

A satellite-style map of California and the surrounding Pacific Ocean. The land is shown in shades of brown and tan, indicating arid or semi-arid terrain. The ocean is a deep blue. Several red dots and red-outlined shapes are scattered across the state, primarily in the central and eastern regions, representing the locations of fires during the 2003 California fire season. The text is overlaid on the map.

**CALIFORNIA FIRE SIEGE 2003**

# THE STORY

**OCTOBER 21 – NOVEMBER 4, 2003**

# Preface

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In October of 2003, Southern California experienced the most devastating wildland fire disaster in state history. The facts are staggering—750,043 acres burned, 3,710 homes lost and 24 people killed including one firefighter.

There is nothing we can say here to lessen the impact of the terrible loss of life and property—we can only make an effort to learn all we can from this disaster. It is in that spirit that we established an interagency team, even before the smoke had cleared, to chronicle the Fire Siege of 2003. This report is a result of this team’s effort. Tasked with a very short timeframe, this document provides a synopsis of the key decisions and significant actions that impacted the Siege. We attempt to note the range of factors affecting decision-makers, including the influence of social and political pressures which added to the complexity of the event and influenced strategic decisions. Our goal was to produce a document as quickly and accurately as possible so that it could be put to use immediately in multiple arenas by a diverse group of people. In-depth details of each incident, analysis and recommendations will be left to the many other after-action reports, reviews and investigations that will follow this catastrophe.

We are grateful for the firefighters and citizens whose efforts saved so many lives and communities. Our condolences go out to those who suffered losses. Already we see efforts underway to restore and rebuild. That is what California does.

Wildfire and humanity are intertwined in the West. Similar fire events will happen again. It is our hope that this report can help to mitigate future losses and promote proactive fire planning.

**Jack A. Blackwell**  
*Regional Forester,  
Pacific Southwest Region  
U.S. Forest Service*

**Andrea Tuttle**  
*Director  
California Department of  
Forestry and Fire Protection*

*On the cover: The satellite photo shown on the cover was taken during the peak of the fire siege. The use of satellite technology as well as other advances has greatly improved the ability of strategic commanders to make real-time decisions. Photo courtesy of NASA.*

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*Multi-Agency Coordinating System (MACS) group sets incident prioritization and resource allocation.*

# Introduction

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The October Fire Siege of 2003 tested the modern fire service like no other time. The combined efforts of the largest wildland fire agencies in the world, the United States Forest Service and the California Department of Forestry and Fire Protection (CDF), along with armies of local fire departments across the state mustered ground and air resources into the firefight as never before. At the peak of the fire siege over 14,000 firefighters were on the line. Never in California's history were so many homes and



*Old Fire crosses Highway 18.*

lives in danger by fire at one moment. By the time the 14 major fires were extinguished, 24 lives were lost, 3,710 homes were destroyed and 750,043 acres were blackened. In addition, countless miles of power lines were damaged, communication systems destroyed, watersheds reduced to bare scorched soils and thousands of people were forced into evacuation centers, unsure if they would have a home to return to—many did not.

## The Purpose

Although an event of this magnitude is laden with stories of heroism, loss, relief and anguish, the purpose of this document is to objectively capture the events, issues and resulting strategies involved in the siege. It is not about the firefighters on the ground, but about the events and strategic decisions made that mobilized them.

The fire service and citizens threatened by the siege benefited from the foundations built prior to this disaster. FIRESCOPE, the Incident Command System, the California Fire Plan and the National Fire Plan all resulted from lessons learned from previous fires. The tools given to us by our predecessors prepared us for this fire siege. It is our obligation to provide our successors with an even stronger foundation. This document is the beginning of building that foundation.

## The Contents

The events leading up to the Fire Siege of 2003 have an undeniable influence on how the incident was managed. In the ***Prelude to the Siege*** section, some major historic fire events are described. The Prelude describes a selection of previous fires, legislation, programs and projects that impact pre-planning and fire attack today.

In planning a fire attack, incident commanders base strategic decisions on numerous factors including community impacts, weather, environment, availability of resources, and social-political

influences. Many of the day-by-day events and issues that influenced the decisions made by incident commanders are chronicled in the ***Daily Update*** section.

The ***Issues and Strategies*** section that follows the chronology is the most important component of this document in reducing the threat of future catastrophe. This section is the result of interviewing 68 key commanders and decision makers within a week of containing the fires. Using their comments, the interviewers identified key social-political issues that impacted the strategic decisions made by

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***Never in California's history were so many homes and lives in danger by fire at one moment. By the time the 14 major fires were extinguished; 24 lives were lost, 3,710 homes were destroyed and 750,043 acres were blackened.***

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the various incident commanders. Managing a disaster unprecedented in scope, the fire commanders struggled to make the best decision to support the fire fight, on the ground and in the air. If it could have been done better, they want to figure out how.

## The Fires

As the fire season of 2003 approached, policy makers understood the potential for a calamitous fire season in Southern California. The dramatic numbers of dead, dying and diseased trees in the wildland/urban interface was obvious and pandemic. With that recognition came action at the federal, state and local levels. Evacuation plans were developed, fuel reduction projects were underway, firefighter staffing was increased and citizens were informed. One can only imagine how much worse it could have been without these pre-planning measures—and in hindsight how much more could have been done.

There were 14 fires that are part of the October Fire Siege: Roblar 2, Grand Prix/Padua, Pass, Piru, Verdale, Happy, Old, Simi, Cedar, Paradise, Mountain, Otay and Wellman. The names of some will not be remembered. Others will never be forgotten. Any one of the larger fires would have reduced the state's wildland firefighting forces to minimum draw down (that level where the success of extinguishing a fire with initial attack forces is compromised). With 14 fires burning, not only was initial attack firefighting compromised, but the firefighters and support resources needed for the major fires were depleted.

On October 21, 2003 a fire was ignited in the practice range at Camp Pendleton Marine Corps Base in San Diego County, California. This ignition would be the beginning of the fire siege. The **Roblar 2 Fire**, as it was named, was not unusual for a large fire. But



*A CDF inmate fire crew prepares for structure protection on the Cedar Fire.*

this fire became important as it began the mobilization of firefighters first from Southern California, then from Northern California, and then from across the United States as 13 more major fires ignited. In this introduction all the fires cannot be mentioned. Here are just a very few:

**CEDAR FIRE:** The Cedar Fire would prove to be a monster that had no regard for the lives in its path. As night fell on October 25<sup>th</sup>, incident commanders arrived at a deceptively small, but inaccessible fire making containment impossible. Orders for more firefighters were placed, but by then the numerous firestorms that were burning in Ventura, Los Angeles and San Bernardino Counties had drawn down resources to minimums. By midnight the devil winds hit.

All resources staged for the morning shift were pressed into immediate service. The town of Ramona was threatened and commanders knew they were going to lose homes. With the few resources they had, they did as much as could be done. Bump and run

structure protection tactics were employed. At approximately 2:00 a.m. the Barona Indian Casino in Wildcat Canyon was threatened. The fire was splintering into multiple heads. Evacuation of the Casino was impossible. Sheltering in place was the only option. The fire tore through Wildcat Canyon destroying homes, trapping firefighters, sheriffs and citizens in choking smoke with zero visibility. Fire and law enforcement commanders knew they could not protect all the homes and resorted to search and rescue following behind the flame front, checking for survivors—and victims. As the sun came up the first fatalities were discovered near the Barona Indian Reservation. Many houses were lost, but many more were saved by firefighters. As the east winds started to diminish on Sunday, October 26, crews were able to take the offensive by building firelines on the western flank. They knew the west winds were coming and the heel of the fire would become the new head. The new head indeed materialized and destroyed the community of Cuyamaca and threatened to destroy the historic town of Julian. Structure protection engines were placed in front of the fire to defend what they could. Gallant efforts were made by crews, many of which had traveled from long distances and were pressed into the fight in unfamiliar country. One such crew was Novato Engine 6162 that was overrun by fire killing one firefighter and injuring the rest of the crew. When this fire was finally contained on November 4, 2003 it was recorded as the largest wildland fire in California's fire history; 273,246 acres consumed, 2,232 homes destroyed, and 14 lives lost.

**GRAND PRIX FIRE and OLD FIRE:** In San Bernardino County, the Grand Prix Fire and the Old Fire began miles apart from each other on different days. These two fires eventually joined as they swept down on the Incident Command Post. With Santa Ana east winds howling, these two fires ripped through subdivisions at the base of the San Bernardino Mountains. The fire ran through the foothill communities of Devore, Lytle Creek, Del Rosa



*One of thousands of single family homes destroyed.*



*Firefighters are silhouetted in front of a blaze on the Old Fire.*



*House surrounded by Eucalyptus catches fire.*

and Rancho Cucamonga. The Old Fire looked like a repeat of the 1980 Panorama fire, which destroyed 325 homes. This time, however, there was competition for firefighting resources leaving fewer firefighters to engage the fire. The western flank of the Grand Prix Fire crossed into Los Angeles County. With a vengeance, it threatened one subdivision after another. Finally, the winds died down enough to go on the offensive. With the ceasing of the east winds it was only a matter of time before the prevailing west winds would surface and the vulnerable forest communities including Crest Forest, Running Springs, Lake Arrowhead, Cedar Glen and Mt. Baldy Village would be threatened. The race was on. Law enforcement implemented the Mountain Area Safety Task Force (MAST) evacuation plan which had been written only months before. Firefighters scrambled into the diseased forest to protect the homes and backfire off of Highway 18 under worsening conditions. Hundreds of homes were destroyed, but thousands were saved. No burn fatalities occurred as the largest evacuation in San Bernardino County's history was successfully completed.



*A news crew gets some close footage on the Old Fire.*

**SIMI, VERDALE, PIRU FIRES:** The fires burning on the Los Angeles and Ventura County line moved at extraordinary rates of spread. The Simi Fire, fanned by Santa Ana winds burned at the incredible rate of 80,000

acres in 16 hours. Contingency plans were developed early on in the firefight to prevent the predictable spread of the fire to the west. Out of the last eight major fires to burn in this area none have ever been contained south of Highway 118. Previous fires had burned all the way to the ocean. The contingency plan called for an aggressive burn out operation along Highway 118 which was implemented and successful. As the fire reversed direction with the changing wind conditions, the community of Stevens Ranch was threatened. Fortunately this community was built with fire safe designs allowing residents to shelter in place and



giving firefighters the opportunity to protect all the structures. For 30 years Ventura County and more recently Los Angeles County have had aggressive fuel reduction programs and defensible space requirements. This contributed to only 37 homes being destroyed even though 6,800 homes were directly in the path of the fire.

## The Future

The wildland fire agencies have spent the last 100 years striving to mobilize and engage firefighting resources effectively and safely. Since the “Big Blow Up” of the 1910 fire season, war has been waged on fire. Most of the time California wildland firefighting is an efficient and skilled engagement that saves lives, homes and natural resources. Ninety-seven percent of all wildland



*Firefighters unable to save home.*



*Major highways across the southland closed.*

Cedar fire ravaging canyon communities in the rocky terrain of San Diego County. It is understood that the old decadent brush of the mountains above Santa Barbara once again shows great potential for a difficult, destructive fire like the Painted Cave Fire of 1990. Firefighters expect that a fire similar to the Old Fire has the potential to burn through other mountain communities plagued by dying trees like Big Bear, Idlywild and Lake Arrowhead. Will the next fire be in Malibu? Will a fire threaten Ojai? Will it burn in the old Monterey Pine Forest of Cambria or Monterey or could it once again come down on the cities of Southern California? The real question is not where, when, or if the next big fire will occur. The question is, are we prepared for it?



*A U.S. Forest Service Hot Shot Crew gears up and heads for the fireline on the Grand Prix Fire.*

fires in California are extinguished in the first day with limited

destruction. But that is not enough. The threat is great for those fires that escape early control and become major fires. And worse yet, sometimes that threat becomes a conflagration that becomes a catastrophe like those of this siege.

The term “wildland fire” has become a misnomer for most of California. In the past, firefighting efforts focused on perimeter control. Top priority has now been shifted to the protection of the millions of citizens who have moved to the wildland/urban interface. Now confronted with people and homes out in front of the fire, firefighters are forced into a defensive posture, often with their backs against a house defending it. Although the risk will always be present during a firefight, by creating a defensible space around homes and building in fire resistive construction, firefighters are given a chance to save lives and homes without undue risk.

Pre-planning successes like those of the mountain communities of San Bernardino who created the Mountain Area Safety Task Force (MAST), Ventura and Los Angeles County’s aggressive vegetation management program, and Fire Safe Councils demonstrate that we can have a positive impact on saving lives and property.

The fires of the October siege are indicative of the future. The way fires burned in the past is how they will burn in the future. Fire officials know that there will continue to be large fires like the Grand Prix that will burn down the San Gabriel and San Bernardino Mountains into the foothill communities. They know that there is potential for a repeat of the deadly

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***The term “wildland fire” has become a misnomer for most of California...Top priority has been shifted to the protection of the millions of citizens who have moved to the wildland/urban interface.***

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# PRELUDE TO THE SIEGE

1900  
Population of  
California  
1,485,053

1940  
Population of  
California  
6,907,387

1950  
Population of  
California  
10,586,223

1960  
Population of  
California  
16,517,370

1970  
Population of  
California  
20,987,853

1980  
Population of  
California  
23,667,902

1990  
Population of  
California  
29,760,021

2000  
Population of  
California  
33,871,648

*“Predict the future by studying the past—look at what happened in 1980, 1993 and 2003. What will happen in 2013?”*

Tom Harbour, U.S. Forest Service  
Deputy Director of Fire and Aviation Management  
Washington Office

## YEAR 1923

Berkeley Fire destroyed 584 structures. Embers falling on wood shingles accelerated the spread of this fire.

## YEAR 1932

Economy Act was passed by U.S. Congress affecting use of military resources in peacetime events. Intent of Congress was to encourage civilian employment prior to committing military resources.

## YEAR 1946

The California State Board of Forestry declared the San Bernardino Mountains around Crestline and Lake Arrowhead as a “Zone of Infestation” for forest insects.

## YEAR 1950

The State of California, all 58 counties and nearly all city governments signed a “Master Mutual Aid Agreement”.

## YEAR 1960

California Public Resource Code 4291 established to require a minimum of 30 feet clearance of flammable vegetation around structures.

## YEAR 1961

Santa Ana winds fanned a wildland fire in Los Angeles County through the community of Bel Air destroying 484 homes, many owned by Hollywood stars. Study of the fire’s after effects created a demand for regulations limiting expansion in the wildlands and improving structure survivability.

## YEAR 1970

After the devastating fire season of 1970, the California fire services were severely criticized for failure to provide leadership in solving the issues of cooperation, command and control, communications and training. As a result, in 1971, state and federal legislative action authorized funding for a five-year research program coordinated by OES called FIRESCOPE (Firefighting Resources of Southern California Organized for Potential Emergencies). As a result, the following elements were designed:

1. Incident Command System
2. Multi-agency Coordination System
3. Information Management System
4. Technological Support
5. Common Communications

## YEAR 1971

The President of the United States created the “National Commission on Fire Prevention and Control”. The commission completed a report in May 1973, titled “America Burning”. The report covered structural and wildland fires and stated, “Fire is a major national problem”.

## YEAR 1980

Major wildfires occurred in southern California. At least 325 homes were lost in a non-forested community in San Bernardino. The fires prompted Federal, State and Local officials to study the problem of fires coming from the wildland into communities. CDF Vegetation Management Program (VMP) established to reduce hazardous fuel conditions.

*This aerial photo clearly illustrates the issue of tree mortality in populated areas. Such settings contributed to the huge number of homes destroyed during the Fire Siege of 2003.*



## YEAR 1987

Pebble Beach Fire in Monterey County destroyed 31 structures. Roof type, window type and vegetation clearance were determining factors of structural survival.

## YEAR 1989

The Legislature added the FIRESCOPE program to the California Health and Safety Code and authorized OES, in cooperation with CDF and the State Fire Marshal, to carry out the program.

## YEAR 1990

Painted Cave Fire in Santa Barbara County destroyed 641 structures. Structures had a 90% survival rate based on roof type, and 99% survival rate based on road and vegetative clearance.

## YEAR 1991

In October 1991 the Oakland Hills fire burned 1,600 acres, killed 25 civilians and destroyed 3,403 homes. The fire was completely within the city limits of Oakland and Berkeley and was considered an urban conflagration rather than a wildland or urban intermix. Again, combustible roofing material implicated in the spread of fire. The high density of structures contributed to extreme radiant heat that spread fire to adjacent structures.

## YEAR 1993

The Laguna Beach fire alone destroyed 400 homes, while the other fires in the October fire siege in southern California resulted in four fatalities and 1,200 structures destroyed. California Department of Forestry and Fire Protection developed the "California Fire Plan," a framework for reducing costs and losses from wildfire. The Fire Plan emphasized that the problem can't be solved by government alone, citizens must take the lead. Fire Safe Councils were established with the help of grants and assistance programs. The U.S. Forest Service increased the program to train local fire service personnel in fire fighting tactics in the Wildland Urban Interface (WUI).

## YEAR 1993

The California Legislature passed the Standardized Emergency Management System Act for California. SEMS required state agencies responding to emergencies to use a standardized management system. ICS is a component of SEMS.

## YEAR 1995

The increase in firefighter fatalities, particularly during the 1994 fire season in which 34 firefighters were killed, led the five federal wildland fire agencies to review the federal fire management policy and program. The result was a new federal fire management policy, enacted in 1995.

- The *first priority* in wildland fire management is the protection of human life.
- The second priority is the protection of natural resources, cultural resources, and property.
- Wildland fire, as a critical natural process, must be reintroduced into the ecosystem.

## YEAR 1996

The California Department of Forestry and Fire Protection and the State Fire Marshal published a report entitled "California's I Zone." This report is nationally recognized for its in-depth study of past and projected problems of wildland/urban intermix fires (I-Zone).

## YEAR 2000

In August 2000, President Clinton directed the Secretaries of Agriculture and Interior to develop a plan to respond to severe wildland fires, reduce their impacts on rural communities, and assure sufficient firefighting capacity in the future. This became the National Fire Plan (NFP). Key points of direction were to increase firefighting capabilities to better protect natural resources, to reduce the threat to adjacent communities and reduce costs of fighting large fires.

## YEAR 2001

U.S. Forest Service was funded to begin implementing key points of the National Fire Plan by building up fire preparedness and suppression resources beyond historic levels. NFP assigned the highest priority for hazardous fuel reduction treatments to communities at risk, and other important local features, where conditions favor uncharacteristically intense wildfires. California Wildfire Coordinating Group (CWCG) identified communities at risk from wildfire and recorded them in the Federal Register.



## YEAR 2002

The MAST (Mountain Area Safety Taskforce) was organized to address public safety and forest health issues on both public and private land in San Bernardino and Riverside counties. This was one of the most extensive, pre-event planning efforts to ever take place. The three part strategy deals with; 1) emergency preparedness response, 2) fuel reduction around communities and key evacuation routes, and 3) long term planning and treatments to restore forest health. In San Diego County, new county fire code required 100' clearance around structures and Forest Area Safety Taskforce (FAST) was formed.

*Undamaged homes overlook one that burned on the Pass Fire, one of fourteen wildfires included in the Fire Siege of 2003.*

## YEAR 2003

Local, State and Federal agencies focused on identifying priority Wildland Urban Interface (WUI) areas in California to better establish protection strategies that resulted in meaningful changes in fire behavior and severity of fire effects at watershed scale. These strategies proved consistent with the interagency report: *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, Western Governor's 10-Year Comprehensive Strategy Implementation Plan and the Memorandum of Understanding for the Development of a Collaborative Fuels Treatment Program.* <http://www.fireplan.gov/reports>

A multi-agency Joint Information Center (JIC) operating plan was developed in conjunction the MAST plan to coordinate information release to the community and the media.

Since the National Fire Plan, all national forests in southern California have begun needed environmental analysis to increase the scale and intensity of vegetation treatments to protect communities from wildland fire. Several completed projects proved successful to strategic fire operations during the 2003 Siege. The U.S. Forest Service plans to double the number of acres treated over the average of the previous three years.

# Fire Season 2003

As a result of growing concern in southern California caused by four years of drought and catastrophic bark beetle infestation, numerous cooperating agencies united in an effort to address the environmental factors confronting them. Agencies joined forces and groups came together including: 1) U.S. Forest Service; 2) California Department of Forestry and Fire Protection; 3) Law Enforcement; 4) Local Government Fire Departments/Agencies; 5) Fire Safe Councils; 6) Office of Emergency Services; 7) Private businesses; and 8) Concerned citizens/community groups. The overall objective of this working group was to reduce the immense threat to public safety and property within the affected areas. The following are some of the actions these working groups took:

- In San Bernardino and Riverside counties, coordination committees continue to support the Mountain Area Safety Taskforce (MAST).
- San Diego Forest Area Safety Taskforce (FAST) was adopted countywide.
- Federal, State and local fire agencies are working closely with private landowners to create “defensible space” around their homes. “Fire Safe Councils” and the implementation of projects to reduce hazardous fuel conditions on private lands occurred throughout the counties.
- Significant dead tree removal projects are initiated utilizing Federal and State fire crews from around the state to create: 1) safe evacuation routes; 2) safe shelter-in-place centers; 3) safety zones on U.S. Forest Service land; and 4) strategic community protection zones.
- More than \$14 million dollars of federal funding was secured by the U.S. Forest Service to combat the problem. In March, 2003, an additional \$3.2 million was provided by FEMA. In early August 2003, the U.S. Secretary of Agriculture announced an allocation from the Healthy Forests Restoration Act of 2003 to the San Bernardino National Forest to promote “healthy forests” and to treat hazardous fuels. In cooperation with state and local partners, the removal of several miles of dead trees along evacuation routes has been underway or completed.
- On March 7, 2003, Governor Davis recognized conditions of extreme peril to the people, property and environment in Southern California. These conditions were due to imminent fire danger caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms. A State of Emergency Proclamation was declared in which state agencies were ordered to take a number of steps to reduce the extreme peril. These steps included preparing safety/evacuation plans, reinforcing firefighting resources, assisting landowners with tree removal and expediting the clearing of dead trees.
- Public Utilities Commission orders electric utilities to speed up the trimming of trees near power lines.
- Regional Forester, Jack Blackwell and Director of CDF, Andrea Tuttle conducted a wildland firefighter readiness review in the San Bernardino area in anticipation of a severe fire season.
- On June 20, 2003, Governor Davis signed an Executive Order, providing funds to deploy additional CDF resources in the Southern Region due to the extreme fire danger. This funding provided for: 1) Additional staffing on 53 engines; 2) Staffing of an additional 10 engine companies in the Southern Region; 3) Staffing of four additional Fire Crews in the Southern Region; 4) The staffing of an additional medium helicopter with crew to be placed in the CDF-San Diego Unit; and 5) The addition of a fourth firefighter on the 41 CDF-funded fire engines within the contract counties of Los Angeles, Orange, and Ventura. The Governor also directed OES to implement a program to proactively pre-position fire engine strike teams.
- The U.S. Forest Service received fire severity funding up to \$15 million for additional resources for the Region. The funding provided for: 1) maximum staffing levels for 123 engines in Northern California; 2) the addition of four contract heavy helicopters; 3) the addition of 20 additional fire crews; 4) the addition of 15 fire prevention patrol units; 5) addition of resources specifically for the San Bernardino National Forest included adding a plane with 26 Smokejumpers, four additional Hotshot Crews, 10 additional hand crews, 10 additional fire engines, and two bulldozers.
- Predictive Services at the Southern Operations Center in Riverside closely monitored the weather and fuel conditions in the Region. They predicted the Santa Ana conditions before they actually impacted the area. This intelligence initiated the movement of fire resources from northern California to southern California before most of the large fires started.
- Around October 20, 2003, the U.S. Forest Service moved additional aircraft into the southern California region. By October 21st, 18 CDF and U.S. Forest Service Air Tankers and 21 Helicopters were available for quick deployment.

*“If the winds are strong enough, the fire will begin to advance rapidly. Every fire is potentially dangerous, but these conditions obviously magnify those concerns.”*

Brad Doyle

Forecaster for the National Weather Service

- Light Initial Attack reported in Southern CA with the exception of the three large fires.
- Roblar 2 Fire started at Camp Pendleton in San Diego.
- Grand Prix Fire started near Fontana in San Bernardino County.
- Pass Fire started in Moreno Valley in Riverside.
- Agencies began placing orders for large number of resources for the large fires.
- Federal Regional Team activated for the Roblar 2 Fire.
- Unified Command Team (including Sheriff's Department) activated for the Grand Prix Fire.
- California Fire Agencies responded to and contained 130 new wildland fires statewide.

## Major Resources Committed on October 21st

Name	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2	6	30	5	2	14	800	5
Grand Prix	31	15	8	2	37	825	0
Pass	7	40	2	2	16	125	10
<b>TOTALS</b>	<b>44</b>	<b>85</b>	<b>15</b>	<b>6</b>	<b>67</b>	<b>1,750</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	103	100	92
Min. Rel. Humidity	7%	8%	14%
Wind	NW7 G19	E8 G14	E7 G14
Fire Danger	extreme		

*Erratic fire behavior and frequent wind changes*

## Community Impacts

- Military communication and training facility threatened by Roblar 2 Fire.
- So. CA Edison and LA Water & Power transmission lines threatened by Grand Prix Fire.
- Pass Fire results in closures of roads and businesses.
- Structures threatened in Lytle Creek, Fontana and Rancho Cucamonga by Grand Prix fire; Reche Canyon by the Pass fire and De Luz by the Roblar 2 fire.
- Voluntary evacuation by 150 persons.

## Human Factors

- 1,166 personnel committed to fires to date.

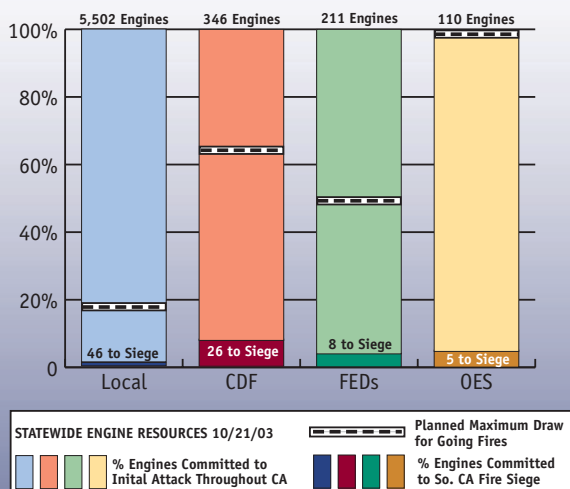
## Decisions

- Preparedness Levels: South Ops-3, National-2
- Grand Prix Unified Command included local law enforcement.

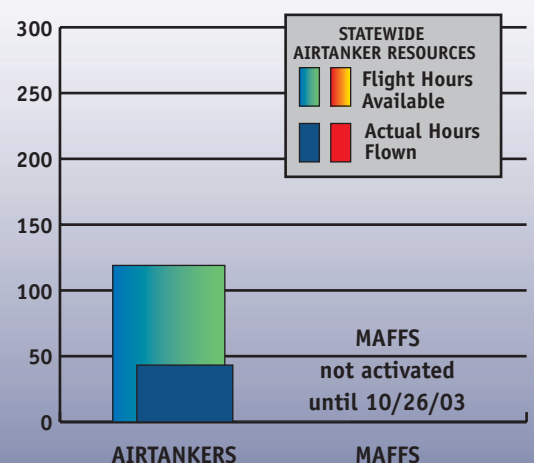
## Damage Assessment

- Five residences burned in Reche Canyon on the Pass Fire.
- Damage Assessment Teams activated to survey affected properties.
- 1,750 acres burned to date during siege.
- Estimated suppression costs to date: \$175,000

## Resources Committed: Engines



## Resources Committed: Airtankers



# It Begins...

## Three fires within four hours

Weather and fuel conditions encountered on October 21, 2003, were perfect to set in motion a chain of events that resulted in one of the most devastating periods in southern California fire history.

When the **Roblar 2 Fire** was reported on October 21, 2003, at 12:01 p.m., threatening the community of De Luz, the Camp Pendleton Fire Chief was prepared.

The previous Roblar Fire of 1985 provided the department and surrounding communities the history and knowledge they needed to predict what could happen. Since the fire was located in a mutual threat zone, aircraft, engines, and crews from multiple agencies were immediately deployed. A decision was made to order a Federal Regional Team because the fire started on federal lands. With the threat to life and property, strike teams were held in the De Luz Canyon to provide structure protection. Preplanning and foresight led to the construction of more than 100 miles of strategic fuelbreaks after the first Roblar Fire. These fuelbreaks proved



*Firefighter protects himself from the heat.*

to be instrumental in slowing the fire enough to allow for the aggressive firefighting actions needed during the first night. The fire was fought under normal wind conditions and was a normal fuel driven fire.

The **Grand Prix Fire** was reported in Fontana, San Bernardino County, at 2:22 p.m., two hours after the Roblar 2 Fire started. The communities of Lytle Creek and Fontana were threatened. Fire was burning in dense old growth chaparral. No residences were lost and no injuries were reported. As the fire progressed, the decision was made to transfer command

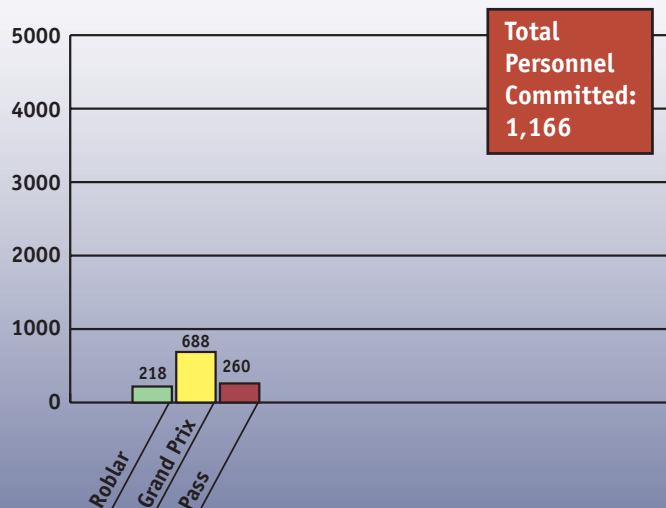
to a Federal Regional Team.

The **Pass Fire**, in Reche Canyon, north of Moreno Valley in Riverside County, was reported at 4:11 p.m. Despite the aggressive actions of the firefighters, frequent wind changes, inaccessible terrain, and erratic fire behavior led to the destruction

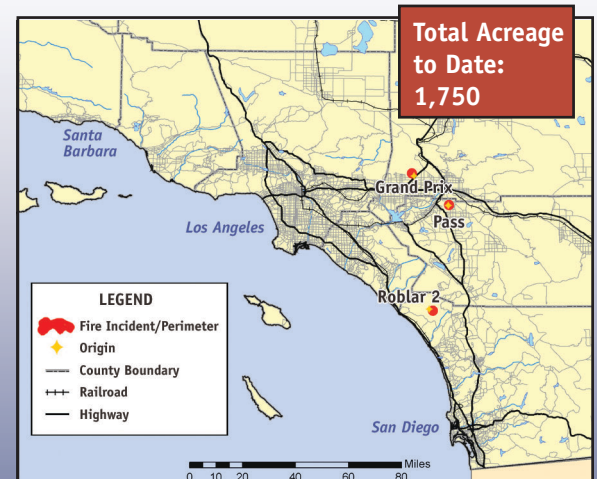
*Preplanning and foresight led to the construction of more than 100 miles of strategic fuelbreaks...*

of three residences and two outbuildings. One firefighter suffered from smoke inhalation.

### Personnel Committed: Day One



### Acreage Involved: Day One



# Wednesday, October 22, 2003

Resource orders were placed through the National Interagency Fire Center to move out-of-state resources into California.

CDF staffing patterns enacted to call off-duty personnel back to work.

Twice daily MACS conference calls begin.

California Fire Agencies responded to and contained 154 new wildland fires statewide.

*“When these fires started, the conditions in southern California were set up for a disaster. The drought had left the vegetation in a stressed condition, much of it already dead or dying. It was ready to explode into flames if any fire escaped initial attack efforts.”*

Tim Duane, Associate Professor, Environmental Engineering  
University of California, Berkeley

## Major Resources Committed on October 22nd

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2 (1)	11	39	5	8	64	2,085	5
Grand Prix (3)	31	15	11	2	37	1,958	15
Pass (2)	19	86	4	2	48	2,387	40
<b>TOTALS</b>	<b>61</b>	<b>140</b>	<b>20</b>	<b>12</b>	<b>149</b>	<b>6,430</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	99	92	100
Min. Rel. Humidity	8%	13%	8%
Wind	NW6 G11	E6 G15	E8 G14
Fire Danger	extreme		

Remarks: Spotting and extreme fire behavior observed on large fires.

## Community Impacts

- Three high voltage power lines that provide up to 25% of power to LA basin and an essential public safety communication site on San Servaine Mountain threatened.
- Evacuations in progress for Pigeon Pass and Reche Canyon area of Moreno Valley, Riverside County.

## Human Factors

- Two serious injuries today.
- 1,877 personnel committed to fires to date.

## Decisions

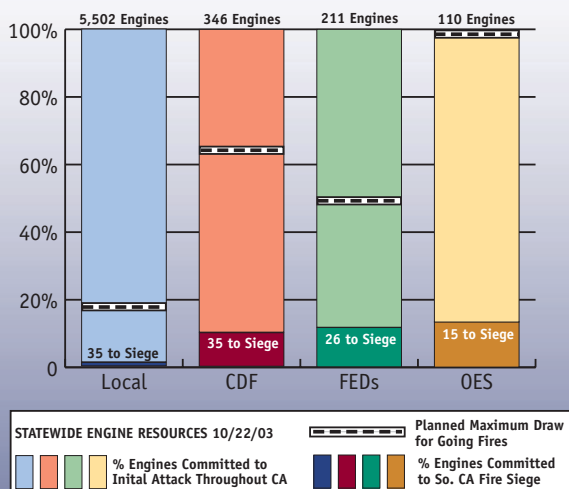
Preparedness Levels: South Ops-3, National-2

- Pass Fire is approved for Fire Management Assistance Grant (FMAG).

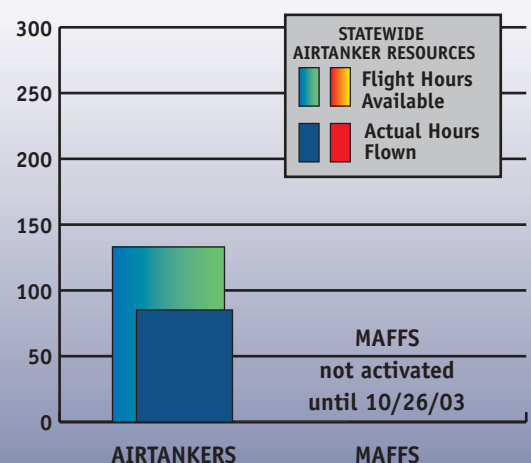
## Damage Assessment

- Damage Assessment Teams activated to survey affected properties.
- Five residential and 21 outbuildings burned.
- 6,430 acres burned to date during siege.
- Estimated suppression costs to date: \$2,215,150

## Resources Committed: Engines



## Resources Committed: Airtankers



# Heating up... Extreme conditions hamper suppression

With the dawning of October 22, 2003, firefighters across southern California were not only confronted with three ongoing fires and very extreme, erratic fire weather conditions, but they also faced the possibility of a major wind event forecast for later in the day plus the prediction of San Ana winds later in the week.

The Federal Regional Team assumed management of the **Roblar 2 Fire** in Unified Command with CDF and USMC. More than 450 firefighters battled the fire, dry brush, and intense weather conditions. The fire grew from 800 to almost 2,100 acres, jumping the firebreak at Roblar Loop and spreading

*With high temperatures, low humidity and steep terrain hampering firefighting efforts, five residences and 21 outbuildings were destroyed during the 24-hour period.*

into De Luz Canyon, triggering a voluntary evacuation for the community of De Luz. Evacuees were moved to an evacuation center located in St. Peter

Catholic Church in the community of Fallbrook.

At the same time, the **Grand Prix Fire** had grown to 1,958 acres overnight. With extreme fire behavior throughout the night and more than 1,700 structures threatened, the fire made a run into Grapevine Canyon, a major tributary to Lytle Creek. Firefighters were able to

make good progress anchoring the fire to the south; however, secondary contingency lines were constructed near the threatened communities in preparation

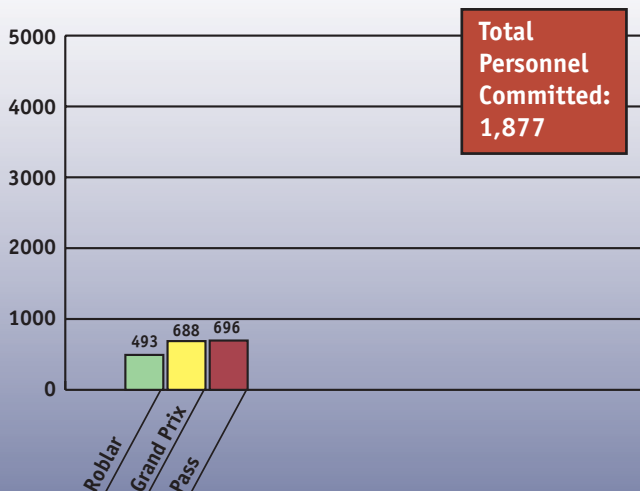
for the predicted wind event. Due to safety issues, Lytle Road was closed to the general public.

The **Pass Fire** grew to 2,387 acres overnight. With the high temperatures, low humidity and steep terrain hampering firefighting efforts, five residences and 21 outbuildings were destroyed during the past 24-hour period. Firing operations were conducted in an effort to secure the perimeter of the fire. A mandatory evacuation was in place for the area of Pigeon Pass, and the fire was approved for a Fire Management Assistance Grant (FMAG).

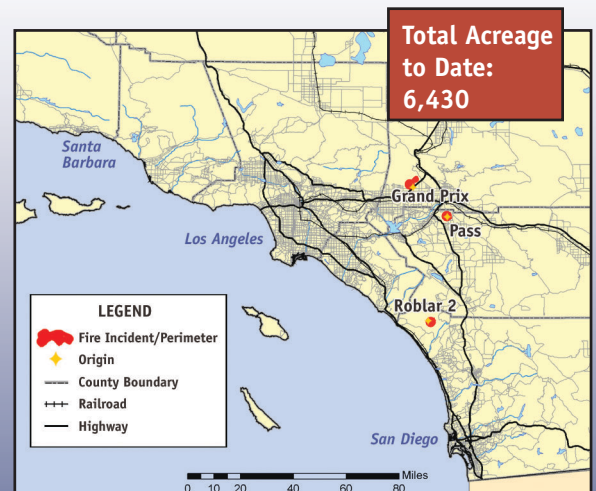


*A firefighter checks the wind conditions by using a Kestrel weather instrument.*

## Personnel Committed: Day Two



## Acreage Involved: Day Two





# Thursday, October 23, 2003

*“California’s environment is a fire environment. This landscape evolved with fire and that’s not going to change. This is another example of Mother Nature letting us know she’s more powerful than we are.”*

Karen Terrill, CDF Public Information Officer

- Piru Fire started near Lake Piru in Ventura County.
- Many out-of-area firefighters were deployed to all four major fires.
- U.S. Forest Service prepositioned a Federal National Team in southern California.
- Pass Fire was 100% contained. Demobilized resources reassigned to other fires.
- FMAG approved for Grand Prix Fire.
- California Fire Agencies responded to and contained 127 new wildland fires statewide.

