

Emergency Medical Services Division Policies – Procedures – Protocols

EMS Aircraft Dispatch-Response-Utilization Policies and Procedures (10002.00)

I. Definitions:

- A. ALS Aircraft: "ALS Aircraft" as used in these policies shall mean an Air Ambulance or ALS Rescue Aircraft as defined in these policies.
- B. Advanced Life Support: "Advanced life support" or "ALS" as used in these policies means any definitive prehospital emergency medical care role approved by the local EMS agency, in accordance with state regulations, which includes all of the specialized care services listed in Section 1797.52 of the Health and Safety Code.
- C. Basic Life Support: "Basic life support" or "BLS" as used in these policies means those procedures and skills contained in the EMT-I scope of practice as listed in Section 100063, Title 22, California Code of Regulations.
- D. Medical Flight Crew: "Medical flight crew" as used in these policies means the individuals(s), excluding the pilot, specifically assigned to care for the patient during aircraft transport.
- E. Emergency Medical Services Aircraft: "Emergency medical services aircraft" or "EMS aircraft" as used in these policies 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. All EMS Aircraft shall be authorized by a local EMS Agency, the State EMS Authority or a Federal Health agency to provide aeromedical transport.
- F. Air Ambulance: "Air ambulance" as used in these policies means any aircraft specially constructed, modified or equipped, and used for the primary purposes 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. An Air Ambulance, at minimum, shall include one (1) Paramedic and one (1) Registered Nurse as a medical flight crew in accordance with local standards.
- G. Rescue Aircraft: "Rescue aircraft" as used in these policies means an aircraft whose usual function is not prehospital emergency patient transport but which may be utilized, in compliance with local EMS policy, 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.

- H. Advanced Life Support Rescue Aircraft: "Advanced life support rescue aircraft" or "ALS rescue aircraft" as used in these policies means rescue aircraft whose medical flight crew has at a minimum one attendant certified or licensed in advanced life support, or two Paramedics as a medical flight crew in accordance with local standards.
- I. Basic Life Support Rescue Aircraft: "Basic life support rescue aircraft" or "BLS rescue aircraft" as used in these policies means a rescue aircraft whose medical flight crew has at a minimum one attendant certified as an EMT-I and whose field/clinical experience specified in Section 100074 (c) of Title 22, California Code of Regulations, is in the aeromedical transport of patients.
- J. Auxiliary Rescue Aircraft: "Auxiliary rescue aircraft" as used in these policies means a rescue aircraft which does not have a medical flight crew, or whose medical flight crew do not meet the minimum requirements established in CCR Title 22 Section 100283.
- K. Air Ambulance Service: "Air ambulance service" as used in these policies means an air transportation service which utilizes air ambulances available for response on a 24 hour basis.
- L. Air Rescue Service: "Air rescue service" as used in these policies means an air service used for emergencies, including search and rescue.
- M. Air Ambulance or Air Rescue Service Provider: "Air ambulance or air rescue service provider" as used in these policies means the individual or group that owns and/or operates an air ambulance or air rescue service.
- N. Classifying EMS Agency: "Classifying EMS agency" or "classifying agency" as used in these policies means the agency which categorizes the EMS aircraft into the groups identified in accordance with CCR Title 22 Section 100300(c)(3). This shall be the local EMS agency in the jurisdiction of origin except for aircraft operated by the California Highway Patrol, the California Department of Forestry or the California National Guard which shall be classified by the EMS Authority.
- O. Authorizing EMS Agency: "Authorizing EMS agency" or "authorizing agency" as used in these policies means the local EMS agency which approves utilization of specific EMS aircraft within its jurisdiction.
- P. Jurisdiction of Origin: "Jurisdiction of origin" as used in these policies means the local EMS jurisdiction within which the authorized air ambulance or rescue aircraft is operationally based.
- Q. Designated Dispatch Center: "Designated dispatch center" as used in these policies means an agency which has been designated by the local EMS agency for the purpose of coordinating air ambulance or rescue aircraft response to the scene of a medical emergency within the jurisdiction of the local EMS agency.

