

# SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

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## EMERGENCY MEDICAL SERVICES (EMS) AIRCRAFT UTILIZATION Public Comment June 2022

### I. PURPOSE

- A. To minimize morbidity and mortality, by ensuring the timely availability of air medical resources for the City and County of San Francisco.
- B. To define the scope and manner with which the EMS System will use EMS aircraft for emergency transport of critically ill and injured patients.
- C. To provide for coordinated air medical operations with ground responders and hospital resources.

### II. AUTHORITY

- A. California Public Utilities Code, Sections 21662.1 – 21662.5,
- B. California Code of Regulations, Title 21, Division 2.5, Sections 3527 and 3533
- C. California Code of Regulations, Title 22, Division 9, Chapter 8, Sections 100276 – 100306
- D. California Code of Regulations, Title 22, Division 9, Chapter 4, Section 100144

### III. POLICY

#### A. Availability of Air Medical Services

- 1. Primary response of EMS aircraft shall be made available to sick and injured persons in the City and County of San Francisco whenever it is safe, appropriate, and necessary to optimize the care of the patient.
- 2. The pilot in command of the EMS aircraft shall have the full authority to abort or decline response to any request for service when mechanical, geographic, or flight conditions might endanger the crew or others.
- 3. For incident scene operations where air response is requested, the closest available, and most appropriate air ambulances shall be considered to be the air response asset of choice. Rescue aircraft may be used to supplant or extend the availability of air medical transportation.

## **B. Authorization of EMS Aircraft Service Providers**

1. All EMS aircraft operators routinely offering services to or from hospitals located in the City and County of San Francisco shall have a written agreement with the EMS Agency and be authorized to operate by the EMS Agency within the aircraft operator's jurisdiction of origin.
2. A request from a designated dispatch center shall be deemed as authorization of aircraft operated by the California Highway Patrol, Department of Forestry, National Guard, or the Federal Government.
3. All EMS aircraft authorized to operate within the City and County of San Francisco shall be classified. Verification by the San Francisco EMS Agency of classification of an EMS aircraft within the aircraft's jurisdiction of origin shall constitute classification of the EMS aircraft within the City and County of San Francisco. 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
4. The San Francisco EMS Agency retains the right to inspect EMS Aircraft Providers, including EMS aircraft, and training, quality improvement, and operations policies, procedures, and records, to assure compliance with State law and local policies and procedures.
5. The San Francisco EMS Agency shall maintain an inventory of the number and type of authorized EMS aircraft, the jurisdiction of origin of authorized EMS aircraft, the patient capacity of authorized EMS aircraft, and the level of patient care provided by EMS aircraft personnel, and Receiving Hospitals with landing sites approved by the State Department of Transportation, Aeronautics Division.
6. Authorized EMS aircraft operators and service providers will comply with all EMS Agency Policies, Procedures, and Protocols.

## **C. Medical Flight Crew Requirements**

1. All members of the medical flight crew of an EMS aircraft shall be trained in aeromedical transportation as specified in California Code of Regulations (CCR), Title 22, Division 9, Chapter 8, Section 100302.
2. Flight Paramedics shall complete a training program as listed in 22 CCR 100155(c), hold a current certification as a flight paramedic by the International

Board of Specialty Certification (IBSC), licensed in California, and accredited in San Francisco if the aircraft is based within the City and County of San Francisco.

4. All medical flight crew members shall participate in such continuing education requirements as required by their licensure or certification.

#### **D. Ground Crew Requirements**

1. All providers operating in the vicinity of helicopters must be regularly trained in standard helicopter safety operations.
2. The EMS Agency must review and approve helicopter safety training standards used by field providers in San Francisco. See Policy 8000, Air Ambulance Coordinator.
3. EMS personnel shall follow all flight crew instructions such as securing patient for loading and approaching/departing the aircraft.

#### **E. Patient Management**

1. Medical control for flight crew members shall be supplied by the air ambulance operator's Medical Director.
2. EMS aircraft staffed by registered nurses will utilize the standardized procedures of the Air Ambulance service provider. If the air ambulance service provider is based in San Francisco, these standardized procedures will be submitted for review by the San Francisco EMS Agency Medical Director.
3. In situations where the medical flight crew is less medically qualified than the ground personnel from whom they receive patients, the medical flight crew may assume patient care responsibility only as directed by the Base Hospital Physician.
4. EMS aircraft that do not have a medical flight crew shall not transport patients except under direction of the Base Hospital Physician. Rescues involving short haul, long-line, and/or hoist operations may be completed without a medical crew for momentary movement of a patient.
5. Upon request, prehospital care records will be submitted to the San Francisco EMS Agency by the EMS Aircraft provider within 2 working days of each operation.

