the scene of a medical emergency originating within the YEMSA Region.

## POLICY

- I. YEMSA is the Authorizing Agency which approves utilization of specific EMS aircraft within the YEMSA Region.
- II. Any aircraft utilized for the purpose of prehospital emergency patient response and transport within YEMSA shall have:
  - A. An application on file,
  - B. Pay an ambulance permit fee, and
  - C. Adhere to the policies and provisions of YEMSA and any applicable county ordinance(s).

## GENERAL PROVISIONS

- I. No person or organization shall provide or hold themselves out as providing EMS aircraft services unless that person or organization has aircraft which have been classified by YEMSA or, in the case of the California Highway Patrol (CHP), CAL FIRE, and California National Guard, by the California Emergency Medical Services Authority (EMSA).
- II. All EMS aircraft shall be classified. EMS aircraft classification shall be limited to the following categories:
  - A. Air Ambulance
  - B. ALS Rescue Aircraft
  - C. BLS Rescue Aircraft
  - D. Auxiliary Rescue Aircraft
- III. Reclassification shall occur if there is a transfer of ownership or a change in the aircraft's category.
- IV. EMS aircraft must be authorized by YEMSA in order to provide prehospital patient transport within YEMSA's jurisdiction.
- V. ALS EMS Aircraft Service Provider Agencies, which utilize Paramedic personnel, shall complete the ALS Service Provider Application process, and when applicable, shall comply with county ordinances if the ALS EMS Aircraft Service Provider Agency is based within the YEMSA Region.
- VI. EMS Aircraft Service Providers including any company, lessee, agency (excluding agencies of the federal government), provider, owner, operator who provides or makes available prehospital air transport or medical personnel either directly or indirectly or any hospital where an EMS aircraft is based, housed, or stationed permanently or temporarily shall adhere to all federal, state, and local statutes, ordinances, policies,



# Yolo County Emergency Medical Services Agency

## EMS Aircraft

Revised Date: September 1, 2018

and procedures related to EMS aircraft operations, including qualifications of flight crews and aircraft maintenance.

### DISPATCH

- I. The dispatch of EMS aircraft within the YEMSA Region shall be governed by the following provisions:
  - A. Whenever the Public Safety Provider Agency, private ambulance personnel having patient care jurisdiction over the location of the incident and/or the primary or secondary Public Safety Answering Point (PSAP) determines that the use of an EMS aircraft may be advantageous, the appropriate classification of EMS aircraft should be immediately requested.
  - B. EMS aircraft shall be requested by the Incident Commander (IC), or their designee. The request shall be made to the primary dispatch center of the Public Safety Provider Agency having jurisdiction over the location of the incident.
    1. If communication with the IC is not possible or practical the EMS aircraft shall be requested through the applicable Public Safety Provider Agency's Primary Dispatch Center.
    2. If a private ambulance arrives on-scene before the arrival of Public Safety Provider Agency personnel, the EMS aircraft shall be requested through the applicable Public Safety Provider Agency's Primary Dispatch Center. This may be accomplished via radio or cellular telephone. If unable to contact the primary dispatch center directly from the field, the private ambulance dispatch center may be used to relay the request to the applicable Primary Dispatch Center.
    3. No EMS aircraft shall respond to an EMS incident in the YEMSA Region without the formal request of the Public Safety Provider Agency.
- II. Requesting dispatch centers are required to provide the following information to the ECC regarding the incident:
  - A. Physical Location: The general geographic location will suffice.
  - B. Nature of Call: Type of incident and severity of injuries, if known.
  - C. The designated Landing Zone (LZ) contact identified by incident name: i.e. the designated LZ contact for an incident on Jones Road would be identified as "Jones Road LZ". Individual personnel/unit identifiers should not be used as LZ contacts as they may change during the incident.
  - D. Any known aircraft hazards in the area, including; power lines, hazardous materials, other aircraft, or inclement weather conditions at the scene.
- III. The ECC will verify the location, determine the latitude/longitude, and contact the County Approved Air Dispatch Center who will retrieve the EMS aircraft proximity list of the location based on current status (provided by EMS aircraft providers individually or utilizing the electronic online service).
- IV. The Approved EMS Air Dispatch Center will contact the Dispatch Center of the EMS Aircraft Provider that will provide the most rapid and appropriate EMS Aircraft. If the EMS aircraft is available, dispatch information will be relayed, and the Estimated Time of Arrival (ETA) will be determined utilizing the Computer-Aided Navigation (CAN) program. If it is determined that the EMS aircraft is unavailable, the next most rapid and appropriate identified EMS aircraft will be contacted.