II. General Provisions:

- A. The purpose of the Kern County EMS Department – EMS Aircraft Dispatch-Response-Utilization Policies & Procedures (policies) are to define policies and procedures related to the following:
 - 1. EMS Aircraft Dispatch Center procedures and criteria for activation of EMS Aircraft stand-by or response, EMS Aircraft provider use, and EMS Aircraft automatic mutual aid.
 - 2. Authorized responding provider procedures and criteria for request of EMS Aircraft stand-by or response; and
 - 3. EMS Aircraft utilization criteria for on-scene public safety agencies and ambulance service personnel.
- B. These policies will supercede all previous policies, procedures or protocols related to EMS Aircraft dispatch, response or utilization.
- C. These policies are applicable to all prehospital EMS Aircraft dispatch, response and utilization within Kern County in accordance with California Code of Regulations Title 22 Prehospital EMS Aircraft Regulations.
- D. These dispatch response and utilization sections of these policies are not applicable to BLS Rescue Aircraft or Auxiliary Rescue Aircraft as defined in CCR Title 22. Auxiliary Rescue Aircraft may be used for short distance transport when appropriate in special rescue or law enforcement operations. BLS Rescue Aircraft may be used for air patient transport in special rescue situations, when on-site and staged in a multi-purpose role and appropriate for use, or multi-casualty incidents where air patient transport is indicated at a Basic Life Support Level. In each case of Auxiliary Rescue Aircraft or BLS Rescue Aircraft use, patient transport by ALS Rescue Aircraft or Air Ambulance shall be considered in accordance with these policies.
- E. These policies exclude provisions related to EMS Aircraft inter-facility patient transfers.
- F. The intent of these policies are to promote appropriate dispatch, response and utilization of ALS Aircraft resources in Kern County for patients in the prehospital phase of care that require air transport to the most appropriate hospital based on the patient condition.
- G. An ALS Aircraft is an adjunct resource to the Kern County Prehospital EMS System consisting of EMT-1 First Responders, Paramedic First Responders, ALS First Responders, and BLS/ALS Ambulance Providers.
- H. The Kern County EMS Department (Department) may request ALS Aircraft stand-by, response, or utilization during Med-Alert operations.
- I. For a stand-by request, an Air Ambulance shall not launch and proceed to the area of the incident. Air Ambulance launch related to an EMS incident is not

permitted based on scanner or other information, unless specifically requested by ECC to respond.

III. Designated EMS Aircraft Dispatch Center:

- A. The Designated EMS Aircraft Dispatch Center for Kern County is the Kern County Emergency Communications Center (ECC).
- B. All requests for ALS Aircraft stand-by or response for prehospital incidents located in Kern County shall be directed to ECC. All requests for ALS Aircraft stand-by or response for prehospital incidents located outside Kern County involving EMS Aircraft resources based in Kern County shall be directed to ECC.
- C. ECC may activate ALS Aircraft stand-by or dispatch EMS Aircraft response in accordance with the following:
 - 1. ALS Aircraft Stand-By:
 - a. ALS Aircraft stand-by means the ALS Aircraft crew is alerted to a prehospital incident that may result in ALS Aircraft response. At minimum, the ALS Aircraft crew is required to be on-board the ALS Aircraft and monitoring incident communications or the specified dispatch frequency for an ALS Aircraft response request from ECC or stand-by cancellation. The ALS Aircraft engine(s) does not have to be started when ALS Aircraft stand-by is activated. During ALS Aircraft stand-by, the ALS Aircraft is available for any response request received for another EMS incident.
 - b. ECC may activate ALS Aircraft stand-by when indicated by authorized Kern County EMS Dispatch Protocols and the ALS Aircraft Dispatch Map as follows:
 - i. EMS Dispatch Protocol indicates ALS Aircraft stand-by and the incident is located in an ALS Aircraft stand-by zone; or
 - ii. EMS Dispatch Protocol indicates ALS Aircraft response and the incident is located in an ALS Aircraft stand-by zone; or
 - iii. EMS Dispatch Protocol indicates ALS Aircraft stand-by and the incident is located in an ALS Aircraft response zone.
 - c. ECC will activate ALS Aircraft stand-by when requested by an authorized responding agency or the Department in accordance with these policies.
 - d. ECC may cancel ALS Aircraft stand-by when no longer indicated.
 - 2. ALS Aircraft Response
 - a. ALS Aircraft response means an ALS Aircraft response is dispatched to an EMS incident by ECC.
 - b. ECC may dispatch ALS Aircraft response when indicated by authorized Kern County EMS Dispatch Protocols and the ALS Aircraft Dispatch Map as follows:

