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POLICY MEMORANDUM #5001

EFFECTIVE DATE: 01/26/94

APPROVED BY:

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SUBJECT: EMERGENCY MEDICAL DISPATCH OPERATION REQUIREMENTS

AUTHORITY: CALIFORNIA HEALTH & SAFETY CODE, DIVISION 2.5, 1797.220; Title 22, Chapter 4, Article 5, 100167.

PURPOSE/POLICY:

To establish guidelines and minimum community standards for organizations and/or ambulance service providers who are directly responsible for the dispatch of ambulances to medical emergencies.

- I. **CONTRACT** – Only those agencies having a Contract/Memorandum of Agreement (MOA) with Solano County shall engage in provision of Emergency Medical Dispatch (EMD) services.
 - A. By December 31, 1994 (or an earlier date for public and private organizations electing to provide Emergency Medical Dispatcher services if approved by the Health Officer) all ambulance provider agencies, Public Safety Answering Points (PSAPs) or other agencies responsible for direct emergency medical dispatch of an ambulance shall have a contract/MOA with Solano County and be authorized by the County Health Officer to provide Emergency Medical Dispatcher (EMD) services utilizing approved EMD Protocols. The EMS Office shall enter into a MOA/Contract with any private or public organization electing to provide ambulance dispatch services within Solano County after first approving its EMD dispatch procedures and ambulance system status management operational plan. The MOA for direct emergency medical dispatch may or may not be part of the mandatory EMT-P Service Agreement required by Section 100167 (b)(4).

- B. Any Public or Private Organization that directly controls and dispatch ambulances to pre-hospital medical emergencies are required to submit their operational plan for ambulance dispatch and its ambulance system status management plan for medical (emergencies) approved before a MOA or Agreement is submitted to the Board. The operational plan at a minimum shall include:
 - 1. An organizational system status management plan that will ensure optimal ambulance coverage for the entire geographical area being serviced (A group plan can be submitted if more than one ambulance service shares a geographical area).
 - 2. The organization's medical call prioritization protocols and pre-arrival medical instructions.
 - 3. The organization's quality assurance plan to monitor dispatch centers' performance and compliance with medical community standards.
- C. Public Safety Answering Points (PSAPs) who do not directly dispatch ambulances are not required to have an MOA for EMD (Emergency Medical Dispatcher) services being provided. If a PSAP elects to implement a First Responder Call Prioritization Dispatch System or initiate a program of pre-arrival medical instructions within their service area, an MOA with the EMS Agency is needed prior to implementation of any EMD services.
- D. Dispatch Agency shall be classified – Emergency Medical Dispatch Centers in Solano County directly responsible for dispatch of ambulance for emergency response shall be classified as one of the following:
 - 1. CMED Center (Central Medical Emergency Dispatch) Center – The CMED shall assume the prime county responsibility for determination of the closest appropriate ambulance for emergency calls (excluding Vacaville and areas of Military Bases that deny civilian ambulance access to emergency calls), maintain the EMS Agency-approved system Status Management Plan, and insure that ambulances are always available to immediately respond to medical emergencies county-wide. The CMED shall also coordinate ambulance response for MCIs, medical disasters, coordination of medical response and/or evacuation for mutual aid assistance outside the County or in conjunction with the military. The CMED, when operational, shall also be the designated dispatch center for EMS aircraft for Solano County.
 - 2. EMAD (Emergency Medical Ambulance Dispatch) Center – An EMAD is an authorized dispatch center that shall assume the responsibility of ambulance dispatch in an area or zone where the community elects not to have the CMED assume responsibility for ambulance dispatch (e.g., the Vacaville PSAP). An EMAD shall provide the EMD services of pre-arrival instructions and call prioritization. Additionally the EMAD shall maintain a written agreement and a Medical Mutual air Plan that meets the following need:

- a. A Mutual Aid Plan which allows both ambulance dispatch centers (the CMED & the EMAD) to have immediate access to available ambulance if either center is attempting to manage a medical emergency where there is an attempt to manage an unusual system overload or an unplanned high demand for ambulance response.
- b. A plan that will insure that each respective ambulance dispatch center will have an immediate inventory of all available ambulances within its zone within 60 seconds upon request.
- c. A plan to convert all ambulances under the control of the EMAD to the control of the CMED in the event a County medical disaster by the Health Officer of EMS Medical Director.
- d. A plan to insure that either the CMED or the EMAD shall not hold an emergency priority 1, 2, 3 or 4 call for over 90 seconds and shall initiate an immediate medical mutual aid response with CMED or EMAD respectively.
- e. Any emergency call received at the CMED or the EMAD in which a priority 1, 2, 3 or 4 call is outside the geographic area of the respective CMED or EMD, the ambulance dispatch center shall immediately refer the call to the appropriate CMED or EMAD within 30 seconds upon receipt of the call.

