

Fire Siege Coordination

Coordinating the firefighting efforts during a Southern California fire siege presents a challenge that is distinctly different from coordinating individual fires. These sieges are characterized by strong Santa Ana winds with many ignitions, including multiple large fires burning simultaneously in extremely dry, heavy fuels over steep terrain. New starts spread very quickly, shortening the time that firefighters can effectively contain the fires with initial attack forces. The large number of expanding fires quickly create multiple, immediate demands for available firefighting resources. Southern California fire sieges are also distinctive in the significant regional impact on people, property and natural resources in the extensive Wildland-Urban Interface.

This section describes the regional coordination of several management systems and technologies that were used during the 2007 siege, some for the first time, to support the multiple-agency response.

Pre-positioning and pre-fire attack planning took place due to wind predictions and drought conditions. Firefighters and other emergency service providers gather at a staging area.



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Remote Sensing

During the 2007 Southern California Fire Siege, regional chief officers augmented the established MAC intelligence function by activating a Situation Status Cell (Sit Stat Cell) at the Southern California Geographic Area Coordination Center level.

The Sit Stat Cell integrated remote sensing capabilities and geospatial operations across the geographic area, regardless of source, to provide direct support for on-the-ground incident response needs from Incident Command Teams, the GACC, and the State Operations Center (SOC) recovery missions. The Sit Stat Cell executed this function using a team of remote sensing specialists deployed to the Southern California GACC and a strategic analysis staff located at the SOC. The GACC team coordinated remote sensing aircraft mission tasking. The SOC team compiled, and analyzed the data to produce map based reports. These reports assisted in the orientation of crews and staff, and provided information on the operating area in support of firefighter and public safety. This coordinated effort resulted in one of the largest deployments of remote sensing and geospatial technologies for wildland firefighting.

The table at the right provides a description of the broad array of remote sensing systems that were used in support of the 2007 Fire Siege.

SYSTEM	SOURCE	CAPABILITY
RC-26 Full Motion Video	California National Guard (with assistance from Texas National Guard)	Night and day fire perimeter spotting in direct support of incident command teams
P-3 Full Motion Video	United States Navy (coordinated through United States Northern Command)	Night and day fire perimeter spotting in direct support of incident command teams
Civil Air Patrol	United States Air Force (coordinated through United States Northern Command)	Digital imagery of burn areas for critical infrastructure assessment and fire behavior analysis
Ikhana Unmanned Aerial Vehicle	NASA and the National Interagency Fire Center	Night and day multispectral and thermal mapping of fire and damage areas
U-2	United States Air Force (coordinated through United States Northern Command)	High resolution imagery of operations area (Southern California)
Global Hawk Unmanned Aerial Vehicle	United States Air Force (coordinated through United States Northern Command)	Night and day digital infrared imagery of fire perimeters and threatened land/structures
National Infrared Operations Support (Cessna Citation)	National Interagency Fire Center	Night and day thermal mapping of fire areas
Fire Mapper	USFS Pacific Southwest Research Station	Night and day multi-spectral and thermal mapping of fire areas
Commercial Satellite Imagery	Coordinated by Federal Emergency Management Agency (FEMA) and the National Geospatial-Intelligence Agency. Data delivered by Nevada National Guard (Eagle Vision) and Army Strategic Command (coordinated through United States Northern Command)	Broad-area high resolution and color imagery of operations area

Decision Science

Federal fire analysts located at the U.S. Forest Service Pacific Southwest Regional Office provided regional chief officers and incident commanders with a decision support product known as the Wildland Fire Decision Support System (WFDSS). They produced map products for ten of the siege fires: the Ammo, Buckweed, Grass Valley, Harris, Poomacha, Ranch, Santiago, Sedgewick, Slide, and Witch.

WFDSS is a web-based application that utilizes fire behavior modeling, economic principles, and information technology to develop probabilities of potential fire spread and impacts. The two main components are Fire Spread Probability (FSPro) and the Rapid Assessment of Values at Risk (RAVAR). FSPro calculates and maps the probability of fire spread within a specific time, based on fuel, topography and weather conditions. RAVAR then uses that spread probability information to estimate the impact of the fire on primary-resource values in the path of a fire.

Fire-Cause Investigations

The wildland firefighting agencies conduct a cause-and-origin investigation for every wildland fire. Fire prevention bureau chiefs use this information to develop programs to prevent future ignitions, and as supporting documentation for legal actions against those who intentionally or negligently cause a fire. Fire-cause investigators must conduct their investigations quickly before firefighting actions or other activities destroys evidence at the origin of the fire.

The number of new fires during the siege quickly exceeded the investigation capacity of the various firefighting agencies. In response to the growing workload, regional law enforcement coordinators established a regional cause and origin investigation group to support investigation efforts on all fires on State Responsibility Area (SRA) in the Southern California counties. Investigators from throughout California assembled at OSCC. USFS and CAL FIRE investigation leaders coordinated efforts and assigned

investigation responsibilities for fires that burned across federal and state direct protection area. Investigators worked as a team during the investigation of these multi-jurisdiction incidents.