## Major Resources Committed on October 23rd

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2 (1)	32	101	7	15	119	3,885	35
Grand Prix (2)	45	122	22	10	170	3,500	17
Pass (3)	9	15	1	0	47	2,387	100
Piru (4)	12	14	3	2	19	1,000	0
<b>TOTALS</b>	<b>98</b>	<b>252</b>	<b>33</b>	<b>27</b>	<b>355</b>	<b>10,772</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the “contained fires” section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	97	92	95
Min. Rel. Humidity	10%	14%	13%
Wind	NW8 G17	E5 G16	E7 G13
Fire Danger	extreme	extreme	extreme

Remarks: Above normal temps, strong & gusty winds, low humidity.

## Community Impacts

- Mandatory evacuation of all residents in Lytle Creek canyon initiated.
- Voluntary evacuation of De Luz residents initiated.
- Evacuations extended west of I-15 on the Grand Prix Fire.
- Grand Prix Fire threatened watershed values and historical mining sites.

## Human Factors

- Four serious injuries to date
- 2,755 personnel committed to all fires today.
- Two major power lines burned and power lost on Grand Prix Fire.

## Decisions

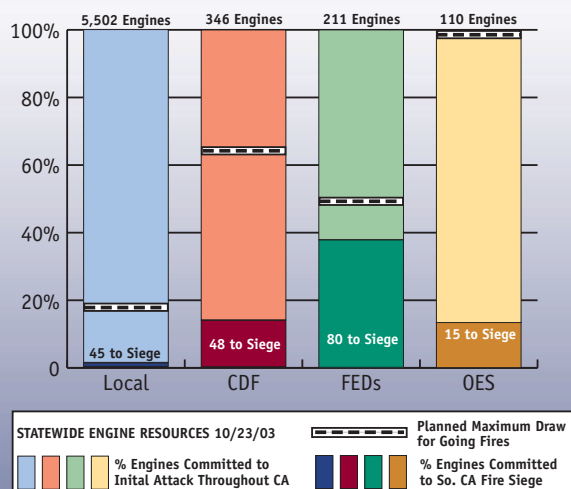
Preparedness Levels: South Ops-3, National-2

- Officials established mobilization centers and several staging areas to help organize responding resources and assign them to the highest priorities.
- U.S. Forest Service pre-positioned Federal National Team in southern California.
- Damage Assessment Team ordered for Grand Prix Fire.

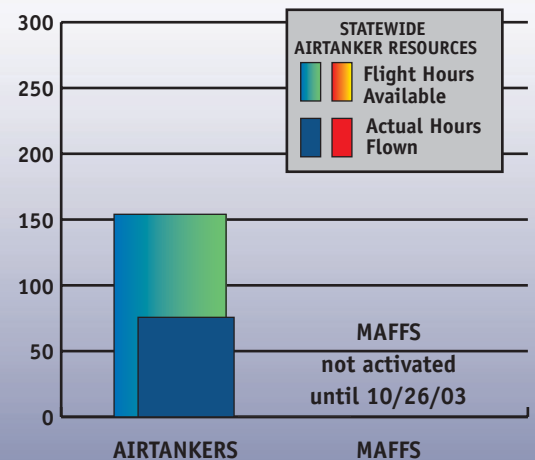
## Damage Assessment

- 10,772 acres burned to date.
- Five residential structures and 21 outbuildings burned to date during siege.
- Estimated fire suppression costs to date: \$4,729,417

## Resources Committed: Engines



## Resources Committed: Airtankers



# One Step Forward...

## Pass Fire contained as Piru begins

With Santa Ana winds predicted after midnight on Thursday, firefighters continued to battle toward containment of the fires. Due to the heavy workload of participating agencies, daily conference calls were set up between the MACS members in lieu of face-to-face meetings. Thus, priority setting remained at the South Ops level.

On the **Roblar 2 Fire**, even though heavy fuels and extreme temperatures continued to hamper firefighting efforts overnight, firefighters were able to hold its progression to 3,885 acres. The communities of De Luz and Sky Ranch continued to be threatened, with voluntary evacuations in effect for the community of De Luz. This fire also threatened to move into the San Mateo Wilderness Area. The danger of unexploded ordinance prevented the fire crews from entering the restricted training area on the Camp Pendleton military base. This hindered containment efforts on the south/southwest flank of the fire.



*Miles of open line confronted fire commanders.*

The **Grand Prix Fire** grew to 3,500 acres and progressed down to the Miller Narrows area, prompting the evacuation of the Lytle Creek community. Lytle Creek Road and Rancho Cucamonga Canyon Road were closed to all traffic.

With the threat of continued erratic winds, contingency plans were in progress to protect other communities west of the fire. CDF requests FMAG for Grand Prix Fire.

Firefighters held the **Pass Fire** to 2,387 acres overnight. The incident

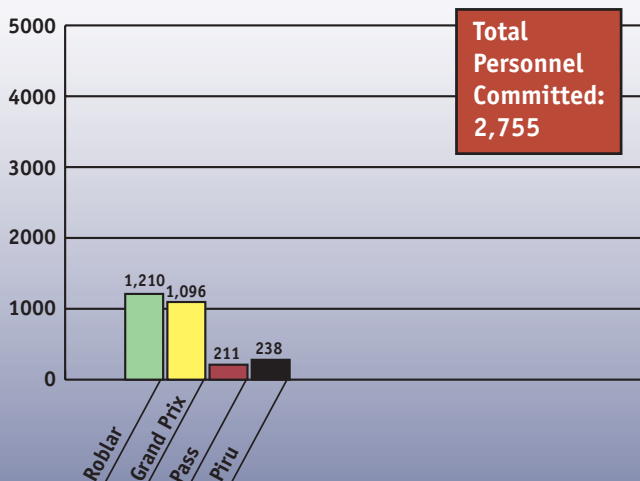
commanders declared the Pass Fire 100 percent contained and released resources for reassignment to other fires in southern California.

At approximately 1:30 p.m. the **Piru Fire** was added to the expanding

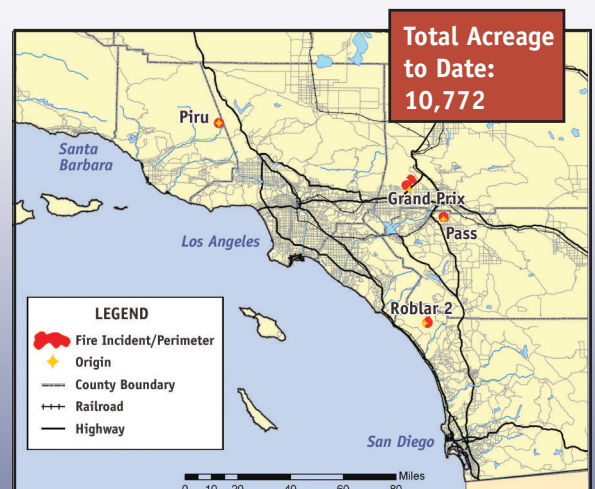
*...the Grand Prix fire grew to 3,500 acres and progressed down to the Miller Narrows area, prompting the evacuation of the Lytle Creek community.*

list of fires in southern California. The Incident Commander called for firefighting resources for the fire, located outside the small community of Piru in Ventura County.

### Personnel Committed: Day Three



### Acreage Involved: Day Three



# Friday, October 24, 2003

- Santa Ana winds surfaced on the Grand Prix Fire increasing structure threat in Rancho Cucamonga and Fontana.
- Verdale Fire started west of Santa Clarita in LA County.
- Wind driven fires in northern California occurred with one structure destroyed near Redding.
- Governor Davis ordered all of the state's firefighting and emergency resources into action.
- CDF cancelled vacations and days off for all personnel.
- CDF reactivated five of 10 airtankers that were off contract.
- Happy Fire started north of Lake Cachuma Lake in Santa Barbara County.
- Structure protection for De Luz and Sky Ranch area required on Roblar 2.
- Southern California Edison warned of potential, unprecedented power cutoffs.
- Health advisories issued because of poor air quality.
- California Fire Agencies responded to and contained 137 new wildland fires statewide.

*"This will be the most expensive fire in California history, both in loss of property and the cost of fighting it."*

Dallas Jones, Director of California Office of Emergency Services

## Major Resources Committed on October 24th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2 (2)	38	92	6	15	150	4,680	50
Grand Prix (1)	45	220	15	18	155	12,600	19
Piru (4)	25	47	6	3	128	1,250	30
Verdale (3)	8	38	3	2	30	200	0
Happy	2	9	2	2	4	250	25
Contained Fire	-	-	-	-	-	2,387	100
<b>TOTALS</b>	<b>118</b>	<b>409</b>	<b>32</b>	<b>40</b>	<b>498</b>	<b>21,367</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	96	88	97
Min. Rel. Humidity	8%	14%	6%
Wind	NW9 G26	E6 G15	E9 G14
Fire Danger	extreme	extreme	extreme

Remarks: Red Flag Warning for high winds (Santa Ana) issued for next 4 days. Frequent wind direction changes. Spotting, torching and fire whirls reported. Fuel moistures below critical levels.

## Community Impacts

- Interstate 15 & Interstate 210 freeways closed.
- Verdale Fire causes evacuations on the Val Verde side of the fire.
- Contingency plans for communities west of the Grand Prix fire are developed.
- Another high voltage power line is burned and power lost to LA Basin on Grand Prix Fire.
- Evacuations in many areas continue.
- Remaining resources on the Pass Fire will be reassigned today. 100% contained.

- Threat to avocado groves from Roblar 2 Fire.
- Ash from the Grand Prix Fire fell 30 miles away on the Santa Anita Racetrack in Arcadia, site of the Breeder's Cup World Thoroughbred Championships today.
- Health advisory issued for poor air quality in San Bernardino County.

## Human Factors

- Seven serious injuries to date
- 4,770 personnel committed to all fire to date.
- Firefighter and public safety are of primary concern.

## Decisions

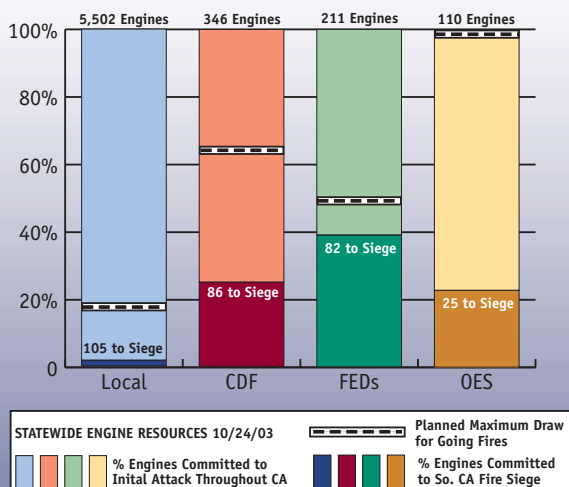
Preparedness Levels: South Ops-3, National-2

- U.S. Forest Service directs the Prepositioned Federal National Team to begin transition process with the Federal Regional Team on the Grand Prix Fire.

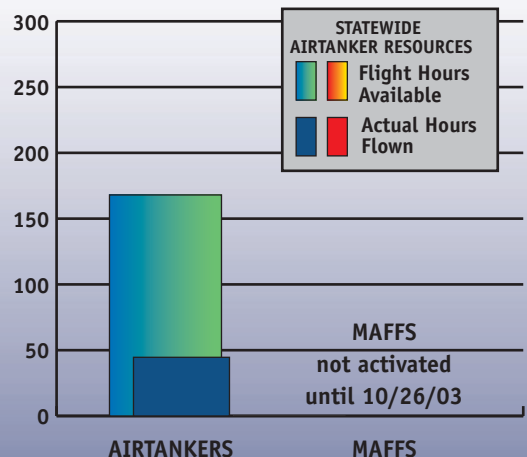
## Damage Assessment

- 21,367 total acres burned to date during siege.
- 10 residential & 23 outbuilding structures burned to date during siege.
- Estimated fire suppression costs to date: \$8,300,000

## Resources Committed: Engines



## Resources Committed: Airtankers



# Increasing threat to homes

## Weather impedes efforts

Winds continued to frustrate firefighters throughout the night. When firefighters received their operational briefings before heading out to the fire line, they found it was more of the same. They faced another day of the weather working against them on the fireline. Moderate to strong north to east winds along with low humidity, poor humidity recovery and high temperatures were predicted through Sunday across the area of southern California.

On the **Roblar 2 Fire**, voluntary evacuations remained in effect for the community of De Luz. Firefighters successfully completed burning operations which prevented the fire from establishing itself in the San Mateo Wilderness. Had it done so, the result would likely have been a large wilderness fire (40,000+ acres) requiring very heavy commitment of resources and structure threat to the communities of San Onofre and San Clemente. For the public's safety, all roads leading to De Luz remained closed to the public. Structure protection remained in place for the residences in the De Luz and Sky Ranch areas. The evacuation center in Fallbrook remained open.

The **Grand Prix Fire** made major runs in all directions due to the erratic winds. The fire increased in size to 12,600 acres and progressed into the communities of Lytle Creek, Rancho Cucamonga and Fontana, destroying five residences and one outbuilding in its path. A force of interagency firefighters provided structure protection as the fire jumped Interstate 15 in the area of Fontana/Rancho Cucamonga and headed for several housing developments. Contingency plans continued to be developed for communities east of the fire, as predictions of a 180° wind shift were made. Mandatory evacuations were ordered for the communities of Rancho Cucamonga, as well as Lytle Creek. The Jesse Turner Community Center in Fontana offered refuge to evacuees of the affected areas. Active fire forced the closure of Interstate 15, Interstate 210, Lytle Creek Road, Rancho Cucamonga Canyon Road and Wardman Bullock Banyon Road.

With residences, ranches and vital agricultural lands threatened in the area of the **Piru Fire**, firefighters focused their attention on building containment lines around the 1250-acre fire. With

the forecasted wind event, contingency lines were established for structure protection in the Fillmore area.

Incident Command on the **Pass Fire** continued its rapid demobilization of resources, enabling reassignment to other fires in the area. The Damage Assessment Teams concluded their inventory of all damaged and destroyed structures. Five residences and 21 outbuildings were destroyed. Three residences and two outbuildings were damaged.

At 1:07 p.m., the **Verdale Fire** was reported four miles west of Santa Clarita. At 5:00 p.m. a request for an Incident Management Team was ordered to manage the incident. LA County and Ventura County entered Unified Command.

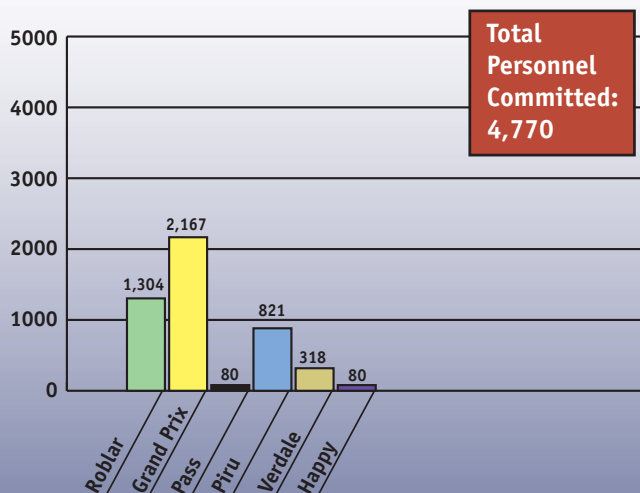
The **Happy Fire**, 10 miles east of Santa Ynez on Highway 154, was reported at 3:05 p.m.

With the rapid assignment of fire resources throughout southern California to battle the ongoing fires, agency administrators for San Diego City and CDF made a strategic decision to increase coverage for all stations in the San Diego area. San Diego aircraft had been assigned to fires in other parts of southern California.

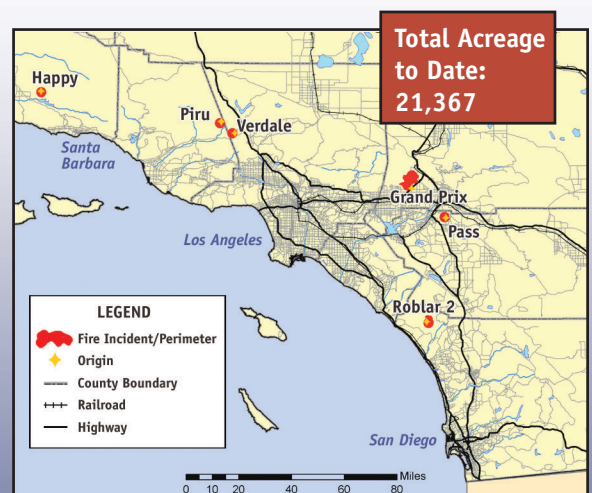


The fires' impacts on communities was vast.

### Personnel Committed: Day Four



### Acreage Involved: Day Four



# Saturday, October 25, 2003

- Weather conditions worsened and magnified danger to people and firefighters.
- Playground Fire in Crestline was started and burned structures. It merged with the Old Fire and became part of the Old Fire Incident.
- Old Fire started at the north end of the city of San Bernardino in the San Bernardino National Forest. Fire destroyed structures by early afternoon.
- Old Fire grew from 20 acres to 10,000 acres in eight hours.
- Cedar Fire started in an inaccessible area of the Cleveland National Forest east of San Diego at about 5:30 p.m. This fire became the largest in California's recorded history.
- Simi Fire started in Ventura County jurisdiction near Piru. Fire burns 80,000 acres in the next 16 hours.
- Highways 118, 126 and 23 in Ventura County are closed. Extreme burning conditions were reported on the Simi Fire.
- Grand Prix Fire transitioned to a Federal National Team.
- Competition for resources were at a critical stage. Resources were ordered from out of state.

*“They’ve had spread rates of 10 miles in seven hours. When a fire does that, your efforts are turned from the firefight to firefighter and public safety. You just hope you can get all the people out of the way in time.”*

Larry Hood, US Forest Service Fire & Fuels Specialist

## Major Resources Committed on October 25th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2 (4)	38	87	0	15	145	4,740	70
Grand Prix (2)	48	274	15	27	227	27,182	23
Piru (5)	29	16	6	2	108	1,253	90
Verdale (3)	29	84	4	8	88	15,000	30
Happy (6)	5	9	2	4	5	250	40
Simi	0	40	0	0	0	47,150	0
Old (1)	18	136	9	3	124	10,000	0
Cedar	18	27	0	3	5	5,319	0
Contained Fire	-	-	-	-	-	2,387	100
<b>TOTALS</b>	<b>185</b>	<b>673</b>	<b>36</b>	<b>62</b>	<b>711</b>	<b>113,281</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the “contained fires” section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

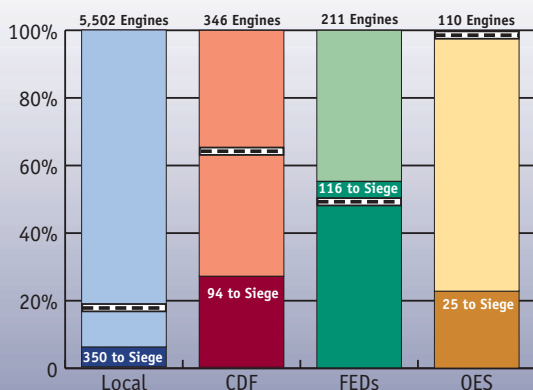
	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	96	84	99
Min. Rel. Humidity	6%	10%	8%
Wind	N14 G42	E5 G15	NE14 G22
Fire Danger	extreme	extreme	extreme

Remarks: Red Flag Warning for high winds (Santa Ana) still in effect.

## Community Impacts

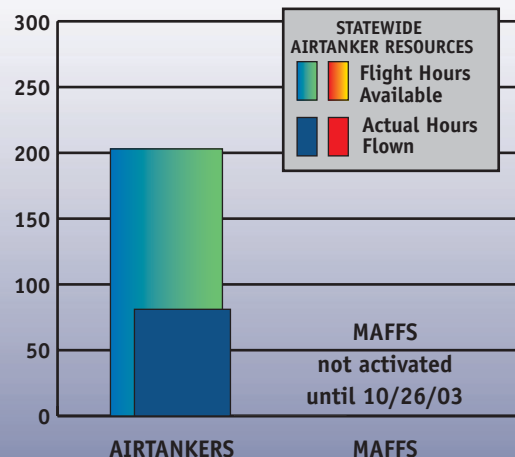
- Cedar Fire Unified Command provided structure protection and supporting public evacuations near San Diego.
- Agricultural interests threatened in communities of Piru and Fillmore.
- Multiple structure losses reported on Cedar, Old, Simi and Grand Prix.
- Verdale Fire reported Val Verde and Piru communities and oil fields are threatened.
- Simi Fire threatened communities of Simi Valley and Moorpark.

## Resources Committed: Engines



STATEWIDE ENGINE RESOURCES 10/25/03  
 Legend: % Engines Committed to Initial Attack Throughout CA, % Engines Committed to So. CA Fire Siege, Planned Maximum Draw for Going Fires

## Resources Committed: Airtankers



- Patton State Hospital in San Bernardino evacuated during Old Fire.
- Power outages to 28,000 customers in Lake Arrowhead, Crestline and Running Springs as a result of the Old Fire.
- Old Fire threatened California State University, San Bernardino.
- Old Fire compared to the Panorama Fire of 1980. In actuality, Old Fire had faster spread than the Panorama.
- Playground Fired burned homes in Crestline.
- San Bernardino Regional Area Resources at maximum drawdown levels. Multiple fire stations uncovered including all San Bernardino Fire Stations.



*Palms fronds were responsible for causing spot fires.*

## Human Factors

- 30 serious injuries to date.
- 7,039 personnel committed to all fires to date.
- Two civilian fatalities on the Old Fire.
- Two firefighters suffer 2<sup>nd</sup> degree burns and are flown to a burn center.
- So Cal Edison shuts off power to Idyllwild.

## Decisions

- Preparedness Levels: South Ops-3, National-2
- Old Fire Unified Commanders utilized Mountain Area Safety Taskforce (MAST) planning effort for crucial strategies and tactical decisions.
  - U.S. Forest Service ordered a Federal Region Team to augment initial attack readiness in San Bernardino Mountains.

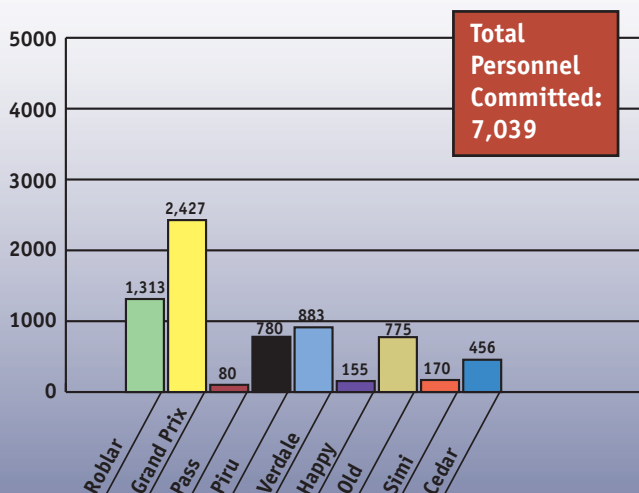
- U.S. Forest Service ordered a Federal National Team for the Old Fire.
- The U.S. Forest Service assigned the Prepositioned Federal National Team to relieve the Federal Regional Team on the Grand Prix fire and remained in the existing Unified Command.
- Simi Fire starts from a spot fire on the Verdale Fire. Incident Commanders decide to split fire into two incidents.
- L. A. County Fire Chief makes decision to strategically place resources to provide structure protection to Claremont and La Verne west of the Grand Prix Fire—even though it meant strictly limiting resources in other areas.
- Due to wind and smoke from the Grand Prix Fire, aircraft were grounded on some incidents and redeployed to other fires.
- The U.S. Forest Service began the process to close the Angeles and Cleveland National Forests.

- Incident Commanders on the Verdale, Piru and Simi Fires began to coordinate & share resources among the fires.
- Ventura County Fire Chief requested ambulances to cover empty fire stations to provide Emergency Medical Service (EMS) to the public.
- CDF initiated request for two California MAFFS from California National Guard.
- Personnel ordered to staff Joint Information Center.
- MACS decides to move to preparedness level 5, Mode-4.
- FMAG requested through OES for Simi Fire.

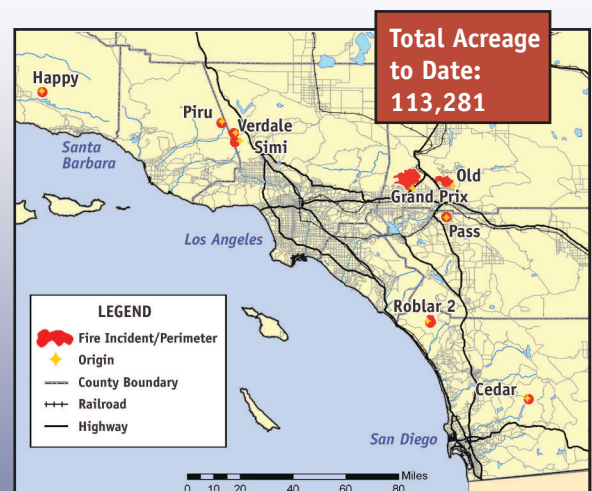
## Damage Assessment

- 113,281 acres burned to date during siege.
- Estimated 70 residential and 23 outbuildings burned to date during siege.
- Estimated fire suppression costs to date: \$12,229,417

## Personnel Committed: Day Five



## Acreage Involved: Day Five



- Multiple Federal and State Command Teams ordered for Cedar, Simi and Old Fires.

- Governor Davis proclaims a State of Emergency in San Bernardino and Ventura Counties.

- A helicopter grounded on October 24th due to mechanical issues near the Grand Prix perimeter was burned over and scorched.

- Intense media attention escalates from all national and many international networks.

- California Fire Agencies responded to and contained 197 new wildland fires statewide.

## *The Fight Continues*

### *Santa Anas and extreme fire behavior*

Over the area of the **Grand Prix Fire**, a Santa Ana wind pattern developed creating very erratic weather conditions. Winds whipped in all directions. Extreme fire behavior with spotting, torching and fire whirls led to the fire's progression into the Deer Creek drainage. The number of residences burned increased to six, and the fire grew to 27,182 acres. Successful structure protection efforts allowed evacuations for the communities of Lytle Creek and the Banyon areas of northern Fontana/Rancho Cucamonga were reduced to voluntary evacuations. New mandatory evacuations were ordered for western Rancho Cucamonga and San Antonio Heights. The evacuation center at the

*...extreme fire behavior was observed throughout the day, additional evacuations were anticipated. Air Operations were halted due to high winds. Southern California Edison power was shut down to the foothills during the fire runs.*

Jesse Turner Community Center in Fontana and an additional evacuation center in Rancho Cucamonga remained open and ready to handle the new evacuees. Extreme fire behavior was observed throughout the day, additional evacuations were anticipated. Air Operations were halted due to high winds. Southern California Edison power was shut down to the foothills during the fire runs. With the imminent threat of fire spread into Los Angeles County, the LA County Fire Chief made a strategic decision to place resources where he felt they were needed most, even if that meant severely limiting resources at other stations throughout the county. The cause of the Grand Prix Fire was determined to be "human caused." Command for the Grand Prix Fire transitioned to a Federal National Team under Unified Command. At 11:00 p.m. the fire entered the city of Claremont prompting additional evacuations.

The **Verdale Fire** threatened the communities of Piru and Val Verde and 15 oil fields. Overnight, firefighters worked to hold the fire to 15,000 acres. An oil pipeline infrastructure was damaged requiring a hazardous materials response. Fish and Game was notified, and two residences were evacuated in the area. During the day, high winds prevented firefighters from mounting an aggressive attack on the fire. The Verdale Fire was approved for FMAG.

The fire spotted  $\frac{3}{4}$  of a mile across Highway 126 and spread to Highways 118 and 23. Simi Valley and Moorpark areas were threatened. At that time, a strategic decision was made to split the fire at Highway 126. North of the highway would continue to be known as the Verdale Fire, south of Highway 126 would be known as the **Simi Fire**. With this decision, all road closures were lifted for the area of the Verdale Fire. The Simi Fire burned 80,000 acres in 16 hours. A State Incident Command Team was ordered to manage the Simi Fire in Ventura County.

Eight strike teams of engines were involved in the initial attack of the Simi Fire. Their mission was to provide structure protection for the Simi Valley and Moorpark areas of the fire. At one point, only three of the 32 Ventura County Fire Department stations were covered. The Ventura County Fire Chief requested private ambulance services to cover all vacated fire stations in order to ensure a basic level of EMS for the county.

On the **Piru Fire**, firefighters continued to concentrate their efforts on holding the fireline and providing structure protection for the



*A helicopter dampens approaching flames on the Cedar Fire.*

threatened homes in the Fillmore area. The fire grew from 700 acres to 1,253 acres in 24 hours and was burning within the 1997 Hooper Fire area. Contingency plans were in place for the predicted wind event, as the fire was projected to increase in size significantly. Several additional structures were threatened.



*The Old Fire progressed rapidly forcing the evacuation of thousands.*

Incident Commanders for the Verdale, Piru and Simi Fires entered into an informal Area Command to coordinate and share resources between the fires and better facilitate their management.

On the **Happy Fire**, aggressive firefighting efforts held the fire to 250 acres. There was no immediate threat to structures, however, some residential ranches were located in the area. Good progress was made with dozers, and the fire was declared 100 percent contained by the next day.

The **Old Fire**, located on the Old Waterman Canyon Road, north of the City of San Bernardino, was reported at 9:17 a.m. By 6:30 p.m., the fire had grown to 10,000 acres, with 7,000 residences threatened and hundreds destroyed. High winds and limited visibility limited the use of aircraft to attack the fire. As thousands of San Bernardino residents were evacuated from their homes, the 18-month MAST planning effort paid dividends, as it proved to be crucial in interagency cooperation and effectiveness. The plan gave incident commanders the ability to do their jobs with greater ease during a hectic time. Successful action was taken by the local fire departments to facilitate immediate protection of life and property. Cause of the fire remained under investigation at this date, but was reported by the media to be arson. The Old Fire was approved for FMAG.

The **Playground Fire** starts near Crestline at 7:20 p.m. Fire grows to 20 acres within one hour and begins to burn homes. U.S. Forest Service decides to assign Playground Fire to Old Fire because the fires would soon merge. Evacuations are ordered for Lake Arrowhead Area.



*The Old Fire, started near Waterman Canyon Road and destroyed hundreds of homes.*

The **Cedar Fire**, located in the area of Cedar Creek and Boulder Creek roads in San Diego County, was reported at 5:37 p.m. By 7:00 p.m., this human caused fire was reported as 10 acres in size. There were 50 residences threatened at that time, and 456 personnel were on scene. The fire started late in the day after the cut-off time used to ensure safe aircraft operations. This prohibited the use of air attack on the first day of the fire.

On the opposite end of the scale, marine weather conditions with increasing humidity on the **Roblar 2 Fire** overnight left crews unable to successfully perform a firing operation that would have contained the northeast portion of the fire. Hand crews were tasked to continue work building over two miles of direct fire line. The evacuation center remained open to accommodate the voluntary evacuation of De Luz.



*Downed power lines created safety concerns for firefighters and power outages for citizens.*



# Sunday, October 26, 2003

- Paradise Fire started near Valley Center in San Diego County.
- Otay Fire started in San Diego County near Mine Canyon Road on Otay Mountain.
- Mountain Fire started in the Sage area, Riverside County. Threatened homes east of Temecula.
- Wellman Fire started in Riverside County near Anza. Fire contained at 100 acres.
- Governor Davis declared a state of emergency in San Diego and Los Angeles Counties.
- FAA ordered evacuation of Regional Terminal Radar Approach Control Facility at Miramar Marine Air Station, due to the approaching Cedar Fire.
- Commercial airline flights in region impacted. Some airports closed. Air travel disrupted nationwide.
- Two small planes crashed in San Diego County due to poor visibility from smoke.
- San Diego Gas & Electric Co. shut down a major electrical transmission line serving 11,000 homes and other sites around San Diego.

*“The reason the Simi Fire burned a smaller percentage of the structures that were threatened compared to the Grand Prix, Old, Cedar and Paradise Fires is directly related to the mandatory, minimum 100 foot clearance ordinance in Ventura County.”*

Kelley Gouette, CDF-San Luis Obispo, Operations Chief, Simi Fire

## Major Resources Committed on October 26th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2 (7)	13	34	0	2	112	6,892	85
Grand Prix (3)	43	347	15	27	233	52,184	25
Piru (6)	29	16	7	2	108	25,000	5
Verdale (5)	21	45	0	5	122	8,680	85
Happy	5	9	2	4	5	250	100
Simi (4)	1	144	6	1	58	80,000	5
Old (2)	30	180	8	4	199	24,000	5
Cedar (1)	30	170	3	1	15	134,257	0
Paradise (1)	14	55	0	0	35	15,000	0
Mountain	0	38	3	3	78	2,000	0
Otay/Mine	8	6	0	0	33	10,000	0
Wellman	0	17	1	4	5	100	20
Contained Fire	-	-	-	-	-	2,387	100
<b>TOTALS</b>	<b>194</b>	<b>1,061</b>	<b>45</b>	<b>53</b>	<b>1,003</b>	<b>360,750</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

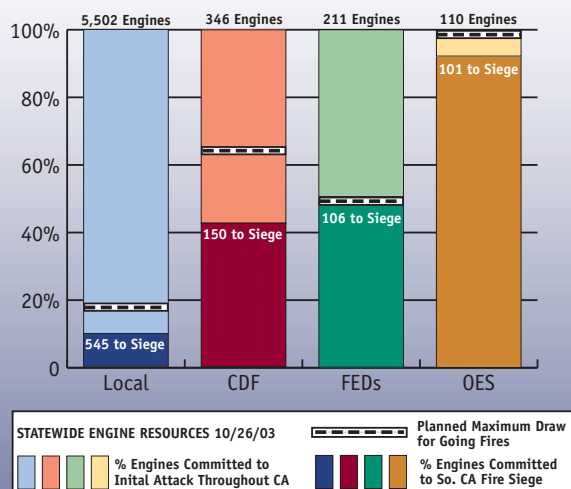
	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	91	69	95
Min. Rel. Humidity	6%	9%	7%
Wind	NE18 G38	E22 G49	E21 G31
Fire Danger	extreme	extreme	extreme

Remarks: Red Flag Warning for high winds still in effect. Extreme fire rates of spread experienced. Spotting over a mile away, torching, crowning, intense runs observed.

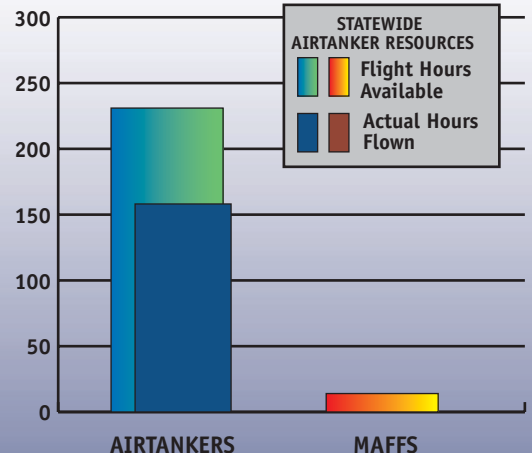
## Community Impacts

- No power in the Anza area affects water supply, hampering water supply for hose lays.
- Widespread threat to domestic livestock and farm animals in rural areas and associated wildlife refuge areas. Ranch structures were also threatened on several fires.
- Mass community evacuations continue to affect many areas including two community hospitals and zoo in Big Bear.

## Resources Committed: Engines



## Resources Committed: Airtankers



- Air quality degradation widespread in southern CA.
- Exposed portions of S. CA Edison power grid are being shut down during fire runs.
- Railroad freight lines in the Cajon Pass area were shut down resulting in \$2 million per hour revenue loss. Amtrak passenger lines also shut down in the Simi Valley area.
- Many major roads and freeways remain closed or impacted.
- Fires caused the closure of businesses, public offices and schools in southern CA.
- Ships docked in San Diego pressed into duty as evacuation centers for military families.
- A total of 22 evacuation centers operating in southern California. More than 5,000 evacuees being housed.
- FAA San Diego Center shut down due to fire threat.

### Human Factors

- Cedar Fire had 13 civilian fatalities.
- Paradise Fire: 2 fatalities confirmed, numerous civilian fatalities reported but unconfirmed.
- 37 serious injuries to date. Serious burn injuries being reported.
- Red Cross opening evacuation centers in multiple areas.
- Resources on the Otay Fire are in a “defensive posture” until winds die down and more resources become available.
- Pressure from elected officials to obtain more MAFFS aircraft from out of state even though fire commanders did not identify a need.
- Congressional and legislative information requests increase to a level that began to impact the Incident Commanders’ ability to make quick, decisive decisions on Cedar Fire.

### Decisions

Preparedness Levels: South Ops-5; National-2

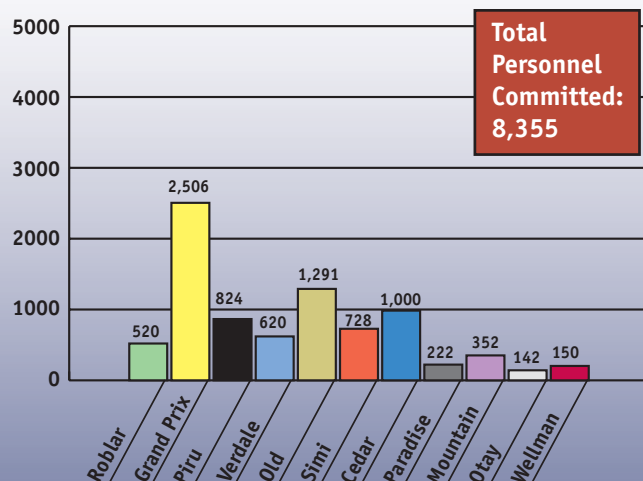
- California National Guard military resources assigned to Cedar and Paradise Fires.
- U.S. Forest Service assigned contract airtankers to siege from across the nation, and activated six military airtankers from outside California.