II. THE MEDICAL PROVISION OF EMD SERVICES includes, but is not limited to:

- A. Medical caller interrogation
- B. Medical pre-arrival and treatment
- C. Medical prioritization of ambulance and advise the primary PSAP of the need to initiate a First Responder Response when clinically indicated.

III. MEDICAL PERFORMANCE STANDARDS FOR EMERGENCY MEDICAL DISPATCHERS OPERATING IN A CMED AND/OR EMAD

- A. Only authorized EMDs shall provide pre-arrival medical instructions to clients requesting emergency medical services.
- B. 95% of all EMS emergency calls shall be answered by the dispatch center before the second ring of the telephone.
- C. The maximum acceptable time interval from when the dispatch center receives a request for emergency ambulance services until the ambulance unit is actually enroute shall not exceed two (2) minutes for a priority 1, 2, 3 or 4 call.
- D. Once an EMD determines a patient is breathing and conscious, 30 seconds is the maximum time needed to complete necessary "key questions" on a selected operative medical protocol to determine the appropriate EMS medical response.

- E. The maximum time interval the CMED or EMAD shall place a caller on hold and then dispatch appropriate EMS responding unit(s) shall not exceed 20 seconds.
- F. EMDs shall only provide medical pre-arrival instructions using designated protocols approved by the Health Officer. Any other requests for medical instruction or advice shall immediately be referred to a base hospital.
- G. The maximum time interval an EMD may hold/handle an emergency call before it alerts and dispatches a responding unit shall not exceed 90/60 seconds.
- H. The maximum time interval a primary Public Safety Answering Point (PSAP) may delay the transfer of an emergency request for ambulance services shall not exceed 60 seconds before it transfers the medical call to the CMED or EMAD.

IV. ALL EMAD AND CMED PROVIDERS SHALL HAVE A QUALITY ASSURANCE COORDINATOR who is a physician, registered nurse, paramedic or certified Emergency Medical Dispatcher (EMD) whose duties will include, but not be limited to:

- A. Review identified systems problems (to be mutually determined by the EMS Agency and Medical Dispatch Staff).
- B. Maintain a daily log for the purpose of monitoring hospital diversion status, ambulance performance failure and unusual incidents.
- C. Maintain a daily log of ambulance availability.
- D. Perform confidential conferences, counseling and initiate remedial action when indicated.
- E. Review and analyze Management Information System (MIS) reports relevant to medical dispatch generated by the CMED MIS.
- F. Provide Quality Assurance (Q.A.) monitoring relevant to include documentation of compliance with pre-arrival instructions and call prioritization standards.
- G. Perform tape reviews and audits on a monthly basis to review:
 - 1. Appropriateness of triage.
 - a. Call prioritization
 - b. Medical classification.
 - 2. Appropriateness of pre-arrival instructions.
 - 3. Appropriateness of utilization of EMS providers.
 - 4. Other quality improvement issues (to be mutually determined by the EMS Agency, CMED or EMAD staff & ambulance service providers).
- H. Ensure Consistency – Ensure that all EMD services and the operational elements the CMED's and/or EMAD's operations are consistent with the County's Q. A. plan for ambulance dispatch and medical expectation of the community.