#### **F. EMS Aircraft Space and Equipment**

1. All EMS aircraft shall be configured according to specifications in California Code of Regulations, Title 22, Division 9, Chapter 8, Section 100306 (a-c).

#### **G. Representation of Provision of Air Ambulance Services**

1. No person or organization shall provide or hold themselves out as providing prehospital Air Ambulance services unless that person or organization has aircraft which have been classified by the local EMS agency within the jurisdiction of origin, with the exception of State or Federal aircraft.

#### **H. Authorized Landing Sites**

1. EMS Aircraft shall only land at landing sites meeting 1 of the following criteria:
  - a. Heliports permitted by the California Department of Transportation (Caltrans).
  - b. Pre-designated EMS landing sites. The Department of Emergency Management shall maintain a list of pre-designated city-wide landing sites under the Aviation Support Plan with specifications of latitude and longitude (see Appendix B).
  - c. Emergency helispots at or near the scene of a Multi-Casualty Incident (MCI), disaster, or other critical incident. The Incident Commander (IC) shall designate appropriate helispots at emergency scenes.

#### **I. Communication Policy**

1. EMS aircraft operators shall adhere to EMS Agency Policy #3010, *EMS System Communications Standards*.
2. EMS Aircraft shall maintain the capacity to communicate with the San Francisco Department of Emergency Management: Division of Emergency Communications (DEC), Landing Zone Operations, and the Base and Receiving Hospitals.
3. The EMS Agency retains the right to inspect EMS aircraft communications equipment of any Air Ambulance provider based in San Francisco to ensure compliance with standards set forth in this policy.

### **IV. Procedure**

#### **A. Patient Clinical Conditions Warranting Air Medical Transport**

EMS aircraft may be used in the following clinical situations:

1. The patient's condition warrants rapid transport, and transport by land would be hazardous or delayed because of road or traffic conditions (> 20 minutes);
2. The patient meets trauma center destination criteria, but **Zuckerberg** San Francisco General Hospital (**ZSFG**) is unavailable and there is an extended (> 20 minutes) ground transport time interval to a regional designated trauma center;
3. Air transport is recommended for patients who meet trauma center destination criteria if the time from the initial incident to the patient's expected arrival at the trauma center via ground ambulance will exceed 30 minutes, **AND** the length of ground transport would pose additional risk to **morbidity or mortality**;
4. Critical trauma patient interfacility transfers from **ZSFG** to another Level I Adult (**Stanford Medical Center**) or Pediatric Trauma Center (such as **UCSF Benioff Children's Hospital – Oakland** or **Stanford Medical Center**);
6. Other conditions, **such as prolonged extrication**, as deemed warranted by the IC and Medical Group Supervisor (MGS or IC designee). **For questions regarding applicability of other conditions, MGS may contact the Base Hospital Physician.**

#### **B. Field Situations Warranting Air Medical Transport**

The following field situations warrant the use of air medical transport:

1. MCIs **and/or incidents** involving trauma when **ZSFG** trauma center capacity is saturated, **on Internal Disaster, and/or Trauma Center Bypass is activated**;
2. Inaccessibility to the scene by ground personnel or equipment;
3. Air ambulance service **may** be initiated for MCIs involving one or more of the following:
  - a. Five or more patients meeting trauma center physiologic and/or anatomic triage criteria (reference EMS Agency Policy #8000, *EMS MCI Policy*);
  - b. Five or more patients with partial thickness burns greater than 10% total body surface area or third-degree burns;
  - c. A large number of casualties such that Receiving Hospitals in San Francisco will be saturated and Mutual Aid from other Bay Area counties will be requested by the IC

