

# San Joaquin County Civil Grand Jury



## Countywide Dispatch for Fire *Two Are Not Always Better than One* 2016-2017 Case No. 0616

### Summary

San Joaquin County Emergency Dispatch has changed considerably over the last 40 years. This report focused on emergency dispatch protocol, operations and infrastructure. The question of whether a single countywide fire dispatch center in San Joaquin County would improve public safety and reduce cost was explored. The Grand Jury's research and interviews determined that a countywide dispatch center would benefit the citizens of the county and provide cost efficiency.

### Glossary

<b>ACE</b>	Accredited Center of Excellence by the National/International Academies of Emergency Dispatch (NAED/IAED).
<b>AMR</b>	American Medical Response.
<b>AVL</b>	Automatic Vehicle Locator – Identifies the exact location of emergency vehicles and routes the closest vehicle to the emergency.
<b>CAD</b>	Computer-Aided Dispatch.
<b>EMS</b>	Emergency Medical Services.
<b>EOL</b>	End-of-Life. Hardware and/or software no longer manufactured or supported.

<b>EMT</b>	Emergency Medical Technician.
<b>Fire Agency</b>	A fire department or fire district.
<b>JPA</b>	Joint Powers Agreement is a formal, legal agreement between two or more public agencies that share a common power and want to jointly implement programs, build facilities or deliver services.
<b>JRUG</b>	Joint Radio Users Group, a JPA comprised of 13 San Joaquin County rural fire districts.
<b>LEMSA</b>	Local Emergency Management Services Agency.
<b>REDCOM</b>	Redwood Empire Dispatch Communications Authority Emergency Medical dispatch center located in Sonoma County. A JPA run by AMR that dispatches for 44 fire agencies and eight ambulance services.
<b>Stockton Fire</b>	San Joaquin County Regional Fire Dispatch Authority, a JPA comprised of Stockton, Lodi, Tracy, Manteca and Lathrop-Manteca Fire Agencies.
<b>UHF</b>	Ultra-High Radio Frequency
<b>VRECC</b>	Valley Regional Emergency Communication Center, a JPA run by AMR that dispatches for 13 fire agencies and three ambulance services.

## **Background**

From 1970 to 1990, Stockton Fire Department Regional Communications Division dispatched all fire and medical emergencies for San Joaquin County. Multiple private ambulance services provided ambulance transport. In the 1990s, American Medical Response (AMR) bought out many of the smaller ambulance companies and became the primary provider of ambulance service in San Joaquin County. In September 2002, the Stockton Fire Department initiated its own ambulance service.

In 2003, county officials divided the county into three zones for ambulance service: Stockton, Lodi and Tracy. Exclusive contracts were awarded for each zone. Ambulance services could bid on one, two or all three zones to provide service. A request for proposal was developed by San Joaquin County Emergency Medical Services (EMS) and issued to multiple vendors to provide ambulance service to these zones. In January 2006, the Board of Supervisors awarded AMR a five-year contract with a five-year renewal option to provide ambulance service and dispatch for all three zones. The AMR contract was renewed in 2016.

There are two fire dispatch centers in San Joaquin County. One center, located in Salida, CA, is known as Valley Regional Emergency Communications Center (VRECC) and is operated by AMR for the Joint Radio Users Group (JRUG). VRECC has upgraded its technology to “state-of-the-art” systems. The second center is operated by the Stockton Fire Department for San Joaquin County Regional Fire Dispatch Authority (Stockton Fire). A review of technology utilized by Stockton Fire revealed its’ communications infrastructure is nearing End-of-Life (EOL).

### **Reason for Investigation**

The Grand Jury chose to focus on emergency fire dispatch in San Joaquin County. The following issues were identified:

- Lack of automatic vehicle locator (AVL) technology and automatic aid agreements between neighboring fire agencies can result in longer response times.
- There are two fire dispatch centers operating in the county which utilize disparate technologies; one center’s technology is nearing EOL.
- Fire agencies disagree on the content of EMS Policy 3202.
- Politics, egos and fear of change are key obstacles to the formation of a single countywide dispatch center.