V. (CMED) CENTER and/or EMAD CENTER RESPONSIBILITIES

- A. Dispatching Procedures – Each Solano County Ambulance Service permitted to operate within the County shall equip their ambulance units to be directly dispatched by the CMED or an approved EMAD. Ambulance Service Provider(s), at their expense, shall implement all necessary electronic communications devices prescribed by the EMS Agency for communication with the CMED Dispatcher to facilitate rapid dispatch of Priority 1, 2, 3 or 4 calls. All ambulances permitted by the County shall be equipped with appropriate radios at Ambulance Service Provider's expense.
- B. All Ambulance Service Providers permitted to operate in the County shall participate with the approved County's CMED.
- C. Authorized direction of Units – CMED and/or EMADs shall directly control and dispatch the ambulances dedicated to emergency response according to its EMS Agency approved System Status Plan. When an ambulance is performing medical mutual aid outside its normal area of activity in the jurisdiction of another EMAD or CMED, the unit shall remain under its exclusive direction until released by the requesting CMED or EMAD.
- D. Immediate notification of status – In all cases the Ambulance Service Provider shall immediately notify the CMED Center and/or its appropriate EMAD Center of any change of ambulance availability status, or of any change in communication status in the event there is an unexpected demand for emergency ambulance services that exceed its system status plan or if there is a communication system failure in which the EMAD or CMED cannot function optimally.
- E. Daily radio checks – Ambulance Service Providers shall conduct daily radio equipment checks with both the hospital(s) and appropriate dispatch center(s) at the time and manner agreed upon with those agencies and the EMS Agency.
- F. Any question for immediate ambulance transport (as defined in EMS policy 5520) is assumed to be an emergency request for ambulance services. Ambulance Service Providers shall refer all private emergency calls and/or non-911 non-scheduled requests for ambulance transport to the CMED, or approved EMAD, who will in turn dispatch the closest appropriate ambulance to the call, for any call determine whether the call is a Priority 1, 2, 3 or 4 emergency response. Calls determined not to be a Priority 1, 2, 3 or 4 emergency response shall be managed based on existing transfer agreements or preferential requests from the calling parties requesting non-scheduled ambulance transport.
- G. Stand-by Locations – Ambulance Service Providers shall, if requested, respond an ambulance unit to stand-by locations as specified by CMED. Once an ambulance has been dispatched to a stand-by or posting location, the Ambulance Service Provider may not divert said ambulance for a non-emergency call until released by the CMED. An ambulance committed to stand-by or posting location shall be utilized only for

emergency calls until such time as the CMED or approved EMAD Center authorizes return to its usual base of operations.

- H. Unique number – CMED or EMADs shall issue a unique Authorization Case number to each CODE 3, CODE 2 or CODE 1 call. Each Patient Care Report (PCR) Form generated by ambulance personnel responding to an emergency call shall include the CMED or EMAD case number on the medical record.
- I. Daily submission of log to EMS – The CMED or EMADs shall maintain and provide daily, to the EMS Office; and each ambulance provider service is responsible for an accurate daily dispatch log of all emergency ambulance activities until such time as the CAD and mobile data terminals are installed, debugged and operational to a high degree of reliability when the data can be transmitted electronically. Each Ambulance Service Provider shall notify the EMS in writing, of any and/or each modification to the daily log. The EMS Office notification shall include original and modified entry information and reason for modification until such time as electronic transfer of dispatch data becomes a reality. For each emergency call that exceeds performance standards defined the EMS Policy 5520, the CMED and EMADs shall notify both the EMS Office and the appropriate ambulance provider within 24 hours of a call that requires follow-up and investigation to determine why the call exceeded community performance standards.
- J. CMED and/or EMAD Procedures for Emergency Calls.
 - 1. Issuance of Number – Upon receipt of an emergency request for response, the CMED or EMAD shall issue a unique CMED case number and dispatch the closest appropriate ambulance to the emergency; each Ambulance Service Provider shall immediately respond and as soon as underway, the ambulance unit shall report by radio to CMED or EMAD indicating that it is underway; but under no circumstances shall this report be more than three minutes (180 seconds) from notification to the Ambulance Service Provider of the call. If there is delay of more than 180 seconds and the CMED or EMAD does not know if an ambulance is enroute, the EMAD or CMED shall assign the case to the next closest ambulance unit and initiate a search for the first unit it cannot account for.
 - 2. Response needs prior approval – Under no circumstances shall Ambulance Service Provider respond to any request for emergency service originating in another response area of responsibility without the specific prior approval of CMED or EMAD Center.
 - 3. CMED or EMADs shall assign ambulance to cross response area lines when deemed necessary for the most efficient response to an emergency call in areas serviced by another CMED or EMAD Center.
 - 4. Notification of arrival and departure – Upon arrival at the location to which the ambulance has been dispatched, ambulance personnel shall notify CMED Center or approved EMAD Center; and notification is again required when departing the location with a patient to the hospital.