- i. EMS Dispatch Protocol indicates ALS Aircraft response and the incident is located in an ALS Aircraft response zone.
 - c. ECC will dispatch ALS Aircraft response when requested by an authorized responding agency, authorized on-scene agency or the Department in accordance with these policies.
 - d. Cancellation of ALS Aircraft response may be relayed by ECC in the following cases:
 - i. The ALS Aircraft pilot determines that the response is not safe based on current weather conditions or aircraft mechanical condition.
 - ii. A request to cancel ALS Aircraft response is received from an authorized responding agency, authorized on-scene agency or the Department in accordance with these policies.
 - iii. ECC receives confirmation that no patient or incident exists.
- D. In cases of conflicting requests between authorized responding agencies and/or authorized on-scene agencies related to ALS Aircraft stand-by, response or cancellation, ECC will notify authorized responding and authorized on-scene agencies of the conflict. The on-scene agency with Scene Manager/IC responsibility in accordance with Kern County EMS Department – Scene Control Policy shall be the final decision authority related to conflicts in ALS Aircraft stand-by, response or cancellation. If an authorized agency is not on-scene, ECC shall continue ALS Aircraft response until arrival of an authorized agency. Response cancellation by the ALS Aircraft pilot due to flight safety or aircraft mechanical condition shall be absolute.
- E. Selection and Assignment of ALS Aircraft Resources:
 1. ECC will contact the ALS Aircraft Provider for stand-by or response based on the incident location and the ALS Aircraft Operational Area. The ALS Aircraft Provider will confirm, at call time, if an ALS Aircraft is available to respond and the location of the ALS Aircraft. ECC will inform responding or on-scene agencies of the ALS Aircraft Provider and location responding from. Within five (5) minutes of ALS Aircraft notification, the ALS Aircraft Provider shall provide the estimated time of arrival to the incident to include lift-off time if appropriate. Upon lift-off, an updated estimated time of arrival shall be provided.
 2. If an ALS Aircraft Provider does not have an available ALS Aircraft or the ALS Aircraft is not located in the nearest Base of Operations, ECC may assess the location of the closest ALS Aircraft and dispatch or place the ALS Aircraft on stand-by. ECC will inform responding or on-scene agencies of the ALS Aircraft Provider, location responding from and the estimated time of arrival (if responded) or flight time (if placed on stand-by).

3. If the permitted ALS Aircraft Providers do not have an available ALS Aircraft for response located in the nearest Base of Operations, ECC may assess availability and location of secondary ALS Aircraft resources for response or stand-by and activate stand-by or dispatch response if specifically requested by responding authorized agencies or on-scene authorized agencies.
- F. Ground ambulance response shall be continued to all EMS incidents involving EMS Aircraft response until there is on-scene confirmation that the ALS Aircraft has lifted off in patient transport and no patient remains at scene in need of ground ambulance service. For incidents located in remote areas of Kern County, a ground ambulance may stage in an area with communications access for confirmation of ALS Aircraft ability to access the incident and provide patient transport as needed.