- U.S Forest Service staffed the Emergency Support Function 4 (ESF-4, Firefighting) at the FEMA Regional Operations Center in Oakland.
- Back firing was initiated along Highway 18 and 138 near Crestline.
- State Incident Command Team assigned to the Cedar Fire.
- FMAG requested for Cedar and Padua fires.
- Substantial resources sent to “heel of fire” in effort to save Julian, Pinehurst and Cuyamaca from an aggressive Cedar Fire.
- U.S. Forest Service staffed the Emergency Services Function of the Federal Disaster Plan in the anticipation of a federal disaster declaration.
- Initiated strategic decision to utilize the International fuelbreak on the Otay Fire for large defensive action.
- State Incident Command Team assigned to the Paradise Fire.
- State Incident Command Team assigned to the Mountain Fire.
- Paradise Incident Commander went outside the normal ordering system to obtain resources due to the magnitude of the situation. Tribal Government helped with incident response by providing equipment.
- San Diego County Emergency Operations Center activated.
- U.S. Forest Service decided to split Padua Fire from Grand Prix Fire and ordered a Federal National Team.
- Grand Prix Fire assigned eight strike teams of engines to assist the Old Fire in the protection of the community of Devore.
- Grand Prix and Old Fire burned together at Cajon Pass.

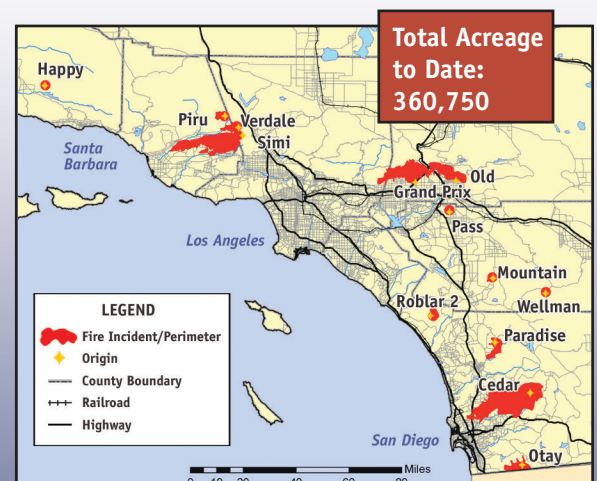
### Damage Assessment

- 360,750 total acres burned to date during siege.
- 435 residential, 151 outbuilding and 10 commercial structures burned to date during siege.
- Damage assessment teams continue to survey and document fire losses.
- Estimated fire suppression costs to date: \$17,582,534

### Personnel Committed: Day Six



### Acreage Involved: Day Six



- The Simi Fire threatened to jump the Highway 118.
- Amtrak passenger service and rail freight disrupted. Union Pacific had to park 30 trains, and Burlington Northern Santa FE delayed 82 trains due to closure of rail lines through Cajon Pass and Simi Valley.
- California Fire Agencies responded to and contained 213 new wildland fires statewide.

## A Full-fledged Siege

### Resources are tapped

As media and political attention elevated regarding the fires in southern California, so did the number of requests for information at all levels. This attention impacted the fire commanders' ability to make quick, decisive decisions in some cases. As the number of fires escalated and a federal disaster declaration was anticipated, U.S. Forest Service staffed the FEMA ESF-4 (firefighting) function.

At 1:30 a.m., a new fire was reported. The **Paradise Fire** was located in the Valley Center area of San Diego County. Very hot, dry winds drove the fire to more than 15,000 acres by 7:00 p.m. There were reports of civilian fatalities, as well as the destruction of 57 homes and 103 outbuildings. Major portions of Valley Center were evacuated. The fire was determined to be "human caused." In order to obtain firefighting resources, the incident commander went outside the normal ordering process. Tribal Government assisted in the incident response by providing additional equipment to fire commanders.

At 10:30 a.m., the **Roblar 2 Fire** was reported as 85 percent contained. The anticipated wind conditions did not surface as predicted, providing firefighters the break they needed to work toward containment. Resources were in great demand throughout southern California. Good progress on the Roblar 2 Fire allowed the IC to release resources for use on other fires. Roads in the De Luz area were re-opened to residents. The evacuation center at St. Peter's Church remained opened.

When the call was received reporting the start of the **Mountain Fire** in Riverside County, fire personnel immediately responded leaving 30 fire stations unstaffed. Within the first hour, the fire grew to more than 2,000 acres, destroying six homes and threatening hundreds more. Area residents were advised to leave their homes and head for the evacuation center at Temecula Valley High School. A large animal evacuation center was established at Cactus Valley. Two civilians received treatment for serious burn injuries. Containment efforts were complicated by a wind-driven, fast moving fire and limited resources.

At 1:00 p.m., the **Otay/Mine Fire**, started in Mine Canyon near Otay in San Diego County. Extreme rates of fire spread were observed. A Bureau of Land Management fuel break was

utilized to contain a portion of the fire, as the fire quickly escalated to more than 10,000 acres in the first six hours. With multiple fires in San Diego County, resources were becoming extremely scarce. More than 300 homes were endangered; and when the fire threatened transmission lines, the Governor's Office and San Diego Gas & Electric were notified. Highway 94, Otay Mountain, and Otay Lakes roads were closed. A State Incident Command Team was ordered.

At 1:05 p.m., the **Wellman Fire**, near Anza in Riverside County was reported. Initially, the local area was evacuated and roads were closed. By 6:00 p.m., residents returned to their homes. With electric power shut off, water tenders had to go several miles to Garner Valley for water. This fact, coupled with limited resources and a delayed response of dozers, mired line construction. Hose lays were hampered by the lack of water, and there was no fuel in the area due to the lack of power. Immediately following the first report of the Wellman and Mountain fires, Riverside county Sheriff's Department deployed 70 deputies to stop all traffic on Highway 74 to look for arson suspects.

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*In order to obtain firefighting resources, the incident commander went outside the normal ordering process.*

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Extreme fire conditions driven by winds in excess of 45–50 miles per hour ravaged the area of the **Grand Prix Fire**. Fire spread rapidly in all directions. High voltage power lines, providing up to 25 percent of the power to the Los Angeles Basin, were shut down. The number of homes destroyed rose to 60. Evacuations, both mandatory and voluntary, continued throughout the area while the American Red Cross worked to establish additional evacuation centers. Interstates 15, 215 and 210, as well as the Santa Fe Burlington Union Pacific rail lines were closed causing major impacts to interstate commerce.

Westward spread toward Claremont and Mt. Baldy communities prompted the LA County Fire Chief and U.S. Forest Service to split off the western branch of the Grand Prix Fire, and create a separate fire to be called the **Padua Fire**.

Firefighters made good progress on the **Verdale Fire** as fire behavior moderated. Over the

life of the fire, more than 800 structures were threatened, as the fire grew to 8,680 acres spreading west toward Piru. Under difficult conditions, firefighters did an incredible job, limiting losses on this fire to one outbuilding. No further movement of the fire was expected. Structural fire personnel started the process of demobilization of resources for reassignment to other fires.

Fire personnel battled against erratic winds as the **Piru Fire** expanded to the south and west at high rates of spread toward the communities of Fillmore, Ventura, Santa Paula and Piru. The fire produced a convection column of more than 20,000 feet. The fire threatened Hopper Ranch and the Condor Research site. Effective structure protection occurred with limited suppression resources.

Evacuations continued on the **Old Fire**, as the winds drove the fire to both the east and west. Although the Red Cross attempted to establish evacuation centers in several areas, the primary evacuation center was located at the San Bernardino International Airport. With more than 300 residences destroyed and the fire consuming more than 24,000 acres, a National Incident Management Team was ordered and established unified command of the fire at 6:00 a.m. October 27, 2003. Backfiring operations along Highway 18 commenced to protect the mountain communities and \$7.5 billion in infrastructure.

The **Simi Fire** experienced extreme rates of spread immediately after crossing Highway 126. More than 6,800 residences were directly threatened and six were destroyed. 10,000 additional residences were indirectly threatened by the fire. Firefighters were committed primarily to structure protection efforts. The Ronald Reagan Presidential Library Complex was threatened. The fire closed Highways 118, 126, and 23. The Red Cross opened four evacuation centers within the Simi Valley area.

As the threat to structures and lives was grave, firefighters worked long shifts to battle the **Cedar Fire**. Over 1,000 structures were destroyed when the fire burned through San Diego Country Estates, Barona Indian Reservation, Barona Mesa, Ramona, Mussey Grade, Poway, San Diego, Lakeside, Harbison Canyon, The Crest, Peutz Valley and Alpine. The winds and heavy amounts of dry fuels in the area contributed to the rapid spread of the fire. Extreme fire behavior was observed throughout the night.

With more than 30,000 residences threatened, more than 1,000 fire personnel fought the blaze. There were 13 civilian fatalities, all of which occurred as people were attempting to evacuate their homes and were overrun by the fire front. Many of the communities threatened have very little ingress and egress, which hampered firefighting and evacuation efforts. Prevailing winds were less than predicted, but the fire continued to generate thermal convections that pushed the fire in a variety of directions with more than 200-foot flame lengths observed. Evacuation centers continued to support thousands of residents. Interstate 8, between Los Coches and Crestline, and Highway 67 were closed. Interstate 15 was closed intermittently.



*The Grand Prix and Old Fire merged and surrounded the Incident Command Post.*

# Monday, October 27, 2003

- At the request of Governor Davis, President Bush issued a Presidential Declaration of Major Disaster for the counties of Los Angeles, San Bernardino, San Diego and Ventura.
- Firefighters completed major burnout operation on the Otay Fire. Perimeter spread was stopped.
- Cuesta Fire started in San Luis Obispo County threatening city of San Luis Obispo and Santa Lucia Wilderness.
- Governor Davis initiated twice daily briefing calls to the press with participation from CDF and OES top management.
- Briefing conference calls were also made to Southern California Senate and Assembly delegates.
- CDF management leads briefing calls to congressional delegation in Washington DC and to State Assembly and Senate representatives.
- Lack of sufficient resources for all fires hampered control efforts.
- Firefighter fatigue was a major issue. Efforts were made to establish rotations for rest periods.
- Fire crews from throughout the west and as far away as Michigan joined effort to battle California's inferno.

*“The Cedar Fire burned 80,000 acres in 10 hours. That’s over two acres per second.”*

Tim Turner, San Diego Area Coordination Team

## Major Resources Committed on October 27th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Roblar 2	2	4	2	0	1	8,592	85
Grand Prix (5)	44	199	15	27	282	57,332	35
Piru (8)	37	20	4	13	160	29,324	10
Verdale	23	45	9	5	109	8,650	95
Simi (3)	14	210	6	9	151	92,000	5
Old (2)	37	251	10	4	79	26,000	10
Cedar (1)	35	315	9	8	345	200,555	0
Paradise (4)	18	115	2	2	75	30,000	15
Mountain (7)	10	54	6	16	99	9,742	55
Otay/Mine (6)	10	28	0	4	6	45,291	90
Wellman	0	10	0	2	1	100	100
Padua	17	79	0	2	87	8,000	15
Contained Fires	-	-	-	-	-	2,637	100
<b>TOTALS</b>	<b>246</b>	<b>1,310</b>	<b>68</b>	<b>96</b>	<b>1,433</b>	<b>518,223</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

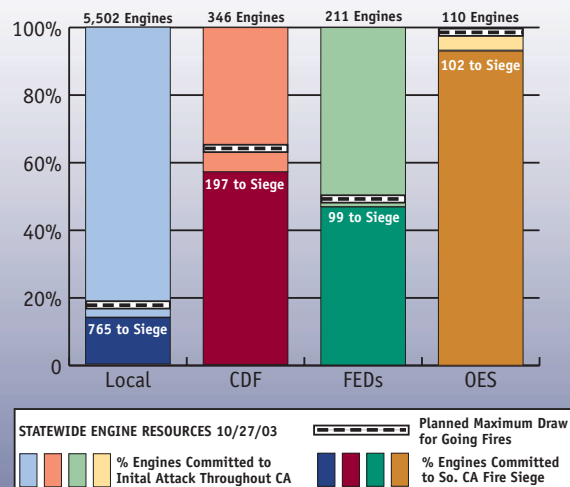
	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	96	77	91
Min. Rel. Humidity	9%	18%	8%
Wind	NE10 G30	E16 G32	E19 G26
Fire Danger	extreme	extreme	extreme

Remarks: Red Flag Warning for high winds rescinded this night.

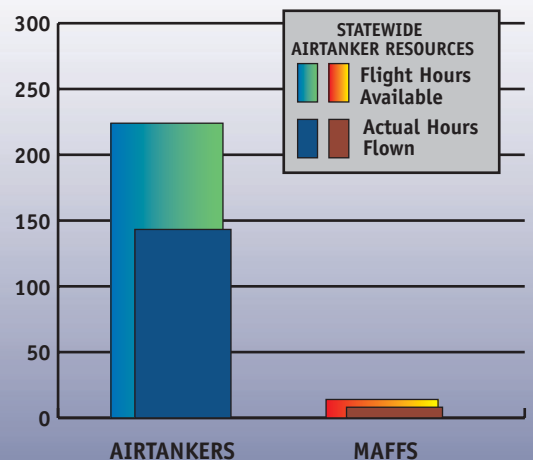


Fire burns above the city of San Diego.

## Resources Committed: Engines



## Resources Committed: Airtankers



## Community Impacts

- Piru Fire threatens the Sespe Condor sanctuary, Sespe Wilderness, Threatened & Endangered species and agricultural assets.
- Major utility poles down and damaged. 50,000 people without power.
- Thousands of structures continue to be threatened.
- Mountain Fire threatens farmland, animals, vineyards and numerous structures.
- Paradise Fire damages cell phone sites.
- Beetle killed trees in vicinity of the Old Fire mixed with structures is a huge concern for incident commanders.
- Sixteen or more towns and cities threatened by the Cedar Fire. Fire extends into San Diego city limits. Mass evacuations occurring, with evacuation centers set up in all major communities.
- Interstate 8, Highway 67 and Interstate 5 closed as a result of the Cedar Fire.
- Poor air quality from smoke increased purchases of dust masks and visits to hospitals.
- NFL moves Monday Night Football game between the San Diego Chargers and the Miami Dolphins to Phoenix, AZ.
- The Joint Information Center (JIC) opened and began to receive an average of 1,500 calls per day.
- The Union Pacific Railroad was closed for most of the day due to the Grand Prix Fire.

## Human Factors

- 17 fatalities to date.
- 13 fatalities on Cedar Fire were private citizens who were overrun by the fire front while attempting to evacuate.
- 53 serious injuries to date.
- 11,106 personnel committed to fires to date.

## Decisions

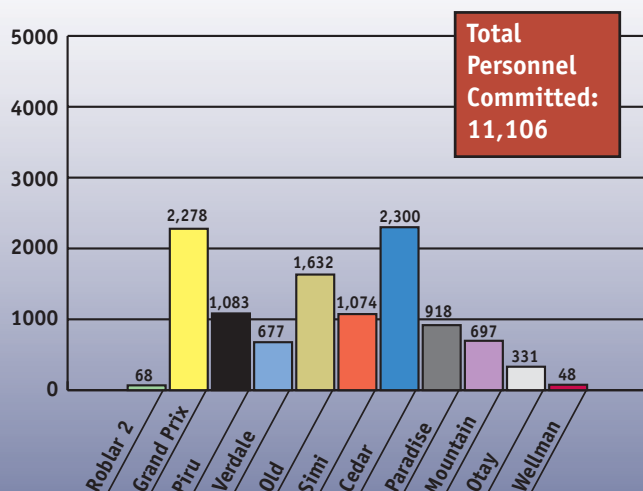
Preparedness Levels: South Ops-4, National-2

- Branch VII of the Grand Prix Fire was split off into the Padua Incident, due to span of control and lack of communication frequencies. The Federal National Team assumed command of the Padua Fire in Unified Command with LA County.
- MACS group began meeting at South Ops with continued conference calls to those who could not physically be at South Ops.
- Riverside County OES activated Level 1 operation.
- Evacuation center set up by Red Cross at Temecula Valley High School.
- Cedar Fire was split into East/West zones. Federal National Team assumed command of East zone.
- State Incident Command Team transitioned to command of the Piru Fire.
- Old Fire Federal Regional Team transitioned to a Federal National Team.
- Los Padres National Forest orders "fire area closures."
- Dozers approved for use in the Sespe Wilderness on the Piru Fire.
- Command of the Roblar 2 Fire was transferred from a Federal Regional Team to the Department of Defense.
- Closure of Angeles and Cleveland National Forests went into effect.

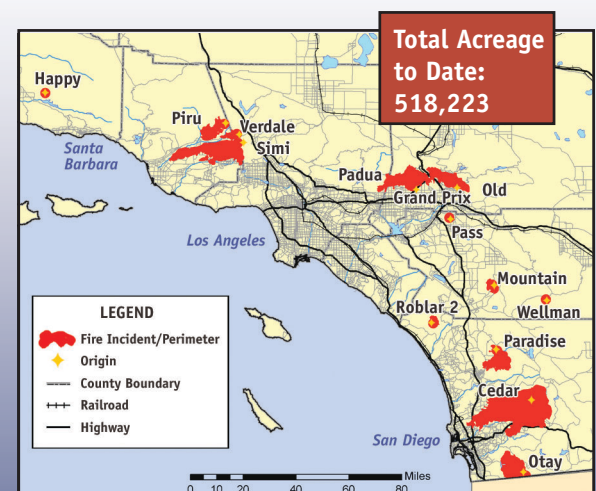
## Damage Assessment

- 986 residential, 10 commercial, 152 outbuildings burned to date during siege.
- 518,223 acres burned to date during siege.
- Estimated fire suppression costs to date: \$20,000,000
- Poor brush clearance around homes with no defensible space causing problems for firefighters protecting structures.

### Personnel Committed: Day Seven



### Acreage Involved: Day Seven



- Firefighter morale was falling due to negative media coverage on the Cedar Fire.
- Ventura County fuels reduction efforts and vegetation projects were successful in helping suppression efforts on the Piru Fire, and contributed to lessen fire impact in developed areas on the Simi Fire. Residents able to shelter in place due to community design.
- Simi Fire spotted across 118 freeway and threatened Chatsworth and Los Angeles. Spot fire was contained at 50 acres. Los Angeles City and County Fire Departments entered into unified command with CDF and Ventura County Fire Dept.
- Roblar 2 Fire 85% contained.
- MACS convened at South Ops where face-to-face meetings replaced twice daily conference calls.
- National Football League moved Monday Night football game scheduled for November 3<sup>rd</sup> from San Diego to Tempe, Arizona. The San Diego Stadium (Qualcomm) parking lot was being used as a emergency relief location.
- California Fire Agencies responded to and contained 183 new wildland fires statewide.

## Safety is Primary

### Numerous homes destroyed

With winds predicted in excess of 40 mph, firefighters knew they would have their hands full fighting the fires throughout southern California.

They realized, even if the elected officials and public didn't, that it would take more than air tankers to extinguish fires of this magnitude. It would take a variety of strategies and tactics for the fire personnel to be successful.

As both high winds and dry fuels continued on the **Paradise Fire**, the fire grew to 30,000 acres. Two civilian fatalities were confirmed. Power to the Valley Center area was disrupted, and there was damage reported to several cellular telephone sites. The fire was held along Valley Center Road and Highway 76. As winds calmed, firefighters made progress in the Escondido area.

Containment of the **Roblar 2 Fire** stood at 85 percent. Santa Ana winds pushed the fire west into Camp Pendleton's military training area. Management of the fire was turned over to the military. Excess fire resources were demobilized for reassignment to other fires.

The Santa Ana winds, high temperatures, and low humidity challenged firefighters on the **Grand Prix Fire**. With the immediate threat to the communities of Lytle Creek, Rancho Cucamonga, San Antonio Heights, Upland, Mt. Baldy, Claremont, Rialto, Fontana, LaVerne and San

Dimas, mandatory evacuations remained in effect. Railroad service to the area remained closed, as did Interstate 210 and 215. Portions of the South California Edison power grid remained shut down. When the fire entered Los Angeles County and Angeles National Forest the Grand Prix Incident Management Team experienced span of control and communication issues. The distance between the

camp and the western portion of the fire was too great for the Team to realistically manage. Moreover, the ability for firefighters to communicate with the base camp was extremely poor raising valid safety issues. The western branch of the Grand Prix Fire became the **Padua Fire**. A Federal National Team assumed unified command with Los Angeles County Fire Department. A successful firing operation started on the 26th was effective in slowing the Westward progression of the fire.

Prior to the winds diminishing, the **Simi Fire** experienced extreme rates of spread. The fire now encompassed more than 92,000 acres. Winds drove the fire as it jumped Highway 118 in the early morning hours. Historically, when fires are fueled by strong Santa Ana winds and reach the area of Rocky Peak near Simi Valley, they burn all the way to



*Fires burned rapidly through dead, diseased and dying forests.*

Malibu. With this information in mind, the Fire Chief launched all available air resources in order to stop the eastern progression of the fire toward Highway 118. This independent action was successful. Due to the aggressive fire suppression efforts by firefighters, the slope over was contained at approximately 50 acres. Several roads within the area remain

closed. Structures along the southern and western edges are threatened and will remain so until adequate line construction efforts can begin. Sixteen homes and 64 outbuildings have been destroyed to date. Through pre-planning efforts by Ventura County Fire personnel, the local citizens were able to shelter in place. Local cellular telephone sites were overwhelmed. Union Pacific Railroad lines were closed in the Simi Valley area effecting freight and Amtrak service on main California coastal railway. Media coverage of the Simi Fire increased drastically as Governor-Elect Schwarzenegger visited the Incident Command Post.

A major burnout operation was successfully completed on the **Otay/Mine Fire**. Although a federal repeater site was damaged in the fire, and there were many utility poles down and damaged, the main transmission lines were out of danger. The area burned was 45,291 acres and the fire had been declared 90 percent contained.

As was the case with many of the other southern California fires, winds drove the **Mountain Fire** to almost 10,000 acres over night. The fire moved very quickly with short and long range spotting. The fire continued to threaten residential dwellings, farmland, vineyards and domestic animals. Mandatory evacuations in the communities of Sage and Glen Oak Hills remained in effect.

Overnight, the **Piru Fire** pushed south and west reaching the communities of Piru and Fillmore. The fire was closing in on the Sespe drainage creating a potential threat to the west. In spite of the extreme fire behavior, steep rugged terrain, heavy fuel loading, and limited resources, firefighters have been very successful in providing structure protection to threatened communities. To date, with more than 300 structures threatened and 29,324 acres burned, fire personnel have been successful in protecting all but one outbuilding. A State Incident Command Team assumed command of the Piru Fire in a Unified Command with U.S. Forest Service, Ventura County Fire, and Ventura County Sheriff's Department.

As the Federal National Team arrived at the **Old Fire**, they found 24,000 acres had burned to date. Firefighters were faced with all the right conditions for a catastrophic wildfire—strong winds, heavy fuel loads, and drought and disease stressed trees intermingled with thousands of homes. Structures continued to be burned as the fire spread rapidly

throughout the area. Fire crews struggled with the elements to provide structure protection and establish anchor points in order to stop the spread into San Bernardino. Several mountain communities were under mandatory evacuations with the primary evacuation center located at the airport and a secondary center opened at the Sultana High School in Hesperia. Successful evacuations occurred due to extensive pre-planning and community participation. Throughout the day, the fire continued

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*The fire moved very quickly with short and long range spotting observed. The fire continued to threaten residential dwellings, farmland, vineyards and domestic animals. Mandatory evacuations in the communities of Sage and Glen Oak Hills remained in effect.*

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to make runs, even in areas that had already burned. Continued structure protection in Devore were successful in that area. The successful structure protection can be credited to firefighters efforts and the use of firefighting gels. Air tankers and helicopters were used to keep the fire south of the Rim of the World and out of the major population center. At the day's end, there were more than 1,600 fire personnel and resources assigned to the Old Fire.

On the **Cedar Fire**, high level Santa Ana winds continued to push heavy smoke over the San Diego area while the fire began pushing east under a light onshore flow. A State Incident Command Team assumed command at 7:00 a.m. Significant perimeter control operations were successful in Poway, San Diego and the Harbison Canyon area south of Interstate 8.

Using a recent 1,000 acre prescribed burn north of Pine Valley and a 380 acre brush reduction project area at Mt. Laguna, perimeter control operations began on the SE flank of the fire that would eventually save the communities of Descanso, Guatay, Pine Valley and Mt. Laguna.

The fire burned easterly and spread over the top of Cuyamaca and North Peaks and was burning in Cuyamaca State Park. Most of the structures burned were in the area west and north of the community of Descanso.



- Otay Fire 100% contained.
- Cedar Fire charred more acres than any in California history. Rate of fire spread was 6,000 acres per hour the first 36 hours.
- CDF/OES management briefed the California Congressional Delegation.
- The attention of agency administrators was diverted responding to inaccurate allegations by local press and elected officials.
- Reassignments occurred from surplus resources on the Verdale Fire to other fires.
- Cuesta Fire contained at 238 acres. Extensive local mutual aid was key to success.
- Piru Fire burned both in back country and I-zone areas.
- Six Federal airtankers reported damage by debris lofted into the air from the fires.
- Chief of U.S. Forest Service tours So. California fires and consults with state and federal officials.

*“We assigned every available contract airtanker in the nation in order to meet the legal requirements for ordering the military airtankers.”*

Ray Quintanar  
 Director of Fire and Aviation Management  
 U.S. Forest Service, Pacific Southwest Region

## Major Resources Committed on October 28th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (6)	44	199	15	27	282	59,229	35
Piru (7)	43	105	5	23	211	55,812	20
Verdale	0	4	0	0	49	8,650	100
Simi (5)	21	241	9	27	172	97,880	25
Old (1)	39	338	10	7	131	36,780	10
Cedar (2)	28	503	14	14	605	206,000	0
Paradise (3)	28	126	6	8	97	40,000	20
Mountain (8)	12	44	3	0	55	9,890	85
Otay/Mine (9)	8	20	0	0	14	45,971	100
Padua (4)	17	79	3	2	87	9,446	30
Contained Fires	-	-	-	-	-	11,329	100
<b>TOTALS</b>	<b>240</b>	<b>1,659</b>	<b>65</b>	<b>108</b>	<b>1,703</b>	<b>580,987</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

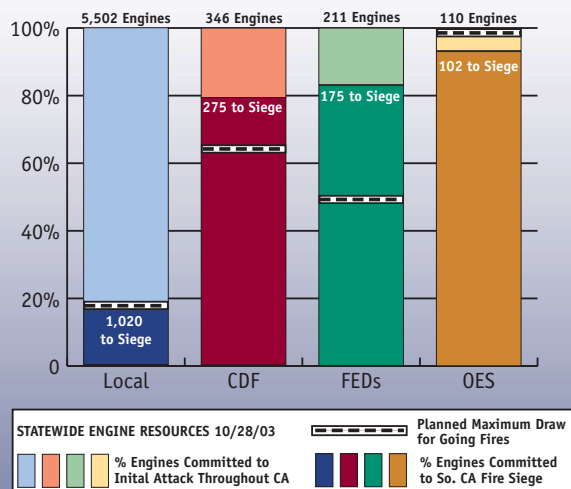
## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	93	88	95
Min. Rel. Humidity	10%	12%	9%
Wind	NW7 G14	E4 G11	E15 G21
Fire Danger	extreme	extreme	extreme

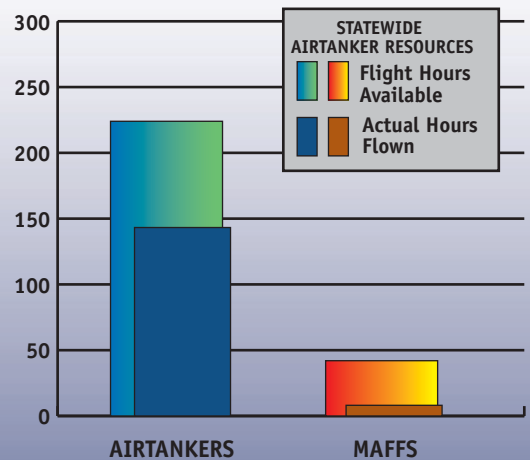
Remarks: Flames lengths reaching 50-200 feet.



## Resources Committed: Engines



## Resources Committed: Airtankers



## Community Impacts

- 90% homes & businesses in Lake Cuyamaca burned by Cedar Fire.
- Firefighters battle to save the community of Julian in San Diego County from the Cedar Fire.
- Air quality situation worsens.
- Mountain Fire road closures lifted.
- Nine additional communities threatened by the Simi Fire.

## Human Factors

- 17 fatalities reported to date
- 13,371 personnel committed to fires to date.

## Decisions

Preparedness Levels: South Ops-4, National-2

- Unified Area Command set up for Old and Grand Prix fires.
- Unified Area Command established for the Cedar and Paradise Fires.
- Aircraft grounded on the Paradise Fire due to smoke and poor visibility.
- The Angeles and Cleveland National Forest ordered a forest closure to public to reduce additional fire threat and ensure public safety.
- Cedar and Paradise crews worked for 48 straight hours without relief. Additional resources were not available.

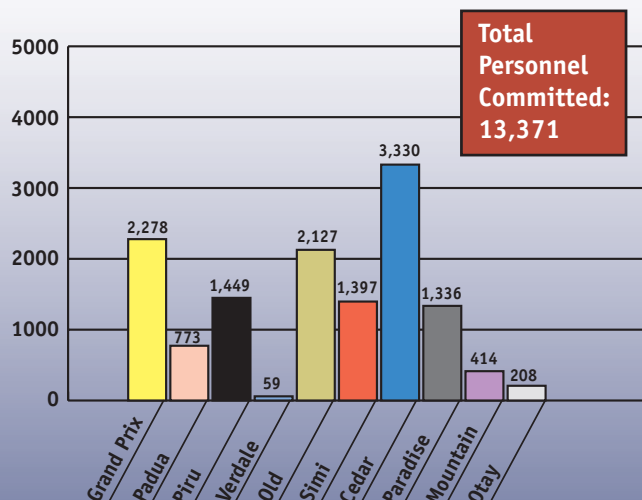
## Damage Assessment

- Mountain Fire damage assessment fairly complete with \$4.5 million in losses and \$80 million saved. Over 41 vehicles and five ATVs burned.
- 1,642 residential, 11 commercial, 262 outbuildings burned to date during siege.
- 580,987 acres burned to date during siege.
- Estimated fire suppression costs to date: \$23,601,223

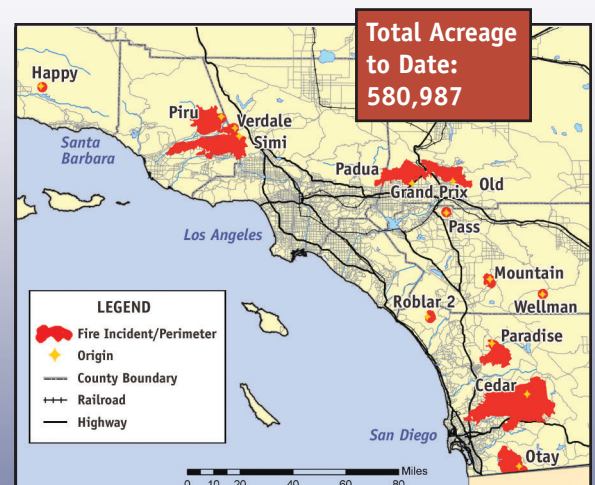


Commercial buildings are also threatened by the fires.

## Personnel Committed: Day Eight



## Acreage Involved: Day Eight



## The Weather Enemy

### High winds ground planes, fuel flames

With the siege in full swing, the pool of available resources became smaller as fire activity increased. MACS continued to set priorities twice daily.

Due to strong winds, air operations for the **Paradise Fire** were suspended today. By 6:00 p.m., the fire had grown to 40,000 acres, and the number of residences lost rose to 111 residences, as large fire whirls were observed across the fire. The limited number of resources available continued to hamper control efforts, as firefighters provided structure protection to threatened areas. Crews on both the Paradise and Cedar Fires worked for 48 hours without relief. Additional resources were scheduled to arrive which assisted in making containment targets more achievable and provided some respite for the crews.

#### The Roblar 2, Otay/Mine, and Verdale

**Fires** were declared 100 percent contained. Resources were demobilized which allowed for reassignment to other southern California fires.

Strong winds, high temperatures and low humidity continued to challenge firefighters on the **Grand Prix Fire**. Evacuations were lifted for the southern areas of the fire but remained in effect for the Lytle Creek area.

On the **Padua Fire** structures were threatened in the Mount Baldy area, the area remained under a voluntary evacuation order. Structure protection was in place for the 500 residences threatened along the San Gabriel Mountain foothills. Dozers and hand crews continued to secure fireline in order to slow any fire progression in the direction of the Mount Baldy area.

With the change in weather patterns on the **Simi Fire**, fire behavior became erratic early in the day. Firefighting personnel

continued to build fireline in an attempt to prevent the spread of the fire south toward Malibu Canyon. Structure protection was in place for the residences, businesses, and outbuildings that were threatened. Although the winds diminished later in the day, the fire became driven by topography as it continued



*Fire threatens Lytle Creek on the Grand Prix fire.*

its march toward the Santa Clarita, Valencia, and Newhall areas. Evacuations and road closures remained in effect.

High winds, dry conditions, and beetle-killed timber intermixed with thousands of structures continued to present firefighters a complex challenge while battling the **Old Fire**. With flame lengths of 30 to 50 feet and spotting of 500 to 1,000 feet, the fire burned into the Running Springs and Lake Arrowhead areas. Firefighters were able to keep structure loss to a moderate level. Air operations were hampered by thick smoke. Evacuations and road closures remained in effect throughout the area.

Early morning winds drove the **Piru Fire** across the Sespe Drainage toward the community of Santa Paula. With a Red Flag Warning in affect, potential for growth on

this fire was dramatic. As the fire progressed northward, it entered an area of heavy fuels, some of which had not burned in many decades. Upon entering this area, the acreage affected by the Piru Fire increased by more than 50 percent.

The Piru Fire was burning in the Urban Interface and spreading to the Sespe Wilderness Area in the Los Padres National Forest. The fire became both a Wildland Urban Interface (WUI) fire and a wilderness fire, each requiring different suppression tactics. Firefighting resources were limited and the majority of the responding resources were assigned to the Urban Interface area.

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*...the limited ingress and egress, presented additional challenges for firefighters. With more than 30,000 structures threatened, 1,200 have been destroyed over the past three days of the fire siege. Although 13,330 fire personnel were assigned as of this date, a lack of firefighting resources remained an issue due to the number of competing fires in southern California.*

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With winds continuing to switch between mild Santa Ana and a normal on shore flow, the **Cedar Fire** has been pushed in all directions. Extremely low humidities and high temperatures continued to hinder firefighting efforts. Evacuations remained in effect throughout the area. Many of the communities threatened were densely populated with old growth brush and poor clearance around homes. These conditions, coupled with the limited ingress and egress, presented additional challenges for firefighters.

The Cedar Fire reached Volcan Mountain, north of Julian. This elevated the threat level to the community of Julian, as it was now vulnerable from both the west and north sides. Several structures were lost on the outskirts of Julian; however, historic Julian remained intact. The Cuyamaca State Park

was ravaged by the Cedar Fire including most of the Park's buildings. Due to the complexities of the fire, a decision was made to zone (separate) the fire into two parts. The western part of the fire (Cedar West) would remain under management of the State Incident Command Team, with the eastern part of the fire (Cedar East) managed by a Federal National Team. Evacuations were lifted as the fire's threat level diminished in each community. Highway 79 from Pine Hills to Descanso remained closed.

Cuyamaca and Harrison Park were virtually wiped out in a firestorm with 200' tall flames in bug-killed timber.

Forty-three CDF firefighters were temporarily cut off and took refuge in Harrison Park.

More than 30,000 structures were threatened and 1,200 were destroyed over two previous days of the fire siege. Although 13,330 fire personnel were assigned as of this date, a lack of firefighting resources remained an issue due to the number of competing fires.

Good progress was made on the containment of the **Mountain Fire**. The fire was expected to remain within the containment lines barring

any further wind events. Twenty-one structures and 40 outbuildings were lost during the two-day fire event.



*OES engines from throughout the state responded to the fires to provide structure protection.*

# Wednesday, October 29, 2003

- Mountain Fire 100% contained.
- The worst case scenario for Arrowhead unfolded, with fire on three sides of the community with the potential to be completely surrounded.
- Grand Prix, Simi, Old, Cedar and Paradise Fires continued to burn and threaten structures and communities. All fires reversed direction of spread as a result of wind changes from easterly to westerly.
- Mass evacuations and structure protection continued in most fire areas.
- Air quality in the urban areas began to improve.
- On the Simi Fire, the Stevenson Ranch development in LA County was under voluntary evacuation. Some citizens chose to shelter in their homes during peak burning periods. This community was built under strict fire codes resulting in the successful defense of the area.

*“We will never forget the people who stood up to mother nature’s fury to protect our homes and businesses, and to protect our lives. Engineer Rucker represents California’s best.”*

Gray Davis, Governor of California

## Major Resources Committed on October 29th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (3)	35	169	13	30	328	59,229	35
Piru (7)	44	113	5	25	234	68,022	30
Simi (4)	24	261	10	35	210	105,665	40
Old (1)	44	371	11	9	181	47,960	10
Cedar (2)	47	533	4	26	605	251,000	15
Paradise (5)	30	133	8	10	103	49,800	20
Mountain	10	28	3	0	46	10,331	100
Padua (6)	10	50	0	4	100	10,223	80
Contained Fires	-	-	-	-	-	65,970	100
<b>TOTALS</b>	<b>234</b>	<b>1,608</b>	<b>54</b>	<b>135</b>	<b>2,270</b>	<b>668,200</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

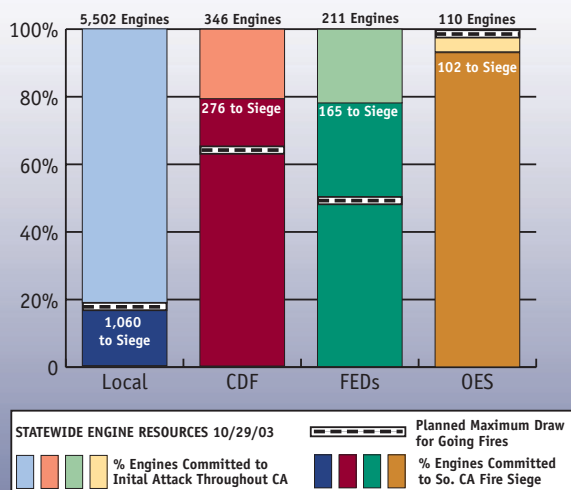
## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	78	67	73
Min. Rel. Humidity	18%	25%	34%
Wind	SE10 G18	W16 G30	SW13
Fire Danger	extreme	extreme	extreme

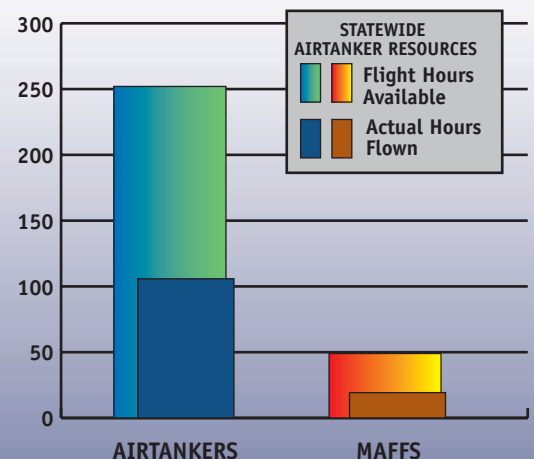
*Remarks: Winds changed from an easterly Santa Ana to a westerly onshore flow, causing many fires to reverse direction.*



## Resources Committed: Engines



## Resources Committed: Airtankers



## Community Impacts

- 200 foot high wall of flames reached Lake Arrowhead, where tree mortality caused by insects is widespread and intermixed in residential areas on the Old Fire.
- Simi Fire burned toward Santa Clarita.
- Much of the community of Julian is saved from the Cedar Fire.
- Grand Prix fire threatened communities in the high desert area of San Bernardino County near Hesperia.
- Governor Davis toured fire ravaged areas.
- The Joint Information Center received over 3,000 phone calls.
- Desert communities north and east of Cajon Pass to Hesperia were threatened.
- Lake Silverwood and Southpark received substantial burn damage.