5. Notification of Hospital – While at the emergency scene or immediately upon departing, ambulance personnel shall notify the Base or receiving hospital as appropriate via MEDNET/Med Channel Radio, or other approved communication system, of the anticipated delivery of patient(s), a description of the possible injury(ies) or illness, appropriate vital signs and the expected time of arrival at the hospital emergency department.
 6. Notification of arrival to CMED – Upon arrival at the hospital, CMED or EMAD will be notified. Ambulance personnel shall obtain the CMED case number along with their call times when completing their medical records. Ambulance personnel shall also provide their PCR(s) case numbers to the CMED or EMAD to be included in the computer CAD system file for the case.
 7. Notification of availability – upon becoming again available for service, CMED or EMAD will be notified. The CMED or EMAD shall determine the availability of an ambulance unit within 12 minutes after arrival if the transporting crew does not confirm its availability after arriving at a medical facility and turning the patient over to the medical staff.
- K. The CMED Center shall maintain records of all times listed above for each call, and the assigned unique identification number for each dispatched ambulance unit. CMED shall also maintain a record of the Patient Care Report number on each patient transported, each dry run, each case where the patient was found dead, each request for stand-by and each emergency Interfacility transfer.
- L. CMED and/or EMADs shall routinely provide the following reports to Ambulance Service Provider and to EMS Agency:
1. Monthly. Summary Activity Reports using a format available from the CAD system of the CMED or EMAD that is mutually agreed upon between the dispatch center management and the Health Officer (or his/her designee).
 2. Monthly. The necessary management reports obtained from the CAD system's management information system to allow the EMS office staff to analyze and evaluate the performance of each ambulance service's compliance rate with the medical performance standards. The reports generated at a minimum shall allow for qualitative measurement of the following performance criteria:
 - a. Each ambulance service shall provide 100% of coverage of all requests for ambulance service within its contracted service area and each ambulance response adhered-to response time standards.
 - b. A listing of each Dispatch/Response Delays.
 3. Daily: Download of dispatch records and required data elements for each emergency call the Center received requiring dispatch of an ambulance.

4. Daily: An “unable to Dispatch” Unusual Occurrence Form. During any period of time a situation results when there are insufficient ambulance units available for service, the CMED or EMAD will make reasonable efforts to obtain back-up services from adjacent areas to provide coverage for ambulance service provider(s)’ area. In each instance this situation occurs, the CMED or EMAD shall notify the EMS office which [will require], at a minimum, an unusual occurrence report including the following information:
 - a. The date, length of time in seconds, the request for emergency ambulance services was unanswered;
 - b. The status of all other ambulance units in the zone at the time of request for service;
 - c. The reason the call could not be answered; EMS staff shall investigate each reported incident after receipt of such information.
5. Daily; a listing of all performance failure occurrences/unusual occurrence reports regarding any Emergency Call Priority 1, 2, 3 or 4 where:
 - a. CODE 3 calls which fall outside the performance standards for urban, rural or remote.
 - b. Ambulance “out of the chute times” of more than two minutes for Priority 1, 2, 3 or 4 emergency calls;
 - c. The requesting party called back requesting the status of the responding ambulance after 5 minutes from emergency call;
 - d. Any call where vehicle malfunction or accident resulted in a delay in a response.
 - e. Any non-scheduled request for an immediate ambulance response (as defined in EMS Policy 5520) in which the ambulance service provider elects to refer the call to another ambulance service.

It is the responsibility of the CMED or EMAD to notify the Ambulance Service Provider and the EMS Office of this type of situation. It is the responsibility of the Ambulance Service Provider to investigate the unusual occurrence and report the following information to the EMS Office within 72 hours, or three (3) working days after being notified of a performance failure. The ambulance service provider report shall contain the following results of its investigation:

- (1) Reason(s) for performance failure, vehicle failure and/or malfunction;
- (2) Effect of vehicle or performance failure upon patient clinical condition;