IV. Responding Authorized Agency Procedures:

- A. An “authorized agency” as used in these policies means any Law Enforcement, Fire Department, or Kern County Ambulance Service resource responded to an emergency incident in Kern County.
- B. An authorized agency may place an ALS Aircraft on stand-by or request response in accordance with the following:
 1. Response Time to Scene Fifteen (15) Minutes or Less:
 - a. If the incident is located in an area where ALS Aircraft transport to the appropriate hospital will provide a minimum of ten (10) minutes time savings for the patient compared to conventional ground ambulance transport time, authorized agency personnel may place an ALS Aircraft on stand-by for response through ECC. ALS Aircraft response shall not be requested until on-scene confirmation of the situation or problem.
 2. Response Time to Scene More than Fifteen (15) Minutes:
 - a. An authorized agency may place an ALS Aircraft on stand-by if the incident is located in an area where ALS Aircraft transport to the appropriate hospital will provide a minimum of ten (10) minutes time savings for the patient compared to conventional ground ambulance transport time.
 - b. An authorized agency may request ALS Aircraft response if the incident is located in an area where ALS Aircraft transport to the appropriate hospital will provide a minimum of ten (10) minutes time savings for the patient compared to conventional ground ambulance transport time and any of the following are applicable:
 - i. Incident is located in an inaccessible area to conventional ground ambulance transport;
 - ii. Reported multi-casualty incident with on-scene confirmation of serious injuries; or

- iii. There is on-scene confirmation of serious injury or serious illness indicating a patient will meet ALS Aircraft utilization criteria.
- 3. Reported cardiac arrest is typically not an indication for air ambulance transport unless the patient responds to resuscitation effort in the field. Only stand-by should be initiated for reported cardiac arrest cases before scene arrival.
- 4. The Department may also request ALS Aircraft response prior to authorized agency arrival at scene during Med-Alert operations.
- 5. If an authorized agency is on-scene, and a request is received from a responding authorized agency to activate ALS Aircraft stand-by or dispatch ALS Aircraft response, ECC will notify the on-scene authorized agency. The on-scene authorized agency may over-ride a request from a responding authorized agency.

V. On-Scene Authorized Agency Procedures:

- A. Upon scene arrival, an authorized agency should immediately conduct a scene size-up and rapid patient assessment to determine if one or more patients meet ALS Aircraft utilization criteria.
- B. ALS Aircraft Utilization Criteria shall include each of the following (Safety, Patient Condition Criteria and Time Criteria):
 - 1. Scene Safety – Scene Manager/IC: The Scene Manager/IC in accordance with Kern County EMS Department Scene Control Policy (Scene Control Policy) shall determine that an ALS Aircraft can access the scene safely. If the scene cannot be safely accessed, the Scene Manager/IC may consider arrangement of a rendezvous point in coordination with the Patient Health Care Authority/Medical Group Supervisor (Medical Group Supervisor) at scene.
 - 2. Patient Condition Criteria –The person with patient health care authority in accordance with Scene Control Policy shall determine that one or more patients meet one or more, but not limited to, the following:
 - a. Trauma: Kern County Trauma Care System Step #1 or Step #2 Adult or Pediatric Trauma Triage Criteria.
 - b. Medical (any of the following):
 - i. Acute altered mental status with no improvement and no response to painful stimuli, unresponsive to 50% Dextrose or Narcan.
 - ii. Respiratory arrest or severe respiratory compromise unresponsive to intervention.
 - iii. Cardiovascular case with hemodynamic instability, suspected acute myocardial infarction, life threatening dysrhythmia or post resuscitation.
 - iv. Hypotension with acute signs and symptoms of Hypoperfusion from blood or volume loss.