## Human Factors

- A firefighter from Novato Fire Department was killed and three others injured while protecting homes in Julian.
- 18 fatalities reported to date.

## Decisions

Preparedness Levels: South Ops-5, National-3

- Governor Davis signed a proclamation promising the state will pick up a large share of the local government firefighting costs estimated at \$9 million per day.
- Cedar Fire used 2002 Pines Fire as a control line. Effects of the 7.2 miles of previous fuels reduction enhanced fire control capabilities on Southeast flank.
- A major accident review team was ordered to handle a "burnover" fatality investigation, which allowed Incident Commanders to refocus on the Cedar Fire suppression effort.
- Development in the urban interface was requiring redirection of resources from offensive (perimeter control) to defensive (structure protection) actions.

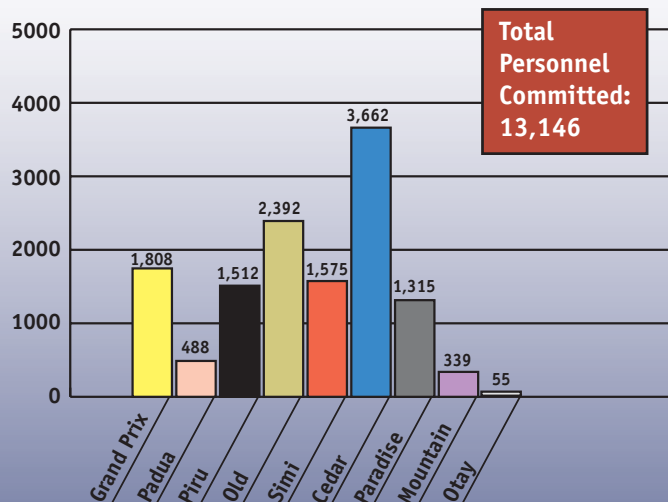
## Damage Assessment

- 2,126 residential, 11 commercial, 287 outbuildings burned to date during siege.
- 668,200 acres burned to date during siege.
- Estimated fire suppression costs to date: \$29,580,005

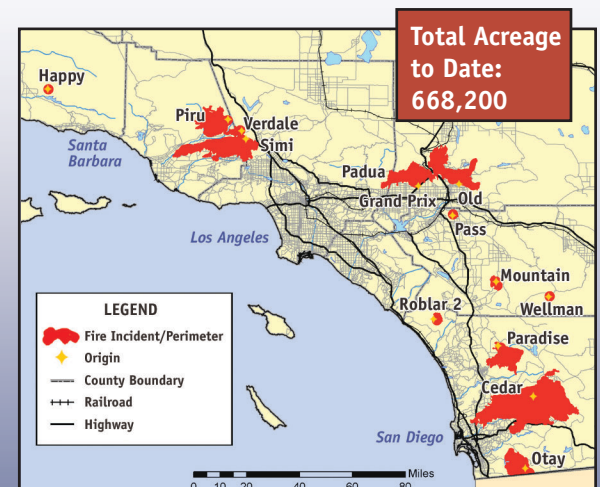


*Fire threatens mountain communities.*

## Personnel Committed: Day Nine



## Acreage Involved: Day Nine



- Old fire impacted a major communications site on Strawberry Peak.
- Portions of Hesperia were threatened and evacuated on Grand Prix Fire.
- Grand Prix Fire managed western portion of Old Fire.
- California Fire Agencies responded to and contained 149 new wildland fires statewide.

## “It’s a war”

### Over 350 homes destroyed

Although Red Flag conditions on the **Paradise Fire** resulted in sustained, hard fire runs, the fire did not cross Highway 76. As the fire reached 49,800 acres, evacuations remained in progress. FMAG was approved for the fire.

The **Mountain Fire** reached 100 percent containment today. Resources were demobilized allowing for reassignment to other southern California Fires.

On the **Old Fire**, active crown fires and flame lengths in excess of 200 feet were observed as the fire progressed overnight into Lake Silverwood/Miller Canyon area. With erratic winds predicted for the afternoon hours, the decision was made to divide the Old Fire in order

North/East Del Rosa East Highlands Ranch and Yucaipa – Muscoy areas. All other mandatory evacuations remained in effect with voluntary evacuations ordered for southern Hesperia. Additional evacuation centers were opened at the Apple Valley High School and the Hesperia Fairgrounds to accommodate additional evacuees. Interstate 15 up to Highway 18 remained closed.

Evacuation orders were lifted for the Lytle Creek area of the **Grand Prix Fire**. As the Federal National Team assumed responsibility for the western portion of the Old Fire, the fire made a significant run to the north toward the community of Hesperia. Mandatory evacuations were immediately activated for Oak Hills, Baldy Mesa, Silverwood Lake and Summit Valley. Structure protection was the number one priority for firefighters as the fire made its significant run. Despite the efforts of firefighters, the fire destroyed several structures in its path.

Strong winds, high temperatures, low humidities and low fuel moistures continued to challenge containment and control objectives on the **Padua Fire**. Firefighters protected the Mount Baldy community by conducting a successful firing operation and building containment lines overnight. Efforts continued throughout the day to secure the wildland interface along the Los Angeles County/Angeles National Forest Boundary. Voluntary evacuations continued in the Mount Baldy area. FMAG has been approved for this incident.

Diminishing northeast winds and cooler temperatures early in the day allowed firefighters on the **Simi Fire** to construct fireline along Potrero

Canyon. Steep terrain on the eastern edge of the fire hampered line production rates in that area. A strong westerly wind later in the day pushed the fire into the Stevenson Ranch area of Los Angeles County requiring an aggressive structure protection defense. Aggressive firefighting efforts kept the fire west of Interstate 5. One spot fire was quickly contained east of the interstate; however, the freeway was closed for a period of three hours due to fire activity in the vicinity. Evacuations of Stevenson Ranch took place



*The Red Cross served many of the 70,000 people that were evacuated from their San Bernardino County homes.*

to enhance management of the incident. Management for the western sector of Waterman Canyon was assigned to the Federal National Team from the Grand Prix Fire. All areas east of Waterman Canyon continued to be managed by the Federal National Team for the Old Fire. Air operations were hindered by erratic winds and poor visibility. By the end of the day, 350 residences were destroyed, 300 of which were located in the eastern Lake Arrowhead community. Mandatory evacuations were lifted for

during the peak burning periods. To date, there have been 21 residences destroyed and seven damaged in the fire. Agricultural losses are estimated at \$5.3 million.

The weather change contributed to the 10 percent increase in containment lines and decreased fire spread on the **Piru Fire**. During the day, fire continued to move into heavier fuels as the wind and spread direction continued to change. No further structure losses were reported.

The **Cedar Fire** continued to move in all directions in an area of old growth brush with poor clearance around structures and residential areas. Mandatory evacuations were in place for Julian, Pine Hills, Cuyamaca, Guatay and Wynola. Highway 79 remained closed from Pine Hills to Descanso. The fire burned into and destroyed structures in Julian, Pine Hills and Wynola. Low humidities, high temperatures and erratic winds continued to hinder firefighting efforts. Fire spotted over major roads and highways with 200-foot flame lengths observed. One firefighter died and three were injured while battling the fire in the Julian area. A major accident review team was ordered to investigate the burnover fatality.



*Left: As Santa Ana winds blow, homes are quickly evacuated. Right: Downed powerlines prohibit firefighters from moving forward.*





# Thursday, October 30, 2003

*“The resource ordering system was overwhelmed. As the dispatch system continued to process orders as fast as possible, the Incident Commanders became very creative in using all the resources at their disposal until reinforcements could arrive.”*

Ron Raley, Deputy Director of Fire and Aviation  
U.S. Forest Service, Pacific Southwest Region

## Major Resources Committed on October 30th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	32	173	12	26	302	59,358	75
Piru (4)	39	48	11	24	173	63,719	30
Simi (3)	21	221	7	28	190	107,240	60
Old (1)	46	469	14	12	277	91,281	15
Cedar (2)	49	533	21	26	605	272,318	42
Paradise (2)	26	146	11	21	163	56,000	30
Padua	2	5	1	0	1	10,446	95
Contained Fires	-	-	-	-	-	76,301	100
<b>TOTALS</b>	<b>215</b>	<b>1,600</b>	<b>77</b>	<b>137</b>	<b>1,716</b>	<b>736,663</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	65	50	68
Min. Rel. Humidity	60%	100%	44%
Wind	SW11 G23	W22 G43	SW12 G20
Fire Danger	moderate	low	moderate

*Remarks: Marine layer brought higher humidity and lower temperatures, reducing fire danger. Some precipitation forecasted.*

*Scorched hillsides create potential for mudslides when the winter rains come.*



70,000 San Bernardino County residents evacuated during the Old Fire.

President Bush adds Riverside County to the Presidential Declaration of Major Disaster.

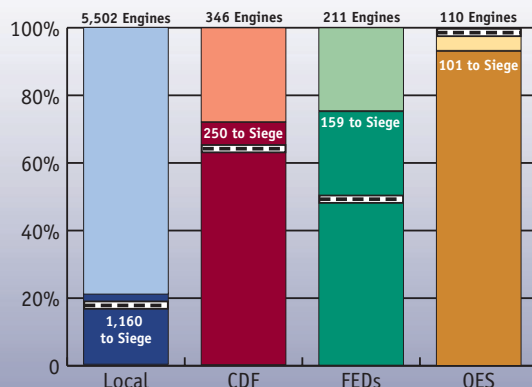
Mike Brown, head of FEMA and Governor Davis visited the city of San Diego and the OES headquarters regional office in Orange County.

Governor-Elect Schwarzenegger cut trip to Washington DC short. Returned to CA to tour ravaged fire areas. Visited Incident Command Post for the Old & Grand Prix Fires.

U.S. Senate passed Forest Health Initiative.

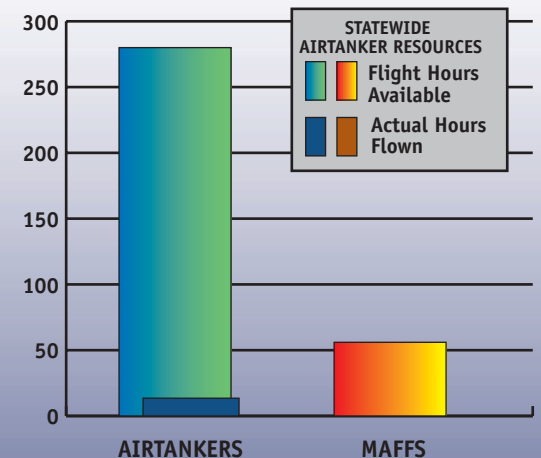
Two Federal Teams were ordered for Big Bear, Forest Falls, Angelus Oaks and Oak Glen areas for contingency planning and preparation.

## Resources Committed: Engines



STATEWIDE ENGINE RESOURCES 10/30/03  
 Legend: % Engines Committed to Initial Attack Throughout CA (light blue, red, green, orange), % Engines Committed to So. CA Fire Siege (dark blue, dark red, dark green, dark orange).  
 Dashed line: Planned Maximum Draw for Going Fires

## Resources Committed: Airtankers



## Community Impacts

- The Paradise Fire still threatening Deer Springs, Mesa Grande, La Jolla & Mt. Palomar.
- Structures threatened on the Grand Prix in Silverwood Lake and Summit Valley; but in other areas, the fire evacuation orders have been lifted.
- Simi Fire still threatened Santa Clarita, Stevenson Ranch and Porter Ranch.
- Cedar Fire still threatened Julian, Wynola and Pine Hills.
- Rehabilitation plans for fire areas being developed.
- The Old Fire still threatened Lake Arrowhead and Running Springs areas.
- Evacuations on the Padua Fire were lifted.
- Some evacuees allowed to return home.

## Human Factors

- 18 fatalities reported to date.
- 150 serious injuries reported to date.

## Decisions

Preparedness Levels: South Ops-5, National-3

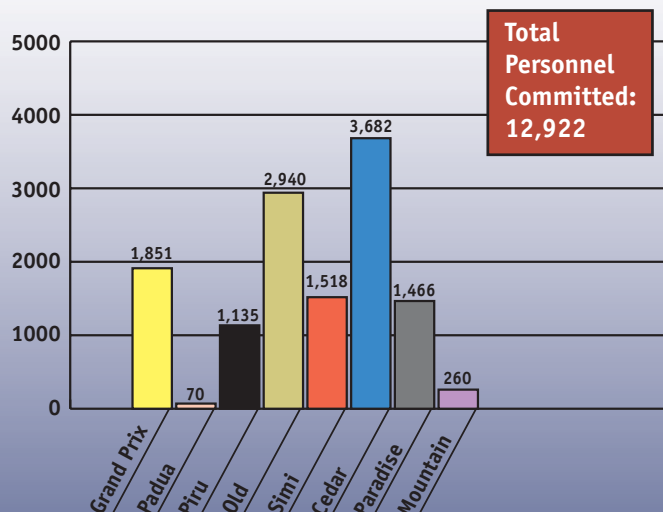
- The U.S. House of Representatives approved a record \$2.9 billion for firefighting and fire protection on Federal forests.
- An Area Command was established for the Old and Grand Prix Fires.
- Unified Command on the Old Fire has been divided into three geographical areas, each will be managed by a Federal Team.
- Moderate weather conditions occurred allowing an opportunity to construct direct fire lines.
- A Federal National Team was assigned to the Piru Fire in Unified Command with a State Incident Command Team.
- A Federal National Team assumed command of the east half of the Cedar Fire.



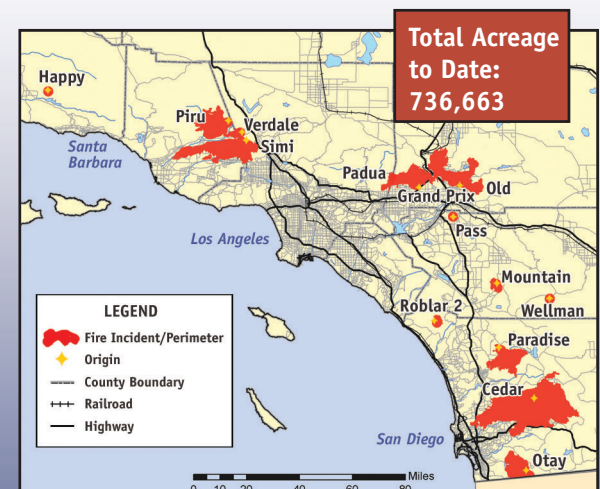
## Damage Assessment

- 2,809 residential, 31 commercial, 530 outbuildings burned to date during siege.
- 736,663 acres burned to date.
- Estimated fire suppression costs to date: \$50,669,842
- No additional structures burned on Old Fire today.

## Personnel Committed: Day Ten



## Acreage Involved: Day Ten



- Overnight higher humidities and drizzle caused portions of the Paradise Fire to lay down. Fire continued to make runs along the ridgetops. Threats to communities still remain.
- Grand Prix Fire expected to be contained, given forecasted weather and resource availability within 48 hours. Some evacuation orders lifted.
- While a long way from being contained, spread slowed considerably on the Simi, Old, Grand Prix and Cedar fires.
- Piru Fire spread changed from west to east and burned away from communities toward the Angeles National Forest.
- California Fire Agencies responded to and contained 143 new wildland fires statewide.

# The Fight Continues

## Progress being made

Strong westerly winds pushed the **Simi Fire** into the Stevenson Ranch area requiring firefighters to provide aggressive structure protection. Line construction efforts were hampered overnight by the steep terrain and darkness. A spot fire was contained on the eastern side of the fire. Due to the fire activity, Interstate 5 was closed.

Structures in the Stevenson Ranch area remained at risk with structure protection in place. Fire activity moderated throughout the day, which allowed firefighters to conduct a firing operation in the Oat Mountain area. With the closure of I-5, there were concerns about major disruptions to commuters and commerce in the area.

As was common throughout southern California, the weather moderated on the **Piru Fire**. The fire burned into Sespe Condor Sanctuary overnight. This steep, rugged terrain was heavily loaded with fuels, which

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*On the Piru, fire continued to move into inaccessible terrain, which slowed firefighting production rates in those areas.*

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presented a concern for further spread of the fire. Fire continued to move into inaccessible terrain, which slowed firefighting production rates in those areas. Structure protection continued in Santa Paula and Fillmore.



*Firefighters take on the methodical effort of mopping up thousands of burned homes.*



*Utility workers organize their efforts to restore power and phones.*

With cooperation from the weather, the **Padua Fire** stood at 95 percent contained. The fire was expected to remain within containment lines. Demobilization of resources continued. Voluntary evacuations remained in effect for the Mount Baldy area. Mop-up and patrol of the fire area continued.

Overnight, additional structures were lost in the North Lake Arrowhead area as the **Old Fire** continued moving unimpeded, exhibiting rapid uphill runs and spotting. More than 40,000 residents remained evacuated. Due to the complexities of the incident, the U.S. Forest Service ordered two more Federal teams to do contingency planning and preparation in the Big Bear Lake area. The weather moderated throughout the day enabling firefighters to begin construction of containment lines in the North Lake Arrowhead area. The spread of the fire slowed due to the weather's cooperation.

With higher humidities and decreased temperatures, firefighters made good progress on the **Grand Prix Fire**. Evacuation orders were lifted in the area of Baldy Mesa and Oak Hills west of Interstate 15. Highway 173 remained closed at Arrowhead Lake Road, and Summit Valley Road was closed at Interstate 15.

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*“We can almost see the end of the fires.”*

Andrea Tuttle, Director  
California Department of Forestry and Fire Protection

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The entire eastern flank of the Cedar Fire spread into the 60,000 acre Pines Wildfire of 2002 allowing firefighters to contain that flank. Reduced fire behavior as a result of damp weather conditions allowed for aggressive perimeter control on the remainder of the fire.

# Friday, October 31, 2003

- Governor Davis and Governor-Elect Schwarzenegger visited Claremont Emergency Relief Center. They promised aid to fire victims.
- Help poured in for thousands left homeless by fires. Donations collected by Red Cross amount to \$40,000 by the end of the day.
- Funds set up for seven firefighters in Julian who lost their homes while they battled structure fires for others.
- Cedar fire Incident Command Teams reported making outstanding progress. Predicted containment in three days.
- Fire commanders took advantage of weather change to increase fireline production rates. All fires reported making outstanding progress and received precipitation in varying amounts.
- The potential for flooding became a concern for county OES officials in San Bernardino and Riverside counties.
- California Fire Agencies responded to and contained 157 new wildland fires statewide.

*“The interagency structure and safety plan resulted in the smoothest and most effective unified command I have ever seen.”*

Don Studebaker, IC Federal National Team, Grand Prix Fire

## Major Resources Committed on October 31st

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	36	178	14	22	318	59,358	95
Piru (4)	35	37	11	24	179	63,991	50
Simi (3)	31	181	6	29	195	108,204	85
Old (1)	81	408	16	37	467	91,281	45
Cedar (2)	49	667	21	41	605	273,246	65
Paradise (2)	30	157	13	25	195	56,700	50
Contained Fires	-	-	-	-	-	86,727	100
<b>TOTALS</b>	<b>262</b>	<b>1,628</b>	<b>81</b>	<b>178</b>	<b>1,959</b>	<b>739,507</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Weather Facts

	Cajon Pass	Simi Valley	Julian Weather Station
Max. Temperature	60	45	59
Min. Rel. Humidity	52%	100%	49%
Wind	SW8 G20	W16 G34	SW13 G24
Fire Danger	<<LOW to MODERATE>>		

*Remarks: Fires received varied amounts of precipitation throughout the day. Cooler temperatures & higher humidity will assist fire containment.*

## Community Impacts

- Grand Prix Fire growth expected to slow over the next 48 hours due to forecasted rain & snow in the area.
- Fire officials review safety concerns in fire areas as they consider re-population of communities. Down power lines, fire weakened trees, disoriented animals, and damaged roads must be dealt with prior to re-entry to affected areas.

## Human Factors

- 216 serious injuries reported to date.
- Two fatalities occurred in San Diego City at the time of the fires, unable to attribute to specific fire.
- 22 fatalities reported to date.
- Human remains found in Lakeside. Unknown cause of death.

## Decisions

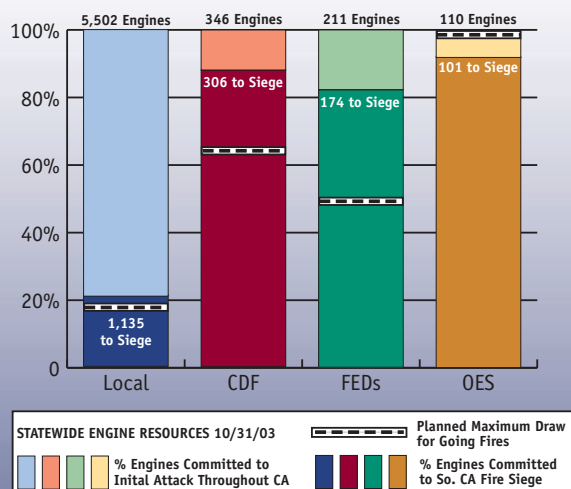
Preparedness levels: South Ops-5, National-3

- Federal National Team assumes command of Piru Fire.

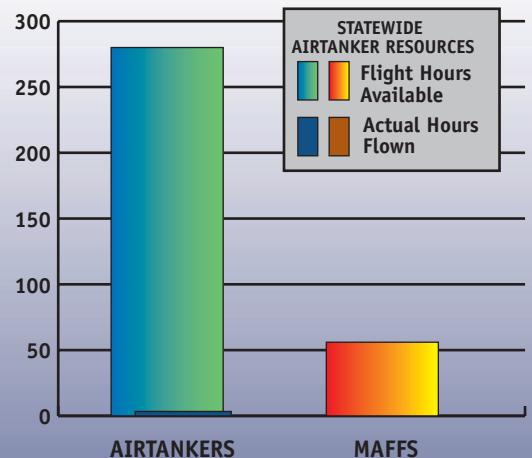
## Damage Assessment

- 3,492 residential, 53 commercial, 1,387 outbuildings burned to date during siege.
- 739,507 acres burned to date during the siege. (Adjustments made to acreage due to better mapping.)
- Estimated fire suppression costs to date: \$50,669,842
- Damage assessment process started on the Cedar Fire.

## Resources Committed: Engines



## Resources Committed: Airtankers



# Weather Forecasts Bode Well for Efforts

## Firefighters, citizens see hope

Much of the **Paradise Fire** laid down during the night as a result of light rain over the incident. The fire, however, continued to make runs along the ridge tops due to strong, gusty winds and low fuel moistures. Residents were able to gain entrance into the Palomar Mountain area to gather their personal belongings. Firefighters made good progress given

As the weather continued to give firefighters a break on the **Old Fire**, crews aggressively attacked the fire. Structure protection continued in all affected mountain communities. Dozer lines were completed around the Big Bear community. Contingency lines were improved to the forest boundary on existing roads. Arson was established as the cause of this fire, which to date burned more than 91,000 acres, destroyed 940 residences, 30 commercial structures and 300 outbuildings. The fire claimed four lives.

The spread of the **Simi Fire** slowed considerably due to the change in weather. Good progress was made to improve containment lines. Demobilization of excess resources began. Losses to date were estimated to be in excess of \$17.1 million.

The **Piru Fire** progressed toward the Los Padres National Forest, Santa Paula and Ojai today. The fire burned mainly in grass, brush and some timber, it moved into inaccessible terrain well within the Los Padres National Forest. A Federal National Team was assigned in Unified Command. Firefighters looked forward to the assistance of some possible rain today.

On the **Cedar Fire**, the lower temperatures, higher humidities and light winds assisted the firefighting efforts throughout the day. With the loss of a primary communication site, fireline communications became a problem. The massive outpouring of support shown by the communities to the firefighters provided a much-needed boost to their morale. To date, 2,207 residences, 22 commercial buildings and 515 outbuildings had been destroyed in this human caused fire. There were 16 fatalities reported on this fire.

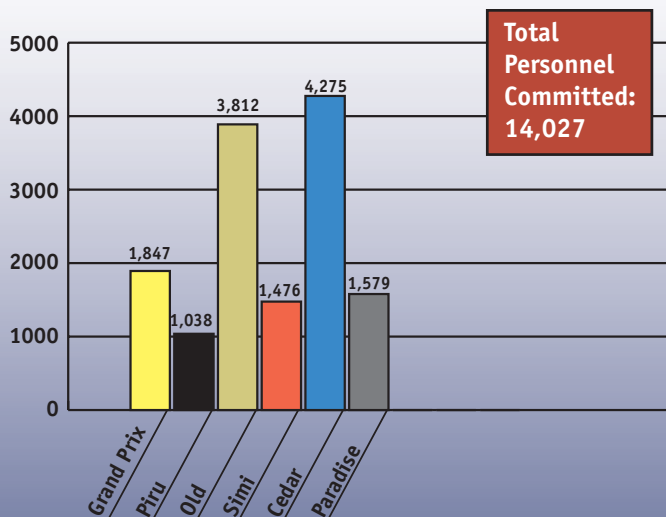
*...Paradise Fire laid down during the night as a result of light rain...weather continued to give firefighters a break on the Old Fire...On the Cedar Fire, the lower temperatures, higher humidities and light winds assisted the firefighting efforts.*

the very difficult terrain in the area of the fire.

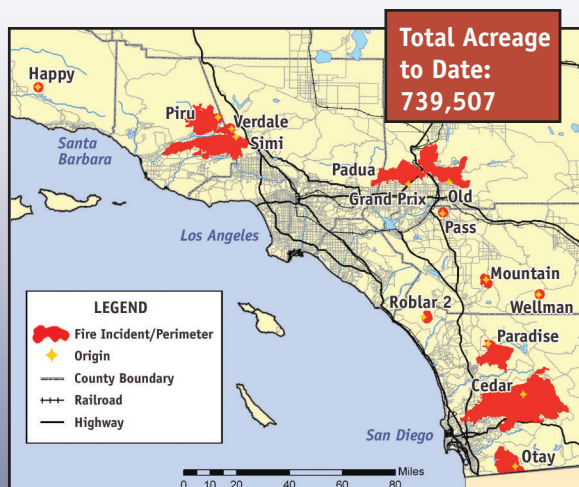
Unified Command on the **Padua Fire** was relinquished to the Angeles National Forest for perimeter control and to Los Angeles County Fire and San Bernardino County Fire for structure protection in each of their respective areas. Demobilization of fire resources continued today for reassignment as needed. All evacuation orders were lifted.

Silverwood Lake and Summit Valley and good progress toward containment of the **Grand Prix Fire** was made today. Evacuations for all other areas of the fire had been lifted. Highway 173 remained closed at Arrowhead Lake Road. Summit Valley Road was closed at I-15. It was projected the Grand Prix Fire will be 100 percent contained on November 2, 2003.

Personnel Committed: Day Eleven



Acreage Involved: Day Eleven



# November 1–4, 2003 (Sat.–Tues)

## NOVEMBER 1, 2003

- Governor Gray Davis and Secretary Tom Ridge, Office of Homeland Security, tour Simi Fire and visited local assistance Center in Claremont to affirm assistance to fire victims.
- As fire containment rises, many fire areas transitioned into mopping up fire perimeters, and unburned fuels within the perimeter, especially near structures.
- Excess fire resources were demobilized home or reassigned to other uncontained fires. Structure protection was still in place on most fires.
- No further fire growth was expected on the Grand Prix Fire.
- Cause of most fires was still under investigation.
- California Fire Agencies responded to and contained 198 new wildland fires statewide.

*“In times of tragedy, people do come together. I think there is no greater example than what we have seen with the firefighters from local, state, Forest Service and federal partners who have worked long and hard to protect people’s homes and personal property. They are an inspiration to us all.”*

Secretary Ann Veneman  
U.S. Department of Agriculture

## Major Resources Committed on November 1st

As fires are contained resources are reassigned to other uncontained priority fires.

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	31	145	12	13	264	59,448	95
Piru	10	0	3	7	120	63,991	80
Simi	2	0	2	3	132	108,204	95
Old (1)	90	386	16	71	608	91,281	65
Cedar (2)	79	722	32	55	553	273,246	90
Paradise (2)	51	152	12	15	197	56,700	65
Contained Fires	-	-	-	-	-	86,727	100
<b>TOTALS</b>	<b>263</b>	<b>1,405</b>	<b>77</b>	<b>164</b>	<b>1,874</b>	<b>739,597</b>	<b>N/A</b>

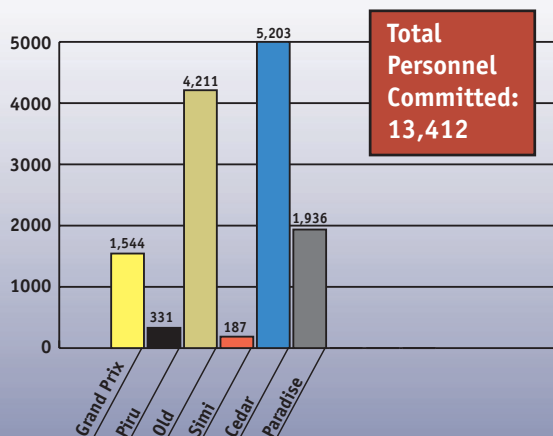
Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the “contained fires” section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Major Resources Committed on November 2nd

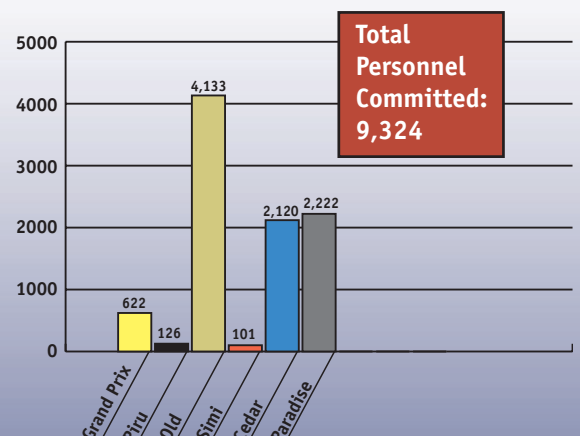
Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	9	11	2	10	238	59,448	95
Piru (3)	4	0	3	8	27	63,991	85
Simi	4	0	2	1	95	108,204	100
Old (1)	88	356	17	52	766	91,281	78
Cedar (2)	37	242	31	42	422	273,246	95
Paradise (2)	62	143	19	18	196	56,700	75
Contained Fires	-	-	-	-	-	86,727	100
<b>TOTALS</b>	<b>204</b>	<b>752</b>	<b>74</b>	<b>131</b>	<b>1,744</b>	<b>739,597</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the “contained fires” section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

## Personnel Committed: Day Twelve



## Personnel Committed: Day Thirteen



### Major Resources Committed on November 3rd

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	9	6	0	9	226	59,448	97
Piru (3)	4	0	2	4	27	63,991	85
Old (1)	73	156	16	24	768	91,281	93
Cedar (2)	34	119	4	4	480	273,246	99
Paradise (2)	56	103	11	16	192	56,700	77
Contained Fires	-	-	-	-	-	194,931	100
<b>TOTALS</b>	<b>178</b>	<b>384</b>	<b>33</b>	<b>57</b>	<b>1,724</b>	<b>739,597</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.

### Major Resources Committed on November 4th

Name (priority)	Crews	Engines*	Helicopters	Dozers	Overhead	Acres	% Contained
Grand Prix (1)	9	0	0	7	171	69,894	98
Piru (3)	3	0	2	0	17	63,991	90
Old (1)	41	70	6	17	468	91,281	96
Paradise (2)	56	70	16	14	176	56,700	85
Contained Fires	-	-	-	-	-	468,177	100
<b>TOTALS</b>	<b>140</b>	<b>206</b>	<b>37</b>	<b>47</b>	<b>1,386</b>	<b>750,043</b>	<b>N/A</b>

Data used above was extracted from the Incident Status Summary (209) or other best available data for each fire. When a fire is 100% contained, the fire name is deleted but the acreage burned is added to the "contained fires" section to display a cumulative summary of all acres burned to date throughout the siege. Priorities are based on Area Command. \*Number of engines reported by incident may not reflect engines that responded during initial attack and were not included in automated agency systems. Engines may have been double counted when fires were split into separate incidents.



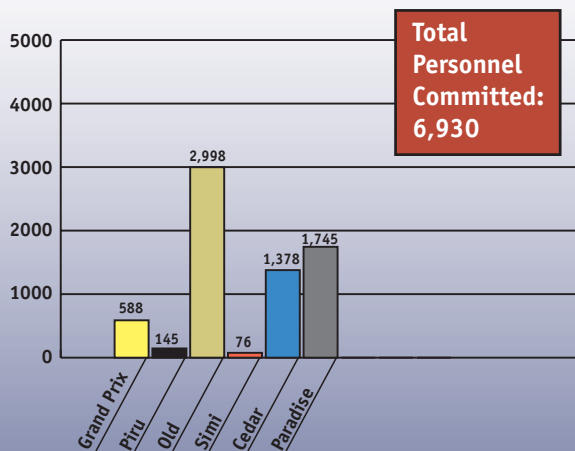
### Weather Facts

CAJON PASS	11/1	11/2	11/3	11/4
Max. Temperature	61	61	52	61
Min. Rel. Humidity	55%	54%	77%	43%
Wind	SW6 G14	SW5 G13	S7 G13	S5 G10
SIMI VALLEY	11/1	11/2	11/3	11/4
Max. Temperature	46	44	43	46
Min. Rel. Humidity	100%	100%	100%	100%
Wind	W14 G26	W14 G26	W20 G35	W9 G17
JULIAN	11/1	11/2	11/3	11/4
Max. Temperature	63	63	57	64
Min. Rel. Humidity	41%	42%	76%	38%
Wind	SW5 G13	SW10 G18	SW8 G16W9	G16

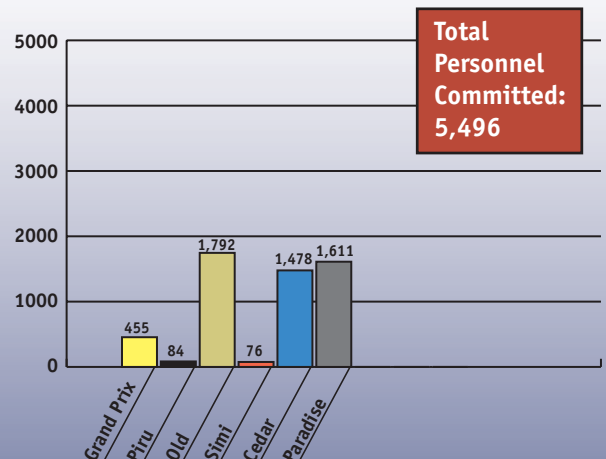
#### NOVEMBER 2, 2003

- Old Fire continued direct fireline construction, structure protection, mop up, damage surveys, reduction of hazardous fuels around structures and the felling of hazardous trees. Completed all contingency lines in four divisions.
- All remaining direct line construction on the Paradise Fire required hand lines, because of poor access and thick decadent brush.
- Paradise Fire planned firing operations if weather permitted.
- Demobilization of local government firefighting resources on Cedar, as well as out of state equipment. Priority in demob given to local resources to re-staff local fire stations.

### Personnel Committed: Day Fourteen



### Personnel Committed: Day Fifteen





- Mop up and rehab progressed on Grand Prix Fire. Infrared intelligence indicated only a minimal amount of heat remained on this incident. No fire spread was predicted. Fire perimeter was patrolled and significant demobilization of excess resources occurred.
- California Fire Agencies responded to and contained 203 new wildland fires statewide.

**NOVEMBER 3, 2003**

- Governor Gray Davis, Secretary of Agriculture Ann Veneman, 44th Congressional District Rep Ken Calvert and 45th Congressional District Rep Bono visited South Ops for a briefing on the fire situation and a short press conference.
- Paradise Fire identified fire suppression repair needs and performed work where possible. Rainfall resulted in wet and muddy roads that restricted travel in and out of the work areas. Mop up continues.

- Simi Fire rehab efforts continued through the week. The efforts were delayed due to rain.

*“Normally, around fire camp there is a lot of joking around and camaraderie. There is a depression around this fire camp. They know it’s different.”*

Robert Lewin  
Branch Director, Grand Prix Fire  
Battalion Chief, CDF–San Luis Obispo

### Community Impacts

#### November 1, 2003

- Rehabilitation planning of fire areas was developed.
- Paradise Fire continued to threaten communities of Mesa Grande, La Jolla and Mt. Palomar. Resources threatened are Native American cultural sites, Cleveland National Forest, Lake Henshaw watershed and threatened & endangered species habitat.
- Rock and mudslides began on roads in some areas.
- Old Fire continued to threaten Lake Arrowhead and Running Springs.
- Some fire area residents were allowed to return home.

#### November 2, 2003

- Lake Arrowhead & surrounding communities were still threatened by the Old Fire.
- Mesa Grande, La Jolla and Mt. Palomar were still threatened by the Paradise fire.
- La Jolla and Mt. Palomar opened to residents only. Many areas were still closed to general public.
- Road systems on the Cedar Fire were opened to residents only.
- Evacuation orders remained in effect for Silverwood Lake on the Old Fire.
- South bound Highway 138 closed. Lytle Creek Road was reopened.

