

# **IMPROVING OUR EMERGENCY ALERT SYSTEM IN THE 21<sup>st</sup> CENTURY**

## **Paul Revere – Where Are You?**

### **SUMMARY**

Santa Barbara County residents have faced a series of devastating wildfire emergencies in the last five years which have significantly raised public awareness of emergency threats. In light of this heightened awareness the public has also had to consider other types of serious emergencies that would require rapid emergency alerts followed by timely emergency directions. These other threats to life and property range from earthquakes, flooding and landslides to civil disturbances and criminal activity.

Questions from the public have surfaced about how quickly alert and appropriate response information can reach affected residents during emergencies. As a result the 2010-11 Santa Barbara County Civil Grand Jury (Jury) conducted an investigation. The investigation was focused on whether or not our county residents could receive timely alerts of an emergency event and whether information of an actionable nature was available at the time of the alert.

The Jury found a county-wide comprehensive plan for conveying information to the public is in place in the Santa Barbara County's Office of Emergency Services (OES). Managing such an information flow during an ongoing emergency crisis requires an extensive and well coordinated effort by our emergency officials. The focus of the Jury's investigation was on the need for immediate alert and actionable information by the affected public at the onset of an emergency. Emergency alert systems such as the Reverse 911® call-out from the Santa Barbara County Sheriff's Department during the recent fire episodes were effective but inherently limited. The Jury found there was a disconnect in the information pipeline between on-site front line personnel, first responders, and the general public. The Jury found there to be an overly cautious culture in the county's public information system. This led to episodes of a lack of timely communication among emergency agencies, and between those agencies and the media. This disconnect resulted in limited public access to timely emergency information. In turn, this contributed to a reduction in effectiveness of the communication of alert and emergency directions to the public.

The Jury found that none of the emergency agencies interviewed had formulated and executed an effective and ongoing public education program dealing with preparation for actual alerts, or how to obtain follow-up information about how to respond to an emergency alert.

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### BACKGROUND

The County of Santa Barbara has experienced a large number of disaster emergencies both natural and human induced. Perhaps one of the most surprising and life-threatening was the *simoon* of 1859 which raised the air temperature during one afternoon in Goleta to a startling 133 degrees in a matter of hours. By evening, the temperature was back down to a livable 77 degrees. That heat event established a 70+ year national record only to be surpassed in 1934 in Death Valley with 134 degrees!<sup>1</sup>

Today's list of other potential, and ever-present disasters includes earthquakes, epidemics, wildfires, hazardous materials spills, a nuclear incident at Diablo Canyon, airplane crashes, flooding, landslides, tsunamis, wind events, and a dam failure. In addition there is a second category of events, man-made, which includes localized criminal activity, breakouts from detention facilities, terrorism, and civil unrest.

In most of these events the residents of the County of Santa Barbara would need timely alerts and relevant emergency information about what to do when alerted.

The recent series of wildfires which include the Gaviota (2004), Zaca (2007), Gap (2008), Tea (2008), and Jesusita (2009) have understandably sensitized county residents to the need for a system that provides an immediate alert followed by timely emergency directions. While no lives were lost during these latest emergencies, some residents were severely burned and hundreds of homes were destroyed in what amounted to very fast moving firestorms. In some cases homes were destroyed moments after they were evacuated. The need for rapid emergency alerts is obvious.

Questions have surfaced about the adequacy of the alert and emergency information system currently in place. While it is obvious that significant earthquakes would alert everyone in the affected area, most of the other types of disasters require a timely alert of residents. During recent fires some residents were notified by Reverse 911® calls while others were not; not all calls were made in a timely manner. Official sources reported information to the public that was as much as an hour old. At times information reported by local television and radio media was not current, whereas, out-of-county media sources provided more informative emergency updates. Once alerted, it is important for residents to have enough information to react and take necessary actions.

Currently, there is no county-wide agency responsible for educating the public about alert procedures or how to obtain timely emergency information.

### METHODOLOGY

The Jury interviewed a variety of officials at various levels responsible for emergency responses. Local fire officials were interviewed in order to understand better their role as first responders, how they deal with the ongoing challenge of early alert, and providing

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<sup>1</sup> *Goleta: The Good Land* by Walker A Tompkins, 1966 - page 57

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important timely emergency information to residents. Jury members met with officials in the various municipal and county information systems whose responsibility is to process emergency information. Several representatives of the media were interviewed in order to clarify their role during an emergency situation at both the field and station levels. The Jury learned how the media can play an important role in the effort to provide relevant and very timely emergency information. Members of the Jury visited the Reverse 911® Communications Center located in the Santa Barbara County Sheriff's Department complex. A tour of the facility and an extensive briefing of how the system works were followed by a question and answer session. A subsequent visit to Ventura County's Emergency Operation Center included briefings and a question and answer session. In addition, numerous reports, after-action reports, documents, and articles were reviewed by the Jury.

During all of its investigative activities, the Jury focused on the timeliness and effectiveness of the early alert systems currently in place. The Jury also sought to determine the timeliness of incident information delivered to affected residents during any emergency alert.