### **Method of Investigation**

#### **Materials Reviewed**

- California Fire Service and Rescue Emergency Mutual Aid System – Mutual Aid Plan
- California Emergency Medical Services Authority Website [www.emsa.ca.gov](http://www.emsa.ca.gov)
- San Joaquin County Joint Radio Users Group Policy Manual
- Joint Exercise of Powers Agreement San Joaquin County Joint Radio Users Group
- San Joaquin County Emergency Medical Services Policy 3202, Medical Priority Dispatch System Response and Mode Assignments for Cards 1-34 and related materials
- San Joaquin County Emergency Medical Services Policy 3109, City of Stockton Emergency Medical Dispatch Center Requirements
- San Joaquin County Emergency Medical Services Policy 3001, Guidelines for EMS Screening by Primary Public Safety Answering Points
- San Joaquin County Emergency Medical Services Policy 3101, Emergency Ambulance Service Provider Dispatch Requirements
- 2005-2006 San Joaquin County Grand Jury Report, “San Joaquin County Emergency Medical Services”
- San Joaquin County Emergency Medical Services website [www.sjgov.org/ems](http://www.sjgov.org/ems)
- EMS Legal Update. [Jun. 6, 2016] “EMS use of red lights and sirens is a dangerous sacred cow”

- Emergency Medical Services Evidence Based System Design White Paper
- Master Communications Plan, San Joaquin Operational Area, Jan. 7, 2005
- City of Stockton Legislative Text File #14-0363, Version 1
- Attachment A to File #14-0363, Management Partners Threshold Analysis – Regional Fire Dispatch Options
- City of Stockton Legislative Text, File #16-2699, Version 1
- City of Stockton Legislative Text File #16-2885, Version 1
- REDCOM's Organizational Packet

### **Interviews Conducted**

- EMS administrators
- San Joaquin County Fire Chiefs
- San Joaquin County and City of Stockton IT administrators
- AMR management team
- City of Stockton administrators
- REDCOM operational staff

### **Sites Visited**

- Valley Regional Emergency Communication Center, (VRECC) Salida, CA
- Redwood Empire Dispatch Communications Authority, (REDCOM) Santa Rosa, CA
- San Joaquin County Regional Fire Dispatch Authority, (Stockton Fire) Stockton, CA

## **Discussions, Findings and Recommendations**

### **1.0 San Joaquin County Fire Dispatch, Stockton Fire or VRECC**

There are 18 fire agencies within the County of San Joaquin. These fire organizations are dispatched from two separate and distinct fire dispatch centers.

The Fire Departments of Stockton, Lodi, Tracy, Manteca and the Lathrop-Manteca Fire District are dispatched by the San Joaquin County Regional Fire Dispatch Authority JPA (Stockton Fire) dispatch center. This JPA is a public service agency led by the fire chiefs from each of the organizations it services.





**Stockton Fire Dispatch Center - Stockton, CA**

The remaining 13 fire districts are dispatched by the Valley Regional Emergency Communications Center (VRECC) in conjunction with the Joint Radio Users Group (JRUG). JRUG has an oversight committee consisting of fire chiefs elected by its' members. VRECC is operated by AMR, a for-profit, non-governmental company under contract with the San Joaquin County Office of Emergency Medical Services (EMS). VRECC also dispatches all ambulance services for the entire County of San Joaquin.



**VRECC - Salida, CA**

Stockton Fire Dispatch Center and VRECC follow the same Medical Priority Dispatch Protocols to determine the type of equipment and resources required. There are several operational differences and sources of contention between the two centers as reported below:

- Stockton Fire Dispatch Center assigns dedicated dispatchers to major fire events to monitor fire broadcast channels. VRECC does not.
- Stockton Fire is a public service agency utilizing public employees versus VRECC, which is operated by AMR, a for-profit, non-governmental agency utilizing corporate employees.
- VRECC dispatches ambulances and fire equipment for both medical and fire emergencies. Stockton Fire dispatches only fire equipment for fire and medical emergencies. Both are mandated to follow San Joaquin County EMS Policy 3202 to dispatch for medical emergencies.
- Stockton Fire Dispatch Center supports predominately urban city fire agencies while VRECC supports rural special district fire agencies.

The vast majority of fire agencies are in favor of a single countywide emergency fire dispatch center; they agree it would be in the best interest of the citizens and the County of San Joaquin. County and city administrators and IT staff support this concept. There were significant differences of opinion as to how a single countywide emergency fire dispatch center would be structured. Existing dispatch centers utilize different operational procedures. Public versus private, oversight and cost were the major concerns expressed by fire chiefs. A long history of litigation between the County and the City of Stockton, politics and egos has hampered resolution of these differences.

