

## Antelope Valley Emergency Advisory Radio Station Proves Critical During Wildfires



**The Approaching Wildfire**

*In 1999, Mark Spencer of the Antelope Valley, California, communication committee provided step-by-step instructions on how his community planned its emergency advisory radio station ([http://www.theradiosource.com/the\\_source\\_case\\_study\\_avis.htm](http://www.theradiosource.com/the_source_case_study_avis.htm)). In this update, he describes how the station was used to save lives. At the end, he offers advice to others on critical aspects of establishing community emergency stations.*

"The Antelope Valley Information System (AVIS) was born out of a flood crisis of the Walker River in northern California, January 1997. During that year, a devastating flood in our remote, rural community highlighted the fact that communication between emergency service providers and the local community was virtually nonexistent. Local broadcast and television stations are located 100 miles away, across state lines . . . their focus is where the market share is, not a small, rural community of around 1000 people, in another state. The community therefore set out to improve the situation and AVIS was developed.

"The focal point of AVIS is a Traveler's Information System (TIS) broadcast radio that is community owned and operated. Redundant and complementary connections between the TIS and emergency service providers were established to promote and protect the flow of vital information to the community. During non-emergency situations, AVIS serves as a community bulletin board and road-condition information source for the community. However, the true mission of AVIS is to provide a means of communication between emergency service agencies and the public being affected by the emergency. The day-to-day interface between AVIS and emergency service providers is shown in [Figure 1](#). The organizational structure proved to be sufficient to keep the system ready while flexible enough to be adjusted to meet immediate need as was demonstrated during a recent wild land fire. AVIS, born out of a flood, was truly tested and proven by fire: the Cannon Fire of 2002.

"The Cannon Fire, located about 75 miles south of Reno, NV, began on June 15 around noon. The fire, cause yet to be determined, began in a small, remote valley to the southwest and separated by a low ridge from the Antelope Valley where the community of Walker is nestled against the southwestern edge of the valley. During the morning of June 16th it was apparent that, although the town of Walker was not immediately at risk, there was a potential that the fire could spread beyond the tentative containment lines. The Mono County Sheriff's Department began preliminary evacuation notification, door-to-door, to alert the residents on the west side of the town and informed them to tune to AVIS for possible evacuation notification. AVIS was activated with four assigned duties in this priority order:



**Fire Damage West of Walker**

1. Provide evacuation orders to affected areas of the community.
2. Provide clearance to return to homes after the crisis was past.
3. Provide road condition, closure and detour information for evacuees.
4. Provide incident updates.

"The AVIS organizational structure was adjusted to provide connectivity to the fire fighting organization that was activated to fight the Cannon Fire. The added nodes of connectivity are shown in [Figure 2](#). This structure allowed AVIS to be responsive and responsible to proper authority. During the duration of the incident there were no instances of chain of authority confusion.

"Unexpected turns of events unfortunately put AVIS into action. A rapid shift in wind direction and velocity drove the fire over the western ridge of the valley and rapidly down through the western side of the town. Within minutes of the evacuation decision being made, the order was on the air over AVIS. The evacuated citizens spent the evening at a local evacuation shelter awaiting their fate, which was in the hands of the dedicated firefighters. AVIS provided information updates to the evacuees as the situation progressed.

"It appeared the next day that the fire danger had passed by the town of Walker with only one house and a few outbuildings lost. AVIS was used to provide notice to the evacuees that it was safe to return to their homes and what routes to take to avoid conflicting with continuing fire fighting efforts. Tragically, in the midst of the evacuees' returning to their homes, an air tanker crashed during a slurry drop killing all three crewmembers. The tanker crashed on the north-central side of town and caused an explosive wild fire



**Markers Honoring  
Crewmembers Killed**



**Fire Damage South  
and East of Walker**

headed directly through the center of Walker, an area previously not threatened by the fire. Within moments, an emergency evacuation of the center of Walker was ordered and that order was transmitted by AVIS. Fortunately the rapid response of emergency responders stopped the crash initiated fire short of structures and the quick evacuation of the threatened homes put distance between the residents and danger.

"The fire now continued on a southerly course and the town of Walker appeared to be out of danger. However, unexpected wind changes caused the fire to make a hook turn to the north and east to threaten the town again but on the eastern side. By this time, emergency responders and residents were ready. Evacuation orders were made well in advance and AVIS transmissions of those

orders were timely but not as time-sensitive as earlier in the incident. The fire was fully contained by 6 p.m. on June 28th; 14 days after the fire began. During these tense 14 days, AVIS performed well both in crisis and as the incident was winding down to conclusion. The preparations to provide emergency communication capabilities that began in 1997 paid off.

"In the aftermath of our experience with the Cannon Fire, I would like to offer the following advice to those who are considering similar systems for their communities.

**"Your communication system must be independent of commercial power.** AVIS is powered by a combination of wind and solar power and those power sources are used routinely. During the fire, power service was cut to allow safe access to the burn area by fire fighters. Had AVIS depended on commercial power, the system would have been inoperative when needed most.

**"Your communication system must have independent and redundant means to get information to the transmitter and on the air.** In a crisis, telephone communication is at the same risk as commercial power. Communicators along side of incident decision makers connects the decision maker to the transmitter, and thereby to the public. This arrangement makes the system very responsive, virtually real-time. Ham radio operator groups are an invaluable resource to meet this need.