#### November 4, 2003

- Unprotected soil subject to erosion where soil stabilization and erosion control measures were not in place.

### Human Factors

#### November 1, 2003

- Falling crews remove hazardous trees for firefighter and public safety. Utility companies warned homeowners of powerline dangers.
- 22 confirmed fatalities related to fires.
- 181 serious injuries to date.

#### November 2, 2003

- 22 fatalities reported to date.
- 210 serious injuries to date.
- Tree faller with possible concussion was airlifted to hospital on the Old Fire.
- 9,324 fire personnel committed to date.

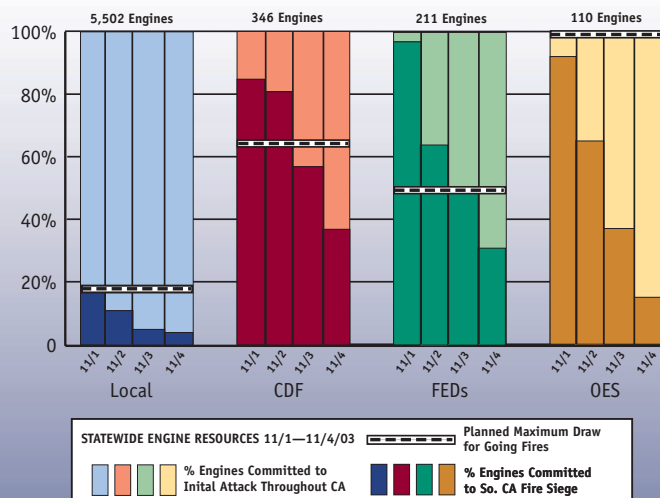
#### November 3, 2003

- 22 fatalities reported to date.
- 225 serious injuries to date

#### November 4, 2003

- 22 fatalities reported to date. Two additional fatalities were later attributed to the fires, bringing the fire fatality total to 24.
- 237 serious injuries to date.

### Resources Committed: Engines, Nov. 1-4, 2003





## Decisions

### November 1, 2003

Preparedness Levels: South Ops-5, National-3

### November 2, 2003

Preparedness Levels: South Ops-4, National-3

### November 3, 2003

Preparedness Levels: South Ops-3, National-3

### November 4, 2003

Preparedness Levels: South Ops-3, National-2

- The Unified Area Coordination Team for the Cedar and Paradise Fires was deactivated.

## Damage Assessment

### November 1, 2003

- 3,530 residential, 33 commercial and 1,087 outbuildings burned to date during siege.
- 745,630 acres burned to date during siege.
- Estimated \$74,934,483 fire suppression costs to date.
- Damage assessment surveys continued.

### November 2, 2003

- 3,530 residential, 53 commercial and 1,448 outbuildings burned to date.
- No additional structure loss reported.
- 744,626 acres burned to date during siege.
- Estimated \$84,247,132 fire suppression costs to date during siege.
- Damage assessments continue.

### November 3, 2003

- 3,612 residential, 54 commercial and 1,484 outbuildings burned to date.
- 739,597 total acres burned to date.
- \$99,712,209 fire suppression costs to date.

### November 4, 2003

- 3,657 residential, 56 commercial and 1,484 outbuildings burned to date.
- 750,043 acres burned to date.
- Estimated \$123,108,801 fire suppression costs to date.



- Evacuees from Old Fire residents returned to mountain communities. Mop up and rehab continued. Prepared for transition to new Incident Command Team on Wednesday, November 6.

- California Fire Agencies responded to and contained 141 new wildland fires statewide.

### NOVEMBER 4, 2003

- President Bush, Governor Davis, Governor-Elect Schwarzenegger and other dignitaries greeted firefighters and homeowners on the Cedar Fire.

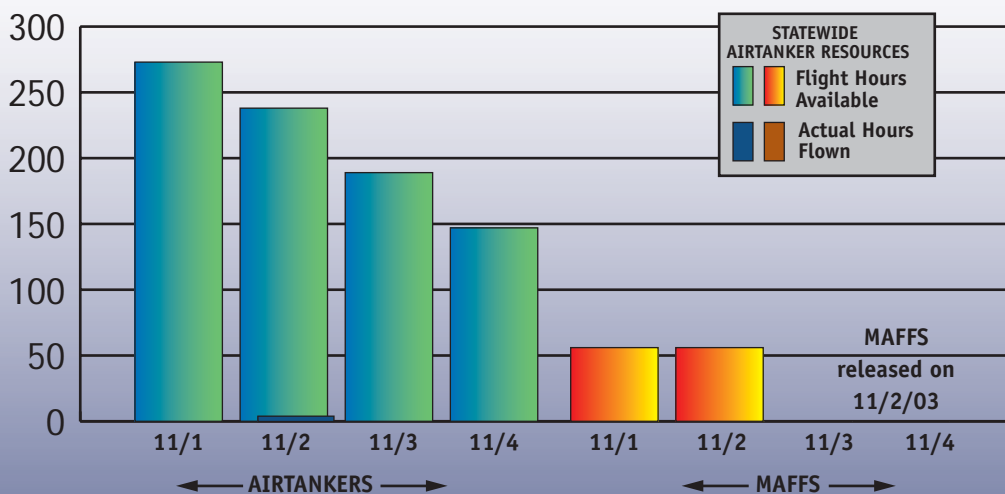
- Cedar Fire 100% contained.

- Cedar fire lifted all evacuations. Fireline repair efforts, mop up and rehab continued.

- Grand Prix Fire evacuation orders lifted. Entry into Silverwood Lake and surrounding areas restricted to residents only.

- California Fire Agencies responded to and contained 135 new wildland fires statewide.

## Resources Committed: Airtankers, Nov. 1-4, 2003



# Aftermath of the Siege

## Containment and clean up

Rain and snow arrived in southern California allowing firefighters to make tremendous progress in containing the fires throughout the area.

During the first four days of November, the **Grand Prix Fire** reached 98 percent containment. The cause of this fire remained under investigation. A total of 135 residences, one commercial property and 60 outbuildings were burned. One helicopter was damaged in the fire.

The **Paradise Fire** was deemed to have been human caused. By November 4, 2003, firefighters achieved 90 percent containment. The fire continued to smolder and creep along with no further significant runs. A total of 221 structures and 192 outbuildings were destroyed.

The **Old Fire** had consumed a total of 91,281 acres and was the cause of six civilian deaths. It destroyed 993 residences, 10 commercial buildings and 300 outbuildings. The cause of the fire was identified as human caused. Minimal fire

activity was noted well within the fire's perimeters.

The **Piru Fire** continued to burn in steep, inaccessible terrain well within the containment lines. One structure, one commercial building, and six outbuildings were burned over the life of this fire. The cause of this fire remains under investigation.

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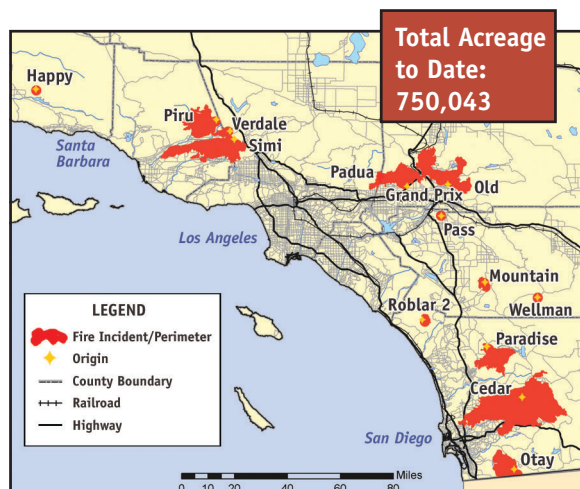
*“The Department of Homeland Security and FEMA will do all we can to help affected families and businesses recover from their losses as we continue to support the state’s firefighting efforts.”*

Michael D. Brown, FEMA Director and Undersecretary for Emergency Preparedness and Response at Homeland Security

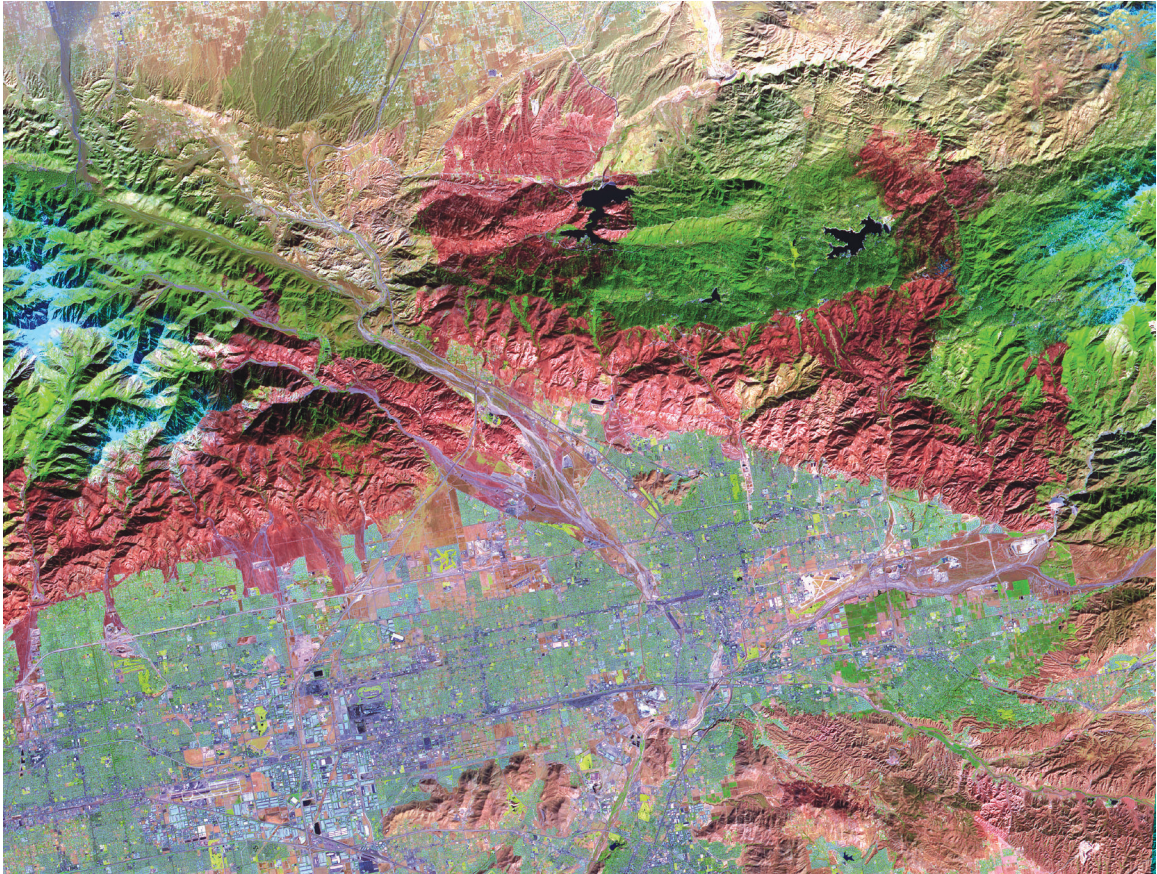
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On November 4, 2003, the 273,246-acre **Cedar Fire** was declared 100 percent contained. During the 10-day life of the fire, the Cedar Fire destroyed 2,232 residences, 22 commercial properties, 566 outbuildings, and caused 14 fatalities—13 civilian and one firefighter.

### Acreage Involved: Oct. 21–Nov. 4, 2003



# Issues & Strategies



*The photo above shows the burned area of the Grand Prix and Old Fires (in red) as captured on November 18, 2003 by ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer). ASTER flies aboard the Terra satellite as part of NASA's Earth Observing System (EOS).*

A fire siege of the magnitude of the October 2003 Southern California Fires impacts numerous aspects of society. These impacts, in turn, create social-political issues that must be translated into strategic decisions by the various incident commanders. For purposes of this report, many incident commanders from local, state, and federal agencies were interviewed in an attempt to identify the key issues and impacts they considered and their responding strategies. The results of these interviews are summarized here with a short discussion of the social, political, environmental, and organizational issues, the impact on the fire response organization, and the ensuing strategic response. One intent of this report is to document the connection between social political issues and fire strategies. It will be up to others to further evaluate specific problems and implement appropriate solutions.

## 1. Resource Ordering, Automated Systems

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### What is resource ordering?

When an incident exceeds the capability of the initial response resources, additional resources are ordered through the supporting dispatch office. As an incident grows, the need for additional resources may exceed the capability of the responding agencies. When this happens, there is an interagency system that makes it possible to order resources from other agencies and locations. This system starts locally, sending firefighting resources closest in proximity to the incident. It then has the capability to mobilize resources regionally, statewide and ultimately from across the nation. There are automated systems in place to facilitate this mobilization process at the State and National levels.

### Systems in place to manage the resource ordering process

The public had expressed their expectation for a rapid fire department response to the increasingly complex fire situation. A long history of mobilizing to fight major fire sieges in California has led the wildland fire agencies to develop a sophisticated resource ordering and tracking system. This public expectation for rapid coordinated response and fiscal accountability has translated into agency policy and funding for a Multi-Incident Resource Processing System (MIRPS). Similar public pressure at the national level has led to the development of the federal Resource Ordering Statusing System (ROSS). MIRPS is integrated across the California state and federal wildland agencies. The federal agencies also use ROSS to interface with the National Interagency Fire Center in Boise, Idaho. Local government resources are not currently included in either system. In addition, wildfire Incident Command posts are not fully automated into the system.

### Impact during this siege

Today, both MIRPS and ROSS are operational. The volume of business during the siege exceeded the capability of the local staffing to keep up with processing the orders. The MIRPS system does not “talk” to the ROSS system so additional staff had to be ordered to enter data into both systems. ROSS is an internet based system operating off of a central database. The perception of command center officers under pressure to rapidly respond to requests for resources is that both systems are “slow” for data entry and information retrieval. The perception of the field fire commanders is that the ordering system was falling 24–48 hours behind in processing orders.

### Strategic response

Incident commanders employed two major strategies in dealing with order delays. The first strategy was to adjust firefighting strategy and tactics so that they could be accomplished with the resources on hand. This strategy allowed the fire commanders to get the job done but possibly not as effectively had resources been available. The second strategy was to go “outside the system” and order resources directly to the incident. This strategy has potential to defeat the higher-level strategy of coordinating responses and addressing the highest priority need with scarce resources, but it addressed the immediate need situation for the specific fire.

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## 2. Federal Wildland Fire Situation Analysis (WFSA) and Environmental Protection

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### What is the Analysis process on wildfires?

When wildfires occur, they can have dramatic affects on both the natural and human environments. These affects are considered when making decisions on how to manage and control a wildfire. Agency Administrators evaluate alternatives that include environmental considerations, values at risk, cost and social implications. Federal, state and local agencies have various methods of evaluating alternatives.

### Systems available to analyze strategies

Federal agencies have adopted the Wildland Fire Situation Analysis (WFSA) to analyze strategic alternatives. This is a formal document required by policy which evaluates the effects of strategic decisions on specific environmental, economic and social issues. Information in the Land and Resource Management Plan is used to evaluate information on Federal land. It is then used to communicate the strategic information and decisions between the Agency Administrator and the Incident Commander, who prepares the fire control objectives. The Incident Commander may participate in the WFSA process to provide advice on fire suppression options. This document is prepared when the fire exceeds initial attack.

Public concerns for environmental protection lead to the passage of the National Environmental Policy Act of 1964 and the Endangered Species Act in the 1970s. The California Environmental Quality Act and the California Rare and Endangered Species Acts were passed in the early 1970s. These laws have had a significant effect on vegetation management within the forest and wildland ecosystem of the state.

In some counties local ordinances have been implemented to addresses specific vegetation management issues.

### Impact during this siege

Some non-federal command teams were not familiar of the WFSA process and the requirements of National Forest lands. On other incidents, the boundaries and direction contained in the WFSA were exceeded early in the fire and the information became obsolete and therefore ineffective as a guidance tool.

The scope of the WFSA generally analyzes effects within and near the fire area. During this siege, numerous external factors contributed to large scale impacts affecting infrastructure, commerce, transportation and the daily routines of millions of people.

A county ordinance affecting private land in the San Bernardino Mountains prohibits the cutting, trimming or removal of trees. This ordinance may have contributed to an "overstocked" condition. Four years of drought in this overstocked forest made the forest vulnerable to a devastating bark beetle infestation.

### Strategic response

Federal agency policy dictated that all fires were to be suppressed and that no fires were to be managed for resource benefit. Agency Administrators decided that all fires would be fought aggressively to protect life and property as well as to gain perimeter control of their incidents. Teams adjusted their operational objectives to take into consideration environmental concerns. San Bernardino Area Command proceeded with strategic decisions while the WFSA information was being updated. In the San Diego area all fires were managed under one WFSA and a single interagency letter of delegation.

Due to the size and predicted cost of the large fires on National Forest land, they quickly met the criteria that required the WFSA to be approved by the Regional Forester instead of the Forest Supervisor. A process was established to centralize the WFSA process at the Regional level to accomplish this task.

## 3. Incident Complexity

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### What is incident complexity?

Incident complexity refers to the number and variety of issues and challenges that decision makers must consider during an incident. The size of an incident, number of concurrent incidents, and number and types of resources required are also considered. Incident complexity also takes into consideration the magnitude and speed of growth of the event. The amount of attention the incident attracts from elected officials, the media and the public can add additional complexity to the incident itself. Span of control is a term used to describe the number of things any one person must supervise or manage at one time. Systems are in place to gauge span of control issues so workloads can be divided into manageable increments.

### What systems are in place to manage incident complexity?

Experience in managing complex wildfire incidents has led the wildland fire agencies to adopt a common organizational structure called the Incident Command System (ICS). The ICS includes common communications, training and associated management infrastructure. This system was developed through the FIRESCOPE program, in direct response to public pressure for a more efficient fire response after a similar fire siege in 1970.

The ICS system answers the public and political demand for having someone in charge during a disaster. The ICS allows for expansion as the complexity of an incident grows. Large, complex incidents managed under the ICS system require a large cadre of trained professionals. Federal agencies and CDF have developed incident teams that are dispatched to an incident as a single unit. The National system also includes teams called Area Command Teams that are used to supervise multiple incidents on behalf of the Agency Administrators.

### Complexities that existed for this siege

- Numerous large fires burning concurrently.
- Large fires exceeding span of control guidelines.
- Fires involved multiple jurisdictions resulting in overlapping or concurrent responsibilities.
- Great deal of involvement by media and elected officials.
- Differences in agency policy.
- Fires that burned in towns and wilderness areas simultaneously.

There were multiple large fires burning close to each other competing for the same scarce resources. Several organizational issues surfaced during the rapid development of this siege. Several of the fires grew so large that the incident commanders were forced to exceed span-of-control guidelines until organizations could be adjusted. Incident commanders were having difficulty providing logistical support over long distances. Team leaders attempting to fill assignments found that trained personnel were scarce.

### Strategic response

- Larger incidents were split into two incidents, sometimes along jurisdictional boundaries. This had the effect of improving span-of-control, simplifying logistical support, and reducing the number of fires that required the oversight of an Area Command Team. An adverse impact of this strategy was that more trained ICS team members were needed.
- Resources from one agency fought one side of a fire while resources from another agency handled the other side of the fire. The adverse impact of this strategy came in coordinating so that the correct type of resources were available for the tasks at hand.
- A Federal Area Command team was assigned to supervise multiple fires reducing the span of control problems for the Agency Administrators.
- An Interagency Area Coordination Team was assigned to the San Diego Area to help coordinate area fires.

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## 4. Priorities (MACS) and Agency Oversight

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### What is priority setting?

When large or multiple incidents occur, the demand for resources can exceed availability. This can result in competition between incidents or between different activities on a single incident for the resources that are in short supply. When this happens, decisions must be made on where to assign the scarce resources. This is usually done by establishing criteria such as lives or values at risk, and the effectiveness that a resource may have on a particular assignment. On a single incident, priorities are established by the Agency Administrator and Incident Commander. On multiple incidents, a group of people representing the affected agencies will meet to set priorities.

### What is agency oversight?

Large agencies such as the CDF and the U.S. Forest Service are split into management units making it easier to manage organizations and geographic areas. Some authority and responsibility is delegated to the supervisors of the management units and some is retained at the higher level of the organization. When large incidents occur, the amount and complexity of the workload can exceed the capability or authority of the management units. Then, higher level managers are required to execute their responsibilities and/or assist the managers of the management units. This is often accomplished by the higher level managers traveling to the management unit and working there as long as they are needed.

### What systems are in place to manage priority setting?

The Multi Agency Coordinating System (MACS) was formed in response to problems encountered during the 1970 fires in southern California. MACS are in place throughout California and many other locations nationally. One of the responsibilities of the MACS is to set priorities for use of fire fighting resources in the event of multiple fires. In Southern California the MACS group is composed of Chief Officer representatives from each of the fire agencies and the State Office of Emergency Service. This group convenes for the duration of the need. Policies and procedures are in place to guide the MACS process and the various modes of coordination and staffing. The MACS group receives intelligence from all of the fires including the status of the fire, values at risk, damage potential, weather, and incident complexity. They then evaluate each fire and the fire's resource needs using the established criteria of 1) Life threatening situation, 2) Real property threatened, 3) High resource or other damage potential, and 4) Incident complexity. The fires are assigned a priority for receiving available resources.

### Impact during this siege

During the 2003 fires the Southern California Geographic Area Coordinating Center (South Ops) facility was used for both the MACS function and much of the agency oversight. The facility was impacted by the demand for telephones, data lines, and workspace for additional staffing. This demand overloaded the existing facility infrastructure. The problem became more exacerbated with the arrival of State office staff, federal agency office staff, media, and elected officials, all of whom had a need to participate in the event. Coordination center staff were displaced from their workspace. Eventually, temporary office trailers were brought in to help relieve the demands on the facility.

Several agencies were not able to send a representative or support staff to the MACS organization because local fire activity in various cities and counties demanded their attention. Chief officer vacancies also left agencies shorthanded. Priority setting discussions were held via telephone conference calls. The demand for intelligence predictions, predictive service forecasts, and geographic information system products exceeded the capacity of the permanent staff at the GACC. At times the nexus between the intelligence and decision making was not up to date.

### Strategic response

Local agencies retained resources within their jurisdiction and individual fire chiefs made agreements with their counterparts to share resources on adjoining fires. This provided them with a fluid flow of resources, which were outside of the resource tracking system. Incident Commanders ordered resources outside of the system directly from their agency to obtain the needed firefighting resources. Several agencies took independent actions on fires spreading into their jurisdiction without coordinating with their neighboring jurisdiction. An impact from these strategies was that type 3 engines and hand crews were not necessarily allocated to where they could be best used for perimeter control.

Life safety and real property protection were the first priorities. Low priority wildland fires grew larger, ultimately threatening life and property as the fires approached communities. The San Bernardino National Forest activated an Area Command team to facilitate management of their incidents. This reduced the workload for the Forest Supervisor and allowed for the movement of fire fighting resources between the Old and Grand Prix incidents without the direct involvement of the GACC or MACS.

CDF Agency Administrators from the State Office and U.S. Forest Service Agency Administrators from the Regional and Washington offices came to the area to assist with political issues and other duties required of them. In addition to other required duties, the U.S. Forest Service Director of Fire and Aviation Management for the California Region (Pacific Southwest Region) monitored the overall situation as it evolved and placed orders for Federal National teams so there would be adequate and timely management available for incidents involving Federal jurisdiction.



## 5. Resource Depth

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### What is resource depth?

Resource depth refers to the overall number of resources available to respond to incidents at one time. During times of heavy activity, there may not be adequate numbers of resources to meet all the requirements.

As discussed earlier, the Incident Command System (ICS) allows personnel from participating agencies to work together under a common system. Each agency has a limited number of resources that are allowed to leave the home unit at one time. The limit is usually referred to as the “Draw Down” level which means the agency has allowed as many resources to leave the unit as possible and still maintain staffing to provide emergency response for the home unit.

Firefighting and the required support operations require years of training, experience and a strict qualifications system, primarily for safety but also because people must know how the ICS system works in order to be effective in the organization. It is not safe or practical to hire people who are untrained or inexperienced to work directly on the firelines. Some jobs and services are contracted, but most of the leadership and actual firefighting must be done by trained and qualified personnel.

### What was the resource availability during the siege?

Local, state, and federal political leaders strive to allocate sufficient funds for fire fighting. Federal agencies have defined a Most Efficient Level (MEL) of staffing to achieve an economically efficient organization. State and local governments balance risk of fire damage and cost with the cost of maintaining a standing fire fighting force. Budgets at all levels tend to be fixed responding slowly to changing social demands for resource protection.

At the time the siege began most of the agency funded fire fighting resources were staffed and ready for assignment. Some additional resources had been funded or prepositioned in Southern California in anticipation of a large fire event. There were no large fires anywhere else in the nation so the national resource availability was about normal for mid October.

### Impact during this siege

Some of the State and Federal pre-designated command teams had vacancies from personnel being committed to the incident in significant management positions. Some multi-jurisdictional incidents that met the criteria for a Unified Command did not receive proper staffing due to scarcity of personnel.

The ordering process for resources began immediately, but it takes time to move large numbers of resources over long distances (see resource ordering section). There were times when required resources were not immediately available.

The need for engines was huge. Most agencies in Southern California and several in Northern California sent more engines from their units than ever before. Many of them were below their drawdown levels. In San Diego County, engines had been sent to fires in other counties, reducing resources that could have been available for the Cedar Fire.

OES and many other units became very creative in bringing engines out of maintenance schedules, ones that had been “decommissioned” and engines set aside for training purposes back into service. These were normally used for backfill so the primary engines could proceed to the fires. In some locations, crews from one agency were matched with engines from another.

### Strategic response

The first strategy was to draw on existing closest resources that were trained and ready. As firefighters were assigned to the fires, local, state, and federal resources throughout northern and central California fell well below prudent reserves. This strategy proved very risky as northeast wind conditions fueled several large fires in Northern California. OES activated an established Inter-State Compact to share firefighting resources during events like this. Oregon engines staffed a fire and covered stations in Northern California as CDF resources were sent south. Nevada and Arizona sent engines and crews directly to the southern California fires. OES activated all of their reserve engines and mobilized the largest force of local government engines in history to be sent to wildland fires.

The Forest Service activated agreements and drew in resources from many other states. Other federal wildland firefighting resources were tapped. One Marine Battalion was ordered by the U.S. Forest Service, but cancelled before being deployed due to wet weather setting in. OES activated many California National Guard helicopters.

Early in the siege, CDF ordered aircraft that were off contract to be placed back in service. As the regular fleet of airtankers became committed, the Forest Service requested MAFFS aircraft from other states. CDF requested that OES activate 2 military MAFFS aircraft in California. As MAFFS were activated, the strategy was to focus their effort on the Ventura County fires close to the MAFFS Base and move the regular airtankers to other fires. This simplified the complex job of safely managing tactical air space over the fires.

CDF and federal managers made extensive use of private sector contractors for support operations. The U.S. Forest Service decided to not use Federal contract engines. During the siege, local government fire chiefs used private sector ambulance services to cover empty fire stations in order to continue basic medical emergency response. As the fire fight came to a close, public unease remained high. Agency Administrators held forces at incident bases and delayed demobilization just in case the Santa Ana winds returned. This strategy eased public worry in southern California but delayed the return of engines to home communities and reassignment to other fires. This also created additional logistical support demands and increased cost.

CDF chief officers collapsed two standing teams into one team to field enough trained personnel to properly staff the team. The U.S. Forest Service filled team vacancies with other qualified personnel who were not regular members of the team. Both efforts proved successful in insuring Incident Management/Command teams had adequate, qualified staffing.

## 6. Pre-fire Success

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### What are pre-fire activities?

There are many activities that took place prior to the start of these fires that reduced the adverse impacts during the fires. Some were done years earlier, and some were done more recently in response to the drought and mortality of the vegetation. They involved planning for disasters, fuel treatments around communities and evacuation routes in the wildlands. These activities took place in several areas involved in the siege. Many of the pre-fire activities had significant impact on the outcome of the fires.

### What had been done?

Previous to the wildfires of 2003 there were many actions take by agencies and communities in preparation for conflagrations in the southern California area. Many agencies conducted fuels treatment projects within their jurisdictions. These activities included fuel breaks, pre attack planning, prescribed burning, preplanning of the incident, community education and evacuation plans. (See the section titled Prelude to the Siege, page 8, for a more complete description.)

### Impact during this siege

The fires covered huge areas that included many of the pre-fire activity areas, and prompted the implementation of some of the pre-planning that had taken place in anticipation of a disastrous fire event.

### Strategic response

Completed pre-fire fuels treatment activities were used on the Cedar, Otay, Roblar 2, and Old fires. County fire safe building requirements played a significant role in reducing structure losses in Ventura and Los Angeles Counties. These communities were able to “shelter in place” rather than face evacuation issues. This reduced the impacts to emergency evacuation shelters in the fire area. The MAST program in the San Bernardino Mountains played a major role in the preparation of the communities for a large fire. Preplanned and identified evacuation routes, completed structure protection plans and strong relationships with the affected agencies, communities and elected officials resulted in a efficient and effective coordination of activities in the Old fire area. Hazard tree removal along State Highway 18 facilitated the success of holding the fire along the Rim of the World and prevented the fire from entering Lake Arrowhead, Rim Forest, Sky Forest and Crest Park with full force. The media reported on the success of the community in preparing for the disaster.

Fire commanders incorporated many fuels management projects in their strategies for fighting fire. They used a Bureau of Land Management fuel break to contain the east side of the Otay fire in San Diego County. Pre existing fuel breaks were used the first night to contain one side of the Roblar 2 fire at Camp Pendleton Marine Base. A Prescribed burn and fire that occurred in 2001 played a significant role in containing the eastward spread of the Old fire towards Running Springs south of Keller Peak. Prescribed burns and hazard tree removal on the northeast side of Lake Arrowhead near the Mountains Community Hospital helped firefighters turn the fire away from the Hospital and surrounding development.

Sheriff's personnel were included in a Unified Command at the incident commander level and were full participants. The use of preplanned evacuation routes in the mountain communities, led to safe evacuation of 30-40,000 residents without impeding fire fighting efforts. Pre positioned fire fighting resources were immediately brought to bear on the incidents as they developed. Strong initial and extended attack was successful in containing other fires before they could become major incidents.

The U.S. Forest Service had completed a pre-fire fuel reduction zone around the Strawberry Peak Communications site. This mitigation prevented the site from being damaged, allowing critical communications for all the major responding agencies.

## 7. Safety

The foremost issue during a fire is firefighter and public safety. Safety policies have evolved over many years of experience and are shared among all fire agencies. Every situation has a well established, proven safety guideline. With few exceptions, fire agencies have common safety practices and procedures. There are a small number of specific safety policies that are different between the agencies, but accomplish the same goal. When there is more than one agency working on an incident, implementation of different policies are addressed and coordinated by the incident commander.

### What was the safety environment on this siege?

Over several years the public, politicians, and agency administrators had come to recognize the inherent dangers that wildland firefighters have dealt with on a routine basis. Firefighter deaths, both in the air and on the ground, occur each year on wildland fires across the United States. OSHA had become involved in the investigation of firefighter deaths. CDF experienced a mid-air collision, killing two veteran pilots. Several federal airtankers had crashed as aging aircraft succumbed to the flight stress of wildland firefighting. The 30 Mile Fire in Washington resulted in a mandatory list of safety action items the Federal agencies were responsible to implement on each fire. Books on historic wildland fire fatalities became popular at big-box bookstores.

### Impact during this siege

There had never been a situation in history where this many firefighters and citizens were involved in a wildfire disaster at one time. In spite of the best efforts, citizen deaths accumulated. The death of the Novato firefighter while trying to protect a house brought increased national focus to the siege. The firefighter death increased an already high level of management concern for safety. Citizen and firefighter safety was frequently discussed and analyzed on the 24-hour broadcasts.

Safety exposures came from many sources that are common on individual incidents, but the magnitude of the siege caused more exposure by more sources at one time than ever before. Examples were flames, smoke, high wind, hazardous materials, burning buildings, massive evacuations, heavy traffic, people refusing to evacuate in time, pilots reported large pieces of debris thousands of feet above the fires damaging some of their windshields, damaged power lines, steep terrain, and much more.

The mandatory work/rest cycles for firefighters were impossible to meet at times as there was no relief as communities and the public were at risk for days on end.

Some non-federal incident command teams were assigned to fires with Federal jurisdiction, but were not trained in the requirements of the 30-mile Hazard Abatement Plan which is required on fires on National Forest land.

Some local fire departments did not have radios that could communicate with State and Federal radios. The 800 megahertz radio systems were not able to meet the heavy communication demand between firefighting resources. 800 megahertz systems manufactured by different vendors were not able to cross-communicate.

### Strategic response

Firefighter and public safety was the most important issue and first objective on every incident. All of the agencies involved continually discussed safety and how to prevent accidents and deaths.

Aircraft were grounded or reassigned to other fires for safety and effectiveness reasons as winds exceed operational thresholds.

In some locations, Incident Commanders separated crew fire assignments by agency to accommodate specific agency safety policies, especially the differences in the shift lengths and work rest cycles. CDF

used a 24hr on/24hr off cycle, while the Federal agencies use a 16hr per day maximum, resulting in two 12hr shifts per day. It was difficult to mix the two cycles.

Fire commanders decided not to request some military aircraft. This strategy recognizes the different training levels of the pilots and skills needed for wildfire aviation operations and effectively eliminated a potential safety concern.

Agency Administrators assigned a Major Accident Investigation Team to investigate the firefighter death. This allowed the incident command team to focus on the remaining firefight.

Agency Administrators attempted to split fires and assign additional Command/Management teams to prevent span of control safety issues.

Some resources worked for 48 hours without relief to continue to protect lives of citizens and attempt to get them out of harm's way. Work/Rest cycles were implemented as soon as relief resources arrived.

## 8. Military Resources

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### What does it mean to use military resources?

Military resources are not deployed for normal wildfire activity. During times of heavy wildfire activity the demand for firefighting resources may exceed the availability of regular firefighting forces. Procedures are in place to activate the National Guard for aircraft and vehicles, and the regular military for aircraft and fire crews. The military does not keep their ground personnel trained and qualified in firefighting. When they are activated to become fire crews the wildland fire agencies must train the designated military unit before they can be sent to an incident.

### What was the military status during this siege?

Authorities exist to use military resources within limits. The Economy Act of 1932, as amended (31 USC 1535), authorizes an agency to place orders for goods and services with another government agency when the head of the ordering agency determines that it is in the best interest of the government and decides ordered goods or services cannot be provided as conveniently or cheaply by contract with commercial enterprise. Specifically, the head of an agency or major organizational unit within an agency may place an order with a major organizational unit within the same agency or another agency for goods or services if—(1) amounts are available; (2) the head of the ordering agency or unit decides the order is in the best interest of the United States Government; (3) the agency or unit to fill the order is able to provide or get by contract the ordered goods or services; and (4) the head of the agency decides ordered goods or services cannot be provided by contract as conveniently or cheaply by a commercial enterprise.

Wildland fire agencies have developed operational agreements, plans, processes, and procedures for activating military resources to support wildland firefighting demands. These plans are developed for the more frequently activated resources such as National Guard helicopter crews and C-130 MAFFS. The plans are put into use as the normal firefighting resources become fully committed. This mission tasking gives the base commanders the authority and responsibility to maintain specialized equipment and conduct training for personnel. Less frequently activated resources such as ground troops can be activated but must receive wildfire training and equipment before being sent to the fire lines. This can be a time consuming process.

### Impact during this siege

The fire problem evolved through four phases during this siege. In the first phase from October 21–24, several large fires burned under average bad fire weather conditions. These fires were driven primarily by fuel and topography conditions. The wildland fire agencies reacted swiftly, assigning southern California resources to the fires and moving additional resources in from outside the area. The second phase, from October 24–26 saw the weather change to an offshore Santa Ana wind pattern. Existing fires burned out of control and new fires quickly became major conflagrations. Fire fighting resources were rapidly deployed and additional resources were ordered from outside the area. The third phase from October 26–29 occurred when the Santa Ana winds died down and an onshore wind pushed the fires in the opposite direction. Additional out-of-area resources were now being drawn from greater distances. In the fourth phase, after October 29, the weather changed to a cool moist pattern, slowing fire growth and reducing fire intensity. Inclement weather grounded aircraft in many places while ground resources made good progress in controlling the fires.

This rapidly changing fire weather dynamic created many issues for the fire managers. During the second phase of this rapidly escalating crisis, fires burned with extreme rates of spread and intensities. The Cedar Fire grew at a rate of over 2 acres per second during a 10 hour run. The Simi Fire, a spot fire from the Verdale Fire, grew at a rate of over 3 acres per second during a one hour run. Fire fighters could not be deployed fast enough to keep up with the fire growth during these periods of extreme fire behavior. The fires killed many people, tens of thousands were evacuated from many communities, thousands of homes were destroyed, and a congressman in San Diego lost his house. A public outcry emerged calling for the fire agencies to use any available firefighting resources. The Congressman made strong demands for fire managers to immediately use military resources.

## Strategic response

Early in the siege, multiple orders were placed for call-when-needed aircraft to support firefighting operations. As the pool of these private sector aircraft became committed, the wildland fire agencies turned to military sources. CDF, working through OES, requested 8 California National Guard Blackhawk helicopters on Oct. 25, requested 3 Nevada National Guard Blackhawk helicopters on Oct. 27, and requested 2 Firehawk helicopters from the Oregon National Guard on Oct. 28. The helicopters reported to the Los Alamitos National Guard Base and were then assigned to specific fires based on incident needs. CDF, working through OES, also requested 4 helicopters from the Washington National Guard on Oct. 29. This order was cancelled prior to arrival of the helicopters as the fire situation improved.

CDF, through OES, requested the 2 California National Guard MAFFS C-130 AirTankers on Oct. 25. The U.S. Forest Service, through the National Interagency Fire Center, ordered the 6 remaining MAFFS C-130 Airtankers from bases outside California. All of the MAFFS airtankers were deployed to the Channel Island facility for fire-by-fire mission assignments.

On Oct. 28, the U.S. Forest Service, through the National Interagency Fire Center, ordered a battalion of Marines (500 troops) to be assigned to the Cedar Fire. This order was cancelled a day later as the weather changed.

## 9. Public Information

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### What is the need for public information?

There is a critical need for useful and timely fire information for the public, the media, medical personnel, evacuation center managers and others when a wildland urban interface fire causes a large number of civilian deaths, loss of homes, businesses, vehicles and personal property. This information is demanded during evacuations, and in the weeks following the incident. Civilians whose safety and property are immediately threatened by the fire want and need information that helps them cope with the fire and its consequences. With adequate information, people can ensure their families are safe, evacuate livestock and pets if needed, better prepare their property to survive the fire, and evacuate and reoccupy in an orderly fashion. Civilians actively seek information and elected officials also demand more information and want it immediately. Elected officials sometimes compete to announce fire information.