# Yolo County Emergency Medical Services Agency

## EMS Aircraft

Revised Date: September 1, 2018

- V. Upon securing a responding EMS aircraft, the County Approved EMS Air Dispatch Center will re-contact the requesting Dispatch Center and relay resource and CAN determined ETA information, and also request any subsequent or updated information relative to the EMS aircraft request.
- VI. An air ambulance should be utilized for any EMS request that does not primarily involve rescue operations.
  - A. ALS Rescue Aircraft may be utilized for prehospital emergency patient transport when, in the opinion of the licensed or certified healthcare professional, which may include any Paramedic or other prehospital emergency personnel, at the scene of the emergency who is most medically qualified specific to the provision of rendering emergency medical care, the patient's condition warrants immediate transport. However, consideration should be given to airway stabilization and/or the need for higher level medical procedures.
- VII. If an EMS provider is on-scene and a request is received from a responding EMS provider to activate an EMS aircraft, the on-scene IC may override the request. The IC shall consult with the most medically qualified person on scene in determining EMS Aircraft utilization if there are not any safety issues.
- VIII. The Public Safety Agency Primary Dispatch Center will then relay the information to the IC.
- IX. The Approved EMS Air Dispatch center will contact the requesting (PSAP) dispatch center providing an ETA and aircraft identifier.
- X. The responding EMS aircraft shall contact the ECC/PSAP when lifting off or en route, providing an updated accurate ETA, or if unable to contact the ECC, then contact the designated LZ contact.
- XI. All communications between EMS aircraft and the designated LZ contact should be done using California On-Scene Emergency Coordination (CALCORD) Radio Plan.
- XII. All parties involved in a request for EMS aircraft (requesting agency, requesting dispatch center and the ECC) shall inform any EMS aircraft requested to respond of inclement weather related to the response. Any subsequent EMS aircraft providers requested to respond shall also be informed of prior EMS aircraft which were requested but declined to respond due to weather conditions, either at base, en route, or at scene.

### COMMUNICATIONS

- I. In the event of an emergency request, the EMS aircraft provider shall be honest, open, ethical and responsible for accurately informing the ECC or the appropriate Public Safety Dispatch Center in those areas where the ECC is not utilized, of any changes in their availability or response status. This shall include any circumstances and/or activities that will delay the immediate availability or capacity to participate in an emergency call, i.e., maintenance, training flights, Interfacility Transports (IFT's), need for refueling, etc.
- II. All air ambulance providers that routinely respond in the YEMSA Region shall maintain and update their availability on the regional electronic online service. This will require at a minimum, updating availability once per pilot shift.
- III. In addition to maintaining Yolo Green or Gold, each EMS aircraft shall have the capability of communicating directly, while in flight, with those entities listed below:
  - A. Required Federal Aviation Administration (FAA) facilities.



# Yolo County Emergency Medical Services Agency

## EMS Aircraft

Revised Date: September 1, 2018

- B. ECC and PSAPs on designated frequency(s).
- C. Provider agency ground units, through a frequency(s) to be determined, or through a frequency(s) designated at the time of dispatch.
- D. Designated Base Hospitals and Receiving Hospitals.
- E. YEMSA air to air EMS Aircraft on **frequency 123.025**.
- F. Maintain communications with the designated LZ contact using **CALCORD operational frequency of 156.075**.

