



EMS AIR RESOURCE UTILIZATION

Effective: January 1, 2020
Replaces: February 12, 2015
Review: January 1, 2023

I. Purpose

The purpose of this policy is to establish procedures for appropriate use of EMS air resources in the Santa Clara County EMS System.

II. Authorization

- A. Aircraft providing prehospital patient transport within Santa Clara County must be authorized, classified, and permitted as an Air Ambulance or Rescue Aircraft by the Agency. Authorization must be confirmed by written agreement between the County and the Provider.
- B. Dispatches by County Communications shall be the only valid authorization for air resource operation at the scene of an emergency in Santa Clara County.

III. Medical Control

- A. Treatment rendered in all prehospital care situations (including air transport) shall be in accordance with current *Santa Clara County Prehospital Care Policy*.
- B. Each air resource provider shall have a Medical Advisor (MD or DO).
- C. Flight nurse protocols must be approved in writing by the EMS Medical Director.
- D. Paramedics shall complete all requirements of *Santa Clara County Prehospital Care Policy 205: Paramedic Accreditation*.
- E. Paramedics shall utilize Santa Clara County Prehospital Care Protocols.
- F. In situations where a California licensed physician is a member of the flight crew, ground personnel shall utilize *Santa Clara County Prehospital Care Policy 601: Physician at Scene* to determine the point at which responsibility for the patient transfers from ground to flight personnel.

IV. Request for EMS Air Unit Utilization

The decision to use EMS air unit transport involves both clinical and scene management considerations.

- A. EMS air resources are requested via County Communications anytime that it is determined that there is need for air transport by the incident

commander (IC). Immediate notification of, and coordination with, the IC is essential, once the decision has been made to utilize an EMS air resource.

- B. Units that wish to have an EMS air resource dispatched shall have County Communications contact the IC prior to activation, including transport to a rendezvous location (helipad, LZ, airport, etc). In the event that the IC cannot be reached, the County Ambulance EMS Field Supervisor or the EMS Duty Chief may authorize the activation. In such cases, County Communications shall continue to attempt to notify the IC of addition of the resource.
- C. The IC shall determine suitability of the scene or availability of nearby rendezvous site for EMS air resource operations.
- D. The IC shall cancel EMS air resources as soon as it has been determined that air transport is not necessary.

V. Guidelines for Air Resource Use

- A. Air Resource Transportation Considerations for Prehospital Providers
 - 1. Major Trauma Victims (MTVs) meeting only Mechanism of Injury criteria should be transported by ground.
 - 2. Air transportation should be considered for MTVs who meet physiologic and/or anatomic criteria and where ground transport times are in excess of thirty (30) minutes *and* use of an air resource will not extend the total prehospital time.
 - 3. Prehospital care providers must consider delays that are associated with the use of air resources when making transport decisions, this should include on-scene aircraft loading and rendezvous activities, and ensuring that the shortest, most appropriate transportation method is used. In most cases, ground ambulance transport is preferred.
- B. Automatic Air Resource Response Areas
 - 1. County Communications will dispatch an air resource to predetermined areas where ground ambulance arrival is greatly extended *or* impossible due to geographic conditions *and* the call is classified though emergency medical dispatch (EMD) as a CHARLIE, DELTA, or ECHO response. Automatic response areas include:
 - a. Mt. Hamilton region/San Antonio Valley and all areas east of Grant Ranch
 - b. All areas east of Anderson and Coyote Reservoirs
 - 2. A ground ambulance shall be dispatched simultaneously with the EMS air resource, the first arriving medical crew (air or ground) to make patient contact may cancel the response of additional

medical crews and assume care for the patient(s), when appropriate to do so.

C. Miscellaneous

Based on the performance of the EMS System, the EMS Agency may authorize alternate criteria for the use of EMS air resources.