- (3) Actions Ambulance Service Provider has taken to prevent other such failures;
 - (4) Dual PCRs – In each instance where patient transport is delayed resulting from a vehicle failure and/or malfunction, the ambulance service provider will assure that EMS personnel on the vehicle that failed and the EMS personnel on the vehicle who transport the patient will submit distinct, separate prehospital report forms regarding the medical care the patient received from each unit.
 - 6. Monthly; an EMS Aircraft Dispatch Utilization Report (CMED only).
 - 7. Summary Report for MCI/Disasters – Within 24 hours or one working day of each MCI or medical disaster occurrence, a summary report of the activities that occurred at the CMED and/or EMAD for all cases where:
 - a. Three or more ground EMS units responded to a single incident, or
 - b. Two or more ground units and a single EMS aircraft responded to a single incident.
 - 8. Quarterly 911 Report – Quarterly submission to the EMS Office and thence to the County EMCC, a report of 911 utilization and contract response to 911 calls.
- M. Fiscal, Responsibilities to Maintain CMED – All Air and Ground Ambulance Service Providers shall pay their fair share of their dispatch costs to maintain the designated County CMED to the CMED provider organization.
- N. Dispatch Evaluation – Organizations responsible for ambulance dispatch shall implement an on-going program for the evaluation of dispatch operation, education and training of dispatchers, and ensure problem identification and resolution.
- O. Dispatch Service(s) of the CMED/EMADs
 - 1. Emergency Medical Dispatch Standards
 - a. Policies and Procedures – Dispatch of emergency ambulances shall be according to the policies, procedures and protocols promulgated by the County Health Officer which are developed in collaboration with representatives of the Dispatch Center, EMS Agency and the ambulance service providers. In each instance that an ambulance does not attain the response time standard for an emergency response, the CMED or EMAD dispatcher identify the call and refer it back to the ambulance service operator to complete an “exception report” using a report form approved by the Health Officer. The CMED or EMAD dispatcher shall concurrently notify the EMS office of the occurrence.
 - b. Training and Certification – Each CMED and/or EMAD shall employ Emergency Medical Dispatchers who have successfully completed an Emergency Medical Dispatch Program according to the standards

specified by the EMS Medical Director. All Emergency Medical Dispatchers shall be certified as Emergency Medical Dispatchers by the EMS Medical Director by 12/31/94. The interim period shall be designated a transition period for EMDs to obtain certification.

c. Continuing Education Recommendations for EMDs.

- (1) Each CMED or EMAD shall organize opportunities for education including maintenance and proficiency of EMD skills as specified in this policy.
- (2) Each CMED or EMAD shall maintain an ongoing program of continuing dispatcher education. Continuing dispatch education, at a minimum, shall include a review of elements of the EMD curriculum, with special emphasis on operational functions, protocols, policy compliance, new procedures, medical advancements, problematic situations and a greater in-depth understanding of the medical conditions that are associated with the emergency Medical Dispatch Priority Reference System.
- (3) The EMD Dispatch Center shall train and update dispatch personnel regarding MCI/Disaster radio communications and disaster response plans.
- (4) Training should be consistent with EMS Agency EMD Certification and re-certification requirements.

2. Emergency Medical Dispatcher Staffing – The CMED and/or EMADs staffing shall be configured that an EMD shall be capable of immediately dispatching the closed appropriate ambulance, maintain its System Status Plan, and provide pre-arrival instruction 24 hours/day 7 days/week; and 95% of the emergency calls on or before the second telephone ring without any delay.
3. Control of Ambulances – CMED and/or EMAD dispatchers shall follow the System Status Plan provided by the Ambulance Service Provider(s) for the deployment and dispatch of emergency ambulances within its area of ambulance dispatch responsibility.
4. Dispatch Quality Assurance Program – There shall be a comprehensive quality assurance program for emergency medical dispatch performance. This program will be developed jointly by the Ambulance Service Providers, EMS Agency, the organization responsible for actual dispatch and the County Communications Division (if applicable). The program will include, but not be limited to, evaluation of adherence to the EMD Policies and Protocols and System Status Plan. Evaluation methodologies will include, but not be limited to, data collected from the CAD System and tape recordings of voice communications and retrospective audit. Tape recordings and retrospective audits shall be accessible to Ambulance Service Provider(s) and the EMS Agency at the Dispatch Center, on an appointment basis or upon request. M

Copies of tape recordings shall be made available to the Ambulance Service Provider, and the EMS Agency. Summary results of retrospective audits shall be submitted to the EMS Office at the end of each month. Q. A.

responsibilities of the CMED and/or EMAD management shall include:

- a. Maintaining appropriate Q. A. personnel to daily review ambulance activation, dispatch and response time intervals and investigate all ambulance performance failures, and submit findings to the EMS Office within 72b hours of each case that is identified as beyond the threshold of performance expectations.
5. Access to CMED and EMADS – EMS Staff shall have access to the CMED or approved EMAD Center upon reasonable notice. The declaration of a medical disaster, MCI incident or periods of time when the System Status Plan is not in effect due to system overload are times when EMS Staff shall have immediate access to the CMED. Additionally, Ambulance Service Provider(s) and the EMS Office shall have access to the CAD system via computer terminals for monitoring and data download purposes only. The CMED shall be designed to allow EMS Office Staff SYSOP/Administrator access to the emergency ambulance CAD system to monitor performance of the ambulance services and the performance of the CMED dispatchers.
6. Computer Aided Dispatch – The Dispatch Center shall utilize a computer aided dispatch system (CAD), comprised of computer hardware and software, for the dispatching of Ambulance Service Provider(s)' emergency ambulances. Policies of dispatching the closest appropriate ambulance shall be determined by the CAD, and the County approved System Status Plan and approve CMED/EMAD ambulance dispatch policies.
- P. Equipment Maintenance – CMED/EMAD management will establish and maintain a preventative maintenance program for CMED or EMAD equipment and software.
- Q. Changes in Equipment and Supply Requirements – All proposed changes, updates and revisions to CMED dispatch equipment, software and supply items shall be mutually agreed upon by the management of the CMED/EMAD, Ambulance Service Providers being dispatched, County Communications and the EMS Agency.