FEMA enacted Homeland Security Presidential Directive Five (HSPD5) ESF#13 (Public Safety and Security) because investigators determined that one of the fires was caused by arson. Alcohol Tobacco and Firearms (ATF) and Federal Bureau of Investigation (FBI) agents were then assigned to investigative support. CAL FIRE and the Orange County Sheriff's Department provided additional investigators and technical support.

CAL FIRE's chief law enforcement officer joined the team at the OSCC to establish communication links between the incident investigators and the CAL FIRE director, approve information releases to the media, and establish consultation link with the Deputy Attorney General assigned to cases that would go to trial.

Surge Capacity

With predictions of severe fire weather, regional fire chiefs anticipated a need to build firefighting resource depth in Southern California. Local, state, and federal authorities have been established and systems designed to facilitate the movement of resources. Regional fire chiefs moved firefighters to Southern California before the siege began. This movement of resources continued and expanded during the early stages of the siege. Eventually the siege became a national mobilization and assistance was also provided by Mexico, sending bomberos (firefighters) from Tijuana and Tecate.

The Federal Department of Homeland Security's National Response Plan uses Emergency Support Functions (ESF) as the primary mechanism to organize and provide assistance to local and state governments and tribal agencies. The purpose of the ESF is to provide the greatest possible access to the capabilities of the federal government, regardless of agency. The Stafford Act authorizes FEMA, a function of the Department of Homeland Security, to coordinate support from across the federal agencies and certain non-government organizations. FEMA invokes one or more of the 15 ESFs to funnel resources to disasters and emergencies. During an ESF-4 declaration, the US Forest Service is the lead agency, and is tasked with coordinating the federally activated resources.

On October 22, Governor Schwarzenegger requested a federal emergency declaration for the Southern California fire siege and FEMA activated ESF-4. On October 24, President Bush signed Disaster



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In addition to the use of numerous out-of-state resources, the October Siege utilized the Bomberos from Tijuana, Mexico.

Declaration 1731-DR-CA and the Governor’s Office of Emergency Services requested that FEMA provide 125 strike teams of engines, 300 overhead personnel, and other resources. FEMA processed the request and the resources were on scene by October 27.

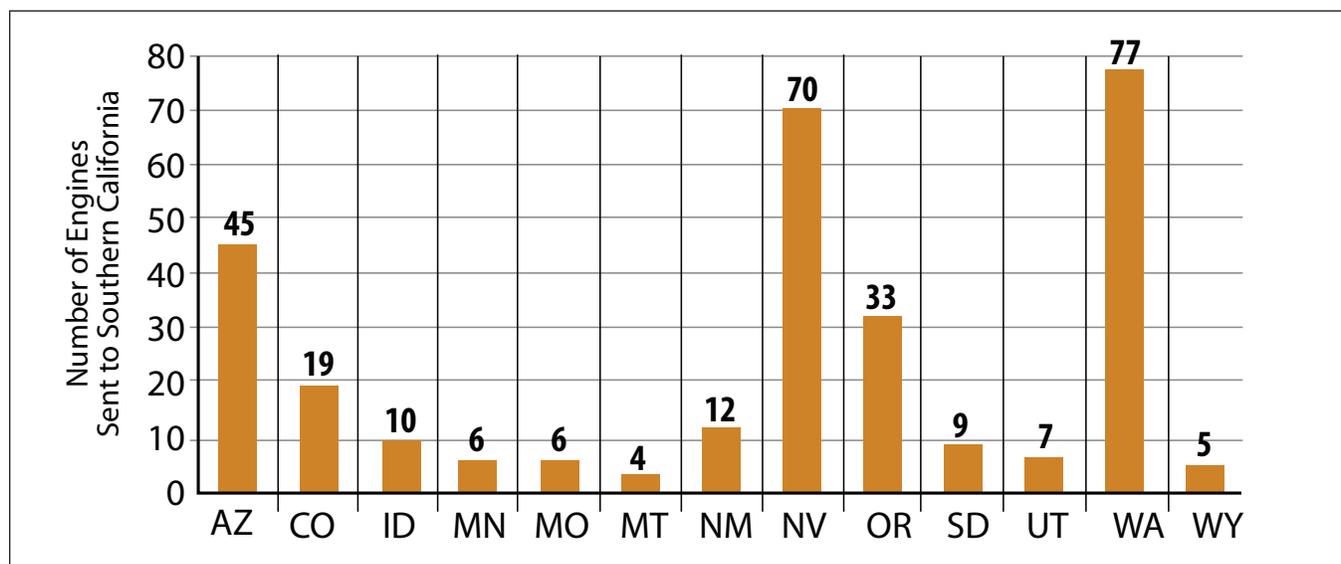
The Emergency Managers Assistance Compact (EMAC) is a congressionally ratified organization that gives form and substance to mutual aid between member states. EMAC has resolved issues of liability and reimbursement so that a state suffering a disaster can request and receive assistance from other member states quickly and efficiently. Through standard operating procedures and reimbursement guidelines, states can request and receive needed resources in a timely manner.