Several counties in the State of California have a single regional emergency dispatch center. One example is the Sonoma County REDCOM Dispatch Center. Oversight is provided by both a governing and an advisory board. The advisory board is composed of Local Emergency Medical Services Agency (LEMSA) and several fire chiefs served by the center. This is a collegial body that determines policy and approves or disapproves changes recommended by the agencies it serves. REDCOM provides emergency medical and fire dispatch capability to Sonoma and part of Mendocino Counties. It provides fire dispatch services for 44 fire departments of which 6 (Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol and Sonoma) are urban cities. The dispatch center is operated by AMR, the same for-profit, non-governmental company that runs the San Joaquin County VRECC dispatch center in Salida, CA. The REDCOM dispatch center has operated since January 2003; none of the concerns that were expressed in San Joaquin County have been an issue at REDCOM.

On Mar 7, 2017, VRECC was approved as an emergency fire dispatch center of excellence by the National/International Academies of Emergency Dispatch. VRECC is now the 31st ACE accredited center in the world. VRECC is the only center in California with both Emergency Medical Dispatch and Emergency Fire Dispatch ACE certification.

VRECC utilizes state of the art fire dispatch technology. A recent contract renewal between San Joaquin County EMS and AMR required updates to the computer-aided dispatch (CAD) system. Once the information received by the VRECC call taker is input into the CAD system, the CAD



determines which medical priority dispatch protocols to use, which organization should respond and how to respond. Technology installed on emergency vehicles and on the CAD system called automatic vehicle locator (AVL) is utilized to determine which vehicles are closest to the emergency location. CAD then selects the vehicles to respond and displays the best route on the call taker's computer.

The CAD system utilized by Stockton Fire Dispatch Center has received two major upgrades since installation in 1995, yet remains seriously out of date. Due to lack of funding, the CAD infrastructure has not received all available upgrades. Many parts of this infrastructure are no longer manufactured, not available or EOL. In October 2016, the Stockton City Council approved approximately \$600,000 to replace the Stockton Fire CAD. A contract was subsequently awarded. Replacement is scheduled to be completed between the fourth quarter of 2017, and the first quarter of 2018. The existing CAD and emergency vehicles that are dispatched by this center do not have AVL installed. The CAD system cannot track and dispatchers cannot see the closest location of emergency vehicles. The CAD replacement selected to be installed is an emergency medical module on the Stockton Police Department CAD system, which is projected to be EOL within four years of this replacement. It will be at least six months after the replacement CAD is installed before AVL will be available for all fire agencies dispatched by Stockton Fire Dispatch Center.

The CAD systems at VRECC and Stockton Fire dispatch centers interface with one another. Because the CAD systems are manufactured by different companies, errors in what is communicated between these CAD interfaces occur daily. The CAD at VRECC is manufactured by Tri-Tech. Stockton Fire's CAD replacement is manufactured by Tiburon. These are two different CAD systems and errors will continue to occur. These CAD to CAD communication errors can result in serious public safety issues.

Prior to the 2016 renewal of the County of San Joaquin EMS contract with AMR, the City of Stockton was offered a no-cost replacement for their obsolete CAD/AVL technology by EMS. There were conditions attached to this offer, which the City of Stockton Fire Department was hesitant to accept. The offer was turned down by Stockton Fire administration at least twice and is no longer on the table.

Had the offer been accepted:

- both centers would be utilizing the same "state-of-the-art" technology;
- AVL would be available for all 18 fire districts in San Joaquin County;
- possibility would exist that the Stockton Fire Dispatch Operations could operate remotely at its existing location;
- each dispatch center would be able to back up the other dispatch center should there be an issue with either physical location;
- both centers would be able to share identical system training;
- it would have provided a first step towards operationally merging the two fire dispatch centers into one; and
- it would have reduced capital and operating costs for all fire agencies based upon increased economies of scale.

VRECC charges JRUG fire agencies \$23.77 per fire dispatch while Stockton Fire charges its member agencies \$49.77 per fire dispatch. In a 2014 report for the Stockton City Council, Management Partners (a consulting company hired by the City of Stockton) determined that Stockton could save over \$1.25 million annually by moving to VRECC and using AMR to dispatch their fire emergency calls.

The Motorola core UHF and tower radios utilized by Stockton Fire Dispatch are no longer being manufactured, and in many instances parts are being purchased from third parties, such as eBay. Federal regulations dictate that the existing core UHF radios be replaced. The City of Stockton will either have to negotiate with the County of San Joaquin to share in the ownership/cost of the County's UHF radio system, or will have to fund its own replacement infrastructure. The time needed to complete this migration is estimated to be between 12 and 24 months. A budget request to purchase new core radio and transmitter/receiver/repeater technology has not been presented to the Stockton City Council. Documentation provided by the City of Stockton describes replacement of this infrastructure by early 2017 and no action has been taken.