VI. THE CMED AND ALL EMADs SHALL ADHERE TO THE STANDARDS FOR COMMUNICATIONS AS APPROVED BY THE HEALTH OFFICER, AND ALL EMERGENCY COMMUNICATIONS STANDARDS FOR HARDWARE AND EQUIPMENT AS PRESCRIBED BY THE DIRECTOR OF THE SOLANO COUNTY COMMUNICATIONS DIVISION (see Attachment A) to include, but not limited to:

- A. Computer hardware and software:
 1. CAD – The CMED shall operate a computer aided dispatch (CAD). (The CMED CAD system shall be developed to be capable of integration with

Mobile Data Terminals (MDTs) and Automatic Vehicle Locator (AVL) system.

2. CAD lock outs and requirements – The CAD system shall lock out all manual attempts to edit or change any CAD case record. The system shall create a duplicate record for any and all changes when there is an attempt to change or edit a record and maintain a separate file for each change in a dispatch record. The file record shall be capable of identifying pre and post changes, the number of times the record was changed, the individual who made the changes and a date stamp when the changes occurred.
 3. The CAD system shall maintain, at a minimum, the following data elements and records in the MIS:
 - a. The PCR or triage tag numbers for each case an emergency response occurred.
 - b. Transfer/referral of calls – the CAD shall retain the following information when a primary PSAP or secondary PSAP transfers and/or refers an emergency call to an EMAD or CMED (the time the PSAP first received the call, the time the PSAP referred the call, to the CMED or EMAD, the referring PSAP's unique case number, in addition to all necessary information the CMED and/or EMAD needs to ensure the closest appropriate ambulance shall respond to the emergency.)
 - c. Additional data elements – the CMED's CAD system shall additionally maintain the following information (data elements) for each emergency call for ambulance response in which the requesting party did not use the 911 system to request immediate ambulance services. The following data elements for each ambulance response shall be maintained in the CAD's MIS: (the requesting party or individual (e.g., Kaiser Triage Nurse, CMF Guard Station, a specific nursing home, etc).) any special request for mode of transport or type of vehicle to respond or any preferential request regarding mode of response (CODE 2 or CODE 3) which would inhibit the dispatch of the closest appropriate ambulance.
 4. CAD Audit Requirements – the CAD system shall be capable of identifying and tracking each case in which the CMED and/or EMAD agency provided pre-arrival instructions and/or call prioritization in its response. The system shall be capable of providing all necessary information to allow a Q. A. auditor to perform a medical retrospective review of any case in question.
- B. Telephone System Linkages.
1. The CMED and EMAD shall have a direct line or radio line to each ambulance service quarters within its direct service area.
 2. The CMED shall have a dedicated linkage with each Primary PSAP in the county. The CMED shall be capable of receiving emergency referrals from

any primary PSAP after the primary PSAP engages a selective routing switch on their ANI/ALI display console(s). The Primary PSAPs are:

- a. Solano County Sheriff's Office Dispatch
 - b. California Highway Patrol
 - c. Benicia Police Department
 - d. Vallejo Police Department
 - e. Fairfield Department of Public Service
 - f. Suisun City Police Department
 - g. Vacaville Police Department
 - h. Travis Air Force Base (ANI/ALI is optional)
 - i. Mare Island Naval Shipyard (ANI/ALI is optional)
3. Each EMAD shall maintain a direct linkage with the CMED to allow for medical mutual aid, medical disaster response, EMS aircraft dispatch and CMED monitoring of ambulance availability within the EMAD's zone of coverage.
 4. Each EMAD and CMED shall maintain a dedicated Civil Defense phone linkage with the Solano County Emergency Operations Center (EOC) and Sheriff's Office Dispatch Center.
 5. Each EMAD and the CMED shall maintain sufficient incoming telephone lines to ensure all requests for emergency ambulance transport are answered by the third ring of a phone, 95% shall be answered on or before the second ring.
 6. Each EMAD and CMED shall be capable of functioning as an on-line medical control transfer point in the event a radio or phone linkage with a base hospital is not immediately accessible to an ALS unit needing immediate base consults.