### Impacts during this siege

The Southern California fire siege occurred over seven counties in one of the most heavily populated areas of the nation. The fires caused numerous evacuations that impacted thousands of civilians. The fire siege grew quickly. People at county and other government offices provided good information, but the incident was so big and developed so fast that information resources were stretched too far. Fire Safe Councils were prepared to help disseminate information but many of their members were evacuees during the fire.

### Strategic response

The Incident Command System includes an Information Officer on the Command Staff. All of the federal and state teams staff this function with additional personnel as needed for the incident. Incident PIO's used a variety of strategies to get information out including news releases, local radio station interviews, on scene media briefings, and information kiosks at evacuation centers.

In July of 2003, the Mountain Area Safety Task Force developed a joint information center that would be a central point of information for the public and the media during a large wildfire in the San Bernardino Mountains. The cooperating agencies hosted a team to develop a Joint Information Plan and a facility was selected for the Center. The Joint Information Center was activated on October 27, 2003. Between 10/27-11/10/03 the Center logged over 23,000 calls for an average of over 1450 calls per day. Over thirty people including agency employees, volunteers, Fire Safe Council volunteers and others staffed the Center. The phone bank operated 24 hours a day and seven days a week. The primary subject of the calls ranged from basic fire information, evacuation information, road closures, and the lifting of evacuations and citizen re-entry into communities.

Governor Davis initiated and facilitated daily conference calls with wildland fire officials and elected representatives from the affected region. Fire officials were given the opportunity to brief the elected officials on key events of the day and responded to questions. These conference calls continued throughout the fire siege.

Governor Davis also initiated and facilitated daily conference calls with wildland fire officials and members of the press corps. Fire officials were given the opportunity to brief the press on key events of the day and responded to questions. These conference calls continued throughout the fire siege.

President Bush, Governor Davis, agency administrators and key elected officials toured the fires and conducted numerous on scene press conferences at key incident locations such as evacuation centers, disaster assistance centers, incident bases, and elsewhere. These press conferences helped focus media attention to emerging issues.

## 10. Cost Sharing

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### What is cost sharing?

The California Health and Safety and Government Codes define authorities local governments use to provide fire protection services. The Public Resources Code defines the responsibilities of the Director of the Department of Forestry and Fire Protection for providing wildland fire protection on State Responsibility Area (SRA). When a local district provides fire suppression and prevention for structures on SRA, the Department of Forestry and Fire Protection retains responsibility for fire suppression and prevention on the timbered, brush, and grass-covered lands. Federal laws define the responsibilities for federal agencies for fire protection on federal land. State and federal agencies have specific authority to hire resources when needed to assist with the wildland fire fighting effort. The Government Code also defines specific authority for state and local government to give and receive mutual aid. The California Disaster and Civil Defense Master Mutual Aid Agreement defines the basic authorities of state and local government for assisting through mutual aid.

As a wildland fire spreads across multiple jurisdictions, the various authorities and responsibilities of the affected jurisdictions come into play. Fiscal management can become cumbersome so various agreements have been developed to allow the agencies to share the cost of fighting a wildland fire. Under the Incident Command System, responsible jurisdictions work together as one team in a Unified Command to fight the fire and then share costs based on specifics of the incident.

### What had been done?

The California Department of Forestry and Fire Protection and the federal wildland fire agencies have entered into a master wildland fire agreement called the California Cooperative Fire Protection Agreement (commonly called the Four Party Agreement) that sets up the process for cost sharing on individual fires. Further, the state and federal wildland fire agencies and the State Office of Emergency Services have developed a California Fire Assistance Agreement with the wildland fire agencies that defines policy and procedures for paying local government for firefighting resources (assistance by hire) during wildland fires. National Forests and local government as well as CDF and local government have developed many local agreements.

The Federal Emergency Management Agency (FEMA), under the authority of the Stafford Act, administers grant programs through the State OES. These federal grants assist state and local government entities that are faced with the high cost of a large wildland fire. These FEMA grants pay 75% of the cost, a significant help on a large complex incident. As an incident grows in impact and the President declares a disaster, then the assistance from FEMA increases. FEMA also provides assistance to the victims of the disaster. Application for the FEMA Fire Management Assistance Grant (FMAG) is normally done on a fire-by-fire basis through OES.

### Impact during this siege

The size of the fires, the number of homes destroyed, and the number of homes threatened required a considerable response of local government resources in addition to the wildland agency resources. This response posed a significant fiscal issue for local jurisdictions. On the Grand Prix fire, members of the Unified Command discussed who should order (and pay for) engines to protect structures in the path of the fire. The magnitude and intensity of the fire and the associated resource order to meet the threat to structures posed a significant fiscal threat to the local jurisdiction given the normal cost sharing procedures.

OES and FEMA administrators were processing many Fire Management Assistance Grant requests. The FMAG process calls for very tight reporting times and the large number of grant applications for the many fires threatened to overwhelm the administrative staff.

## Strategic response

Incident commanders for most fires relied on established cost share policy and procedures as defined during the siege. Orders for resources were made based on operational need and fiscal issues were taken care of through normal business practices. On behalf of the Grand Prix Unified Command, the forest supervisor from the local national forest spoke directly to a county supervisor to seek a resolution to the question of who should be placing resource orders. For expediency, CDF and the US Forest Service incident commanders on this fire initially ordered five strike teams of engines each to meet the immediate structure protection needs of the incident. Subsequent resource orders went smoothly, following established procedures.

State wildland agency administrators developed a Cost Apportionment Process (see appendix) specific for this siege. This agreement provided consistency to the cost apportionment process and simplified the process when possible.

OES administrators discussed the FMAG workload with FEMA. The two agencies agreed to file one FMAG application for all of the fires in Southern California. This greatly simplified the administrative processing and cost tracking for the jurisdictions involved.

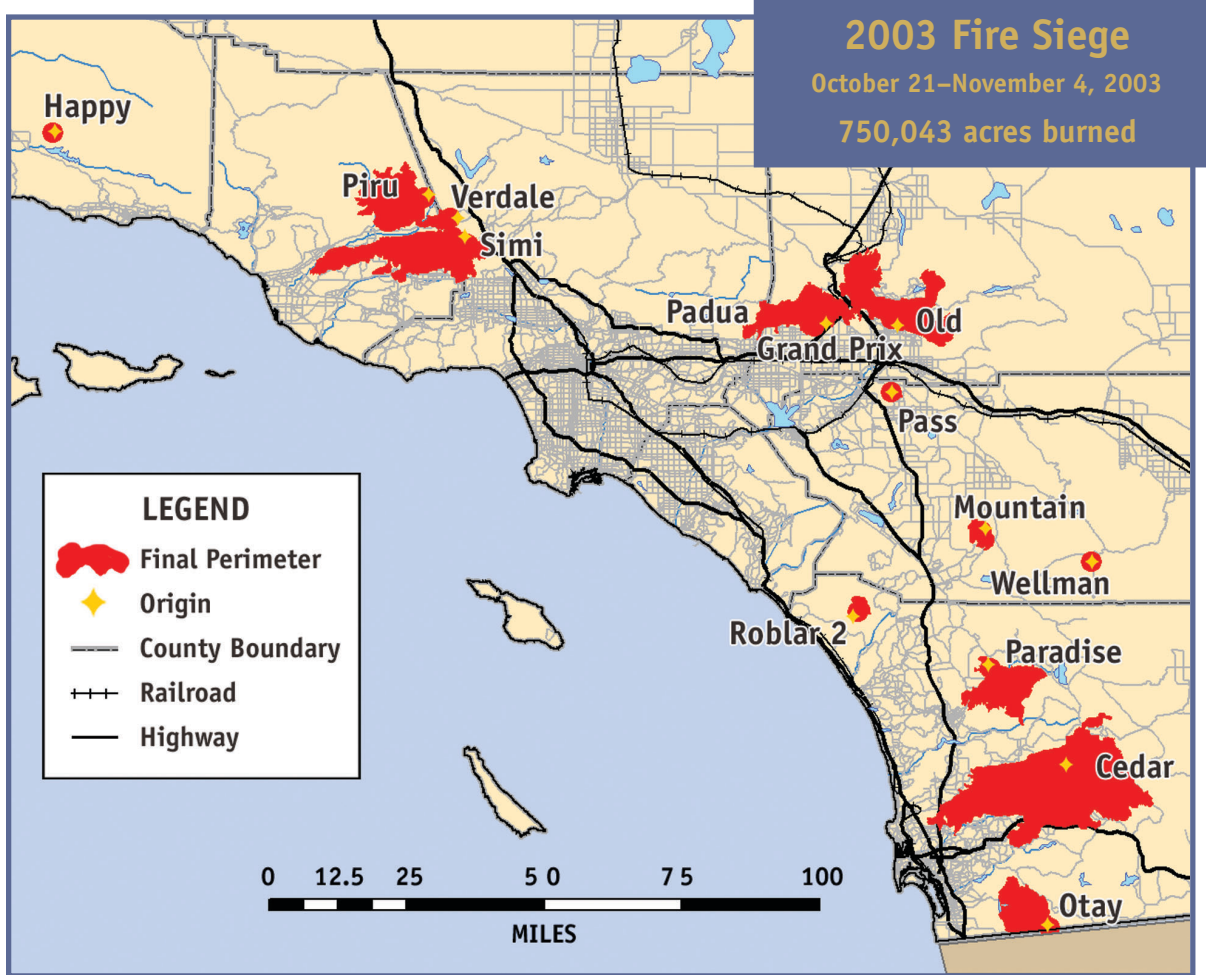
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# **Appendix & Glossary of Terms**



# Appendix I

## Statistical Information



### Incident Duration and Major Resources Allocated

Incident	OCT 21	OCT 22	OCT 23	OCT 24	OCT 25	OCT 26	OCT 27	OCT 28	OCT 29	OCT 30	OCT 31	NOV 1	NOV 2	NOV 3	NOV 4
Roblar 2															
Grand Prix															
Padua															
Pass															
Piru															
Verdale															
Happy															
Old															
Simi															
Cedar															
Paradise															
Mountain															
Otay															
Wellman															
<b>Helicopters</b>	15	20	33	32	36	45	68	65	54	77	81	77	74	33	37
<b>Engines</b>	85	111	188	298	585	902	1,163	1,572	1,603	1,670	1,716	1,608	1,083	643	427
<b>Personnel</b>	1,166	1,877	2,755	4,770	7,039	8,355	11,106	13,371	13,146	12,922	14,027	13,412	9,324	6,930	5,496
<b>Acreage</b>	1,750	6,430	10,772	21,367	113,281	360,750	518,223	580,987	668,200	736,663	739,507	739,597	739,597	739,597	750,043

Data used above was extracted from the Incident Status Summary (209) or best available data for each fire.

# Weather Patterns

## CAJON WEATHER STATION

Date	10/21	10/22	10/23	10/24	10/25	10/26	10/27
Max Temp(Degr F)	103	99	97	96	96	91	96
MinRh (%)	7	8	10	8	6	6	9
Wind(mph)	NW6G11	NW8G18	NW8G17	NW9G26	N14G42	NE18G38	NE10G30
Date	10/28	10/29	10/30	10/31	11/1	11/2	11/3
Max Temp(Degr F)	93	78	65	60	61	61	52
MinRh (%)	10	18	60	52	55	54	77
Wind(mph)	NW7G14	SE10G18	SW11G23	SW8G20	SW6G14	SW5G13	S7G13

## JULIAN WEATHER STATION

Date	10/21	10/22	10/23	10/24	10/25	10/26	10/27
Max Temp(Degr F)	92	92	92	88	84	69	77
MinRh (%)	14	13	14	10	9	18	12
Wind(mph)	E6G15	E6G15	W5G16	E6G15	E5G15	E22G49	E16G32
Date	10/28	10/29	10/30	10/31	11/1	11/2	11/3
Max Temp(Degr F)	88	67	50	45	46	44	43
MinRh (%)	25	100	100	100	100	100	100
Wind(mph)	E4G11	W16G30	W22G43	W16G34	W14G26	W14G26	W22G35

## SIMI VALLEY WEATHER STATION

Date	10/21	10/22	10/23	10/24	10/25	10/26	10/27
Max Temp(Degr F)	100	95	97	99	95	91	95
MinRh (%)	8	13	6	9	7	8	9
Wind(mph)	E8G14	E7G13	E9G14	NE14G22	E21G31	E19G26	E15G21
Date	10/28	10/29	10/30	10/31	11/1	11/2	11/3
Max Temp(Degr F)	73	68	59	63	63	57	64
MinRh (%)	34	44	49	41	42	76	73
Wind(mph)	SW13G18	SW12G27	SW13G28	SW5G15	SW10G18	SW8G18	W9G16

There are three factors that influence wildland fires: weather, fuels and topography. Southern California's Mediterranean climate creates weather patterns each year of high temperatures, low humidity, and strong winds. Despite these factors, most fires (97 percent) are stopped and controlled at less than 10 acres. However, each year there is a potential for a weather pattern to create conditions that make "initial attack" control nearly impossible. This pattern, known as the Santa Ana Winds, is a phenomenon of strong, dry, east winds that blow from the deserts to the sea. When they surface, a fire not controlled or a new fire start is seemingly impossible to control and firefighters must go on the defensive. Southern California experiences the Santa Ana Winds each year during the fall and winter months. Fire officials hope they will occur after the rains have come and the vegetation is green, thereby reducing fire intensity.

As fire weather forecasters began predicting Red Flag conditions, fire officials began preparing for additional fires by augmenting current staffing levels. However, when the Santa Ana Winds struck, with multiple fires already burning, the condition for a "perfect fire storm" was set.

The following is a weather synopsis for the October "2003 Fire Siege":

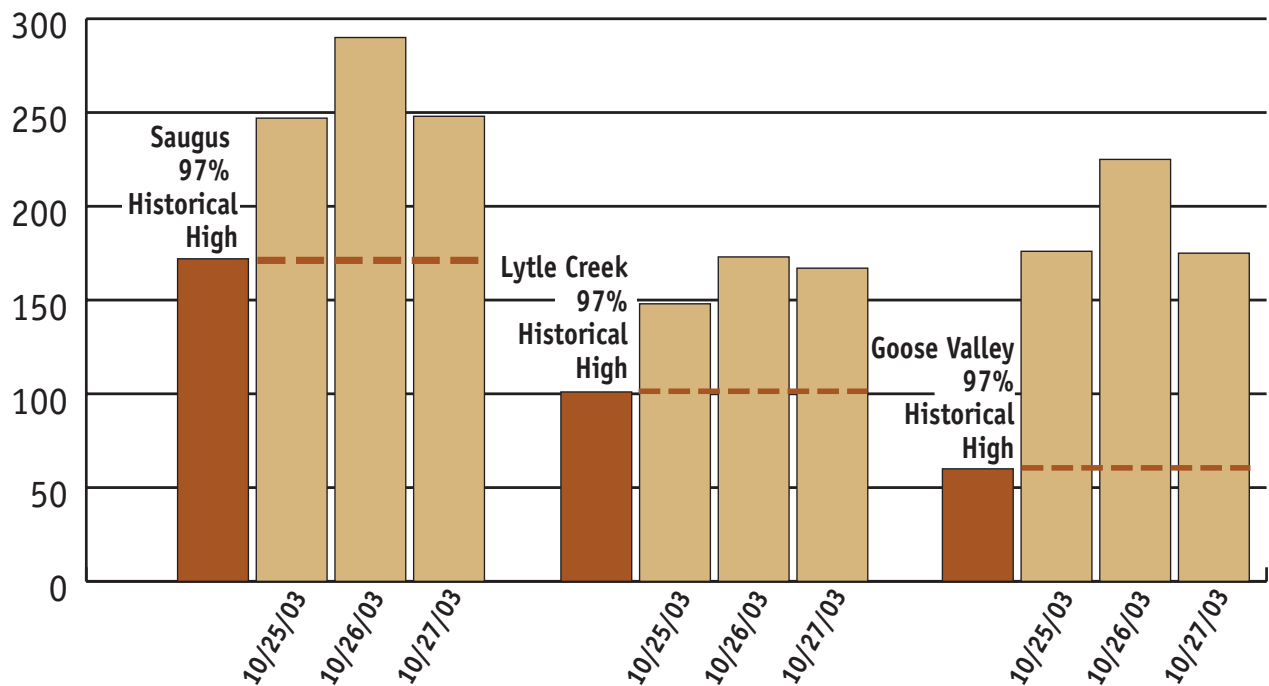
An unseasonably strong ridge of high pressure over the state provided hot and dry weather conditions over California from October 21<sup>st</sup> through October 27<sup>th</sup>. Temperatures initially were at record levels, and generally 10 to 20 degrees above normal during this period. Humidities were extremely low with afternoon readings below 10% in most areas while nighttime humidities barely reached 20 to 30% in most areas. Winds during this period began rather light, with northeast winds 5 to 15 mph over the mountains and through and below some canyons and passes, shifting to southerly each afternoon the first few days. A cool

trough dropping south through Arizona brought a stronger offshore flow with stronger northeast winds beginning October 25<sup>th</sup>. In some wind prone areas, over the mountains and below and through canyons and passes, these winds reached sustained speeds of 15 to 25 mph with local gusts to 40 mph or stronger, and remained at those levels through October 27<sup>th</sup>.

A pacific trough approached the state on October 28<sup>th</sup>. This caused offshore winds to decrease that morning, and turn southwesterly that afternoon, with a stronger push inland toward the mountains. The southwest winds continued strong in some areas the night of October 28<sup>th</sup> and into the next day. But these winds brought significantly higher humidity and cooler temperatures with them each day as the marine layer thickened to near 6,000 feet by October 30<sup>th</sup>. By October 30<sup>th</sup>, temperatures were 10 to 15 degrees below normal, and afternoon humidity was 50 to 100% over much of the fire area. The trough provided heavy rain the first few days of November over Ventura county fires while spotty showers occurred over the remainder of the fire area. The trough provided cool temperatures and high humidity from October 30<sup>th</sup> through November 4<sup>th</sup>.

## Burn Index

An important aspect of the weather story during the siege were the record breaking burn index (BI) figures. The chart below shows the record setting BIs for three representative areas of the California Fire Siege of 2003. Burn index is an open ended scale calculation determined from the National Fire Danger Rating System (NFDRS). It is used to predict flame length, a measure of heat intensity. A BI of 51–70 indicates high fire danger; a BI over 90 is extreme. BI/10=flame length. For example a BI of 60 predicts a six foot flame.



# Appendix 2

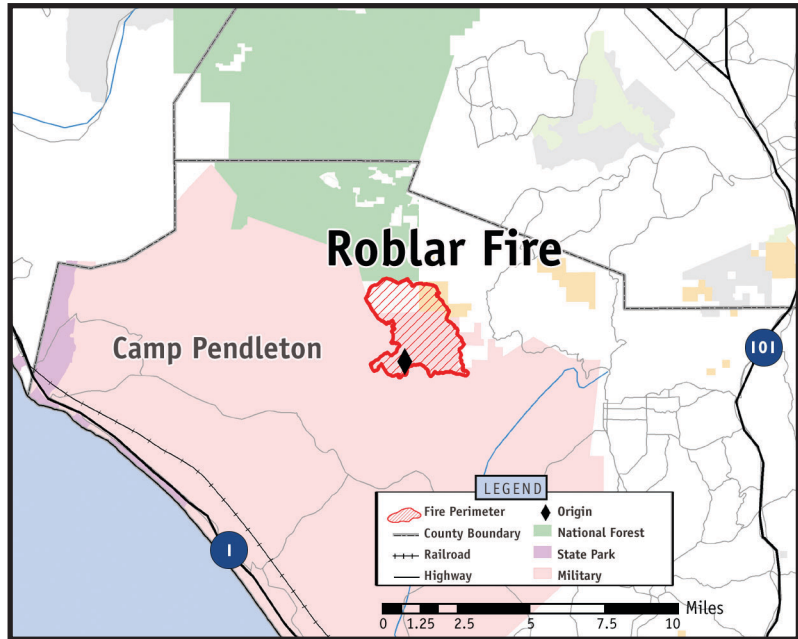
## Fire Summaries

### Roblar 2

Oct. 21–Nov. 4, 2003

- Total Acres: 8,592
- Estimated Suppression Cost: \$5.4 million
- Firefighters Assigned at Peak: 1,313
- Residences Destroyed: 0
- Lives Lost: 0
- Communities Evacuated: De Luz
- Cause: Under Investigation
- Fuel Type: Grass and brush

The Camp Pendleton Commander ordered the construction of an extensive fuel break network after the first Roblar Fire in 1985. Over 100 miles of fuel breaks had been constructed prior to the start of the Roblar 2 Fire. Initial attack forces used these existing fuel breaks to contain a portion of the fire the first night. Chief Officers recognized the potential for a complex firefight as the fire spread onto adjacent jurisdictions and threatened communities. On October 21, a Federal Regional Team was ordered. The team's strategies and tactics were successful and by October 26, they were able to quickly demobilize their resources, making them available for new fire starts in the region. This quick demobilization was accomplished through close coordination with South Ops.



### Pass

Oct. 21–Oct. 23, 2003

- Total Acres: 2,387
- Estimated Suppression Cost: \$1,729,417
- Firefighters Assigned at Peak: 696
- Residences Destroyed: 5
- Lives Lost: 0
- Communities Evacuated: Reche Canyon, North Moreno Valley
- Cause: Human
- Fuel Type: Grass, light to medium brush

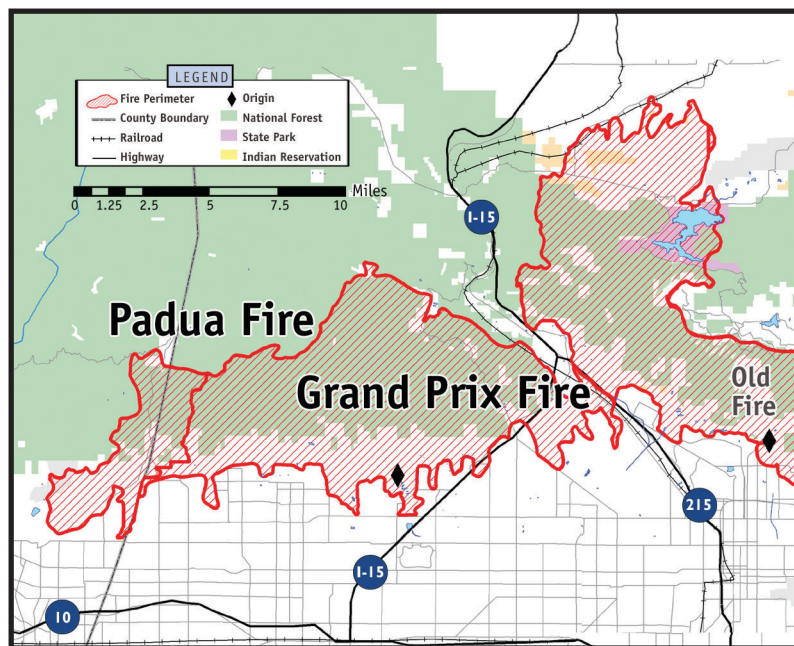
The Pass Fire grew quickly, burning structures and causing civilian injuries. The initial attack incident commander used an aggressive strategy to stop the fire spread and limit damage. On Oct. 23, resources were kept on the fire to secure lines before the predicted wind event arrived.



# Grand Prix/Padua

Oct. 21–Nov. 4, 2003

- **Total Acres:** Grand Prix 69,894, Padua 10,446
- **Estimated Suppression Cost:** Grand Prix \$11,600,000, Padua \$1,200,000
- **Firefighters Assigned at Peak:** Grand Prix 2,500, Padua 773
- **Residences Destroyed:** 194
- **Commercial Structures Destroyed:** 1
- **Other Structures Destroyed:** 60
- **Lives Lost:** 0
- **Communities Evacuated:** Hunter Ridge, Alta Loma, Etiwanda, Rancho Cucamonga, Upland, Glen Helen, San Antonio Heights, Mount Baldy Village, Claremont, La Verne, Palmer Canyon, Claremont, Rancho Cucamonga, Mt Baldy Village, Lytle Creek, Rialto, Fontana, San Dimas.
- **Cause:** Human



The Grand Prix was reported at 2:22 pm and began near Grand Prix Drive and Shetland Lane in Northern Fontana in the community of Hunter's Ridge. First arriving firefighters reported a two acre fire burning in old brush burning with a "rapid rate of spread" fanned by a strong southwest wind. The temperatures were hot and the humidities were extremely low. Fire spotting ahead of the main fire was occurring and within one hour of the start of the fire it was already reported to be over 100 acres and moving into 45 year old brush. Veteran firefighters recognized that this fire had "extreme fire behavior" as it threatened communities of Lytle Creek to the north, Devore to the east and thousands of homes in the foothill communities to the south. High tension lines were threatened and miles of distribution lines were destroyed causing huge power outages. Two major highways and a major railway line were closed as the fire swept across them. Even the incident command post was threatened as the Grand Prix and the Old fires merged.

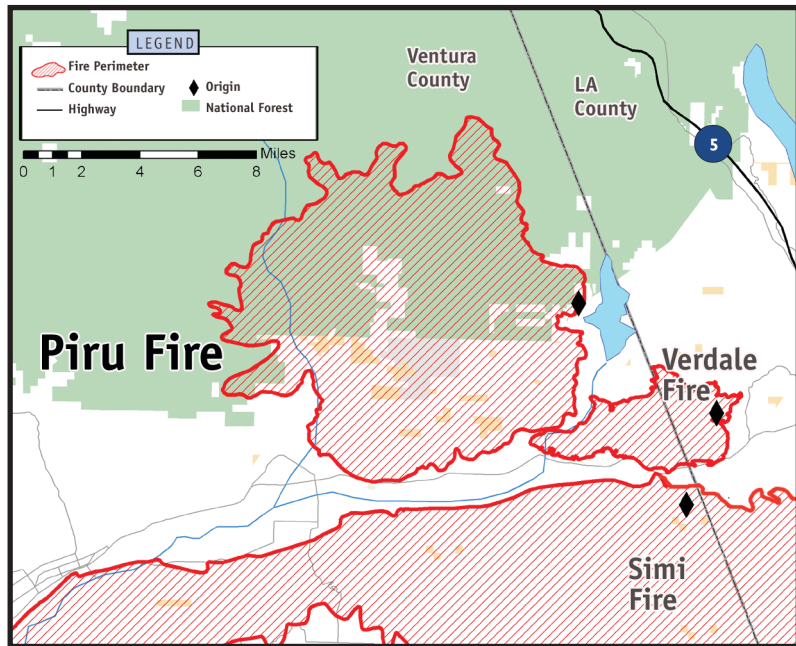
At the start of the Grand Prix Fire, the Unified Commanders requested a Federal Regional Team and selected a strategic alternative through the WFSA process. On October 25, Santa Ana winds pushed the fire further out of control and beyond the scope of the WFSA strategy prompting Chief Officers to transition to a Federal National Team. The Unified Command Team was able to use the Mountain Area Safety Taskforce's (MAST) advanced planning efforts to set critical strategic goals. With the increase in fire activity across the region, the team's perception was that the resource ordering system could not keep up with the large number of resource orders being requested and deployed. Their response was to adjust their strategic objectives to a level they could accomplish with the resources on hand. The Chief of Los Angeles County Fire Department emptied fire stations in order to move fire engines to protect the cities of Claremont and La Verne. The Grand Prix fire's westward push was threatening to spread into the Angeles National Forest. Chief Officers of the U.S. Forest Service and Los Angeles County Fire Department chose to split off Branch 7 along the Angeles/San Bernardino forest boundary and create a separate incident—the Padua Fire. This decision was based on span of control, logistical support to firefighters, and communications. This decision also resulted in a new dedicated ordering point. A new Federal National Team was ordered for the Padua Fire. A significant impact recognized by the Incident Management Teams was the delay of receiving resources by a system that was now 24–48 hours behind actual operations of the incidents.

The team was able to adjust strategies and take advantage of natural fire barriers and older burned areas as the Santa Ana winds abated and marine airflow returned. By October 29, entire branches of the Grand Prix/Padua Fire were contained and firefighting resources reassigned or assisted on the west flank of the Old Fire near Silver Lake.

# Piru

Oct. 23–Nov. 4, 2003

- **Total Acres:** 63,991
- **Estimated Suppression Cost:** \$7,700,000
- **Firefighters Assigned at Peak:** 1,512
- **Residences Destroyed:** 1
- **Commercial Destroyed:** 1
- **Other Structures Destroyed:** 6
- **Lives Lost:** 0
- **Communities Evacuated:**
- **Cause:** Under Investigation
- **Fuel Type:** Moderate to heavy brush



Incident commanders chose a strategy to protect values at risk early in the firefight. A decision was made to protect farm and ranch economic values due to the potential high dollar loss to the agricultural community. The

Verdale, Piru and Simi fires were burning in very close proximity to each other. This proximity caused a safety concern as well as a concern for firefighting resources deploying on the wrong fire. On Oct. 25 Incident Commanders for the Verdale, Piru, and Simi fires coordinated and shared resources between the fires. On Oct. 26, the Piru Fire threatened the Hopper Ranch/Condor research site. Site managers had completed fire defense improvements prior to the fire and these improvements proved successful in lessening the impacts of the fire. On Oct. 27, it became clear that the command team would not be able to achieve the strategic objectives of the selected alternative in the WFSA analysis. New objectives were set. Complications occurred between CDF's 24-hour shifts and the U.S Forest Service's 12-hour shifts. The Unified Command was able to capitalize on earlier fuels and vegetation work completed by the Ventura County Fire Department. Unified Command came to the conclusion that the South Ops resource ordering system could not keep up with the large number of resource orders. The team adjusted objectives based on the resources available. The Unified Command was successful in including law enforcement as a branch of their Operations Section.

Early in the Unified Command organization there was some confusion over agency policy as a CDF Incident Command Team was also managing the part of the fire that was on National Forest Land. Close coordination took place between the agencies to insure that agency-specific policies were met. On October 30, a Federal National Team was assigned in Unified Command with the existing CDF team.

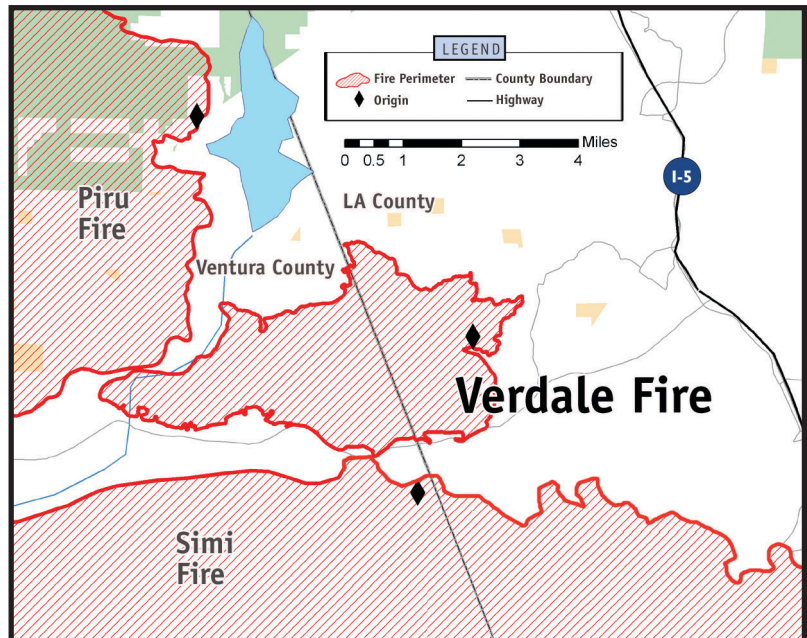
The Piru Fire burned in both the Wildland Urban Interface (WUI) and the Sespe Wilderness area simultaneously. There were not enough resources available to attack the fire in both areas. Priority was placed on the WUI fire until additional resources could be obtained to adequately staff the wilderness area.

# Verdale

Oct. 24– Oct. 28, 2003

- Total Acres: 8,650
- Estimated Suppression Cost: \$2,407,000
- Firefighters Assigned at Peak: 883
- Residences Destroyed: 0
- Other Structures Destroyed: 1
- Lives Lost: 0
- Communities Evacuated: Piru
- Cause: Under Investigation
- Fuel Type: Grass and medium brush

The Verdale Fire started in Los Angeles County near the community of Santa Clarita and quickly burned into Ventura County. When the fire spotted across Highway 126, three-quarters of a mile away, the Chief Officers of LA County and Ventura County Fire Departments agreed to create a second incident command, the Simi Fire. This decision allowed for a simplified command structure, reducing the span of control and potential communication problems as the fire spread into Ventura County. By October 25, Incident Commanders effectively operated as an area command to share resources as needed between the Verdale, Piru, and Simi fires. The strategy allowed for an efficient use of available resources on the incidents but caused some confusion at South Ops.



# Happy

Oct. 24–Oct. 26, 2003

- Total Acres: 250
- Estimated Suppression Cost: Unknown
- Firefighters Assigned at Peak: 80
- Residences Destroyed: 0
- Lives Lost: 0
- Communities Evacuated: None
- Cause: Under Investigation
- Fuel Type: Grass, light to medium brush

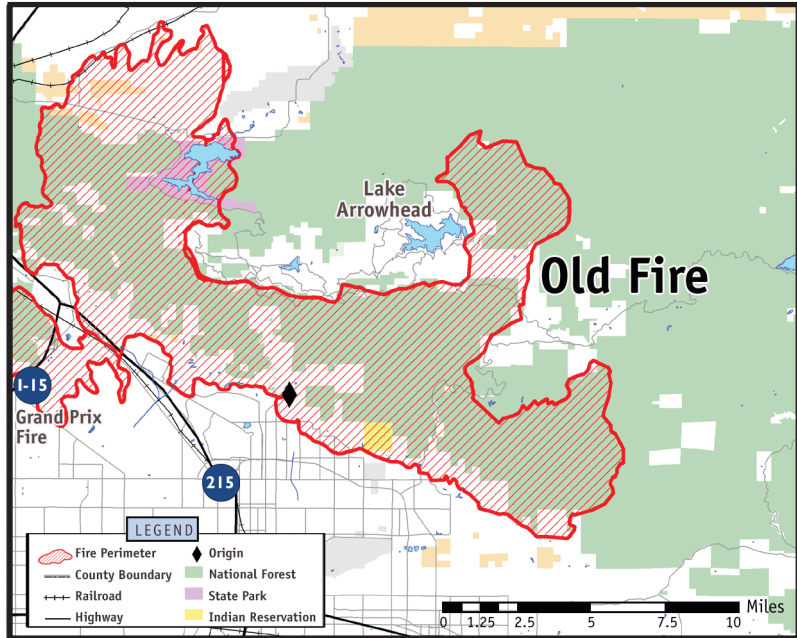
The initial attack incident commander recognized the deteriorating fire situation in the region as the Santa Ana wind event approached. Significant resources were sent to the Happy Fire with a strategy of containing the fire as quickly as possible before the winds arrived. This strategy proved successful as the Happy Fire was effectively stopped at 250 acres within the first burning period.



# Old

Oct. 25–Nov. 4, 2003

- Total Acres: 91,281
- Estimated Suppression Cost: \$37,650,00
- Firefighters Assigned at Peak : 4,211
- Residences Destroyed: 940
- Commercial Destroyed: 30
- Lives Lost: 6
- Communities Evacuated: Arrowhead Springs, San Bernardino, Del Rosa, Devore, Crestline, Rimforest, Crest Forest, Rim Forest, Running Springs, Highland, Skyforest, Cedarpines Park, Valley of Enchantment, Twin Peaks, Summit Valley, Lake Arrowhead, Los Flores Ranch, Holcomb Valley, Oak Springs Ranch, Blue Jay, Cedar Glen, Hook Creek, Green Valley Lake, Arrowbear, Devore, Lucerne Valley, Apple Valley, Squint Ranch, Silverwood Lake, Summit Valley, Baldy Mesa, Oak Hills, South Hesperia.
- Cause: Under Investigation
- Fuel Type: Medium to heavy brush and bug killed timber



The Old Fire started at 9:16 am in Waterman Canyon above the City of San Bernardino and rapidly spread downhill threatening Arrowhead Springs Resort and then the community of Del Rosa. Strong gusty Santa Ana winds pushed the fire into the neighborhood west and east of Waterman Canyon (Highway 18). Firefighters were confronted by a dangerously fast moving fire with major spotting. Ignited palm trees fronds acted like torches of fire in the wind igniting numerous spot fires that threatened and burned homes. Two civilians died during the first evening. It was also burning up canyon driven by steep terrain and dry vegetation as the humidities dropped to six percent. This northern spread up the canyon would become a problem later when the Santa Ana winds subsided and the prevailing west winds arrived pushing the fire into the dead, dying and diseased forests of the San Bernardino National Forest and the many communities located there.

From the onset of the fire, unified incident commanders successfully used the Mountain Area Safety Task Force (MAST) planning effort for critical, strategic, and tactical decisions. The MAST effort proved critical to a successful evacuation effort when winds shifted and blew the fire into the mountain communities. 70,000 citizens were evacuated. The MAST project that had cleared dead trees from the evacuation routes proved successful as firefighters used these corridors for a major backfire in an attempt to keep fire out of the mountain communities. In spite of this there were significant numbers of homes destroyed in the Crest Forest, Crestline and Cedar Glen areas. Throughout the fire, local fire departments coordinated with the incident commanders and took action for the immediate protection of life and property within their jurisdictions. At the height of the fire over 4,000 firefighters were assigned to the fire and were successful in protecting over \$7.5 billion in residential and commercial infrastructure.

The major evacuation occurred overnight with no electricity to power lights or to power radios and TV's to help spread the word. In spite of these challenges, the evacuation went well, primarily due to preplanning efforts. The use of Therma-Gel and Fire Out Ice, two fire resistant gels, was highly successful in protecting structures in Crestline and Rim Forest.