### SPACE AND EQUIPMENT

- I. All EMS aircraft shall be configured so that:
  - A. There is sufficient space in the patient compartment to accommodate one (1) patient on a stretcher and one (1) patient attendant. Air ambulances shall at a minimum have space to accommodate one (1) patient and two (2) patient attendants.
  - B. There is sufficient space for medical personnel to have adequate access to the patient in order to carry out necessary procedures including Cardiopulmonary Resuscitation (CPR) on the ground and in the air.
  - C. There is sufficient space for medical equipment and supplies required by State regulations and YEMSA policy.
- II. Each EMS aircraft shall have adequate safety belts and tie-downs for all personnel, patient(s), stretcher(s) and equipment to prevent inadvertent movement.
- III. Each EMS aircraft shall:
  - A. Have onboard equipment and supplies commensurate with the scope of practice of the medical flight crew, as approved by the YEMSA. This requirement may be fulfilled through the utilization of appropriate kits (cases/packs) which can be carried on a given flight to meet the needs of a specific type of patient and/or additional medical personnel not usually staffing the aircraft.
  - B. Be equipped with a radio headset for each crew member, ride-along (including the patient, if needed), and additional clinical personnel. Each headset should allow intra-aircraft communication as well as communications with ground stations, base hospitals and receiving facilities.

### PATIENT DESTINATION

- I. Due to the wide potential geographic range of an EMS aircraft, patient destination shall conform to Patient Destination Guidelines outlined in the California Code of Regulations, Title 13, § 1105 and YEMSA policies and protocols.
- II. In **ALL** situations, the pilot of each EMS aircraft will exercise primary authority and responsibility for the safe operation of the aircraft including, but not limited to, routing, destination, and landing site Federal Aviation Regulations (FAR) § 91.3. However, clinical personnel shall advise the pilot of any special considerations, appropriate destination alternatives or applicable information in order to meet the needs of the patient(s).



# Yolo County Emergency Medical Services Agency

## EMS Aircraft

Revised Date: September 1, 2018

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### PERSONNEL

- I. All ALS EMS air ambulances shall be staffed with a minimum of two (2) medical flight crew members certified or licensed in ALS. Staffing can be achieved with any combination of:
  - A. Paramedics currently accredited by YEMSA where the Helicopter Emergency Medical Services (HEMS) is based
  - B. Registered Nurses (RNs)
  - C. Physicians
- II. The medical flight crew of an EMS aircraft shall have training in aeromedical transportation. Training should be equivalent to the Department of Transportation (DOT) Air Medical Crew National Standard Curriculum.
- III. All medical flight crews shall participate in such Continuing Education (CE) requirements as required by their license or certification.
- IV. In situations where the medical flight crew is less medically qualified than the ground personnel from whom they receive patients, they may assume patient care responsibility only in accordance with YEMSA policies and procedures.
- V. EMS aircraft that do not have a medical flight crew shall not transport patients except in accordance with YEMSA policies and procedures.
- VI. All air ambulance services shall have a Physician Medical Director who, by training and experience, is qualified in Emergency Medicine. The Medical Director shall be responsible for the supervision of the quality assurance/improvement program of air medical transport patient care.
- VII. Paramedics shall operate under YEMSA policies, procedures and protocols. Standardized procedures for RNs may be developed by the air ambulance service's Medical Director, but must be on file with the YEMSA Medical Director prior to implementation.
- VIII. If there is disagreement between EMS personnel regarding air versus (VS) ground transport, Base Hospital contact shall be made to determine the mode of transport.

### PATIENT CARE REPORTS

An electronic Patient Care Report (ePCR) shall be initiated for every dispatched response in accordance with YEMSA Policy "Prehospital Documentation".