## **C. Initiating EMS Aircraft Response**

### **1. Field Emergency Response**

- a. For field emergency responses, the decision to request an EMS aircraft is based on the medical and scene management considerations in Section IV.A and IV.B.
- b. During an MCI, the IC oversees all emergency operations on scene.
- c. The decision to request an EMS aircraft for a field emergency response shall be made by the IC or his/her designee, upon:
  - 1) the advice of on-scene medical personnel such as the Medical Group Supervisor or lead Paramedic; and/or,
  - 2) the suitability of the scene for helicopter operations; and/or
  - 3) IC and Medical Group Supervisor consultation with the Base Hospital Physician/designee.
- d. All requests for an EMS aircraft field response shall be made through San Francisco DEC's Fire (SFFD) Dispatch (phone: 415-558-3291 or 415-558-3268). The following information must be provided to DEC by the IC or his/her designee:
  - 1) Number of patients;
  - 2) Type and extent of injuries;
  - 3) Location of nearest landing site (use Appendix B, if possible);
  - 4) Nearest landmarks (e.g., highways, railroad tracks, water towers);
  - 5) Weather conditions as reported from the landing site (especially high winds, fog or visibility problems);
  - 6) Radio frequency and call sign of the requesting agency/provider.
- e. The IC will determine the EMS landing site from the list of pre-designated sites (see Appendix B) or an ad-hoc site based on scene management considerations.

### **2. Out-of-County Field Emergency Response**

- a. For transfer of critical patients from scene calls originating outside of San Francisco to a San Francisco Receiving Hospital:
  - 1) The EMS aircraft will contact DEC Fire Dispatch (415-558-3291 or

415-558-3268) and identify the EMS landing site to be used.

- 2) Personnel may use the UCSF Benioff Mission Bay (UCB) helipad following established agreements and procedures by the Regents of the University of California.

### 3. Interfacility Transfers

- a. Interfacility transfers to and from UCB may utilize the UCB helipad following established agreements and procedures by the Regents of the University of California.
- b. For all other interfacility transfers of critical patients from San Francisco to an out-of-county Receiving Hospital, the transferring facility will contact DEC Fire Dispatch (415-558-3291 or 415-558-3268) and identify the EMS landing site to be used for patient pickup in San Francisco. Critical pediatric trauma patient transfers from ZSFG Trauma Center to a regional Pediatric Trauma Center may require use of Rolph Field EMS Landing site if ground transport is extremely delayed. EMS landing sites are reserved as “backup” for ground transport in rare circumstances when ground transport is extremely delayed. Without a ZSFG hospital helipad, secondary ground transport time intervals to and from an EMS landing site make interfacility air transport a remote fall-back option, if delayed ground transport or non-transfer clearly present a threat to the life of the patient.
- c. Interfacility transfers from out-of-county to San Francisco (excluding UCB) will use the San Francisco International Airport (SFO) or other out-of-county heliports. EMS landing sites are reserved for emergency landings only.
- d. Transferring/receiving air ambulance companies or hospitals with incoming patients will arrange for interfacility ground transfers prior to departure from point of origin. San Francisco 911 ambulance service is not available for interfacility transports from SFO or out-of-county heliports.

### D. Notification

1. DEC Fire Dispatch will notify all responding agencies when an EMS aircraft has been requested for response to an EMS landing site/helisport (SFFD, San Francisco Police Department [SFPD], or other first responder agency).
2. Cancellations shall only be made through the IC or designee.

## **E. Activation**

1. **DEC** Fire Dispatch will contact the **closest, most appropriate** air ambulance company as noted in **ReddiNet**. These numbers are also listed in Appendix A of this policy.

## **F. Mobilization**

1. The **closest, most appropriate** EMS aircraft (on the primary provider list approved by the EMS Agency) will respond within a 15-minute call to arrival time interval. If the 15-minute ETA is not possible for the initial air ambulance company, the company will notify **DEC** Fire Dispatch (415-558-3291 or 415-558-3268) or transferring facility, and another air ambulance company listed in **ReddiNet** will be called. (These contact numbers are also listed in Appendix A of this policy.)

## **G. Deployment of Ground Crews**

1. A Battalion Chief and engine company of the SFFD will respond to the designated EMS landing site/helispot for fire suppression support, and to clear the area of people, animals, and any temporary obstructions.
2. A SFFD Rescue Captain (RC) will respond as Landing Site Manager under direction of the Battalion Chief. The RC - Landing Site Manager is responsible for aircraft communications and oversight of ground to air patient transfer.
3. **Law enforcement should** send officers to the designated EMS landing site/helispot to secure the landing site perimeter for safety considerations.
4. Transferring/receiving air ambulance companies or hospitals with incoming patients will arrange interfacility ground transfers from SFO or an out-of-county heliport.