C. Radio Communications Systems

1. Each EMAD and the CMED shall have the capability of communicating (transmitting and receiving) with all ambulances providing service to Solano County on the following radio communications back-up channels:
 - a. Med-Net (HEAR)
 - b. Med Channels 9 and 10 (dispatch)
2. The CMED shall have the capability of dispatching ambulances within its service area on an appropriate radio system that shall be approved by the Health Officer and the director of County Communications. The dispatch system shall be capable of supporting MDTs and AVL technologies. The CMED may initiate MDT/AVL technology using a "phase in" approach, but this limitation in technology does not release the CMED or ambulance service providers from their responsibility to:

- a. Dispatching the closest ambulance to a medical emergency.
 - b. The responsibility to maintain a System Status Plan, appropriate posting of ambulance units and ensure enough ambulances are available to meet public demand.
 - c. Provide the EMS Office necessary information to monitor performance compliance with medical standards.
3. The CMED shall maintain and operate a MDT/AVL network control processor within its CAD system.
- D. Recording equipment with retention time of tapes.
 1. Tape recordings; CMED – The CMED shall maintain a logging recorder capable of monitoring 8 channels and retain tape recording(s) of all CMED operational activities for no less than 45 days. The system shall have the capability of instant playback with 5 minutes capacity each. The CMED shall be capable of providing tape records of CMED activities to the Ambulance Services it dispatches for and the EMS Agency within 24 hours upon request. The recording capability of the CMED shall be configured that when EMDs or management wish to obtain an instant playback of an event, the recording system shall be configured to do so without losing access to recording current activities in progress.
 2. Tape recordings; EMAD – Each EMAD shall maintain a logging recorder system with instant playback capability. Each EMAD shall be able to provide tape records of its operational activity to the ambulance organization it services, the EMS Agency and QI staff of the CMED within 24 hours upon request.

VII. CMED AND/OR EMAD DEPLOYMENT OF AMBULANCES

All EMADs, the CMED and all Solano County Ambulance Service Providers shall be responsible for planning the dispatch of ambulances through the provision of a system status plan. The actual dispatch of ambulances in some zone(s) shall be by the CMED Center, a joint private/public venture dedicated to providing medical pre-arrival instructions, dispatch of the closest available ambulance, posting of ambulance units, pre-arrival instruction and maintenance of the EMS Agency approved System Status Management Plan.

A. System Status Plan

1. Written Plan – All EMADs, Ambulance Service Providers or CMED, in conjunction with the Local EMS Agency and CMED Dispatch Staff, will be responsible for providing a written System Status Plan for the number of ambulances, their assigned locations and deployment strategies. The plan shall be provided to the EMS Agency, for Health Officer approval, 30 days before the C-MED becomes operational.
2. Ambulance Stations (or Posting Positions) – Units shall be placed in such a manner to permit, during normal traffic conditions, to adhere to the minimum urban response time standard identified in Policy 5520, from when the CMED receives the call until unit arrives on-scene time, to all urban areas within the County. Locations of ambulance units may be either fixed geographical stations or posting positions assigned by CMED as the result of implementation of the EMS Agency approved System Status Management Plan.

B. Posting of Back-up Services

1. When any EMAD Ambulance Service Provider or CMED does not have an ambulance unit available to respond, CMED shall request back-up coverage of an available ambulance from an adjacent response area.
2. The back-up ambulance will be relocated to a pre-designated location according to the EMS Agency approved System Status Management Plan. Such locations will be mutually agreed upon by all Ambulance service Providers in the EMS System and the County Health Officer (or his designee).
3. All ambulance services in the County shall agree to respond to a request from an authorized CMED to relocate any available ambulance to the pre-designated back-up location.
4. CMED will dispatch the back-up ambulance to any immediate response call in the vacant response area and immediately notify the responsible ambulance service provider management providing back-up service.
5. Ambulance Service Providers providing back-up services outside its area of responsibility may bill the responsible ambulance service for stand-by time at a rate approved by the Board.