Out-of-state engines played a vital role in assisting the local, state and federal firefighters already engaged on the Southern California fire siege. This siege saw the first activation of resources through the EMAC compact. On October 23, the Office of Emergency Services activated the Emergency Managers Assistance Compact (EMAC) and requested 50 strike teams of engines from EMAC member states. Out-of-state resources were able to integrate easily with forces already engaged in the firefight. Engine crews assisted not only on the fireline, but also staffed empty stations whose local crews were working on siege fires.

On October 26, a federal management team was assigned to the newly established FEMA Mobilization Center at the Chino Airport. Resources arrived at the Mobilization Center through several dispatching channels and funding sources, including FEMA, EMAC, California’s master mutual aid system, and other state and federal resource ordering processes. Although the original assignment was to establish a Mobilization Center to provide support for incoming FEMA resources as they were being moved to incidents, the mission grew to encompass a full-range mobilization-and-staging area. Within hours, there were over 700 firefighting resources at the center, and the numbers continued to increase the following day.

The following chart shows the number of out-of-state engines, by state. The chart includes resources arriving prior to October 26 that went directly to incidents, as well as those arriving from October 26 to 31 that were assigned to incidents through the FEMA Mobilization.

**Out-of-state Resources
Engines sent to siege by state**



Information and the Media

Managing the tremendous flow of information during a major siege can be a daunting task. Firefighting agencies had quickly realized that a well coordinated, multi-agency, large-fire strategy would be required to address the large number of rapidly developing region-wide disasters impacting millions of Californians. Based on the area-wide magnitude of this developing disaster, news media coverage was immediately intense. Local, regional, and national print, broadcast, and electronic media became engaged in twenty-four hour disaster news coverage. One vital element of this strategy included the agencies' ability to deliver clear, accurate, and timely information to the public and news media. Incident commanders immediately assign information officer responsibilities as fires grow to major proportions.

On October 23, regional fire chiefs organized a joint information center (JIC) to provide consistent emergency information from the incident management teams to the various government agencies and the media. Operational and sensitive issues were discussed with executive leadership. The JIC Information Officer's task was to support incident information functions and ensure that accurate and timely incident information was distributed to the affected public, agency administrators, and elected officials, while serving as a Southern California regional point of contact for the state and national Joint Information Centers. The Southern Region JIC unified and coordinated information flow on the large and developing incidents



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The siege was covered in the news at local, national and international levels. From left, clockwise; Katie Couric, CBS Evening News; Geraldo Rivera, Fox News; and Anderson Cooper, CNN.

An untouched home in the background stands in contrast to the destruction of neighboring properties.



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to support Area Command information needs. The JIC monitored news media coverage of the disaster to ensure accuracy of disseminated information and consistency of key messages at all levels and across all involved agencies.

The JIC ensured that disseminated information was accurate, timely, and met the needs of the member agencies and the public, as well as the print, broadcast and electronic news media. The JIC handled more than 400 local, regional, national, and international print, television, and radio news media contacts during the period of operation from October 23 to November 11. International news contacts included media from several countries including England, Japan, Budapest, Argentina, and Belgium.

The JIC developed and observed several operational protocols to provide for consistent information management during the siege. Federal and state agencies agreed to use a standard methodology and source (209 snapshot) to ensure consistency for daily operational period update, daily situational status and resources (2003 Blue Ribbon Commission recommendation). Working with the Intelligence Unit, the JIC reconciled and disseminated the 209 snapshot and incident summary to federal and state agencies and each incident command team twice daily at 0700 and 1900 hours.

Daily conference calls were utilized to effectively communicate issues and processes with Area Command, San Diego County JIC, State Operations Center-JIC (SOC-JIC), National Interagency Fire Center (NIFC), Federal Emergency Management Agency-Joint Field Office (FEMA-JFO), National Interagency Coordination Center (NICC), and National Emergency Management Organization (NEMO).

OES supplied Governor's talking points to the JIC. This information was disseminated to personnel and agencies participating in the distribution of incident related information. JIC personnel fielded media inquiries related to incident/resource status, aircraft utilization, pre-deployment of assets, MAC operations, command and control function at South Ops, defensible space, building construction materials and standards, and state and federal emergency management practices, emerging technologies, real-time digital imaging, and advanced mapping technologies.

The JIC provided support for dignitary visits to South Ops, including research and preparation of briefing packages, researched background material and responded to requests for information related to 2003 fire siege and Blue Ribbon Commission findings and recommendations. JIC PIOs conducted television, radio, and print interviews at South Ops, and in the field, and facilitated media requests for "feature" stories.

The JIC developed proactive, strategic messages for dissemination through news releases and/or use at agency executive levels and/or internal briefings for lead agencies and the Governor's office. The JIC established and maintained daily contact with PIOs on twenty-two incidents, ensuring coordination, consistency, and continuity of message dissemination, and provided support for each incident's information operation.