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Resources, Community, and
Economic Development Division

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August 31, 1994

The Honorable Dianne Feinstein
The Honorable Barbara Boxer
United States Senate

The Honorable Don Edwards
The Honorable Carlos Moorhead
House of Representatives

During an 11-day period in October and November 1993, 21 major fires ravaged six southern California counties. The fires burned about 197,000 acres of public and private land, destroyed 1,241 structures, caused 4 fatalities and 162 injuries, and left an estimated \$1 billion in damages. In your joint letter dated December 7, 1993, you asked us to provide you with information on (1) federal airtankers' response to the fires, (2) the adequacy of funding for the U.S. Department of Agriculture's Soil Conservation Service's (SCS) Emergency Watershed Protection Program to mitigate the damage from the fires, and (3) the use of California's FIRESCOPE Program as a national model for disaster response.¹

In addition to these specific concerns, you also raised a general concern about the fire response efforts. We agreed with your offices not to address this broader subject because two other studies on the California fires--one by California's Office of Emergency Services, the other by the Federal Emergency Management Agency (FEMA)--were also under way. These studies are intended to provide information about how the response was carried out and about mitigation efforts for future fire losses.

We previously discussed our preliminary findings with your offices. We also agreed to summarize the final results of our work in a letter to you. The following is a summary of our findings.

¹Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) is a federal/state/local partnership that provides coordinated emergency management for firefighting and other emergencies.

FEDERAL AIRTANKERS' RESPONSE

During the wildfires, 39 federal airtankers²--which aerially discharged chemical fire retardant on the fires--were used in the overall fire suppression effort. Within days after the start of 16 major fires on October 26 and 27, concerns were publicly raised that the California Air National Guard's two airtankers, also known as modular airborne firefighting systems (MAFFS),³ were not activated on a timely basis to help in fighting the fires. Furthermore, it was suggested that the 1932 Economy Act (31 U.S.C. 1535(a)(4)) was a barrier to airtankers' timely activation by requiring that all commercial resources be exhausted before federal resources could be used.

On the basis of our analysis of applicable logs and other documents and our discussions with persons involved in conducting the response and evaluating the outcome, we found that the California Air National Guard responded in a timely manner, well within stated policy. (See enc. I for a chronology on activating MAFFSs.) From the time Air National Guard personnel received informal state notification that MAFFSs were being requested for federal activation until they were ready to fly, about 14.5 hours lapsed--well within the 24-hour readiness requirement. Despite this response time, in its after-action report on the fires,⁴ the California Office of Emergency Services included two recommendations for further reducing MAFFSs' response time as well as improving MAFFSs' retardant dropping effectiveness.

We also found that the 1932 Economy Act did not present a barrier to MAFFSs' timely activation. The act provides sufficient flexibility by permitting federal goods or services to be used whenever, in the judgment of the federal agency head, the resources cannot be provided as conveniently or cheaply by commercial contract. In responding to the fires, officials said that they were able to activate MAFFSs as they judged necessary, and we found that the MAFFSs were firefighting-ready within policy time requirements.

²Of the 39 federal airtankers, 31 were commercially contracted and 8 were military-owned (Air National Guard or Air Force Reserve). Two of the military airtankers are stationed in southern California at Channel Islands Air National Guard Base; the other six are stationed in other states (Colorado, North Carolina, and Wyoming).

³MAFFS consists of a series of five pressurized tanks that hold up to 3,000 gallons of fire retardant, designed for transport by C-130 military aircraft.

⁴After Action Report: The Southern California Wildfire Siege, October-November 1993, California Governor's Office of Emergency Services.

EMERGENCY WATERSHED PROTECTION PROGRAM

Administered by SCS, the Emergency Watershed Protection Program has the mission of relieving imminent hazards to life and property from floods and the products of erosion created by natural disasters, including wildfires. In the fall of 1993, concerns were raised about the sufficiency of appropriated funds to adequately and promptly protect watersheds from debris flows and other erosion in the fires' aftermath.