- C. Posting of Ambulances during periods of Public Health Emergencies – Ambulance Service Provider agrees, to the best of the Ambulance Service Provider's ability, to assist in servicing any other response areas for which the Emergency Ambulance Service Agreement has been suspended or terminated upon request of County Health Officer. This period shall be declared an Unusual System Overload and response time Standards and Penalties are temporarily suspended until the emergency is resolved.

VIII. STANDARDS FOR COMMUNICATION EQUIPMENT IN AMBULANCES

- A. Requirements & Specifications – Ambulance Service Providers shall provide all communications equipment as required and specified by the County Health Officer in coordination with the County Communications Division for each ambulance owned and operated in Solano County. All ambulances performing emergency response in this County shall have, at a minimum:
1. One mobile radio with the capability for communications with the CMED, Base Hospital and its designated EMAD if indicated on the primary radio system. (Technical specifications will be provided as an attachment to this policy when the CMED is operational).
 2. One portable 5 watt radio, for communications on the primary radio system with the CMED or EMAD from remote locations away from the ambulance. (Technical specifications will be provided as an attachment to this policy when the CMED is operational).
 3. One mobile radio with the capability to communicate on all ten MED channels with the CMED, EMAD, Base Hospitals and receiving hospitals. MED Channels 9 & 10 to be used for declared MCI and/or medical disaster situations, ambulance communications between CMED or EMAD's may occur on MED Channel 9 or 10 leaving MED-NET available for inter-hospital communications and the MCI Field Supervisor and in controlling base hospital consultations (technical specifications will be provided as an attachment to this policy when the CMED is operational).
 4. One 5-watt portable radio for communications on all ten MED channels from remote locations away from the ambulance. This Bio-telemetry capability on the MED channels is optional. A vehicular repeater for use with the portable radio may be needed on an individual provider basis. Technical specifications will be provided as an attachment to this policy when the CMED is operational.
 5. One mobile MED-NET radio for situations requiring medical mutual aid, ambulances should coordinate with the CMED or EMAD's on MED-NET. Technical specifications will be provided as an attachment to this policy when CMED is operational.
 6. A transportable 3-watt cellular phone is recommended but not mandated.

7. Certificate of inspection for radio equipment. Ambulance Service Providers shall obtain a Certificate of Inspection of approved radio equipment following installation in each ambulance and on an annual basis thereafter. These vehicles shall be made available to the EMS Agency upon reasonable request. Alternate procedure for radio inspection may be adopted by the County Communications Division. The cost for certificate of inspection shall be obtained from individual ambulance permit fees that are required annually by the EMS office. Public ambulance services exempted from paying ambulance permit fees shall pay all County Costs for the inspection of radio equipment.
8. Approval of Radio Equipment – All radio equipment used for EMS operations other than the ambulance service provider's internal company system must be approved by the County Communications Manager.
9. Medical Needs – Ambulance Service Providers shall obtain, install and maintain all such radio equipment as is deemed by Health Officer to be appropriate for the transmission of voice communications, biotelemetry, data and AVL data for medical direction by paramedic base hospitals designated to operate in the Solano County EMS System.

**IX. OTHER NON-AMBULANCE SERVICES PROVIDED BY SOLANO COUNTY
AMBULANCE SERVICE PROVIDERS**

- A. Non-emergency ambulance or Fire Response Services – Ambulance Service Provider(s) shall not be prevented from conducting or providing private, non-emergency ambulance services or fire response services, provided that such business or other public safety activity does not in any way interfere with the requirements, duties and obligations to ensure an appropriate ambulance response and availability to all residents of Solano County.
- B. Dedicated paramedic ambulances may not be used for scheduled non-emergency Interfacility transfer if those units.... Unless allowed under the System Status Plan developed by the Ambulance Service Providers.
- C. Responsibility to redirect – CMED and/or EMAD Dispatch Staff have the responsibility to re-direct a non-dedicated Paramedic Ambulance to respond to an emergency if the unit dispatched to an Interfacility transfer has not yet boarded a patient for transport according to the System Status Plan.
- D. Back-up for ALS electing non-transport – Only the CMED or an EMAD with medically approved call prioritization procedures may routinely dispatch a (BLS) Ambulance to an emergency in which an on-scene paramedic unit has previously arrive on-scene and elected not to transport a patient needing transport services.

SUBJECT: Emergency Medical Dispatch
Operation Requirements

Policy: 5001
DATE: 01/26/94

ATTACHMENT A

The Solano County Communications Division is still in the process of developing CMED Standards.

The Solano County Communications division should be advised of any planned purchase prior to purchase of any radio or landline communications equipment.