**"Your communication system must be controlled by one agency that has a broad overview of the situation.** In our area, TIS transmitters are generally owned and operated by the California Department of Transportation (CalTrans). During the Cannon Fire, CalTrans contacted the AVIS operators questioning why evacuation orders were being transmitted over a TIS. CalTrans wrongly assumed that they owned and operated the transmitter because road information is routinely transmitted for them over AVIS during normal operations. Once informed that the transmitter was not under their control, their questions stopped without further inquiry. If an outside agency held operational authority over the AVIS, the system may not have been as responsive to the immediate needs of the community.

**"Finally, it takes a dedicated group of citizens to keep your communication system ready to serve the community.** Many times the routine, day-to-day, maintenance of the system, both technically and message content, appears to be unappreciated by the community. Your system participants must remain motivated to maintain the system in the ready with the realization that the true need may be moments, not days away.

"If you would like further information about AVIS, how it was employed during this recent crisis, or how an AVIS-like system can meet your community's needs, please contact us at (530) 495-2406 or email at wa8sme@gbis.com. Mark and Doris Spencer, 774 Eastside Road, Coleville, CA 96107."

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Figure 1

# Antelope Valley Information System Normal Operations

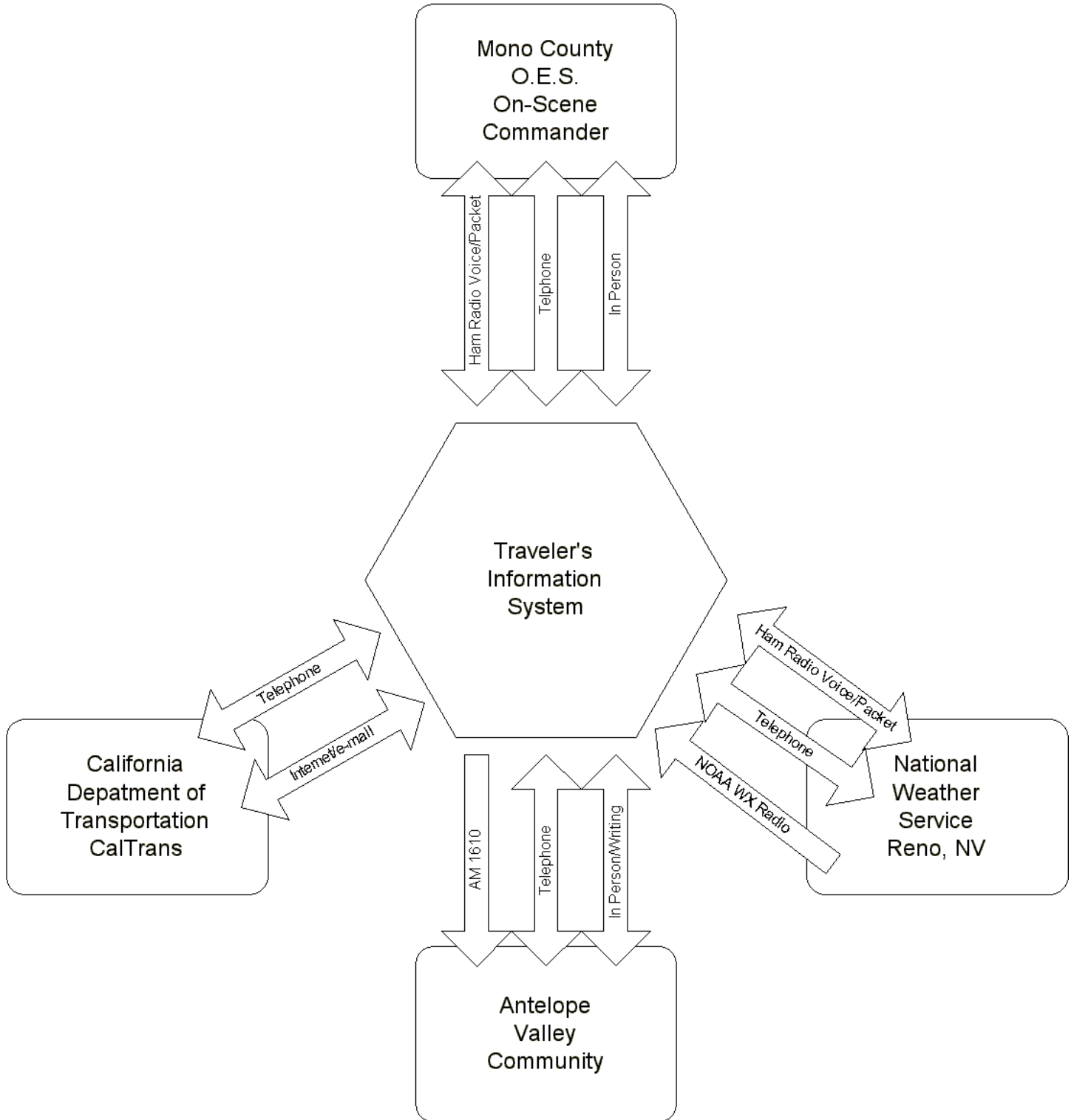


Figure 2

### Antelope Valley Information System Canon Fire Operations