On the basis of our analysis of funding and program data and our discussions with SCS and state officials, we determined that the Emergency Watershed Protection Program appeared to provide adequate funding and resulted in timely completion of the highest-priority projects. As of May 31, 1994, appropriated funds totaling \$14.9 million--including supplemental appropriations made available in February 1994--were available for California's emergency watershed protection projects. With these federal funds, SCS officials indicated, all 38 priority projects were completed, at a federal cost of \$8.2 million, in time to minimize erosion from winter rainstorms occurring from December 1993 to March 1994. Erosion-prevention measures that were implemented included installing sedimentation traps, clearing debris, reseeding burned areas, and repairing basins or dams. Also, SCS officials said that nonpriority projects, estimated to cost another \$6.7 million in federal funds, are planned for completion by December 1994.

FIRESCOPE AS A NATIONAL MODEL

Your final question dealt with the potential for using FIRESCOPE--California's federal/state/local partnership for coordinating emergency firefighting activities--as a national model for disaster response. In chartering FIRESCOPE in 1972, the Congress directed the Department of Agriculture's Forest Service to assist southern California fire agencies with their annual wildland fire problems. In the 22 years that have elapsed since then, California has worked with other government entities--through FIRESCOPE--to develop and implement well-defined and commonly adopted preparation and response procedures for the frequently recurring wildland fires that threaten public and private lands.

In 1986, FIRESCOPE expanded its fire response coverage to include the entire state. Also, FIRESCOPE has become responsive to other hazards in addition to fire, such as the Los Angeles riots in 1992 and the Northridge earthquake in 1994. The program integrates the activities of agencies on a variety of levels, including California's Office of Emergency Services (which directs the statewide fire service and rescue emergency mutual aid system) and Department of Forestry and Fire Protection and such federal

agencies as the Forest Service and the Department of the Interior's Bureau of Land Management and National Park Service.

We found indications that FIRESCOPE is already being used as a model at state and local levels as well as by FEMA. Two of FIRESCOPE's key components are being emulated in local and state settings outside California. These components are (1) the Multi-Agency Coordination System, a process in which involved agencies from various disciplines and jurisdictions come together to prioritize emergency incidents and share and allocate critical resources, and (2) the Incident Command System, a process for effective on-site management of emergency situations through the use of common terminology, procedures, and standardized emergency incident organizations. FEMA also uses and promotes these concepts through its fire training programs as well as in its 1992 Federal Response Plan for national emergency response. In addition, FEMA has recently conferred with FIRESCOPE officials as it plans for its own national command center's modernization, projected for an April 1995 completion, in time for the next hurricane season.

During our review, which was conducted from April through July 1994 in accordance with generally accepted government auditing standards, we interviewed various federal, state, and private officials and obtained and reviewed documentation, such as laws, policies, procedures, logs, and reports. Enclosure II lists the organizations that we contacted. We discussed our findings with state and federal officials, including the Deputy Director, California Office of Emergency Services; Director of Plans, Operations, and Security, California National Guard; Acting Director, National Interagency Fire Center, U.S. Forest Service; Director, Watershed Projects Division, SCS; and Director of Response and Recovery, FEMA. The officials agreed with the information presented in this correspondence and had no major changes.

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We are sending copies of this correspondence to the Secretaries of Agriculture, Defense, and the Interior and to the Directors of FEMA and the California Office of Emergency Services. We will also make copies available to others on request. Please contact me on (202) 512-7756 if you or your staff have any questions about this correspondence.

A handwritten signature in black ink, reading "James Duffus III". The signature is written in a cursive style with a large initial "J" and a distinct "III" at the end.

