



Southern California Firestorm 2003
**Report for the Wildland Fire
Lessons Learned Center**

For:
Paula Nasiatka
Lessons Learned Center Manager
National Advanced Resource Technology Center
Pinal Air Park
Marana, Arizona 85653
8 December 2003

This report was prepared by two private consulting firms with the input of federal agency employees assisting the Wildland Fire Lessons Learned Center.



Mission-Centered Solutions, Inc., a small business enterprise located in the Denver metro area, provides training development and delivery services for government, military, and corporate clients. Our areas of training and expertise focus on disciplines that enhance crew or team resiliency and effectiveness, including leadership, error reduction and management, communication, and crew resource management. We also provide specific training and consulting to assist management of high-risk organizations to bring about and support targeted changes.

Please direct any questions concerning this report, or any correspondence to:

Mark Smith
Mission-Centered Solutions, Inc.
P.O. Box 2102
Parker, CO 80134
(303) 355-0964
(303) 646-3720 (fax)
email: MSmith@MCSolutions.com



Guidance Group provides strategic services to fire service organizations; and specializes in leadership, strategy and organizational improvement. The Guidance Group provides a unique blend of real world fire management experience as well as facilitative and consulting skills that may not be available within the client organization. The result is a practical, professional and experienced approach to fire service strategy, leadership and organizational needs including strategic planning; professional development; goal setting; collaborative problem solving; program evaluation; and support to field studies and field research.

Michael DeGrosky, CEO
Guidance Group, Inc.
715 Hillside Drive
Washburn, WI 54891
(715) 373-5466
(715) 373-5409 (fax)
email: mtd@centurytel.net

The following is an excerpt from the entire report. It is suggested that the reader also view the Introduction to the report to put this section into context.

Evacuations and Homeowners

This section describes lessons learned about evacuations and homeowners.

Pre-Incident Planning

Respondents reported that pre-incident planning was the biggest factor in determining the efficiency and effectiveness of evacuations. Frequently, streams of evacuees congested the roads and made both evacuation and response difficult. They said that evacuations were more chaotic and dangerous in areas that lacked a plan. Respondents reported that even in areas that had conducted pre-incident planning, that there were incomplete plans for managing evacuation centers, reinstating utilities, or letting residents return to their homes. This caused unexpected problems for IMTs.

The MAST (Mountain Area Safety Task Force) organization had conducted significant planning and tabletop rehearsals for the mountain communities in San Bernardino and Riverside counties. Because of this interagency preparation, the evacuations in these areas were reported as timely and without major incident.

Respondents also reported the need to cooperate with ancillary agencies such as the Red Cross and animal control. Those agencies are instrumental in taking care of the evacuees and dealing with pets and livestock. They felt that fire agencies working closely with law enforcement can effect an evacuation, but that far more was involved afterward.

As soon as firefighters recognized the potential for evacuation, the need to coordinate with law enforcement became paramount. Leaders said the most effective method was to have a sheriff's representative co-located in the ICP to facilitate decisions to get routes cleared into the upper ends of WUI neighborhoods. It was extremely difficult for fire resources to maneuver around evacuees, and early support from law enforcement allowed fire resources to get on scene as soon as possible.

Summary of Lessons Learned—Pre-Incident Planning

- Pre-incident planning was essential to effective evacuation compared to those areas that did not conduct extensive pre-incident planning.
- Incorporating agencies that manage evacuees into the interagency planning process was effective in ensuring a smooth handoff from firefighters and law enforcement to supporting agencies like the Red Cross.
- Fire resources were significantly slowed moving through evacuation areas until routes were cleared. Early coordination with law enforcement as soon as the potential to evacuate was recognized was critical in preserving freedom of movement for fire resources.

Route Control

Route control was reported as critical in maintaining freedom of movement for fire resources during evacuations. Areas that had planned evacuations reported more success than areas with no planning. This included educating residents on what actions to take

prior to evacuating their home and what routes to follow. MASTs issued an IAP covering these items. In areas without planning, respondents said that trigger points set to initiate voluntary and then mandatory evacuations were not defined in advance, so they came within 30 minutes of each other. So many evacuees on the road at once added to the confusion and to traffic jams.

In areas where routes were not well controlled, residents were flowing out of neighborhoods on all streets, and firefighters reported swimming upstream to get to areas most threatened by the fire. Some areas did not impose one-way traffic restrictions, so evacuees were moving in two directions on the same streets, adding to the problem. Residents who delayed leaving and the *rubbernecking* factor also created challenges for firefighters trying to move into the area. Leaders said that evacuations of less threatened neighborhoods clogged critical ingress and egress routes from neighborhoods that were most threatened in areas without good route control and planning.

Respondents indicated that in the smoothest evacuations, law enforcement moved to pre-determined choke points when evacuation trigger points were reached. Neighborhoods were emptied by allowing traffic out but not in. Eventually this strategy provided the freedom of movement that fire response resources needed. One very effective technique involved law enforcement keeping one street cleared for incoming emergency traffic, prohibiting outgoing evacuation traffic on that street. This allowed firefighters into the upper neighborhoods earlier to prepare structures.