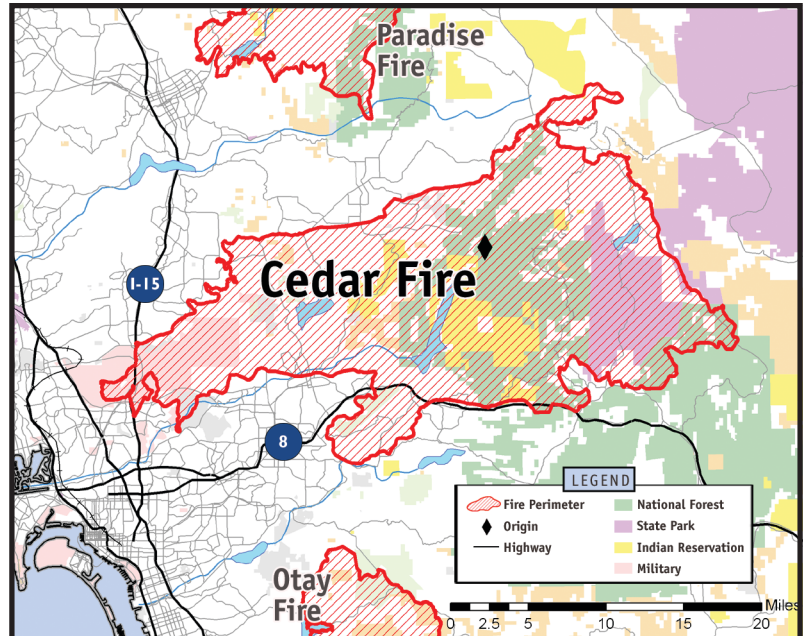
Chief Officers decided to order an additional Federal Team to prepare contingency lines between the Old Fire and the Big Bear, Oak Glen, Forest Falls and Angelus Oaks communities. By October 30, an Area Command was established to coordinate efforts between the Grand Prix Fire, the Old Fire and the contingency teams. Incident objectives were adjusted to take into consideration resource values at risk.



# Cedar

Oct. 25–Nov. 4, 2003

- Total Acres: 273,246
- Estimated Suppression Cost: \$29,880,826
- Firefighters assigned at Peak: 4,275
- Residences Destroyed: 2,232
- Commercial Structures Destroyed: 22
- Other Structures Destroyed: 566
- Lives Lost: 14
- Communities Evacuated: Ramona, Pine Hills, Barona Mesa, San Diego Country Estates, Poway, Descano, Flynn Springs, Jamul, Pine Valley, El Cajon, Santee, Lakeside, San Diego, Julian, Mt. Laguna, Escondido, Crest, Cuyamaca, Alpine, Guatay, Santa Isabel, Ranchito, Wynola, Santa Ysabel
- Cause: Human
- Fuel Type: Grass, medium to heavy brush, and timber



Although the entire 2003 Fire Siege was historic, it is the Cedar Fire that will set the benchmark by which southern California fires will be measured for years to come. It was the largest fire to ever burn in California, tragically killing 14 people and destroying thousands of structures. Extreme fire behavior sent walls of flames down upon communities too fast for many people to get out of the way.

The Cedar Fire started at dusk on October 25<sup>th</sup>, too late to safely use aircraft. By midnight there were 340 firefighters at the Command Post ready to fight the fire which at the time was burning in an inaccessible area. The rugged terrain made conditions too dangerous for firefighters to traverse out to the fire at night. The Incident Commanders, preparing for the next day, immediately ordered additional resources, intending to hit the fire hard with aircraft and ground crews when the sun came up. The Cedar Fire didn't wait. The dreaded Santa Ana wind hit the fire about midnight and any hope of the fire staying within the Cleveland National Forest was lost as the fire raced toward nearby communities at record speeds. In the first few hours thirteen civilians perished as the fire trapped and over ran both civilians and the responding emergency personnel. It would not be stopped.

Prior to the start of the Cedar Fire, San Diego fire agencies had sent many resources north to help with the fires that had started in the previous four days, some of which were growing rapidly and threatening many communities. On the 24<sup>th</sup>, CDF and the other fire departments of San Diego County recognized that the burning conditions were ripe for a large fire in the San Diego area also, and issued direction that all stations should stay staffed with the remaining resources with no further assignments accepted for fires outside the county. The decision paid off as the need for fire engines escalated rapidly. By 10:00 p.m. on the 26<sup>th</sup>, the Cedar Fire was estimated to be 182,000 acres with 1,200 firefighters scrambling to evacuate residents and protect what structures they could. When the wind changed direction, the five mile long flank of the fire became the head of the fire. At the peak of the burning, the Cedar Fire grew at a rate of 12,000 acres per hour. Before it was done, the fire would burn into or threaten over 25 communities plus scattered ranches.

The fire was huge. Two Command Teams were ordered. A CDF Incident Command team arrived first followed by a Federal National Team. The CDF Team immediately joined with law enforcement in a unified command, greatly improving the evacuation effort. When the Federal Team arrived, the fire was split, the CDF Team taking the west zone and the Federal Team taking the east zone.

This improved the span of control, safety and logistics of managing the huge workforce that eventually exceeded 4,200 personnel. Initial confusion from responding resources on which zone to report to were quickly resolved.

Social and political demands became problematic, reportedly affecting the Incident Commanders' ability to make timely decisions and focus on the task at hand. A congressman's house was destroyed and there was pressure from elected officials and others to immediately use military resources. These demands could not be met due to safety rules, the laws governing the use of military, and the amount of time it takes to train and deploy the military resources for firefighting missions. To relieve political pressure, the U.S. Forest Service ordered a battalion of Marines on the 28<sup>th</sup>, in spite of a favorable weather forecast and the fact that over 3,000 personnel were already assigned to the fire. This order was cancelled the following day as damp weather entered the area.

Due to the large number of big fires across Southern California, a tremendous workload was being placed on the normal resource ordering system. All fires were experiencing delays in obtaining resources. Likewise, as the Cedar Fire grew, Incident

Commanders had to adjust their suppression objectives to match the available resources and place them in the most critical areas until additional resources arrived. This shortage also resulted in some firefighters working very long shifts and exceeding the maximum work/rest cycles that firefighting agencies use to keep personnel from succumbing to fatigue after long hours of hard work.

Even during the height of the firefight, elected officials and the news media criticized the fire agencies of not fighting the fire aggressively enough. The Incident Commanders and Agency Administrators now had the fire to fight as well as a need to respond to the rapidly growing political and public demand for information and answers. Dividing responsibilities, Agency Administrators tried to handle the large number of interviews, press conferences and the negative media coverage, while the Incident Commanders focused the efforts of their people on the firefight. The negative reaction from outside the fire was widespread and loud.

The fight continued as the wind had shifted to a westerly and the fire headed east towards Cuyamaca and Julian. Firefighters were working long hours, not leaving their posts until relief arrived. The critical public reaction had a negative affect on the morale of the firefighters who were working in extreme conditions and risking their lives to save people and property. Then, one of their own fell. A Novato Engine Company was trapped and overrun while defending homes in the Julian area. One firefighter was killed and the three others were injured. This tragic event could not and did not slow down the fire fight. A special accident review team was brought in to investigate the accident so the Incident Management Team could continue with the firefight itself.

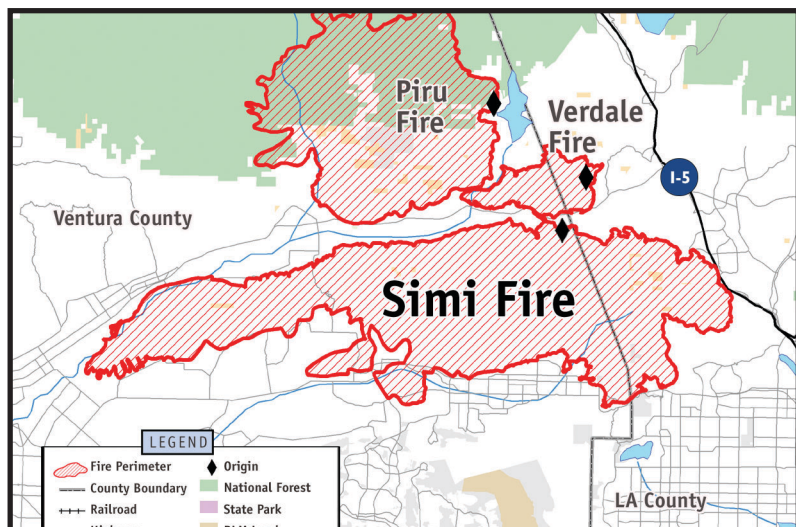
With the wind shift, the fire was now burning toward the old Pines Fire which had burned in 2002. That recent burn area allowed the firefighters to use the lack of heavy fuels as a fire break where the Cedar Fire could be stopped effectively.

The stories of loss, heroic actions, lives and property saved, and the affects across a large area of Southern California are too numerous to put into one document. Lessons learned from big fires during the siege will help shape the policies of fire, law and other public agencies as these events are studied to see how things can be improved. The Cedar Fire will be a significant part of those reviews and will be a case study for firefighters of the future, who always study the past to learn their trade and improve their knowledge of how do the best they can with what they are given.

## Simi

Oct. 25–Nov.4, 2003

- **Total Acres:** 108,204
- **Estimated Suppression Cost:** \$10,000,000
- **Firefighters Assigned at Peak:** 1,575
- **Residences Destroyed:** 37
- **Other Structures Lost:** 278
- **Lives Lost:** 0
- **Communities Evacuated:** Chatsworth, Stevenson Ranch
- **Cause:** Spot from Verdale Fire
- **Fuel Type:** Grass and medium to heavy brush

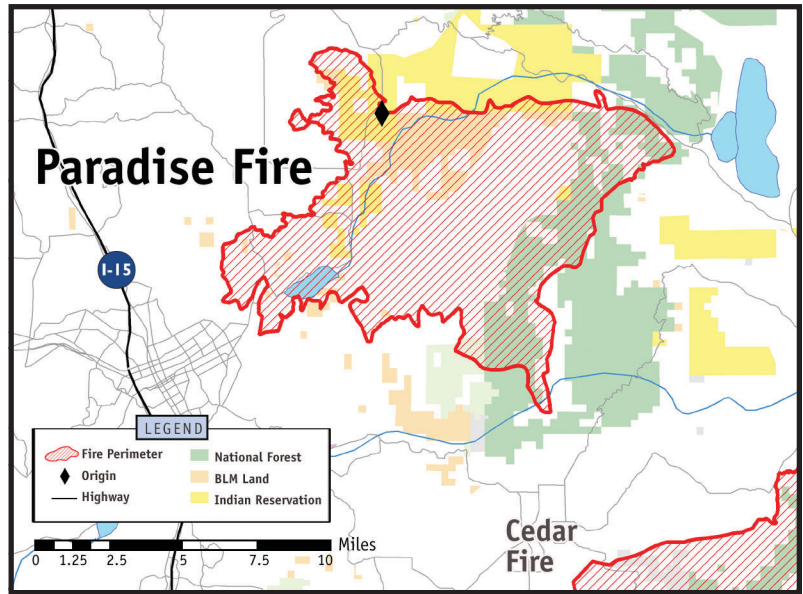


By Oct. 25, Incident Commanders for the Verdale, Piru, and Simi fires coordinated and shared resources among the fires, effectively operating as an area command. As Santa Ana winds pushed the fire through Ventura County, the State Incident Command Team focused on a defensive strategy to protect lives and property. With resources critically short, the Ventura County Fire Chief requested ambulance companies to cover empty fire stations to provide basic EMS services to the public. Fire history for the last eight major fires in this area shows that a fire will run through Rocky Peak Park to Malibu once it crosses Highway 118. The fire was successfully stopped at the 118 Freeway. On the night of October 25 and into the morning hours of the October 26, the rampaging fire burned 300 structures including 22 homes. On October 26, LA city and county chiefs took independent action to launch all air resources within the county's control to stop the eastern progression of the Simi Fire. On Oct. 27, the Incident Command Team requested the closure of Interstate 5 in Santa Clarita for public and firefighter safety knowing that interstate commerce would be severely impacted. During the wind event, firefighters were able to take advantage of the vegetation clearance and construction standards required by county ordinance to save subdivisions and were able to allow citizens to shelter in place rather than evacuate. The defensible space ordinances proved very successful. The Area and Incident Commanders viewed the MACS conference calls as more information sharing than decision-making in nature.

# Paradise

Oct. 26–Nov. 4, 2003

- Total Acres: 56,700
- Estimated Suppression Cost: \$13,000,000
- Firefighters Assigned at Peak: 2,222
- Residences Destroyed: 221
- Commercial Structures Destroyed: 2
- Other Structures Destroyed: 192
- Lives Lost: 2
- Communities Evacuated: Valley Center, Lake Wolford, Escondido, Deer Springs, Mesa Verde, Mesa Grande, La Jolla, Mt. Palomar, Scripps Ranch
- Cause: Human
- Fuel Type: Grass, medium to heavy brush

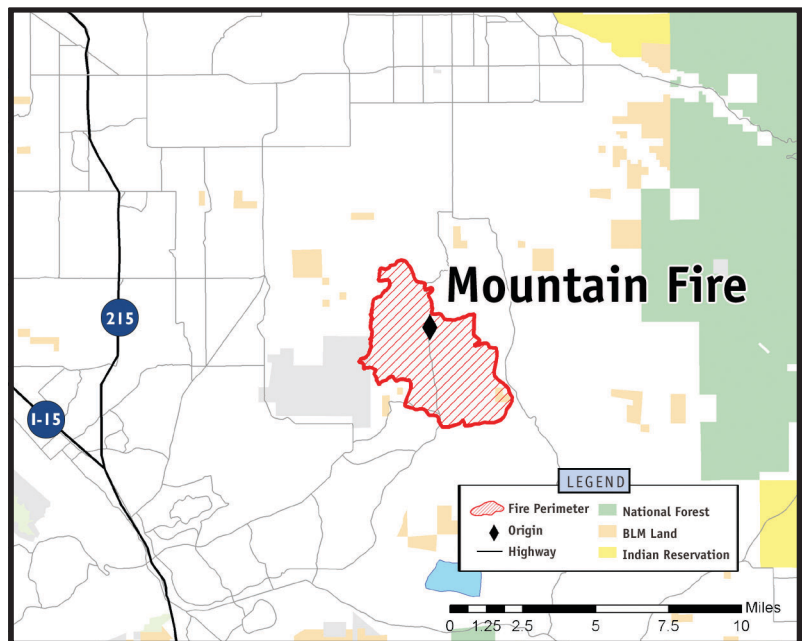


On October 26, the MACS group declared the Paradise fire as the #3 priority fire behind the Cedar and Old fires. The Incident Command Team perceived a significant delay in receiving critical resources. Life safety became the primary focus of all strategic and tactical decisions due to drastically limited resources. Perimeter control was secondary until additional resources became available as the fire burned blocks of homes. The team employed a strategy of going outside of the ordering system to get equipment. Local tribal governments provided resources. The Paradise Fire was included as the San Diego Unified Area Coordination Team was established on October 30. This Area Coordination Team adjusted resource orders for the fires within their area. The pre-existing evacuation plan for Palomar Mountain was implemented smoothly.

# Mountain

Oct. 26–Nov. 2, 2003

- Total Acres: 10,331
- Estimated Suppression Cost: \$2,230,000
- Firefighters Assigned at Peak: 697
- Residences Destroyed: 21
- Other Structures Destroyed: 40
- Lives Lost: 0
- Communities Evacuated: Sage, Glen Oak Hills
- Cause: Under Investigation
- Fuel Type: Grass and medium to heavy brush

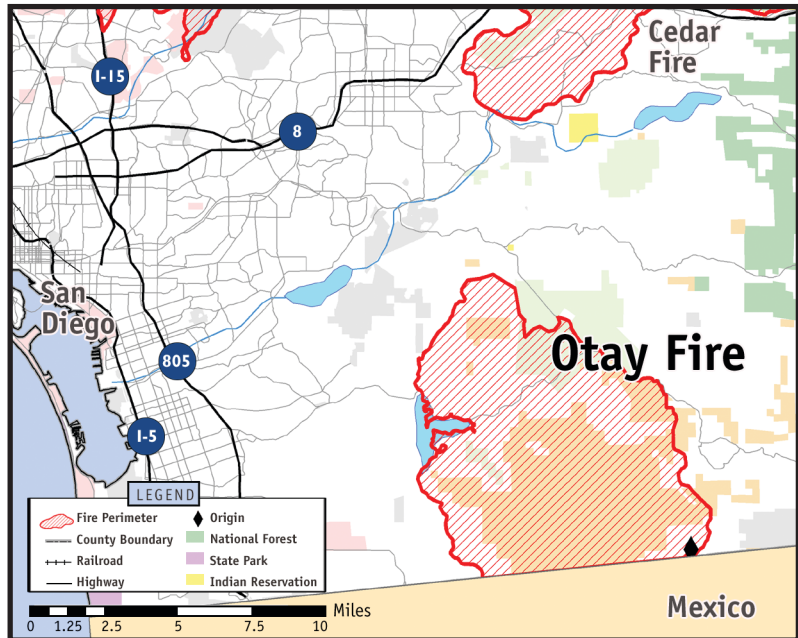


Chief Officers supported a strategy of aggressive initial attack for the Mountain Fire. Thirty fire stations in Riverside County were emptied to support the initial attack on the fire. The CDF Riverside Chief requested private sector ambulance companies to cover the open fire stations and maintain a basic level of emergency medical service to the public. Evacuations were completed successfully. A State Incident Command Team was assigned. The local sheriff was able to re-open roads within 36 hours of the closure and evacuation.

# Otay

Oct. 26–Oct. 28, 2003

- Total Acres: 45,971
- Estimated Suppression Cost: \$350,000
- Firefighters Assigned at Peak : 138
- Residences Destroyed: 1
- Other Structures Destroyed: 5
- Lives Lost: 0
- Communities Evacuated: None
- Cause: Under Investigation
- Fuel Type: Medium to heavy brush

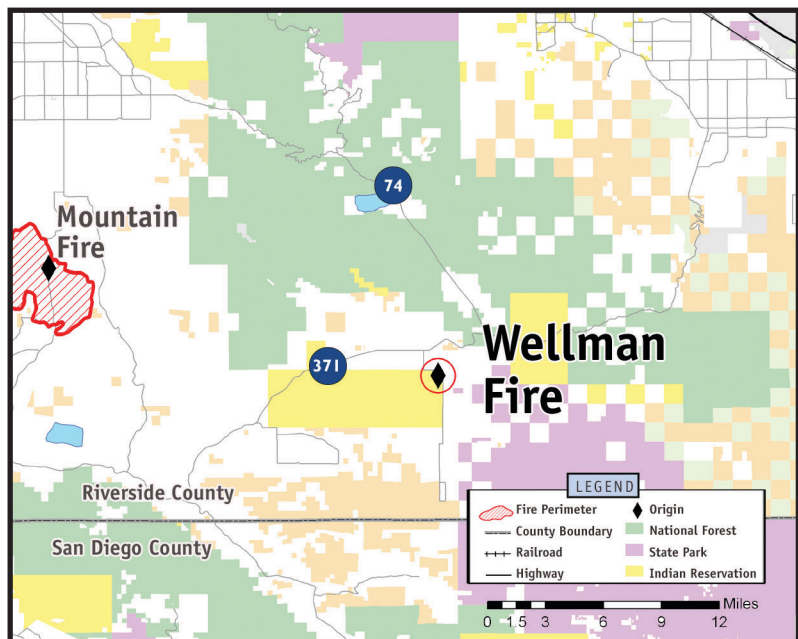


The Otay Fire started during the Santa Ana wind event. The initial attack CDF incident commander recognized the value of an existing BLM International fuel break and used a major burnout strategy to successfully suppress the fire with very limited resources. The fire was successfully contained and major resource releases were completed by October 28.

# Wellman

Oct. 26–Oct. 27, 2003

- Total Acres: 100
- Estimated Suppression Cost: \$100,000
- Firefighters Assigned at Peak: 150
- Residences Destroyed: 0
- Lives Lost: 0
- Communities Evacuated: None
- Cause: Under Investigation
- Fuel Type: Grass, and light to medium brush

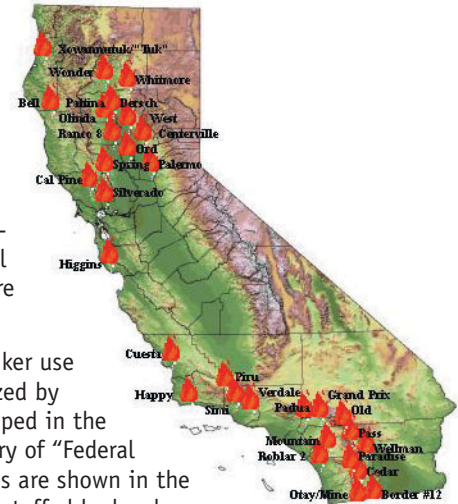


Chief Officers supported a strategy of aggressive initial attack for the Wellman Fire. This fire, burning under general Santa Ana wind conditions, was contained in 10 hours at 100 acres. Resources were available for release the next day.

# Appendix 3

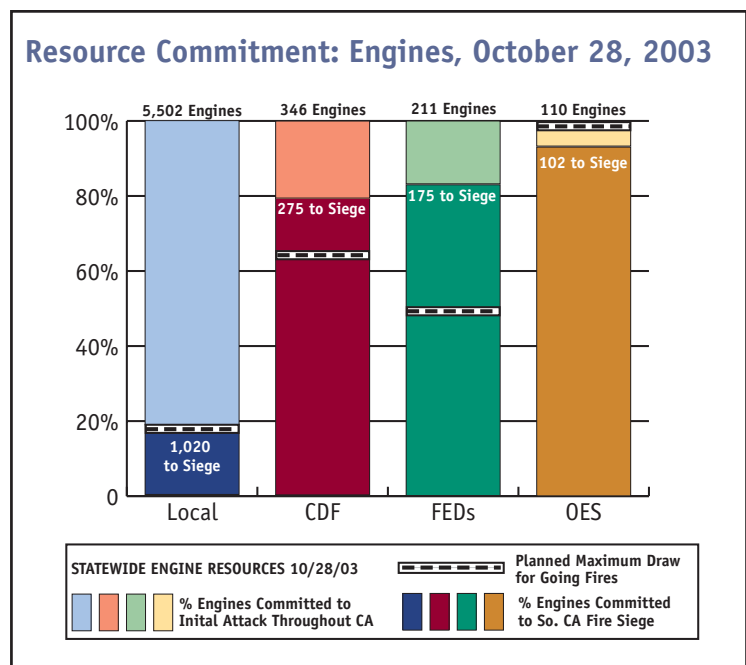
## Resource Commitment

Agency administrators make many strategic decisions during fire events such as the 2003 fire siege in southern California. Many of these decisions involve a balancing of demand for resources with the available supply. Several factors must be considered as multiple incidents compete for scarce resources. These factors include threat to human life and property, threat to critical natural resources, and the growing demand of existing fires. Agency administrators must also consider the potential for new fires. The general strategy is to maintain sufficient initial attack strength in reserve to contain new fire starts before the fires grow to be major fires. Agency administrators maintain a tremendous amount of information about the current status of the wildland fire response system. It is difficult to display this information in sufficient detail yet summarized succinctly to convey the agency administrator's dilemma of balancing resource commitment to going fires while maintaining reserve strength for new fires. During this siege, the wildland fire agencies retained sufficient initial attack strength from San Luis Obispo County north to the Oregon border to respond to hundreds of initial attack fires. As the map indicates, 16 of these fires posed a significant threat and required an extended commitment to keep them from becoming major conflagrations. As fire weather conditions abated in the north, additional wildland resources were quickly sent south to assist with the southern California fire problem.



The authors of this report developed graphical summaries of fire engine and air tanker use to serve as indicators of this complex decision process. Fire engine use is summarized by level of government by commitment per day. All local government engines are grouped in the category of "Local Engines". All federal agency resources are grouped in the category of "Federal Engines". The California Department of Forestry and Fire Protection wildland engines are shown in the category of "CDF Engines" and Office of Emergency Services (OES) engines that are staffed by local government are shown as "OES Engines. This is a highly simplified grouping of fire engines by level of government and it is likely that some engines may be counted in the wrong category. For example, engines staffed by CDF under contract to local government may be inadvertently counted as a CDF wildland engine. These data difficulties should not be significant enough to detract from this report.

In the Fire Engine Use graph, the height of the bar indicates 100% of the total capacity for fire fighting statewide. The dark colored bar indicates the percentage of engines committed to the major fires in southern California. The light colored portion at the top of the bar represents the remaining engines committed to fight new initial attack fires across the state. The dotted line through the bar represents the planned level of maximum draw for going fires with prudent reserves maintained for new fires. This graphic changes day by day, reflecting the dynamic response to the changing fire situation. During the historic events of the 2003 southern California fire siege, agency administrators made critical decisions to deploy as many California resources as deemed prudent based on fire weather conditions and to activate reserve and out-of-service resources as quickly as possible to add to capacity. As the siege evolved and critical fire weather moderated in northern California, agency administrators were able to send additional resources south. This becomes evident on the daily use statistics for CDF and U.S. Forest Service engines.



Aircraft use is another indicator of scarce resource commitment. Agency aircraft, private sector contractors, and military resources are tapped during large sieges such as this event. Helicopters are assigned to specific incidents and the incident management team maintains use records. Airtankers operate out of fixed bases and records are maintained at those bases. These airtanker base records are more quickly available for inclusion in a report such as this so the airtanker records are used as an indicator of aircraft use during the siege. Airtankers are a mobile resource covering large areas. Fire managers routinely

adjust assignments as the fire situation changes. For example, airtankers are often diverted from going fires to new initial attack fires to assist with early containment.

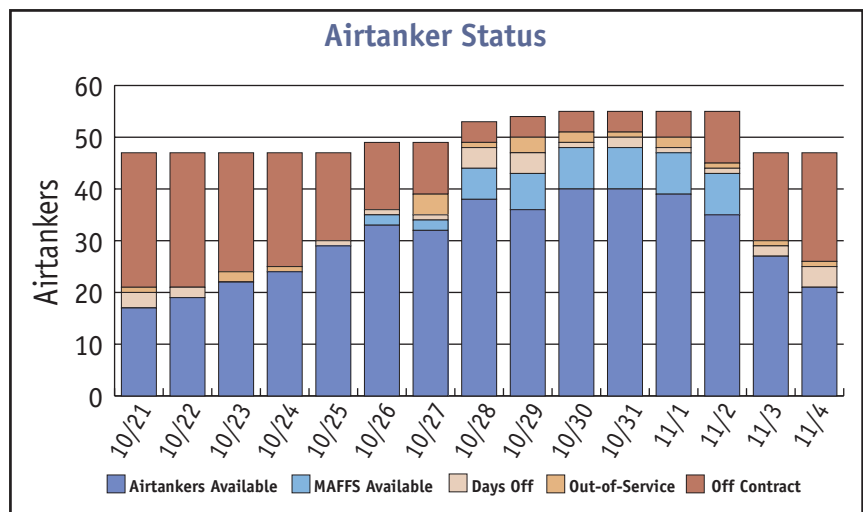
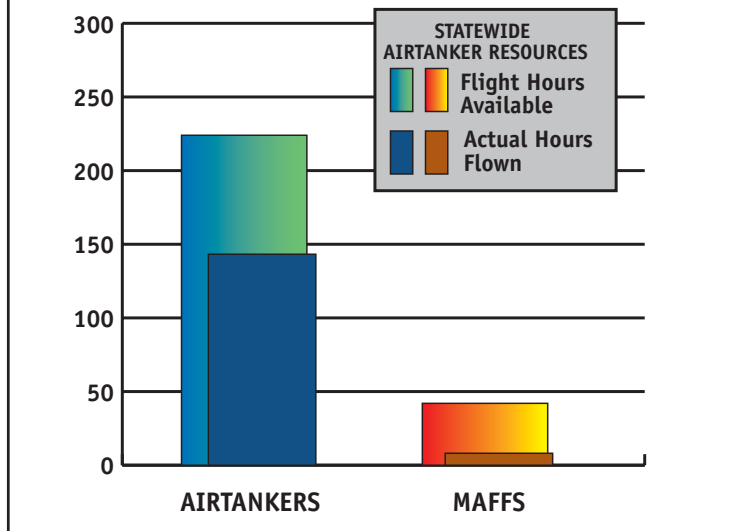
Weather, fire behavior, topography, smoke and daylight also influence tactical decisions on the use of airtankers. Retardant drop pattern effectiveness is greatly reduced as ground level winds exceed 35 miles per hour. The wind disperses the retardant before it hits the fire's edge. High winds can make flying low level drops in mountainous terrain unacceptably dangerous. In these situations, conditions require highly trained pilots to recognize dynamic microclimate changes that influence flying conditions. Aircraft operations in mountainous terrain are also exceedingly dangerous as dusk or early dawn cast long shadows and obscure the topography. Smoke further obscures the terrain and the intensity of the fire itself can influence canyon winds. Flight characteristics of the aircraft itself are also factored into decisions on airtanker usage. Safety rules require that Fire Commanders stop using airtankers when conditions become too dangerous.

Military aircraft use was an issue during this fire siege so the availability and use of the military C130 MAFFS fleet is summarized and included with the regular airtanker fleet in this report.

Actual flight time flown on the 14 fires tracked during this siege is recorded daily. Available flight time for California is estimated by multiplying seven hours per day of flight time by the number of airtankers available in California. A similar calculation is made for the military C130 MAFFS aircraft. The aircraft use graph then displays daily use with daily availability.

Much of the available time may result from aircraft assigned in an area that does not experience a large fire that day. Airtankers, as well as helicopters, on major fires are routinely timed-out while aircraft assigned to initial attack will still have available flight time as they are on stand-by for new fires. The difference between the top of the committed airtanker bar and the available bar gives an indication of reserves for responding to new fires statewide. This graphic changes day by day, reflecting the dynamic response to the changing fire situation. For example, airtanker use and reserve capacity for one day is displayed in the graph at right. The California Department of Forestry and Fire Protection contracts with a private vendor for the operation and maintenance of its airtanker fleet. The length of the contract period varies from the northern counties to the southern counties based on the length of the budgeted fire season. Based on this contract, several airtankers are placed in an off-contract status during October of each year. As the siege developed, these aircraft were returned to service. As the siege abated and cool wet weather returned, many aircraft were returned to the off-contract status. The following graphic also shows out-of-service status. The high number of out-of-service aircraft on Oct. 27 is a result of flying debris striking aircraft during extreme fire behavior.

Resource Commitment: Airtankers, October 28, 2003



Date	10/21	10/22	10/23	10/24	10/25	10/26	10/27	10/28	10/29	10/30	10/31	11/1	11/2	11/3	11/4
Off-contract	26	26	23	22	17	13	10	4	4	4	4	5	10	17	21
Out-of-Service	1	0	2	1	0	0	4	1	3	2	1	2	1	1	1
Days Off	3	2	0	0	1	1	1	4	4	1	2	1	1	2	4
MAFFS	0	0	0	0	0	2	2	6	7	8	8	8	8	0	0
Available	17	19	22	24	29	33	32	38	36	40	40	39	35	27	21
Total	47	47	47	47	47	49	49	53	54	55	55	55	55	47	47

# Appendix 4

## The Fire Environment

*Primarily because the Mediterranean climate and a distinctive complex of topography and fuel create conditions favorable to major fires during every month of the year. The winters are mild, with infrequent short rainy periods. A long period without rain often extends from early spring to late fall or early winter. Steep and rugged mountains, cut by numerous canyons, border most of the major cities. Much of the mountain land is covered with a dense growth of flammable chaparral shrubs, such as chamise, manzanita, ceanothus, and scrub oak. On the lower slopes and foothills, this heavy growth gives way to lighter, but extremely flammable vegetation, such as sage, buckwheat, and various grasses and forbs. Some of the higher ridges are covered with conifers -mostly pine- interspersed with chaparral and grass. During the late winter and early spring growing season, the vegetation usually contains large amounts of moisture -providing there has been enough rain to start growth at all. But with the onset of the long rainless season, the annual plants die, and the shrubs lose much of their moisture. By September, some of the living plants, such as chamise, can be ignited with a match, and the dead and dry annuals can be touched off by a spark. After a fire, many of the plant species sprout prolifically, and others re-generate from seed left in the soil. Within 10 to 20 years, enough standing fuel has developed and dead material accumulated to permit the area to burn hot and fast again.*

(Clive M. Countryman, "Can Southern California Wildland Conflagrations be Stopped ?" 1974)

### Fuels and Vegetation

In January of 2001, there was increasing concern within the various fire agencies in southern California about fuel conditions in the region. Southern California mountain conifer forests had been exhibiting symptoms of severe drought stress. Drought weakened trees continued to be attacked by the western pine beetle, red turpentine beetle and the pine engraver. Whole stands of conifer trees are dying.

In addition to the tree mortality, it was also noted that native oaks and chaparral (brush, mainly chamise and manzanita) were dying. By August of 2003, approximately 360,000 acres of dead, highly volatile fuels were ready to explode if combined with specific weather conditions and an ignition source. Several mountain communities were surrounded by literally thousands of acres of dead standing timber, dead brush and oak placing significant numbers of lives and homes at risk to a catastrophic fire event.

Four years of drought is not the only factor leading to the unhealthy state of the southern California vegetation. Extreme vegetation density combined with disease and insect populations are natural phenomenon that have interacted to effect conditions in southern California.

Chaparral typically does not burn until it reaches about 25 years of age, however in southern California all but the very youngest age classes will burn at times of low fuel moisture and extreme fire weather (Keeley and others. 1999). Live fuel moistures in many southern California counties were at or below 60% when the fires started thus contributing to extreme fire behavior and rates of spread when combined with Santa Ana winds. These fuel conditions combined with Santa Ana winds make fire fighting extremely dangerous to fire fighters and puts public and firefighters at risk.

### Weather

The climate in this region is best described as Mediterranean, characterized by wet winters and dry summers, with mild seasonal changes. It is cyclic in nature, with years of consecutive low rainfall and extended droughts, as well as years with high rainfall and associated flooding. Average annual precipitation varies



dramatically with latitude, longitude and elevation, ranging from 2-3 inches in the eastern deserts, 40-42 inches in the coastal redwoods and 60 inches or more on the higher mountain peaks, usually in the form of snow. The southern California climate is naturally arid with little or no precipitation occurring during much of the year.

While most days in southern California consist of sea breezes and mountain upslope winds, the late summer and fall are typically the times for Santa Ana winds. Massive fires in southern California typically coincide with offshore Santa Ana winds (relative humidity, 20-40%, winds, 20-50 miles per hour).

Weather for the period during the fire siege was hot and dry, temperatures where at record levels 10-20 degrees above normal. Humidity's were extremely low with afternoon readings below 10 percent in most areas and winds relatively light from the northeast 5-15 over the mountains and shifting southerly each afternoon. When winds increased around the 25<sup>th</sup> becoming 15-25 mph with local gusts up to 40 mph or stronger is when fire behavior becomes extremely difficult to impossible to fight safely.

Local flood peaks generally occur during major rainfall events, which threaten life and property during these periods. Large scale and high return interval floods are associated with major sub-tropical events in the southern part of the state and with northern pacific frontal systems in the northern portion of the planning



area. Wildfire flood related events are exacerbated by the large amounts of sediment released by the wildfires that "bulk" the flood flow volumes to double or triple their average volumes

### Topography

The topography of southern California is diverse. From the coastal plains to the steep rugged mountains this diverse topography creates a complex fire environment. The topography creates local weather phenomenon as air moves through passes and over mountains. The battle between the marine influence and the deserts and valleys is a daily occurrence. The steep mountains add to the complexity as fires spread faster up hill. Fighting fire in the steep mountains is difficult and sometimes impossible. The transverse ranges of the San Bernardino, San Gabriel, San Jacinto and the Southern Los Padres mountains further complicates the problems as the ridges run in an east/west direction which aligns them with the prevailing west winds





# Appendix 5

## Fire Safe Councils

The Fire Safe Council idea surfaced in 1993 to inform and encourage Californians to prepare for wildfires before they happen. Fire Safe Councils mobilize community members to take action to reduce the risk to their communities, their homes, and their property. The Council has united the diverse membership to speak with one voice when it comes to community fire safety. The Council has distributed fire prevention education materials to industry leaders and their constituents, evaluated legislation pertaining to fire safety, and empowered grassroots organizations to spearhead fire safety programs.

The 61 public and private organizations listed here are members of the statewide Fire Safe Council:

• Allstate Insurance • American Red Cross • American Society of Landscape Architects • Association of Contract Counties • Bureau of Land Management • California Air Resources Board • California Association of Nurserymen • California Association of Realtors® • California Association of Resource Conservation Districts • California Board of Forestry • California Building Industry Association • California Cattlemen's Association • California Department of Conservation • California State Association of Counties • California Department of Fish and Game • California Department of Forestry and Fire Protection • California Department of Insurance • Firefighters Association • California Department of Parks and Recreation • California Fair Plan Association • California Farm Bureau Federation • California Fire Chiefs Association • California Forest Products Commission • California Integrated Waste Management Board • California Landscape Contractors Association • California Sod Producers • California State Association of Counties • California State Automobile Association • California State Fire Marshal's Office • California State Firefighters Association • California Urban Forests Council • Chubb Insurance • Committee for Firesafe Dwellings • Council for a Green Environment • Farmer's Insurance Group of Companies • Federal Emergency Management Agency • Fire Districts Association of California • Firewise: What you can do to protect your home • Fireman's Fund Insurance • Governor's Office of Emergency Services • Insurance Information Network of California • Insurance Services Office, Inc. • League of California Cities Fire Chiefs • Los Padres Forest Association • The Nature Conservancy • National Audubon Society • National Fire Protection Association • Orange County Fire Authority • Pacific Gas & Electric • Personal Insurance Federation • Planning and Conservation League • Roundup • Safeco Insurance • San Diego Gas & Electric • Society of American Foresters • South Coast Air Quality Management District • Southern California Edison • State Farm Insurance Companies • Twentieth Century Insurance • USAA Property and Casualty Insurance • U.S.D.A. Forest Service

The California Board of Forestry and Fire Protection, in their 1996 California Fire Plan framework policy, asked the Department of Forestry and Fire Protection to include more community involvement in their strategic fire planning effort. The southern California fire agencies, including CDF, the U.S. Forest Service, local fire service, and others helped many community groups become established as Fire Safe Councils. By October, 2003, the Fire Safe Council idea had spread to over 50 communities in southern California. Many of these local councils had taken direct action to prepare for and reduce the risk of wildfire in their communities. Some of the actions had a direct strategic impact on the fire fighting effort during the 2003 fire siege.



# Appendix 6

## Cost Apportionment Process

2003 Southern California Fire Siege  
Letter of Management Direction

The magnitude and complexity of the 2003 Southern California Fire Siege has necessitated extraordinary measures, not only with fire fighting operations, but with Incident finance as well. These devastating wildland fires, covering an area from San Diego to San Bernardino to Simi Valley, pose a significant threat, and have already resulted in loss of life and property. The magnitude of the disaster has resulted in Fire Management Assistance Grant (FMAG) approvals, as well as State of California and Presidential disaster declarations. In declaring that a major disaster exists, President George W. Bush has ordered federal aid to supplement State and local recovery efforts.

The California Interagency Incident Finance Advisors (CIIFA) group has been activated to facilitate and coordinate the resolution of interagency incident finance issues for all of these wildfires. Two primary goals were initially identified. The first goal is to identify and implement a system that is consistent, in which similar agencies are treated the same. The second goal is to identify methods and procedures that would simplify cost apportionment and cost share agreement development processes, in recognition of the lack of adequate resources to accomplish normal methodologies.