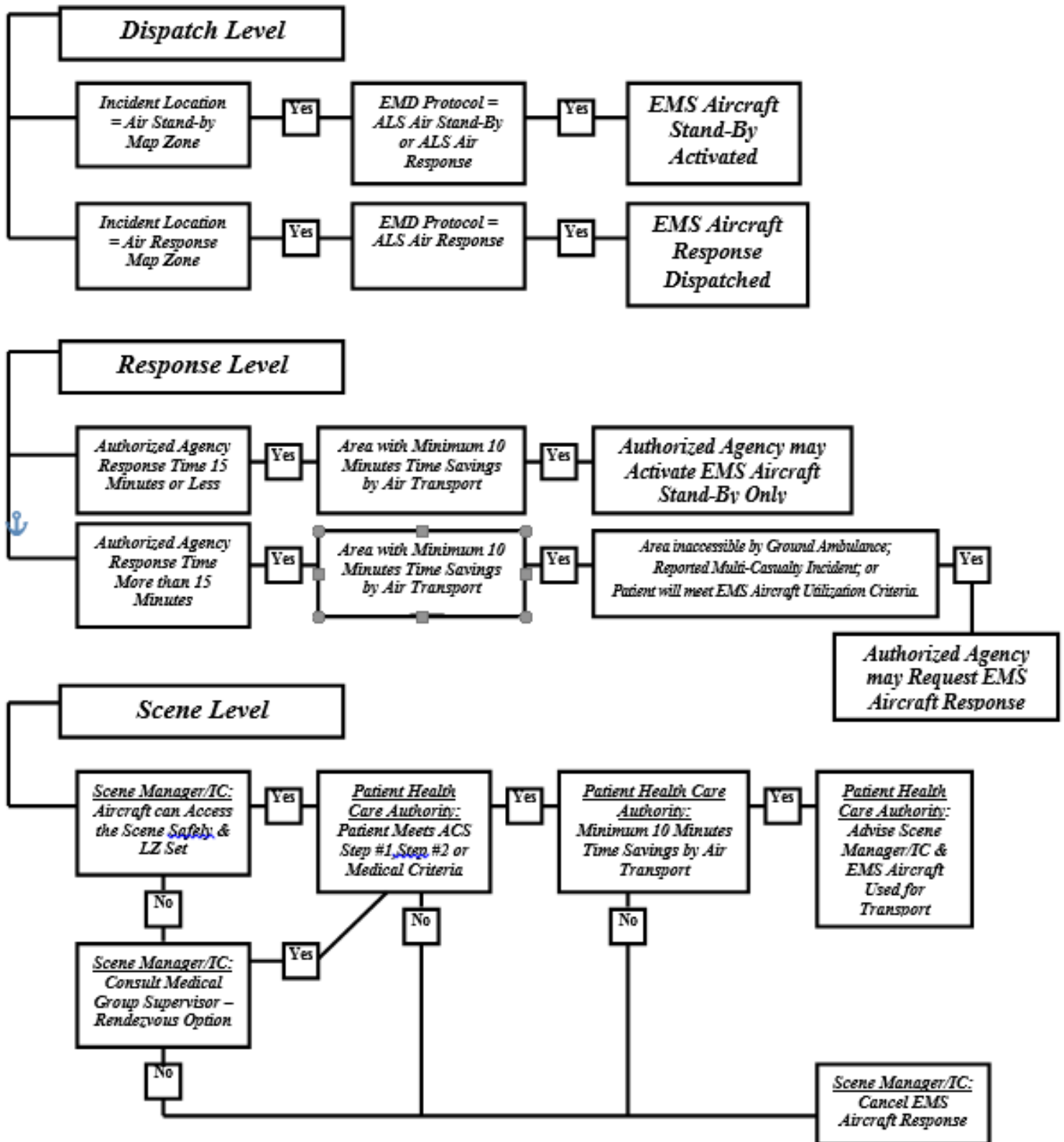
- v. Anaphylactic Shock with unstable bronchospasm or hypotension not responsive to adrenalin or epinephrine.
 - vi. Status Epilepticus (continuous generalized seizure activity or multiple generalized seizures without regaining consciousness between).
 - vii. Complications of childbirth (e.g. breech, abnormal presentation, massive blood loss, fetal distress).
 - viii. Acute cardiac arrest with acute hypothermia from environmental exposure.
 - ix. Unstable near drowning.
 - x. Acute suspected stroke.
3. Time Criteria –The person with patient health care authority in accordance with Scene Control Policy shall determine that a minimum of ten (10) minutes in transport time to the Trauma Center (for Trauma cases) or to the most appropriate Hospital Emergency Department (for Medical cases) based on patient condition will be saved by air transport compared to ground transport in accordance with ALS Aircraft Utilization – Time Comparison Chart in Appendix D of these policies.
4. ALS Aircraft Utilization Criteria – Exceptions: The following exceptions may be applied as appropriate to ALS Aircraft utilization. Scene safety, patient condition criteria and time criteria shall be the primary indicators for ALS Aircraft utilization.
- a. In cases where a patient is located in an area not accessible to a ground ambulance or other vehicle capable of providing appropriate transport to a ground ambulance and an ALS Aircraft can safely access the area, an ALS Aircraft may be utilized. The ALS Aircraft may provide short distance transport to the ground ambulance if ALS Aircraft utilization criteria are not met.
 - b. A patient may refuse ALS Aircraft transport when ALS Aircraft utilization criteria are met. In such cases, the potential implications of the refusal will be carefully explained to the patient and documented by the Patient Health Care Authority.
 - c. Other than confirmed cold water drowning cases that have not been re-warmed where continued resuscitation effort is indicated, a patient in cardiac arrest that is not responsive to ALS resuscitation effort shall not be transported by an ALS Aircraft.
- C. If all ALS Aircraft utilization criteria are met, an ALS Aircraft shall be responded to the incident location if not responded previously and utilized for patient transport. If one or more of the ALS Aircraft utilization criteria are not met, the ALS Aircraft should not be responded or used for patient transport.
- D. In cases where authorized agency personnel on scene disagree, the incident shall be managed in accordance with Kern County EMS Department – Scene