VI. Dispatch

- A. If ground ambulance personnel arrive on the scene of a call after the arrival of the public safety IC, the crew shall request air resources through the IC. If the IC concurs with use, the ambulance crew may request the resources through County Communications stating that the IC has approved the request.
- B. Information to be given to County Communications when requesting an EMS air unit includes:
 - 1. Location and number of patient(s) – include estimated total patient weight if more than one patient requires air transport or a single patient is estimated to weigh over 200 pounds.
 - 2. Landing Zone (LZ) location if identified; map coordinates, if known; significant landmarks identifiable from the air; and any known scene limitations (weather, etc.).
 - 3. Unit identification of the Incident Commander and frequency to be utilized on scene if other than California On-Scene Emergency Coordination (CALCORD).
- C. County Communications shall always dispatch the closest Santa Clara County-permitted air ambulance unless the use of a rescue aircraft is indicated as specified in Section XI, letter B (refer to *Table 1*).
- D. In the event that no Santa Clara County-permitted air ambulances are available, the closest non-permitted air ambulance or rescue aircraft shall be used. In such cases, County Communications shall notify the EMS Duty Chief anytime mutual aid resources are requested (refer to *Table 1*).
- E. County Communications shall notify responding medical personnel and the Incident Commander of the name of the responding aircraft and their estimated time of arrival (ETA) upon the completion of dispatch.
- F. Each permitted air resource is responsible for reporting to and maintaining current availability status with County Communications through EMResource. In the event of EMResource failure, voice communication shall be made to County Communications.
- G. Upon starting enroute to an incident scene or as soon as radio communication can be made with County Communications, EMS air resources shall status enroute, overhead, on the scene, transporting, and arrival at the hospital on the designated County EMS frequency.

- H. Air resources shall notify the receiving facility of their impending arrival as soon as possible (prior to arrival); this notification is to include pertinent patient information and ETA.
- I. County Communications will notify EMS air resource dispatch centers if multiple air units are being used in the EMS System at the same time. This notification will include type of aircraft and unit call sign.

Table 1: Air Resource Transportation Considerations for Prehospital Providers and Communication Center

Tier 1 (Permitted)	Service Level	Base	Estimated time from lift off to scene
CALSTAR 2	Air Ambulance	Gilroy	15-30 minutes
CALSTAR 5	Air Ambulance	Salinas	15-30 minutes
CALSTAR 14	Air Ambulance	Watsonville	15-30 minutes
Stanford Life Flight	Air Ambulance	Stanford	15-30 minutes
Tier 2	Service Level	Base	Estimated time from lift off to scene
PHI	Air Ambulance	Modesto	> 45 minutes
Air Methods	Air Ambulance	Modesto	> 45 minutes
CALSTAR	Air Ambulance	Modesto	> 45 minutes
CALSTAR	Air Ambulance	Merced	> 45 minutes
CALSTAR	Air Ambulance	Concord	> 45 minutes
REACH	Air Ambulance	Stockton	> 45 minutes
Tier 3	Service Level	Base	Estimated time from lift off to scene
CAL Fire*	BLS Rescue	Alma	30-45 minutes
CHP	ALS Rescue	Napa	> 1 hour
129 th ANG*	ALS Rescue	Moffett Field	> 1 hour
US Coast Guard*	BLS Rescue	SFO	> 1 hour

* These resources require State approval to respond.

VII. Ground Personnel Responsibilities

- A. Ground (medical) personnel are responsible for patient care until a transition of care to the flight crew occurs.
- B. Ground medical personnel responding to the scene shall not be released until the flight crew has assumed responsibility for the patient or there is no patient, as determined by the IC and highest medical authority on-scene, and the air ambulance has been canceled.
- C. If there are patients to be transported by a ground ambulance in addition to an air resource (and the air resource has not yet arrived), ground personnel will triage and prepare all patients for transport, load the patient(s) to be transported by ground ambulance and triage the air transport patient to the care of the on-scene paramedics or EMTs in accordance with *Santa Clara County Prehospital Care Policy*.
- D. On-scene treatment provided by the flight crew shall be expedited so that the benefits of rapid air transport are not minimized by extended on-scene time.