### **Findings**

**F1.1** The City of Stockton is spending hundreds of thousands of dollars to replace their obsolete CAD technology with a solution that will be end of life in less than four years from the date of implementation.

**F1.2** The vast majority of fire agencies are in favor of a single countywide emergency fire dispatch center; they agree it would be in the best interest of the citizens and the County of San Joaquin.

**F1.3** There is disagreement as how to organize, operate and fund a single countywide fire dispatch capability. This has led to a failure to pursue creation of a single countywide fire dispatch center.

**F1.4** The City of Stockton has not developed a schedule to replace its outdated core UHF radio technology that supports city public safety agencies. This exposes the city to outages of the radio technology impacting public safety.

### **Recommendations**

**R1.1** By Oct. 1, 2017, the Stockton City Council complete an evaluation of financial and operational feasibility of Stockton Fire utilizing VRECC's CAD/AVL technology.

**R1.2** By Oct. 1, 2017, the Stockton City Council determine the feasibility of cancelling or revising the existing contract to migrate the current Stockton Fire CAD technology to the Stockton PD dispatch CAD system.

**R1.3** By Dec. 31, 2017 County EMS in collaboration with the City of Stockton, the Joint Radio Users Group and the San Joaquin County Regional Fire Dispatch Authority develop a task force and provide a plan to consolidate into a single countywide emergency fire dispatch center.

**R1.4** By Dec 31, 2017, the City of Stockton develop a plan to replace the existing core UHF radio technology that supports public safety with San Joaquin County core UHF radio technology.



## **2.0 Borders, Automatic Aid and Automatic Vehicle Locator**

Fire service in San Joaquin County is provided by 14 fire districts and four fire departments. A fire department is part of a city or county government, funded through the cities' or county's general fund. A fire district is usually independent of a city or county government and is funded by a portion of the property tax and a special assessment on properties within its district. Fire districts generally provide services to rural or unincorporated areas surrounding a city.

Fire agencies do not only respond to fires, approximately 80 percent of calls received are for medical services. There are no laws requiring coordinated dispatch or coordinated agency efforts to a fire-related event. Therefore, fire agency borders exist and divide the county.

Mutual aid agreements exist between fire agencies. Mutual aid is defined as:

*"...if the need for personnel or equipment is called in and it is convenient, other fire agencies will respond."*

An automatic aid agreement is defined as:

*"...the agency most in need receives all the help available."*

Not all fire agencies in San Joaquin County have automatic aid agreements with their neighboring fire agencies.

Automatic vehicle locator (AVL) technology identifies the exact location of emergency vehicles and routes the closest vehicle to the emergency. Not all fire agencies in San Joaquin County have deployed AVL technology on their fire vehicles. The Stockton Fire dispatch center does not support AVL.

A Joint Powers Agreement between all fire agencies for automatic aid would eliminate borders and could improve fire response times. An automatic aid agreement could increase efficiency by sharing resources such as training and equipment. Though a JPA between fire agencies would take effort and cooperation, it would not be uncharted territory. Other such agreements do exist and exploration in to these arrangements must be researched.

### **Findings**

**F2.1** Automatic aid agreements between neighboring fire agencies can reduce response times.

**F2.2** AVL on all fire vehicles and AVL capability at dispatch centers can reduce response times.

### **Recommendations**

**R2.1** By December 31, 2018 have AVL deployed at the Stockton Fire dispatch center.

**R2.2** By December 31, 2017 all county fire agencies, develop a plan to fund, purchase and implement AVL on all emergency fire vehicles.

### **3.0 San Joaquin County EMS Policy 3202**

In 1980, the State of California created the Emergency Medical Services (EMS) Authority. The EMS Authority sets standards for the provision of pre-arrival emergency care instructions at dispatch centers. They also set standards for the training and scope of practice for EMS personnel; basic life support provided by Emergency Medical Technicians (EMTs) and advanced life support provided by paramedics. The day-to-day management of EMS is the responsibility of local and regional EMS agencies. The State Emergency Medical Authority allows local EMS agencies to coordinate EMS activity based on community needs.

The San Joaquin County Emergency Medical Services Authority is responsible for planning, implementing and evaluating emergency medical services and approving dispatch in San Joaquin County. The fire dispatch protocol for medical emergencies has been and continues to be, a contentious issue.

EMS agencies may take into consideration local community needs when forming policy. Community needs in rural fire districts can be very different from those in large fire departments that serve a more densely populated area.