Control Policy. EMS Department On-Call staff may be contacted for advice if needed.

VI. EMS Aircraft Quality Improvement:

- A. The Department will conduct on-going quality improvement review of EMS Aircraft dispatch and use within Kern County. Quality improvement actions may include investigation of complaints, case data research and aggregate data research on EMS Aircraft dispatch and utilization. An EMS Aircraft quality improvement group function will be implemented by the Department.
- B. Any dispatch over-ride resulting in ALS Aircraft response based on dispatch protocol by the designated EMS Aircraft Dispatch Center shall be subject to review by the EMS Dispatch Quality Improvement Group.

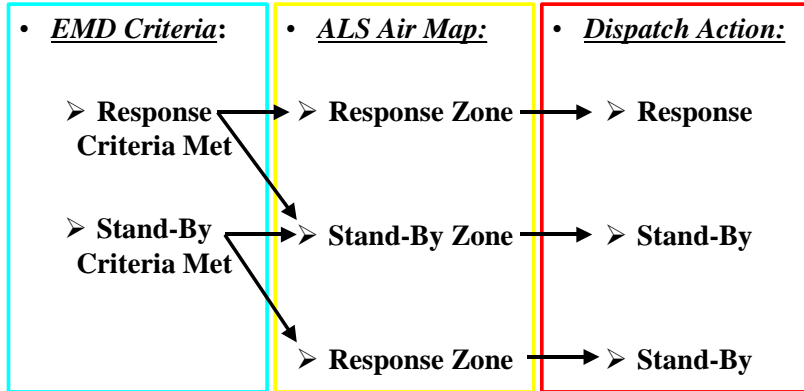
Appendix A
EMS Aircraft Utilization-Decision Process



Appendix B

EMS Aircraft Dispatch & Stand-By Matrix

ALS Aircraft Dispatch of Response & Stand-By Matrix



Appendix C

ALS Aircraft Utilization – Time Comparison Chart

Time Criteria – Medical Group Supervisor: The Medical Group Supervisor in accordance with Scene Control Policy shall determine that a minimum of ten (10) minutes in transport time to the Trauma Center (for Trauma cases) or to the most appropriate Hospital Emergency Department (for Medical cases) based on patient problem will be saved by air transport compared to ground transport in accordance with ALS Aircraft Utilization – Time Criteria.

Time Analysis Formula:

<u>Ground Ambulance:</u>	<u>ALS Aircraft:</u>
<p>1) Amount of time before start of ground transport (if ground not at scene, add ETA & estimated on-scene time):</p> <p style="text-align: right;">_____</p>	<p>1) Amount of time before start of air transport (if air not at scene, add ETA & estimated on-scene time):</p> <p style="text-align: right;">_____</p>
+	+
<p>2) Ground transport time to the appropriate hospital:</p> <p style="text-align: right;">_____</p>	<p>2) Air transport time to the appropriate hospital:</p> <p style="text-align: right;">_____</p>
+	+
<p>3) Off-loading time at the appropriate hospital (2 minutes):</p> <p style="text-align: right;">_____</p>	<p>3) Off-loading time at the appropriate hospital (7 minutes):</p> <p style="text-align: right;">_____</p>
<p>Total Ground = _____</p>	<p>Total Air = _____</p>