VIII. Safety

- A. The pilot shall have final authority as to the safe operation of the EMS air resource. If, in the pilot's judgment, patient transport by aircraft would be unsafe, the patient shall be transported by ground ambulance.
- B. The EMS air resource has the authority to "self-cancel" if, in the pilot's opinion, the scene or flight conditions are not safe.
- C. Scene security is of prime importance. The IC shall ensure the landing/rendezvous site is secure.
- D. Ground personnel shall not approach an air resource unless directed to do so by flight personnel. When approaching or departing the aircraft, ground personnel shall not lift anything higher than their heads, nor shall they at any time approach or depart an air ambulance from the rear or from the uphill side when the aircraft is located on a slope.
- E. All prehospital care personnel shall wear protective gear as provided in *Santa Clara County Prehospital Policy 613: EMS Personnel Markings and Protective Gear* when working with EMS aircraft at the scene of a call.
- F. All EMS air resources shall communicate on designated air-to-air frequencies, as appropriate (congested LZs, multiple aircraft response, etc.).
- G. LZs shall be established at one hundred feet by one hundred feet (100' x 100') or one hundred feet (100') in diameter, during both daytime and nighttime hours.

IX. Patient Destination and Hospital Notification

- A. Air resource destination is determined by *Santa Clara County Prehospital Care Policy 602: 911 EMS System Patient Destination*, not flight crew discretion, unless a safety hazard exists.
- B. In a multiple patient incident, the Transportation Group Supervisor, Medical Communications Coordinator, or IC designee shall provide a destination to the air unit. In a multiple patient incident, EMS air resources should be used for transportation of victims to distant trauma, burn, or pediatric centers as permitted by *Santa Clara County Prehospital Care Policy 602: 911 EMS System Patient Destination*. Only in extraordinary circumstances should an air ambulance be used for transport to a local hospital.
- C. In the event that a non-permitted EMS air resource (mutual aid air ambulance or rescue aircraft) is used, the ground paramedic crew shall notify the receiving hospital of the impending arrival of the patient and estimated time of arrival.

X. Documentation

- A. Patients transported by an EMS air resource from emergency medical scenes within Santa Clara County shall have a Santa Clara County

Prehospital Care Report (PCR) completed by the attending flight crew, and distributed in accordance with Prehospital Care Policy.

XI. Miscellaneous

- A. A law enforcement agency responding to the scene of a medical emergency in a rescue aircraft may initiate response of an air ambulance upon establishing a medical need, in accordance with these guidelines.
- B. Rescue aircraft may be requested for the following:
 - 1. When specialty services such as hoist, skid, basket operations are necessary to rescue a patient.
 - 2. Permitted EMS air resources shall be used as the primary means for patient transport in Santa Clara County. Rescue aircraft may provide transport under the following situations:
 - a. If a rescue aircraft advises County Communications of their availability and has a shorter ETA than the dispatched air ambulance.
 - b. A rescue aircraft (BLS or ALS) has loaded a “hoisted” or “rescued” patient into the aircraft and the travel time to the most appropriate receiving hospital (trauma, stroke, STEMI, etc) is shorter than rendezvousing with an air ambulance to transfer care and transport responsibilities.
 - c. When used for patient transport, rescue aircraft shall provide patient care appropriate to the aircraft’s classification (BLS or ALS) and adhere to Santa Clara County Prehospital Care Policy applicable to the crew’s credential level (BLS or ALS).
 - 3. The California Highway Patrol (CHP) maintains the authority for numerous freeway and roadway systems in California. As such, a CHP helicopter may be utilized for rescue services or patient transport services when requested by the IC.
- C. The Santa Clara County Sheriff’s Office helicopter may be utilized to assist in EMS operations as requested by the IC or EMS Duty Chief.
 - 1. Examples include locating patients in remote environments, transporting a paramedic to the scene of a remote response, providing scene surveillance, transporting personnel to the scene of an incident when necessary, etc.
 - 2. The Sheriff’s helicopter is not designed to transport patients or conduct technical rescue operations.