San Joaquin County Emergency Medical Services Policy 3202 mandates how emergency medical calls are dispatched. The policy was revised to meet the National Academies of Emergency Dispatch (NAED) Version 13.x and the revision became effective Feb. 1, 2017. The policy revisions included lowering the fire agency response for some calls from Code 3 to Code 2. Code 3 is an immediate response using lights and sirens. Code 2 is emergency response using lights but no sirens. The revisions eliminated certain calls to which fire agencies can respond. Some fire agencies in San Joaquin County have been directed by their City Council or their Board of Directors to respond to all calls, which is not allowed by the revised Policy 3202.

### **Finding**

**F3.1** There is disagreement among San Joaquin County Fire Chiefs regarding EMS Policy 3202. Some believe EMS Policy 3202 does not allow responders to provide the level of service expected in their communities.

## Conclusion

The vast majority of fire agencies are in favor of a single countywide emergency fire dispatch center; they agree it would be in the best interest of the citizens and the County of San Joaquin. Most county and city administrators, as well as IT staff support this concept. With such an overwhelming response, one should ask why no significant effort has been made to make this happen. While attempting to answer this question, the Grand Jury discovered;

- Egos, politics, and fear of change have impeded improving public safety in our county. This is a significant leadership issue. Our citizens deserve better.
- VRECC has additional emergency fire dispatch ACE accreditation that Stockton Fire does not have. Disparagement of VRECC emergency fire dispatch is unwarranted.
- VRECC dispatch center has deployed “state-of-the-art” CAD and AVL technology. Stockton Fire has not.
- Stockton Fire charges its JPA members twice the amount for fire dispatch than VRECC charges its JPA members.
- There are operational differences between the fire dispatch centers. Intelligent individuals can and should disagree based upon their experiences. This is normal. Not negotiating to seek a common solution through compromise to improve public safety is not.

REDCOM provides fire dispatch services for 44 fire departments of which six (Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, and Sonoma) are urbanized cities. The dispatch center is operated by AMR, the same for-profit non-governmental company that runs the San Joaquin VRECC dispatch center in Salida, CA. The REDCOM dispatch center has operated since January 2003; none of the concerns that were expressed in San Joaquin County have been an issue at REDCOM.

The 2016-2017 Grand Jury has determined that a single countywide emergency fire dispatch center is needed in the County of San Joaquin. Leadership must address this challenge head on, overcome politics and egos and negotiate in good faith to create a single countywide fire dispatch center. Now is the time for county, city and special district leaders to join together **“under one roof”** “in the interest of public safety.



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## **Disclaimers**

Grand Jury reports are based on documentary evidence and the testimony of sworn or admonished witnesses, not on conjecture or opinion. The Grand Jury is precluded by law from disclosing such evidence except upon the specific approval of the Presiding Judge of the Superior Court, or another judge appointed by the Presiding Judge (Penal Code section 911, 924.1 (a) and 929). Similarly, the Grand Jury is precluded by law from disclosing the identity of witnesses except upon an order of the court for narrowly defined purposes (Penal Code sections 924.2 and 929).

One grand juror did not participate in this investigation, which included reviewing material, interviews, site visits, preparation, writing or approval of this report due to a perceived conflict of interest.

## **Response Requirements**

California Penal Code sections 933 and 933.05 require that specific responses to all findings and recommendations contained in this report be submitted to the Presiding Judge of the San Joaquin County Superior Court within 90 days of receipt of the report.

The agencies listed below shall respond to the following findings and recommendations within 90 days of receipt:

The San Joaquin County Board of Supervisors:

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation - R1.3

The Stockton City Council:

Findings F1.1; F1.2; F1.3; F1.4; F2.1; F2.2; F3.1

Recommendations R1.1; R1.2; R1.3; R1.4; R2.1; R2.2

The Manteca City Council:

Finding F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Lodi City Council

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Tracy City Council

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Lathrop City Council

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Lathrop-Manteca Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Escalon Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Ripon Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Farmington Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The French Camp Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Collegeville Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Montezuma Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Linden Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Clements Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Woodbridge Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Liberty Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

The Mokelumne Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2



The Waterloo Morada Fire District Board of Directors

Findings F1.2; F1.3; F2.1; F2.2; F3.1

Recommendation R1.3; R2.2

Mail or hand deliver a hard copy of the response to:

Honorable José L. Alva, Presiding Judge  
San Joaquin County Superior Court  
180 West Weber Avenue, Suite 1306  
Stockton, CA 95202

Also, please email the response to:

Ms. Trisa Martinez, Staff Secretary to the Grand Jury at [grandjury@sjcourts.org](mailto:grandjury@sjcourts.org)