It is important to note that this siege is a unique situation. These types of incidents do not occur on a regular basis, and any modification or deviation from normal procedures will not establish precedent for dealing with normal operations in the future.

In recognition of the above, CIIFA examined a number of alternatives. Ultimately, these alternatives and recommendations were presented to State, Federal and local government representatives for consideration and approval. Therefore, the following directions will govern interagency incident finance on all incidents within this 2003 Southern California Fire Siege:

- 1) Cost Apportionment processes will be limited to the region/state wildland agencies – California Department of Forestry & Fire Protection (CDF), U.S. Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), U.S. Fish & Wildlife Service (USF&WS), and Bureau of Indian Affairs (BIA).
- 2) Local government agencies will be responsible to pay for resources and support they provide to meet their protection responsibilities within their jurisdiction.
- 3) The wildland agencies will be responsible to pay for resources and support they provide to the incident. This will include reimbursement to local government for resources ordered for perimeter control activities (Local Agreements – Assistance by Hire, or California Fire Assistance Agreement). These costs may be shared with the wildland agencies identified in #1 above.
- 4) Data collection, cost apportionment calculations, interagency negotiations and cost share agreement development will be centralized with CIIFA at California Southern Region (CSR) headquarters (South OPS) in Riverside.

/s/Ray Quintanar  
Ray Quintanar, Fire & Aviation Director  
U.S.D.A. Forest Service, Region 5

/s/James M. Wright  
James M. Wright, Deputy Director – Fire Protection  
California Department of Forestry & Fire Protection

/s/Doug Waggoner  
Doug Waggoner, Fire Operations Spec.  
U.S.D.I. Bureau of Land Management  
California State Office

/s/Dennis Thompson  
Dennis Thompson, Chief Deputy  
Kern County Fire Department  
CIIFA Local Government Representative

### Signature Addendum:

The Bureau of Indian Affairs concurs with the Letter of Management Direction dated 10/27/2003 regarding Cost Apportionment and Cost Share Agreement development during the 2003 Southern California Fire Siege, as attested by the signature below:

/s/Ron Recker  
Ron Recker, Regional Fire Manager  
USDI Bureau of Indian Affairs  
Date: 10/28/2003

# Appendix 7

## Proclamations and Declarations

**EXECUTIVE DEPARTMENT  
STATE OF CALIFORNIA**

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**P R O C L A M A T I O N**

**by the**

**Governor of the State of California**

WHEREAS, conditions of extreme peril to the people, property and environment exist within the Riverside, San Bernardino and San Diego Counties due to imminent fire danger caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS, the Board of Forestry and Fire Protection declared a Zone of Infestation for bark beetle control within these three counties; and

WHEREAS, the outbreak of the infestation has caused the death of trees and other vegetation on thousands of acres, resulting in conditions of imminent fire danger in these counties and the potential for erosion and other environmental damage; and

WHEREAS, Riverside, San Bernardino and San Diego Counties have proclaimed local emergencies, committed funds for tree removal and other fire abatement measures, and Riverside and San Bernardino Counties have each created a Mountain Area Safety Task Force to provide a coordinated multi-agency response to dead, dying and diseased trees and vegetation; and

WHEREAS, by reason of their magnitude these conditions are beyond the control of the services, personnel, equipment and facilities of the three counties, thereby requiring a proclamation of a state of emergency; and

WHEREAS, Riverside, San Bernardino and San Diego Counties have requested a state Proclamation of Emergency in order to expedite removal of dead, dying and diseased trees and vegetation, and to assist in providing evacuation routes and fire safe evacuation centers; and

WHEREAS, unless the risks posed by dead, dying and diseased trees and other vegetation are immediately reduced, there will be an increasingly great risk to life and property from catastrophic fire in an area with limited routes for the evacuation of people and emergency response; and

WHEREAS, the number of contractors available to perform tree removal work for private landowners is insufficient to accomplish the work within the time necessary; and

WHEREAS, under the authority of the Emergency Services Act, section 8558(b) of the Government Code, I find that a State of Emergency exists within Riverside, San Bernardino, and San Diego Counties.

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, in accordance with the authority vested in me by the Emergency Services Act, and in particular, sections 8625 and 8558(b) of the Government Code, HEREBY PROCLAIM A STATE OF EMERGENCY to exist within Riverside, San Bernardino, and San Diego Counties.

Pursuant to this Proclamation, I issue these orders to be effective immediately:

IT IS ORDERED that the California Department of Forestry and Fire Protection ("CDF"), in consultation with California Department of Transportation, the California Environmental Protection Agency, the Department of Fish and Game, the South Coast Air Quality Management District, the Lahonton, Santa Ana and San Diego Regional Water Quality Control Boards and other state and local agencies as appropriate, shall immediately:

- Assist local jurisdictions in the three counties to prepare public safety plans that provide adequate evacuation routes and fire safe evacuation centers;
- In cooperation with other appropriate state and local entities, expedite the clearing of dead, dying and diseased trees and other vegetation that interfere with emergency response and evacuation needs;
- Reinforce firefighting resources available in the three counties, including assuring that aircraft and fire crews will be immediately available in the event of a fire; and

- Redirect existing resources to assist landowners by giving forest stewardship advice and oversight of tree removal.

IT IS FURTHER ORDERED that all state agencies and departments shall provide personnel, equipment and facilities to assist CDF, as directed by the Office of Emergency Services in consultation with the Department of Finance.

IT IS FURTHER ORDERED that to implement this Proclamation, CDF may enter into contracts and arrangements for the procurement of materials, goods, and services. Pursuant to Government Code section 8571, the provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended to the extent they would prevent, hinder, or delay the clearing of public evacuation corridors, fire evacuation centers, and routes for emergency response as necessary to mitigate the effects of this emergency.

IT IS FURTHER ORDERED that CDF, in consultation with all appropriate state and local agencies, shall immediately work to improve public evacuation corridors, fire evacuation centers and routes for emergency response. Pursuant to Government Code section 8567, CDF is hereby authorized to enter onto private property as it deems necessary to remove and dispose of dead, dying and diseased trees and vegetation that threaten public evacuation corridors, fire evacuation centers, and routes for emergency response.

IT IS FURTHER ORDERED that, to assist and encourage landowners to meet their responsibilities for removing dead, dying and diseased trees and clearing fuel breaks on their lands, pursuant to Government Code section 8571, the requirement for submitting notices to CDF under the provisions of Title 14, California Code of Regulations, sections 1038(b) and (c), prior to beginning timber operations for the removal of dead, dying and diseased trees or the cutting or removal of trees to create fuel breaks and the limitation on the removal of dead, dying, or diseased trees to ten percent of the average volume per acre are hereby suspended. All other provisions of these regulations shall remain in effect.

IT IS FURTHER ORDERED that to expand the number of contractors available to perform services to property owners for cutting and removing trees for fire safety purposes by authorizing use of tree service contractors licensed to perform tree removal work under Business and Professions Code sections 7000 et seq., in addition to timber operators licensed under the Public Resources Code to perform timber operations, pursuant to Government Code section 8571, the provisions of Public Resources Code section 4571(a) providing that only licensed timber operators may perform timber operations are hereby suspended. A licensed timber operator need not obtain a contractors license under the Business and Professions Code in order to carry out work under this Proclamation.

IT IS FURTHER ORDERED that the Office of Emergency Services work with the Federal Emergency Management Agency to redirect excess federal hazard mitigation funds for the purpose of reducing the fire and other hazards caused by the dead, dying and diseased trees and vegetation.

IT IS REQUESTED that the Public Utilities Commission direct utility companies with transmission lines in Riverside, San Bernardino and San Diego Counties to ensure that all dead, dying and diseased trees and vegetation are completely cleared from their utility right-of-ways to mitigate the potential fire danger.

This Proclamation and these Orders are not intended to, and do not, create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED that as soon as hereafter possible, this proclamation be filed in the Office of Secretary of State and that widespread publicity and notice be given to this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the seventh day of March 2003.

/s/ Gray Davis

Governor of California

**EXECUTIVE DEPARTMENT**

**STATE OF CALIFORNIA**

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**EXECUTIVE ORDER D-69-03**  
**by the**  
**Governor of the State of California**

WHEREAS, on March 7, 2003 I proclaimed a State of Emergency to address the extreme peril to the people, property and environment within the Counties of Riverside, San Bernardino and San Diego. This emergency situation of imminent fire danger is caused by the extraordinary number of dead, dying and diseased trees resulting from prolonged drought, overstocked forests and infestation by bark beetles and other decay organisms; and

WHEREAS, the increased risk of catastrophic wildfires throughout Southern California threatens the lives, property and economic well-being of the people of the State; and

WHEREAS, the United States Forest Service and Federal Emergency Management Agency have directed funding to assist in fuel removal and forest health improvement; and

WHEREAS, the California Department of Forestry and Fire Protection (CDF), the Governor's Office of Emergency Services (OES) and the Counties of Riverside, San Bernardino and San Diego have already taken significant actions to improve routes for the evacuation of people and facilitate emergency response; and

WHEREAS, augmentation of fire suppression resources during the last two years in response to extraordinary dry fuels resulted in 55 percent fewer acres burned than the five-year average (46 percent in 2001 and 64 percent in 2002, excluding the extraordinary Pines Incident), saving the State Emergency Fund between \$60 million and \$123 million during the 2001 and 2002 seasons;

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effectively immediately:

IT IS ORDERED that CDF shall secure and deploy additional resources as needed to protect the safety of persons and property from wildfires during the 2003 fire season as follows:

- \* Assign a minimum crew of four firefighters to 53 CDF engines in the Counties of Riverside, San Bernardino and San Diego;
- \* Assign a fourth firefighter as directed by CDF to the 41 State-funded fire engines stationed within the CDF Contract Counties of Los Angeles, Orange and Ventura;
- \* Place back into service ten refurbished fire engines to be staffed with a minimum crew of four firefighters to increase CDF fire engine resources to assist with wildfire suppression in the Counties of Riverside, San Bernardino and San Diego;
- \* Staff four additional CDF Conservation Camp Fire Crews in the Southern portion of the State;
- \* Lease, staff and deploy a helicopter to be based in San Diego County.

IT IS FURTHER ORDERED that CDF accelerate Fire Safe Clearance Inspections by utilizing every second fire engine for

inspections when not engaged in fire fighting operations.

IT IS FURTHER ORDERED that CDF obtains additional staffing as necessary to expedite the processing of contracts and grants in order to pass federal funds through to the communities as quickly as possible.

IT IS FURTHER ORDERED that OES, in consultation with CDF, implement a program to predeploy, as conditions warrant, OES fire engine strike teams to ensure a substantial response capability to any wildland fires in the area, and that the costs of this deployment shall be reimbursed consistent with the California Fire Service and Rescue Emergency Mutual Aid Plan and the Agreement for Local Government Fire Suppression Assistance of 2002.

IT IS FURTHER ORDERED that the California National Guard prepare its fixed-wing aircraft and helicopters, and preposition ground support equipment as appropriate for immediate response to major wildfires and report to OES weekly on the status of all aircraft.

IT IS FURTHER ORDERED that the California Department of Corrections and the California Youth Authority place the highest priority for assignment of level one inmates and wards to staff Conservation Camp Fire Crews.

IT IS FURTHER ORDERED that the California Conservation Corps report to CDF daily on the status of all its crews for response to wildfires.

IT IS FURTHER ORDERED that OES review appropriate State departments to assure preparedness for response to wildfires.

IT IS FURTHER ORDERED that CDF and OES work closely with federal, state and local government agencies, bordering states, and the government of Mexico to maximize California's fire prevention and fighting capabilities.

This Order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable in law or equity, against the State of California, its departments, agencies or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this order.



**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the twentieth day of June 2003.

/s/ Gray Davis

Governor of California

**PROCLAMATION**  
by the  
Governor of the State of California

**WHEREAS**, conditions of extreme peril to the safety of persons and property exist within the Counties of Los Angeles and San Diego, State of California, caused by wildfires and high winds commencing on or about October 21, 2003, and;

**WHEREAS**, the Board of Supervisors for these Counties previously proclaimed a local emergency, and under the authority of the state Emergency Services Act, section 8558 (b) of the Government Code, I find that a State of Emergency exists within Los Angeles and San Diego Counties.

**NOW, THEREFORE, I GRAY DAVIS**, Governor of the State of California, in accordance with the authority vested in me by the Emergency Services Act, and in particular sections 8625 and 8558(b) of the Government Code, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist within Los Angeles and San Diego Counties.

**IT IS FURTHER ORDERED** that all agencies of the state government utilize and employ state personnel, equipment and facilities for the performance of any and all activities to alleviate this emergency.

**I FURTHER DIRECT** that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and noticed be given to this proclamation.

**IN WITNESS WHEREOF** I have  
hereunto set my hand and caused the  
Great Seal of the State of California to be  
affixed this the twenty-sixth day of  
October 2003.

GRAY DAVIS  
Governor of California

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THE WHITE HOUSE  
WASHINGTON

October 27, 2003

The Honorable Michael D. Brown  
Under Secretary  
Emergency Preparedness and Response  
Washington, D.C. 20472

Dear Mr. Brown:

I have determined that the damage in certain areas of the State of California resulting from wildfires on October 21, 2003, and continuing, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5206 (the Stafford Act). I therefore declare that such a major disaster exists in the State of California.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Individual Assistance and assistance for debris removal (Category A) and emergency protective measures (Category B) under the Public Assistance program in the designated areas. You are also authorized to provide Hazard Mitigation assistance and any other forms of assistance under the Stafford Act you may deem appropriate subject to completion of Preliminary Damage Assessments. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance, Hazard Mitigation, and the Other Needs Assistance under Section 408 of the Stafford Act will be limited to 75 percent of the total eligible costs.

Further, you are authorized to make changes to this declaration to the extent allowable under the Stafford Act.

Sincerely,



George W. Bush



## Memorandum

**To:** Tim Turner, CSR Region Chief  
Candace Gregory, CSR Assistant Region Chief, Adm  
Fred Batchelor, CSR Assistant Region Chief, Ops  
Tom Tisdale, RRU Chief  
Tom O'Keefe, BDU Chief  
Chuck Maner, MVU Chief  
Department of Forestry  
and Fire Protection

**Date:** June 25, 2003  
F6

**Telephone:** (916) 657-4929

**Website:** [www.fire.ca.gov](http://www.fire.ca.gov)

**From:** James M. Wright, Deputy Director, Chief of Fire Protection  
Department of Forestry and Fire Protection

**Subject:** 3500 Budgeting  
3550 Personal Services  
FY 2003/2004 Fire Season Augmentation

On June 20, 2003, Governor Gray Davis signed Executive Order D-69-03, which directed the Department to secure and deploy additional resources to strengthen our initial attack capability. The Executive Order is attached for your review. By virtue of the Executive Order we have received the authority for a special augmentation of resources in the Southern Region due to the extreme and severe fire danger conditions that exist. The period for which this augmentation is authorized is from July 1, 2003 through the end of the "Budgeted Fire Season" (December 15, 2003).

We have received the authority to augment 53 engine companies with one additional Firefighter I in Riverside, San Bernardino and San Diego Units. The calculations for the engine staffing were based upon 2.0 additional persons per engine to provide the necessary coverage. The projections include the necessary FAE staffing to allow all two-engine stations full coverage until the end of Blue Book Staffing Level IV (December 15, 2003). We will also staff ten additional fire engine companies in the Southern Region at 4.0 staffing through the end of the budgeted season. Each engine will have three FAEs and six Firefighters assigned. O&E for the extra engine is projected at \$1200 per engine per month. The units receiving the engines are as follows:

4 engines – MVU  
2 engines – RRU  
4 engines – SBU

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Region Chiefs, et.al.  
June 25, 2003  
Page Two

We also received funding authority to equip and provide staffing for four additional Fire Crews in the Southern Region for 5.5 months (allocation level IV, budgeted fire season). Bautista (RRU), Fenner Canyon (BDU), Oak Glen (RRU), and Pilot Rock (BDU) camps will receive \$18,000 in O&E for the new temporary crews.

The augmentation further includes an additional medium helicopter, with crew, to be placed in MVU. The helicopter will be on contract with a service vehicle and operators. CDF will provide the helitack crew, consisting of four FCs and nine FF1s. Additional O&E for the Helitack will be \$1800 per month.

Lastly, CDF is authorized to add a fourth firefighter to the 41 state-funded fire engines stationed within the contract counties of Los Angeles, Orange and Ventura. We will staff those engines by implementing staffing patterns when warranted.

All hiring and charges for FY 03/04 augmentation will be charged to a special assigned PCA code, 00975. Please forward this information to all personnel involved in the augmentation process.

Thank you for your cooperation. If you have any questions please call Ernylee Chamlee, Staff Chief, Operations, at (916) 657-4929.

James M. Wright  
Deputy Director  
Chief of Fire Protection

ec

Attachments

cc: R. Green  
C. Shamrock  
B. Korff  
K. Fagunes

EXECUTIVE DEPARTMENT  
STATE OF CALIFORNIA



PROCLAMATION  
by the  
Governor of the State of California

**WHEREAS**, conditions of extreme peril to the safety of persons and property exist within the Counties of Los Angeles and San Diego, State of California, caused by wildfires and high winds commencing on or about October 21, 2003, and:

**WHEREAS**, the Board of Supervisors for these Counties previously proclaimed a local emergency, and under the authority of the state Emergency Services Act, section 8558 (b) of the Government Code, I find that a State of Emergency exists within Los Angeles and San Diego Counties.

**NOW, THEREFORE**, I GRAY DAVIS, Governor of the State of California, in accordance with the authority vested in me by the Emergency Services Act, and in particular sections 8825 and 8558(b) of the Government Code, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist within Los Angeles and San Diego Counties.

**IT IS FURTHER ORDERED** that all agencies of the state government utilize and employ state personnel, equipment and facilities for the performance of any and all activities to alleviate this emergency.

**I FURTHER DIRECT** that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and noticed be given to this proclamation.

**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the twenty-sixth day of October 2003.

  
GRAY DAVIS  
Governor of California



**PROCLAMATION**  
by the  
Governor of the State of California

**WHEREAS**, conditions of extreme peril to the safety of persons and property exist within the County of Riverside, State of California, caused by wildfires and high winds commencing on or about October 21, 2003; and


**WHEREAS**, the Board of Supervisors for this County previously proclaimed a local emergency, and under the authority of the state Emergency Services Act, section 8558 (b) of the Government Code, I find that a State of Emergency exists within Riverside County.

**NOW, THEREFORE, I GRAY DAVIS**, Governor of the State of California, in accordance with the authority vested in me by the Emergency Services Act, and in particular sections 8625 and 8558(b) of the Government Code, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist within Riverside County.

**IT IS FURTHER ORDERED** that all agencies of the state government utilize and employ state personnel, equipment and facilities for the performance of any and all activities to alleviate this emergency.

**I FURTHER DIRECT** that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this proclamation.

**IN WITNESS WHEREOF**, I have hereunto set my hand and caused the Great Seal of California to be affixed this 28<sup>th</sup> day of October 2003.

  
Governor of California

**ATTEST:**

Secretary of State

11-12-03 11:55 DES DHD + 909 782 4900 NO.990 P004-018

# Appendix 8

## Interview List

Even before the fires were extinguished, a team was formed to begin interviewing 68 key commanders and decision makers of the fire siege for use in developing this document. The list of potential interviewees could have been longer but the constraints of completing the writing of the document in a 10 day period prohibited additional input.

We thank these individuals for their contributions to this document and the leadership they showed under most difficult circumstances.

The following list is in random order:

Steve Gage  
Fire Chief, Kern County Fire Dept.  
MAC Member

Jody Cook  
Forest Supervisor  
Angeles NF

Don Garwood  
Deputy Chief, Fire and Aviation  
Management, Angeles NF

Gene Zimmerman  
Forest Supervisor  
San Bernardino NF

Aaron Gelobter  
Chief, Fire and Aviation Management  
Sequoia NF  
Incident Commander CIIMT #4 (Padua)

Mike Dietrich  
Chief, Fire and Aviation Management  
San Bernardino NF  
Incident Commander, Southern California  
Team #1 (Grand Prix)

Rich Hawkins  
Chief, Fire and Aviation Management  
Cleveland NF  
Unified Incident Commander (Cedar)

Tim Hoover  
Fire Chief  
Camp Pendleton Fire Dept.

Ray Quintanar  
Director, Fire and Aviation Management  
USFS Pacific Southwest Region  
MAC Member

Ron Raley  
Dep. Director, Fire and Aviation Manage-  
ment, USFS Pacific Southwest Region

Sherry Raley  
Budget Specialist  
USFS Pacific Southwest Region

George Motschall  
Assistant Director, Fire and Aviation  
Management  
USFS Southern California Service Center

Jack Blackwell  
Regional Forester  
USFS Pacific Southwest Region

Jerry Williams  
National Director, Fire and Aviation  
Management  
USFS Washington Office

Tom Harbour  
National Deputy Director, Fire and  
Aviation Management  
USFS Washington Office

Alice Forbes  
Assistant National Director/Operations,  
Fire and Aviation Management  
USFS National Interagency Fire Center

Dennis Hulbert  
Regional Aviation Officer  
USFS Pacific Southwest Region

Dennis Brown  
Regional Aviation Safety Officer  
USFS Pacific Southwest Region

Dave Kohut  
Chief, Fire and Aviation Management  
Sierra NF, FEMA Disaster Plan Liaison

Rex Mann  
Chief, Fire and Aviation Management  
Daniel Boone NF  
Area Commander (Grand Prix, Old)

Steve Heil  
Deputy Chief, CDF/ San Luis Obispo  
Area Commander (Grand Prix, Old)

Dan Wurl  
Division Chief  
San Bernardino County Fire Dept.  
Area Commander (Grand Prix, Old)

Tom Hatcher  
Assistant Director, Fire and Aviation  
Management  
Northern California Service Center  
Area Commander (Cedar, Paradise)

Bill Holmes  
Unit Chief  
CDF Amador-Eldorado

Tim Turner  
Region Chief  
CDF Southern Region  
Area Commander (Cedar, Paradise)

Andrea Tuttle  
Director  
California Department of Forestry and Fire  
Protection (CDF)

Jim Wright  
Deputy Director, Fire Protection  
CDF Sacramento

Rich Green  
Assistant. Deputy Director  
Fire Protection, CDF Sacramento

Ray Snodgrass  
Chief Deputy Director  
CDF Sacramento

Tom O'Keefe  
Unit Chief  
CDF San Bernardino

Chuck Maner  
Unit Chief  
CDF San Diego

Ralph Allworth  
Deputy Chief, Operations  
CDF/Southern Region

Fred Batchelor  
Assistant Region Chief, Operations  
CDF Southern Region

Terry Raley Battalion Chief Ventura County Fire Dept. Deputy Incident Commander (Piru)	John Hawkins Assistant Chief CDF Butte Incident Commander, CDF ICT #5 (Cedar)	Tom Hendrix Chief, Colton City Fire/Acting OES Coordinator, San Bernardino County
Marc Sanchez Assistant Chief, Ventura County Fire Dept. Unified Incident Commander (Simi)	Loren Snell Assistant Chief CDF Nevada-Yuba-Placer Incident Commander, CDF ICT #1 (Paradise)	Vanessa Burnett Intelligence Officer USFS Southern California Service Center
Thom Wellman Division Chief San Bernardino County Fire Dept. Unified Incident Commander (Old)	Pat Kerrigan Deputy Chief CDF Madera-Mariposa-Merced Incident Commander, CDF ICT #9 (Piru)	Kent Connington Deputy Regional Forester USFS Pacific Southwest Region
P. Michael Freeman Chief, Los Angeles County Fire Dept.	George Haines Assistant Chief CDF San Benito-Monterey Incident Commander, CDF ICT #6 (Simi)	Tim Sappok Assistant Chief CDF San Bernardino Unified Incident Commander (Old)
Gary Lockhart Chief Deputy, Los Angeles County Fire Dept.	Mike Chuchels Assistant Chief, CDF Tehama-Glen Incident Commander, CDF ICT #2 (Mountain)	Pat O'Bannon Assistant Director, Fire and Aviation Management USFS Pacific Southwest Region McClelland Deputy Incident Commander, CIIMT #3 (Old)
Judith Downing U.S. Forest Service, Regional Office	Kim Zagaris Chief, Fire/Rescue Branch California Office of Emergency Services MAC Member	Rocky Oplinger Dep. Chief, Fire and Aviation Management San Bernardino NF
Peter Hills Chief, San Bernardino County Fire Department	Dallas Jones Director California Office of Emergency Services	Kerry Elite Staff Chief, Operations CDF Southern Region
Bob Roper Chief, Ventura County Fire Department	Neil Honeycutt Assistant Chief, FIRESCOPE California Office of Emergency Services MAC Facilitator	Mike Edrington Director, Fire and Aviation Management USFS Pacific Northwest Region (Ret.)
Greg West Assistant Chief, Los Angeles City Fire Dept. Unified Incident Commander (Simi)	Les Mazaratti Dept. of Interior Coordinator Southern California Service Center Dept. of Interior MAC Representative	Bill Waterbury Assistant Director, Fire and Aviation Management Southwest Region Area Command Plans Chief (Grand Prix, Padua, Old)
Don Studebaker Dep. Chief, Fire and Aviation Management Cleveland NF, Incident Commander CIIMT #2 (Grand Prix,)	Bob Praytor Deputy Chief, FIRESCOPE California Office of Emergency Services MAC Coordinator	Paul Hefner Chief, Fire and Aviation Management Humboldt/Toiyabe NF Deputy Area Commander (Grand Prix, Old)
Hal Mortier Division Chief, Cleveland NF Incident Commander, CIIMT #3 (Old)	Dave Festerling Deputy Chief, Ventura County Fire Dept. Initial Operations Chief (Simi)	Mel Hokanson Deputy Chief, Los Angeles County Fire Dept., Unified Incident Commander (Padua)
A.D. Hill Assistant Chief, CDF San Diego Incident Commander (Otay/Mine)	Larry Pitzer Chief, San Bernardino City Fire	Tom Tisdale Unit Chief CDF Riverside
Tom Cable Chief, Fire and Aviation Management Lassen NF, Incident Commander, CIIMT #5 (Grand Prix, Old)	Brian Preciado Deputy Chief, San Bernardino City Fire	John Bridgewater District Ranger, Ojai Ranger District Los Padres NF
Mike Lohrey Operations Manager USFS Pacific Northwest Coordination Center Unified Incident Commander, (Cedar)		

# Appendix 9

## Acknowledgments

This project would not have been possible without the contributions of many talented people who dropped everything they were doing to participate in this endeavor. Many of them had been assigned to the fires during the siege and all of them shifted their priorities to accomplish this task in a short amount of time so the story could be told before memories faded.

### Steering Committee

Name	Unit
Ray Quintanar	U.S. Forest Service, Pacific Southwest Region
Ray Snodgrass	California Dept. of Forestry and Fire Protection, State Office
Ron Raley	U.S. Forest Service, Pacific Southwest Region

### Project Leaders

Name	Unit
Joe Wood	U.S. Forest Service (retired)
Wayne Mitchell	California Dept. of Forestry and Fire Protection, Northern Regional Office

### Project Team

Name	Unit
Robert Lewin	California Dept. of Forestry and Fire Protection, San Luis Obispo
Dan Turner	California Dept. of Forestry and Fire Protection, San Luis Obispo
Lee Winton	California Dept. of Forestry and Fire Protection, Amador-Eldorado
Tom Hutchison	U.S. Forest Service (retired)
Ishmael Messer	Office of Emergency Services, Fire and Rescue Branch
Sheri Blankenheim	Office of Emergency Services, Planning & Technological Assistance Branch
Aaron Gelobter	U.S. Forest Service, Sequoia National Forest
Art Gaffrey	U.S. Forest Service, Sequoia National Forest
Larry Benson	California Dept. of Forestry and Fire Protection (retired)
Scott Vail	U.S. Forest Service, Eldorado National Forest
Bill Holmes	California Dept. of Forestry and Fire Protection, Amador Eldorado
Christie Achenbach	U.S. Forest Service, Rio Grande National Forest
Glen Newman	California Dept. of Forestry and Fire Protection (retired)
Julie Vogan	U.S. Forest Service, Regional Office
Gary Anderson	Bureau of Indian Affairs, Yakima Indian Reservation
Tom Foley	California Dept. of Forestry and Fire Protection, Southern Region Operations
Kelley Gouette	California Dept. of Forestry and Fire Protection, San Luis Obispo
Laurie Bartel	U.S. Forest Service, Plumas National Forest
Kris Levitoff	U.S. Forest Service, Plumas National Forest
Christie Neill	U.S. Forest Service, Regional Office
Ralph Alworth	California Dept. of Forestry and Fire Protection, Southern Region Operations
Red Taylor	California Dept. of Forestry and Fire Protection, Southern Region Operations
Kate Dore	Dore Davis Design, San Luis Obispo

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# **Glossary of Terms**



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# Glossary of Terms

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**ANCHOR POINT** – An advantageous location, usually a barrier to fire spread, from which to start constructing a fireline.

**AREA COMMAND** – An organization established to: 1) oversee the management of multiple incidents that are each being handled by an incident management team (IMT) organization; or 2) to oversee the management of a very large incident that has multiple IMTs assigned to it. Area command has the responsibility to set overall strategy and priorities, allocate critical resources based on priorities, ensure that incidents are properly managed, and that objectives are met and strategies followed.

**AVERAGE BAD DAY** – Fire conditions experienced during typical mid-fire-season day. Used as a benchmark to gauge fire situations.

**BACKFIRE** – A fire suppression tactic. Any intentionally set fire used to consume the fuel in the path of a free burning wildfire.

**BIA** – Bureau of Indian Affairs

**BLM** – Bureau of Land Management

**CALMAC** – California Multi-Agency Command. The information coordination center established in Sacramento. Tasked to gather timely information from regions, cooperating agencies, the media, the director, interested government leaders and the public.

**CDF** – California Department of Forestry and Fire Protection

**CHIEF OFFICERS** – Agency Administrators, Fire Chiefs and other strategic level staff overseeing Incident Commanders.

**CONTAINMENT** – A fire is contained when it is surrounded on all sides by some kind of boundary but is still burning and has the potential to jump a boundary line.

**CONTROLLED** – A fire is controlled when there is no further threat of it jumping a containment line. While crews continue to do mop-up work within the fire lines, the fire fight is over.

**CONVECTION COLUMN** – The rising column of gasses, smoke, fly ash, particulates and other debris produced by a fire.

**COOPERATING AGENCY** – An agency supplying assistance including but not limited to direct tactical or support functions or resources to the incident control effort.

**CROWN FIRE** – A fire that advances from top to top of trees or shrubs, more or less independently of the surface fire.

**DEFENSIBLE SPACE** – Creating a fire safe landscape for at least 30 feet around homes (and out to 100 feet or more in some areas), to reduce the chance of a wildfire spreading and burning through the structures. This is the basis for creating a “defensible space” - an area that will help protect your home and provide a safety zone for the firefighters who are battling the flames. It is required by California law.

**DIRECT ATTACK** – A method of fire suppression in which suppression activity takes place on or near the fire perimeter.

**DIRECT PROTECTION AREA (DPA)** – That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action.

**DRAW DOWN LEVEL** – The level where the success of extinguishing a fire with initial attack forces is compromised.

**ESF4** – Emergency Support Function 4. A component of the National Response Plan developed for FEMA. A document that outlines different agency’s responsibilities in different types of emergencies.

**ESRI** – Environmental Systems Research Institute. A software company that produces software that is widely used to produce Geographic Information Systems maps on emergencies for analysis and display.

**EXTREME FIRE BEHAVIOR** – “Extreme” implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometime dangerously.

**FEDERAL NATIONAL TEAM** – A Type 1 National Incident Management Team coordinated by the National Wildfire Coordinating Group (NWCWG). Team members may be from various agencies. The California Wildfire Coordinating Group (CWCG) sponsors five of the 16 national teams.

**FEDERAL REGIONAL TEAM** - A Type 2 Incident Management Team maintained by the U.S. Forest Service in the Pacific Southwest Region (Region 5, California and the Pacific Islands). Team members may be from various agencies.

**FEDERAL RESPONSIBILITY AREA (FRA)** - The primary financial responsibility for preventing and suppressing fires is that of the Federal Government. These lands are generally protected by the Department of Agriculture, Forest Service, the Department of Interior, Bureau of Land Management, National Parks Service, US Fish and Wildlife Service, and Bureau of Indian Affairs.

**FIRE DANGER RATING** - A management system that integrates the effects of selected fire danger factors into one or more qualitative or numerical indices of current protection needs.

**FIRE LINE** - A strip of area where the vegetation has been removed to deny the fire fuel, or a river, a freeway or some other barrier which is expected to stop the fire. Hose lines from fire engines may also contribute to a fire being surrounded and contained.

**FIRE PERIMETER** - The entire outer edge or boundary of a fire.

**FIRESCOPE** - Firefighting Resources of California Organized for Potential Emergencies. A multi-agency coordination system designed to improve the capabilities of California's wildland fire protection agencies. Its purpose is to provide more efficient resource allocation and utilization, particularly in multiple or large fire situations during critical burning conditions.

**FMAG** - Fire Management Assistance Grant. A federal assistance program managed by FEMA through the state Office of Emergency Services (OES). This program is designed to help state and/or local jurisdictions impacted by high cost, high damage wildland fires.

**FUELS** - Combustible material.

**GACC** - Geographical Area Coordination Center, see South Ops

**GIS** - Geographic Information System

**INCIDENT COMMANDER** - This ICS position is responsible for overall management of the incident and reports to the Agency Administrator for the agency having incident jurisdiction.

**INCIDENT COMMAND SYSTEM (ICS)** - A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

**INCIDENT COMMAND TEAM (ICT)** - see Incident Management Team

**INCIDENT MANAGEMENT TEAM (IMT)** - The incident commander and appropriate general and command staff personnel assigned to an incident. Also known as an Incident Command Team.

**INDIRECT ATTACK** - A method of fire suppression in which suppression activities takes place some distances from the fire perimeter, and often advantage of fire barriers.

**INFRARED (IR)** - A heat detection system used for fire protection, mapping, and hotspot identification.

**INITIAL ATTACK (IA)** - An aggressive suppression action taken by first arriving resources consistent with firefighter and public safety and values to be protected.

**INTERFACE ZONE** - It is the area where the wildlands come together with the urban areas. Also referred to as the I-Zone.

**INTERMIX ZONE** - It is areas where homes are interspersed among the wildlands. Also referred to as the I-Zone.

**JOINT INFORMATION CENTER (JIC)** - An interagency information center responsible for researching, coordinating and disseminating information to the public and media. Formed through the MAST effort.

**LRA** - Local Responsibility Area

**MACS** - (Multi-Agency Coordination System) Is a combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations.

**MAFFS** - Modular Airborne Firefighting System (Refers to the Military aircraft, C-130s, which are used as Air Tankers)

**MAST** - Mountain Area Safety Taskforce.

**MODIS** - (Moderate Resolution Imaging Spectroradiometer) - is a key instrument aboard the Terra and Aqua satellites. This instrument provided important intelligence for fire managers regarding fire perimeters and fire growth throughout the fire siege.

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**MOP-UP** – Extinguishing or removing burning material near control lines, felling snags, and trenching logs to prevent rolling after an area has burned, to make a fire safe, or to reduce residual smoke.

**MUTUAL THREAT ZONE (MTZ)** – A geographical area between two or more jurisdictions into which those agencies would respond on initial attack. Also called mutual response zone or initial action zone.

**NIFC** – National Interagency Fire Center located in Boise, Idaho.

**NPS** – National Park Service

**OES** – The California Governor’s Office of the Emergency Services.

**OSC** – (Operations Section Chief) The ICS position responsible for supervising the Operations Section. Reports to the Incident Commander. The OSC directs the preparation of unit operational plans, requests and releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander.

**PREDICTIVE SERVICES** – Those Geographic Area and National-level fire weather or fire danger services and products produced by wildland fire agency meteorologists and intelligence staffs in support of resource allocation and prioritization.

**PREPAREDNESS LEVELS** – A national system of preparedness for incidents. The levels are 1 through 5. They are:

**Preparedness Level 1** – Few or no active fires under 100 acres. Minimal or no commitment of fire resources. Low to moderate fire danger. Agencies above draw down levels.

**Preparedness Level 2** – Numerous fires under 100 acres. Local commitment of resources for initial attack. Moderate fire danger. Agencies above drawdown levels and requests for resources outside local area are minimal.

**Preparedness Level 3** – High potential for fires 100 acres & above to occur, with several 0-99 acre fires active. Fire danger moderate to very high. Mobilization of resources within the region and minimal requests outside of region. Agencies above or having difficulty maintaining draw down levels.

**Preparedness Level 4** – Fires over 100 acres are common. Fire danger is high to very high. Resource mobilization is coming from outside the region. Agencies at minimum draw down levels.

**Preparedness Level 5** – CALMAC is fully activated. Multiple large fires are common in the north and or the south. Fire danger is very high to extreme. Resources are being mobilized through the National Coordination Center. Activation of National Guard or military done or under consideration.

**SANTA ANA WINDS** – Is a type of Foehn wind. A Foehn wind is a warm, dry and strong general wind that flows down into the valleys when stable, high pressure air is forced across and then down the lee side slopes of a mountain range. The descending air is warmed and dried due to adiabatic compression producing critical fire weather conditions. Locally called by various names such as Santa Ana winds.

**SOUTH OPS** – The multi-agency geographic area coordinating center for southern California. Located in Riverside, it is staffed by CDF, State OES and Federal fire agencies.

**STRIKE TEAM** - An engine strike team consists of five fire engines of the same type and a lead vehicle. The strike team leader is usually a captain or a battalion chief. Strike Teams can also be made up of bulldozers and handcrews.

**SPOT FIRE OR SPOTTING** – A small fire that is ahead of the main fire that is caused from hot embers being carried to a receptive fuel bed. Spotting indicates extreme fire conditions.

**RED FLAG WARNING** – Term used by fire weather forecasters to alert users to an ongoing or imminent critical fire weather pattern.

**REHABILITATION** – The activities necessary to repair damage or disturbance caused by wildfire or the wildfire suppression activity.

**STATE RESPONSIBILITY AREA (SRA)** - The California Board of Forestry and Fire Protection classifies areas in which the primary financial responsibility for preventing and suppressing fires is that of the state. CDF has SRA responsibility for the protection of over 31 million acres of California’s privately-owned wildlands.

**SLOP-OVER** – A fire edge that crosses a control line or natural barrier intended to confine the fire. Also called breakover.

**UNIFIED COMMAND** – In ICS, unified command is a unified team effort which allows all agencies with jurisdictional responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies.

**WFA** – Wildland Fire Situation Analysis

**WILDLAND/URBAN INTERFACE** – The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.