James Duffus III
Director, Natural Resources
Management Issues

Enclosures - 2

**CHRONOLOGY OF EVENTS AFFECTING THE OCTOBER 27, 1993,
ACTIVATION OF THE TWO CALIFORNIA MODULAR AIRBORNE
FIREFIGHTING SYSTEM AIRTANKERS**

Date	Time	Event
10/26/93	2:00 a.m.	First major fire started; five others began throughout day.
10/27/93	1:26 a.m. to 6:40 a.m.	Six additional major fires started.
	8:00 a.m. to 8:30 a.m.	Four modular airborne firefighting systems (MAFFS), including the two California MAFFSs at Channel Islands, requested by Operations Coordination Center (OCC) at Riverside, from National Interagency Coordination Center (NICCC) in Boise; federal activation anticipated. ^a
	8:15 a.m.	California Department of Forestry and Fire Protection in Sacramento notified National Guard headquarters of expected activation; on the basis of the impending activation, the Channel Islands Air National Guard unofficially began readying aircraft for firefighting.
	Before 12 noon	NICCC did not activate MAFFS units because sufficient commercial airtankers were readily available and assigned to meet OCC's needs.
	12 noon	State officials decided to activate the two MAFFSs at Channel Islands to ensure faster response.
	1:00 p.m.	Channel Islands notified that two California MAFFSs were state-activated.
	3:00 p.m.	Two state MAFFSs were flight-ready; setup of chemical retardant plant was beginning, and MAFFS liaison officer was assigned and in transit to Channel Islands.
	3:00 p.m.	Channel Islands notified that four out-of-state MAFFSs were federally activated and expected on 10/28/93 because OCC had requested additional airtankers.
	6:00 p.m. (about sunset)	Airtankers no longer permitted to fly for safety reasons.
10:30 p.m.	Channel Islands chemical retardant plant was operable, and the two state MAFFSs were firefighting-ready, 9.5 hours from the 1:00 p.m. state activation and 14.5 hours from the 8:00 a.m. initial request to NICCC. The state MAFFSs' response time was well within the 24-hour expectation set by policy.	
10/28/93	8:10 a.m.	OCC called Channel Islands to dispatch both state MAFFSs to the Green Meadow fire.

^a**Ordering Rationale:** Normally, the California MAFFSs are activated for firefighting service under federal authority (federal activation) through NICCC rather than under state authority (state activation). MAFFSs were initially requested through NICCC because federal activation would achieve (1) cost savings for the state of California and (2) administrative support efficiencies. Also, recognizing that MAFFSs are a secondary resource, OCC anticipated using them on October 28, 1993, when they would likely be ready to fly.

LIST OF ORGANIZATIONS GAO CONTACTED

FEDERAL

- Federal Emergency Management Agency
 - Operations Support Directorate, Washington, D.C.
 - Response and Recovery Directorate, Washington, D.C.
 - Region IX, San Francisco, CA

- Department of Agriculture
 - Forest Service
 - Fire and Aviation Management, Washington, D.C.
 - Region 5, San Francisco, CA
 - National Interagency Coordination Center, Boise, ID
 - Operations Coordination Center--South Zone, Riverside, CA

 - Soil Conservation Service
 - Watershed Projects Division, Washington, D.C.
 - State Office, Davis, CA

- Department of the Interior
 - Office of Hazard and Fire Programs Coordination, Washington, D.C.

- Department of Defense
 - Office of the Assistant Secretary of the Army, Installation, Logistics, and Environment, Washington, D.C. (responsible for military support to civilian authorities)

STATE OF CALIFORNIA

- Governor's Office of Emergency Services
 - Office of the Director, Sacramento, CA
 - Fire and Rescue Division, Sacramento, CA
 - Operations Coordination Center--South Zone, Riverside, CA
 - Risk Management, Pasadena, CA

- California Department of Forestry and Fire Protection
 - State and Federal Cooperative Fire Programs, Sacramento, CA
 - Operations Coordination Center--South Zone, Riverside, CA

ENCLOSURE II

- Division of Mines and Geology, Los Angeles, CA
- California National Guard, Sacramento, CA
- California Air National Guard, Sacramento, CA
146th Airlift Wing, Channel Islands Base, CA

PRIVATE INDUSTRY

- Monsanto, Wildfire Division, Ontario, CA
(supplier of chemical retardant)

ENCLOSURE II

(140892)