## **H. Destination**

1. During an MCI or disaster, the EMS aircraft crew will determine the destination for patients requiring air medical evacuation. The EMS aircraft and/or its dispatch center will contact **DEC** Fire Dispatch with the Receiving Hospital information. Enroute the EMS aircraft will relay pertinent patient information to the Receiving Hospital.



2. Determination for destination will be based on the shortest ETA to a facility best suited for definitive care of the patient.
3. The EMS aircraft pilot will have the final decision as to destination based on weather and flight safety considerations.

## **I. Communication Procedure**

### **1. General**

- a. For field emergency air response, DEC Fire Dispatch will contact the closest, most appropriate air ambulance company dispatch listed in ReddiNet. These contact numbers are also listed in Appendix A of this policy.

### **2. Frequency Assignments**

#### **a. DEC to/from EMS Aircraft**

- 1) The EMS aircraft responding to field emergencies will contact DEC Fire Dispatch on landline (415-558-3291 or 415-558-3268) while enroute to the scene to confirm radio frequency and ground contact/incident identifier.
- 2) Once confirmed, EMS Aircraft with access to San Francisco's public safety talk groups may communicate directly with Incident Command over those talk groups.
- 3) Backup frequency on the 800 MHz system is CAFIRE2 (806.91250 Transmit CTCSS 156.7 and 851.9125 Receive CTCSS 156.7)
- 4) An additional backup channel for initial contact is VFIRE21 (154.2800 CTCSS 156.7 Transmit AND 154.2800 CTCSS 156.7 Receive)

#### **b. Landing Zone Operations to/from EMS Aircraft**

- 1) EMS Aircraft with access to San Francisco's public safety talk groups may communicate directly with Incident Command over those talk groups.
- 2) EMS Aircraft with no access to San Francisco talk groups shall utilize CALCORD (156.075 transmit; 156.075 receive (TX/RX TONE 6 [156.7])) for non-repeated air to ground communication.
- 3) Backup frequency on the 800 MHz system is CAFIRE2 (806.91250 Transmit CTCSS 156.7 and 851.9125 Receive CTCSS 156.7)
- 4) An additional backup channel for initial contact is VFIRE21 (154.2800 CTCSS 156.7 Transmit AND 154.2800 CTCSS 156.7 Receive)
- 5) The ground crew will be referred to as \_\_\_\_\_ LZ (call name determined by specific location of landing site).

c. Base Hospital and Receiving Hospitals to/from EMS Aircraft

- 1) EMS Aircraft with access to San Francisco Hospital talk groups may utilize them to “ring down” the receiving facility
- 2) The dispatch center for the EMS Aircraft may also relay ringdown reports on the crew’s behalf
- 3) VMED28 (formerly known as HEARNet, 155.34 [PL-156.7]) may also be utilized for limited communications between hospitals and air ambulances
- 4) If other channels are unsuccessful, a backup channel for EMS Aircraft to Base Hospital is UHF Med-9, 462.95 (PL-167.9) 467.9500 transmit / 467.9500 receive (CTCSS – 167.9).

d. Air to Air

- 1) The air-to-air communications should be coordinated on the designated air traffic control (ATC) channel assigned by ATC at SFO.

**J. Quality Assurance**

1. Activation of this policy requires an Exception Report and will be reviewed by the EMS Agency’s QI Committee.

## **Appendix A: AIR AMBULANCE PROVIDERS CONTACT INFORMATION**

Air Ambulance Dispatch phone numbers are listed below and **in ReddiNet**.

### **AIR AMBULANCE PROVIDERS:**

#### **REACH**

1. Concord (REACH 32 & REACH 100)
2. Napa (REACH 3)
3. Santa Rosa (REACH 1)
4. Gilroy (REACH 33/CALSTAR 2)
5. Salinas (REACH 36/CALSTAR 5)
6. Modesto (REACH 41/CALSTAR 12)
7. Merced (REACH 42/CALSTAR 13)