### **OBSERVATIONS AND ANALYSIS**

The objectives of the Jury's investigation were twofold. Firstly, whether the emergency systems currently in place can provide the residents of our county with adequate warning alerts during an emergency, allowing them to take appropriate action. In some cases such action could save lives. Secondly, to determine if the information provided subsequent to the alert was timely and relevant. Such information would allow a resident to take the correct actions after being alerted.

The Jury pursued these objectives by interviewing an important sample of those who are involved in providing timely alerts. The officials contacted were well-informed and professional in explaining their responsibilities and were forthcoming as to both the strengths and weaknesses in the emergency alert system in place today. For instance, while county emergency officials have the discretion to inform the media regarding a "newsworthy" event almost immediately (e.g. a fire), the Reverse 911® Standard Operating Procedure, which guides the emergency 911 call-out, does not include the media as a priority.

The Jury found that many officials in the various emergency information organizations seemed reluctant to release information to the media and the public because of "verifiability" issues. These officials expressed concern that past experiences where there had been the dissemination of inaccurate information could be repeated. In the case of a fire event, this could lead to disastrous consequences. However, in some instances involving the recent wildfire episodes, the verification process significantly slowed alert and follow-up information needed by the public – in some cases from 30 to 60 minutes. Such a time delay could equally lead to disastrous results. Ironically, because the most recent wildfire could be seen from a media building, the information went out to the

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public verified by eyewitness reporting from that station. Also, with today's social media (e.g. Twitter) so active in any emergency event, it is incumbent on officials to immediately get the right word out and maintain constant official updates.

The county's Reverse 911® system has been in place for over five years. It has been utilized in emergency events and performed well within its design. Dispatchers in the Sheriff's Public Safety Dispatch Center can initiate the system and are on duty 24 hours, 7 days a week, and 365 days a year. Once Sheriff's officials are notified, the call-out zone is identified, the language is decided upon, the message is determined, and the message call-out can begin within six minutes. The system is designed to make approximately 2,800 30-second calls per hour. If the message is repeated in another language that number drops by half to 1,400. But, if required, by using a back-up system, call-outs can be increased to over 10,000 calls per hour. During the Jesusita Fire, for example, 209,000 calls were made. Unlisted numbers are included in the call-out protocol as well as registered cell phones. These lists are constantly updated to include all the changes of phone locations. Officials hope through additional funding that the Reverse 911® call-out capacity will be increased in the near future.

However, there are shortcomings in the use of Reverse 911® as an emergency alert system. Alerting residents during the early morning hours can be an especially difficult challenge. During one call-out event to the Santa Ynez Valley beginning around 2:30 a.m. only 9 out of 3,500 calls were answered live. If telephone lines go down during an emergency event, the system goes down. Cordless phone systems are useless if there is a power loss. The present backup for such a system shutdown is boots on the ground knocking on doors, bullhorns, helicopters, and alerts from vehicles passing through neighborhoods.

To be included on a call-out list, the owner must register the cell phone number with the Sheriff's department.<sup>2</sup> Many cell phone users have not done this. Even then, the caller-ID feature that many cell phone users have would show "COSB" (County of Santa Barbara) on their phone. Unless the cell phone user is aware of what that means, the call may go unanswered.

The Jury's investigation found consistent anecdotal statements in interviews and reports that there was an overly cautious culture when it came to communication among emergency agencies. There is no statutory requirement for an agency to pass information on to other agencies. At the beginning of an event, discretion is left to the official in charge on the scene as to whether or not to pass on information. By the time information is filtered as it moves along the chain of command, the public which is at the end of the information pipeline, may be informed late, or not at all. Comments by officials include "the timing of information was useless by the time they (public) got it" and "information to the public was not timely in its transmittal."

During interviews, members of emergency agencies suggested that jurisdictional issues can play a role in the reluctance to pass information up and down as well as laterally in

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<sup>2</sup> Santa Barbara County Sheriff Department website: [www.sbsheriff.org/reverse911](http://www.sbsheriff.org/reverse911)

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the information pipeline. It is important to note that the flow or lack of flow, of this information did not encumber the emergency response activities of the agencies.

Part of this cautious approach is attributable to the need for the dissemination of accurate emergency information. The Jury learned that government agencies want to provide verified information to the media which may cause a 30-60 minute delay. Besides, the fact is the media will report what it verifies on its own.

There are no designated emergency radio or television stations. With perhaps one very low-powered exception, there is no radio station on the air 24 hours-a-day, 7 days-a-week, 365 days-a-year in Santa Barbara County that could provide a dependable source of critical actionable emergency information.

It is fair to assume after all of the natural disasters the county has experienced, there is reasonable awareness of the many kinds of disasters that could occur. Schoolchildren have long been trained to duck and cover when an earthquake occurs. There have been increased efforts by many public and private organizations to help prepare the residents in advance for a disaster. Stockpiling food and water supplies, first aid training, establishing out-of-area contact phone numbers, and family rendezvous points are part of that preparation. The present challenge is to provide education throughout the county regarding alert preparation, and how to access vitally needed information at the moment of the alert.