Summary of Lessons Learned—Route Control

- Route control planning was an important part of evacuation. Poor planning resulted in clogged ingress/egress routes and lesser priority evacuations blocking the routes of high priority evacuations.
- In planned evacuations, evacuations were based on pre-established trigger points. Law enforcement moved to known choke points and controlled routes with one-way traffic restrictions and keeping certain streets clear for ingress.

Values at Risk and Homeowners

They were engulfed in heat and smoke. Showered by sparks and embers...trying to decide, "Should we risk our lives to save someone who refuses to evacuate?"
- Type 1 Safety Officer

These incidents placed incredible stress on both wildland and structural firefighters. Municipal and county fire departments found themselves confronting a fast moving wildland firestorm within their cities. Wildland agencies found themselves confronting urban conflagrations. Firefighters faced ethical dilemmas and operated in conditions riskier than they had previously considered acceptable. However, firefighters felt they could not disengage because civilian lives and private property were constantly threatened.

The need to shift one's mindset quickly became important; from one of saving single-family residences to one of infrastructure protection. This made triage difficult because firefighters are used to discussing and making decisions about individual residences and

in a relatively detached and dispassionate fashion. Using language like “loser” or “goner” to describe an indefensible area, although accurate, added to the public’s concern and their perception of the suppression effort. This added to the debate in the media.

Respondents felt there was a lack of clear engagement criteria concerning residents who refused to evacuate. Some people who had not evacuated were screaming and demanding that their clearly indefensible home be saved while firefighters worked to save a more defensible home of someone who had evacuated next door. Many families of the firefighters were themselves evacuated. Firefighters were aware that their own homes were being threatened or lost, and this added to their dilemma about placing themselves in risk situations that, in some cases, were so dangerous that luck was the only deciding survival factor.

Respondents reported that stopping and communicating with residents, as much as the situation allowed, was very important in preventing homeowners from becoming dangerous distractions. In some cases, firefighters provided fire shirts and hard hats to residents who would not evacuate, and got them busy preparing homes and assisting firefighters as field observers or sources of local information. Respondents said that communicating their risk criteria, trigger points and contingency actions seemed to reduce the stress in the residents and subsequently the stress the residents placed on firefighters when the situation worsened.

Most respondents indicated that at the tactical level they did not receive much risk guidance from above, other than standard wildland fire safety doctrine. The situation had clearly transcended the norm, and as a result, most of the adaptations to the increased risk were being made at the tactical level. Respondents at the command level also indicated that, while they were making decisions and forming strategies with these increased risk levels in mind, that they did not do a good job at providing adjusted and useable risk criteria to the tactical resources. One strike team leader’s comment “It just went unstated that we were operating in whole new territory”, summed up the feeling of ambiguity of many of those interviewed.

The result was that firefighters and support staff at all levels were being left to make many of these decisions themselves. While it appears that these decisions were made successfully, it was done in an environment lacking firm guidance. Respondents almost universally reported that they based decision-making and independent action on their experience. Less experienced people said they were at a significant disadvantage in being able to weigh the risks in the absence of clear guidance, and that they frequently questioned themselves and their judgment in the emotion and chaos of the situation.

Experienced firefighters reported the importance of having confidence that their tactical decisions—based on training, planning, doctrine, and experience—were the right ones. In the aftermath, after revisiting affected areas, these same firefighters reported that they could see their decisions were the best they could make under the circumstances.

Summary of Lessons Learned—Values at Risk and Homeowners

- The values at risk in these fires placed firefighters in new risk and decision-making territory that current wildland firefighting doctrine and training have not necessarily prepared them for. Firefighters had to adjust their thinking to triaging city blocks and whole neighborhoods.

- Communicating with and involving residents who decide to stay-behind were effective ways to mitigate the danger and distraction they presented to firefighters. It was important not to use language like “loser” to triage when residents could overhear.
- There were incidents where engagement criteria concerning the increased values at risk did not reach the tactical level. A lack of clear engagement criteria concerning residents who would not evacuate led to firefighters placing themselves in extreme risk situations.

Evacuation Centers

Many respondents indicated they did not feel they had good plans to establish and manage evacuation centers. They found themselves dealing with issues concerning large numbers of evacuees needing food, shelter, and assistance with contacting relatives and providing for animals. They stated that although they were not directly responsible for evacuation centers, it took a lot of the IMT’s time and energy to coordinate and support evacuation centers and disseminate information to evacuees.

Planned evacuation centers ranged from shelter-in-place safety zones like parks and a casino to more formal centers at large public facilities like fairgrounds and schools.

Summary of Lessons Learned—Evacuation Centers

- Many identified the need for management plans of evacuation centers as a lesson learned. Incident overhead had to deal with a variety of issues concerning support to evacuation centers and evacuees.

Reintroduction of Residents

Reintroducing residents into previously evacuated areas was an issue that most respondents indicated was not adequately addressed even with planning. As a result there was congestion and confusion as firefighters were maneuvering around residents, utilities, insurance people and so on. Respondents felt it was important for unified command to coordinate the sequence of hazard mitigation and the restoration of services with the return of residents. They recommended involving utilities and public works departments before allowing residents to return to their homes.