**Dispatch number: 800-338-4045**

#### **LIFE FLIGHT OF STANFORD HEALTHCARE**

Stanford Health Care, Palo Alto

**Dispatch number: 800-321-7828**

### BAY AREA AIR AMBULANCE and AIR RESCUE PROVIDERS

#### Air Ambulances

COMPANY	DISPATCH PHONE	CLASS	STAFF	RESCUE CAPABILITIES	HOURS OF OPERATION
REACH (based in Concord, Santa Rosa, <b>Napa</b> )	1-800-338-4045	Air Ambulance	Flight Nurse (CFRN) Flight Paramedic (FP-C)	None	24/7
Stanford Lifeflight (based at Stanford Hospital)	1-800-321-7828	Air Ambulance	2 Flight Nurses (CFRN)	None	24/7

#### Air Rescue Units

COMPANY	DISPATCH PHONE	CLASS	STAFF	RESCUE CAPABILITIES	HOURS OF OPERATION
CHP (ALS and BLS units based in Napa.)	(Confidential allied agency line published at dispatch)	ALS Rescue (Napa); BLS Rescue (Napa)	EMT-P (ALS) EMT (BLS)	Hoists baskets, people—cable that runs down and back up to helicopter, vertical line up to 150 ft.; can carry 1 patient only; can do cliff/boat/water rescue (have to pick up a rescue swimmer in San Francisco to do water rescue) Hover and 1-skid operations	Medical missions: 10am – 4am, 7 days per week.  Non-medical missions: 24/7

**Air Rescue Units (cont'd.)**

COMPANY	DISPATCH PHONE	CLASS	STAFF	RESCUE CAPABILITIES	HOURS OF OPERATION
Coast Guard Air Station (based at SFO)	(published at Dispatch) Water rescue missions OK to request directly; All other requests must have a mission number issued by State OES through SF OES and Homeland Security.	Rescue (mission specific; can get EMT rescue swimmer, otherwise crew is not medical capable)	EMT rescue swimmer (must be requested at time of dispatch—mission specific)	Hoist baskets, people; designed to pull people off water or off boats; HH-65 Dolphin aircraft	24/7
EAST BAY REGIONAL PARK FIRE	510-881-1833	ALS/BLS Rescue (Do not always have a paramedic—volunteer flight paramedic program; can take ground paramedic from scene)	EMT-1 or EMT-P	Do search; do not do short haul (with a line attached to the helicopter); no hoist; can land, get out and try to help. Can transport 1 patient at a time.	Day only; on-call at night but need some ambient light for operations
SONOMA COUNTY SHERIFF'S DEPT	707-565-2121	ALS Rescue	EMT and Paramedic (ALS)	Vertical long-line—up to 200 ft.	10 hours per day; nocs on-call
California AIR NATIONAL GUARD (stationed at Moffett Field)	(published at Dispatch) Request must have a mission number issued by State OES through SF OES& Homeland Security.	Auxiliary Rescue	No medical staff	Do not search, but will rescue; can transport rescue teams on Hueys, Blackhawk, Pavehawk (goes 1000 miles; carries more than 20,000 lbs.)	24/7

## **Appendix B: EMS LANDING SITES**

**THIS SECTION IS RESERVED FOR THE UPDATED EMS LANDING SITE LISTING FROM THE DEM AVIATION SUPPORT PLAN**

**Appendix C: REGIONAL TRAUMA CENTERS**  
**Contact Information and Flight Time Intervals**

TRAUMA CENTER	PHONE CONTACT	FLIGHT TIME INTERVAL from central San Francisco
<b>Zuckerberg</b> San Francisco General (air transport to/from Rolph Field EMS Landing site)	ED CHARGE NURSE: <b>628</b> -206-8111	3 minute air time (to Rolph Field @ C Chavez and Potrero [add'l 3 minute ground transport interval])
<b>UCSF Benioff Children's Hospital Oakland</b> (Level II pediatric)	ED: 510-428-3240	5 min.
Eden Hospital (Level II) (Castro Valley)	ED: 510-889-5015	10 min.
John Muir Hospital (Level II) (Walnut Creek)	ED: 925-939-5800	10 min.
Stanford Medical Center (Level I adult & Level I pediatric)	ED: 650-723-7337	12 min.
Regional Medical Center (Level II adult)	ED: 408-729-2841	20 min.
Santa Clara Valley Medical Center (San Jose) (Level I)	ED: 408-885-6912	20 min.
<b>Providence</b> Santa Rosa Memorial (Level II)	ED: 707-525-5207	25 min.
UC Davis (Level I adult & pediatric)	ED: 916-734-3790	35 min.