Some examples of alert preparation are:

- Registering cell phones on the Reverse 911® call-out list
- Understanding that if you see COSB (County of Santa Barbara) on your Caller ID, it may be an emergency Reverse 911® call
- Registering with NIXLE<sup>3</sup> - another alert system
- Setting cell phone tones with a special Reverse 911® ringtone
- Leaving cell phones on all night while charging
- Always answering late and early morning calls
- Installing a law enforcement scanner application on smart phones

Some examples of information preparation are:

- Listening carefully to the Reverse 911® message
- Immediately tuning in to prospective designated emergency radio stations
- Immediately tuning in to prospective designated emergency TV stations
- Using a car radio as a back-up
- Acquiring a battery operated or hand cranked portable radio<sup>4</sup>

The 2010-11 Santa Barbara County Civil Grand Jury concluded that, while the county has an effective emergency response plan and organization in place, there is a need for improvements in the delivery systems that would serve to alert and provide timely and relevant emergency information to the residents. Increased communication within the

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<sup>3</sup> NIXLE website - [www.nixle.com](http://www.nixle.com)

<sup>4</sup> Press Release from Michael Harris, Emergency Operations Chief, dated December 8, 2010

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emergency response structure and with the media would facilitate important public knowledge of an unfolding emergency event thus enabling the public to take more timely actions to protect both lives and property.

There is a need to establish emergency radio/TV sources known to the entire population. There is a need for a sustained county-wide emergency education program that would provide information on how to prepare for alerts and receive immediate actionable emergency information. The program should be designed to reach everyone in Santa Barbara County.

### FINDINGS AND RECOMMENDATIONS

#### **Finding 1**

The present Reverse 911® emergency alert system has shortfalls in its ability to alert/inform affected residents and media under certain emergency conditions and during certain times.

#### **Recommendation 1a**

The Board of Supervisors directs that when the Reverse 911® is activated, this system will immediately alert/inform affected residents and all media.

#### **Recommendation 1b**

The Board of Supervisors directs the Office of Emergency Services to designate emergency radio/television stations to begin operation at any time the Reverse 911® is activated and reach affected residents.

#### **Recommendation 1c**

The Board of Supervisors directs the Office of Emergency Services immediately to find and implement, subject to the approval of the Board of Supervisors, additional and more effective systems to alert and communicate with residents in a timely manner during any type of emergency.

#### **Recommendation 1d**

The Board of Supervisors directs the Office of Emergency Services to fund, subject to the approval of the Board of Supervisors, efforts by local jurisdictions to incorporate more effective alert/inform systems to communicate with residents in a timely manner during any type of emergency.

#### **Finding 2**

During past crises, emergency agencies have not always communicated with each other which may have slowed information being passed to affected residents.

**Recommendation 2**

The Board of Supervisors and appropriate city jurisdictions require their respective emergency agencies to pass emergency information to adjacent jurisdictions and the Office of Emergency Services without delay.

**Finding 3**

No single public emergency services agency has accepted the responsibility for educating the public about the actions the public must take to access emergency service communications or what information the public can expect from various emergency alert/information systems.

**Recommendation 3a**

The Board of Supervisors designate the Office of Emergency Services as the responsible agency for educating the county's public.

**Recommendation 3b**

The Board of Supervisors direct the Office of Emergency Services to fund, subject to the approval of the Board of Supervisors, develop and coordinate permanent ongoing emergency education programs, and then work with cities, school districts, water districts, non-government organizations, broadcast media, public and private utilities to get relevant alert/education information out to the public.

**Recommendation 3c**

The Office of Emergency Services develop and implement a compliance program to monitor alert/inform emergency education efforts.

**REQUEST FOR RESPONSE**

In accordance with *California Penal Code* Sections 933 and 933.05 each agency and government body affected by or named in this report is requested to respond in writing to the findings and recommendations in a timely manner. The following are the affected agencies for this report, with the mandated response period for each:

**Santa Barbara County Sheriff's Department-60 days**

Findings 1, 2, 3  
Recommendations 1a, 1b, 2

**Santa Barbara County Board of Supervisors-90 days**

Findings 1, 2, 3  
Recommendations 1b, 1c, 1d, 2, 3a, 3b

**Santa Barbara County Office of Emergency Services-60 days**

Findings 1, 2, 3

Recommendations 1b, 1c, 1d, 2, 3a, 3b, 3c

**City of Buellton-90 days**

Findings 2, 3

Recommendation 2

**City of Carpinteria-90 days**

Findings 2, 3

Recommendation 2

**City of Goleta-90 days**

Findings 2, 3

Recommendation 2

**City of Guadalupe-90 days**

Findings 2, 3

Recommendation 2

**City of Lompoc-90 days**

Findings 2, 3

Recommendation 2

**City of Santa Barbara-90 days**

Findings 2, 3

Recommendation 2

**City of Santa Maria-90 days**

Findings 2, 3

Recommendation 2

**City of Solvang-90 days**

Findings 2, 3

Recommendation 2

**Carpinteria/Summerland Fire Protection District-90 days**

Finding 2

Recommendation 2

**Montecito Fire Protection District-90 days**

Finding 2

Recommendation 2