

Looking Ahead

This first issue of UPDATE has been devoted mainly to the history of FIREScope and an overview of the program in general. In future issues some of the topics we hope to cover are: The Operations Coordination Center (OCC), communications, and the CY 1982 training calendar. If possible, each issue will focus on a different agency within the partnership.

If you have any ideas or articles that you would like to see included in future issues of UPDATE, please let us know. We want this newsletter to be of use and interest to you.

Send articles to UPDATE Editor, FIREScope, 4955 Canyon Crest Drive, Riverside, CA 92507, or call (714) 787-1648.



A FIREScope
NEWSLETTER

UPDATE



Purpose of UPDATE

For some time now, we've been aware of the need to do a better job of communicating about the FIREScope Program. However, we've been reluctant to spend time on mass communication while the possibility of funding, and other facets of the Program have been uncertain. For the past three years, we have placed a higher priority on building the system than on telling about it.

The Program Office's priorities still emphasize building the system, but FIREScope is taking a more definite shape now and beginning to impact more people. The November 1980 fire activity in southern California tested many of the FIREScope

components and evaluations show that we are on the right track.

All of these developments require that we take some extra efforts to keep our users and supporters better informed. We see the UPDATE as one means of doing that.

UPDATE will focus on the people, the technologies, and the procedures that are FIREScope. We will try to present articles that explain both the structure and the impacts of the Program to managers and field personnel.

Bob Irwin — Program Manager

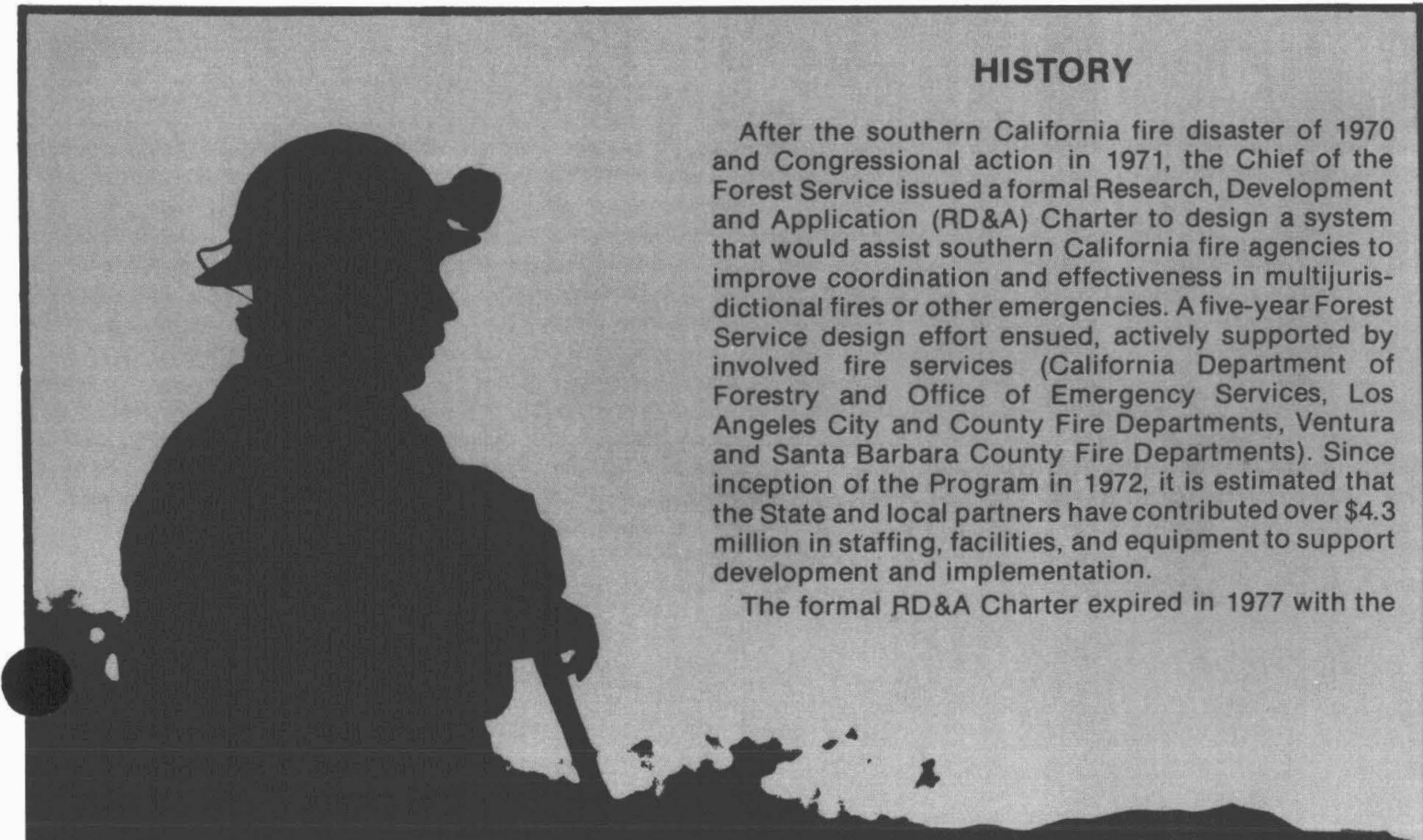
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HISTORY

After the southern California fire disaster of 1970 and Congressional action in 1971, the Chief of the Forest Service issued a formal Research, Development and Application (RD&A) Charter to design a system that would assist southern California fire agencies to improve coordination and effectiveness in multijurisdictional fires or other emergencies. A five-year Forest Service design effort ensued, actively supported by involved fire services (California Department of Forestry and Office of Emergency Services, Los Angeles City and County Fire Departments, Ventura and Santa Barbara County Fire Departments). Since inception of the Program in 1972, it is estimated that the State and local partners have contributed over \$4.3 million in staffing, facilities, and equipment to support development and implementation.

The formal RD&A Charter expired in 1977 with the



completion of a system design by Forest Service Research. Also in 1977, a plan to implement the FIREScope system was undertaken by the agencies. This plan called for \$16.2 million of Federal funds to initially establish the system, with ongoing State, Federal, and local contributions to operate and maintain it in the future. Implementation of the design is now essentially a regional responsibility; supported by research "follow-on" effort. Congress appropriated

\$1.2 million for initial implementation work in each of fiscal years 1978 and 1979, \$2.4 million in 1980 and \$2.0 million in 1981. The participating FIREScope agencies represent all four governmental levels—Federal, State, County and City. Participation in FIREScope is strictly voluntary for the agencies involved. No official mandate or legal requirement exists to force membership.

THE FIREScope SYSTEM

FIREScope is a system that integrates new procedures with modern technologies. The procedures include:

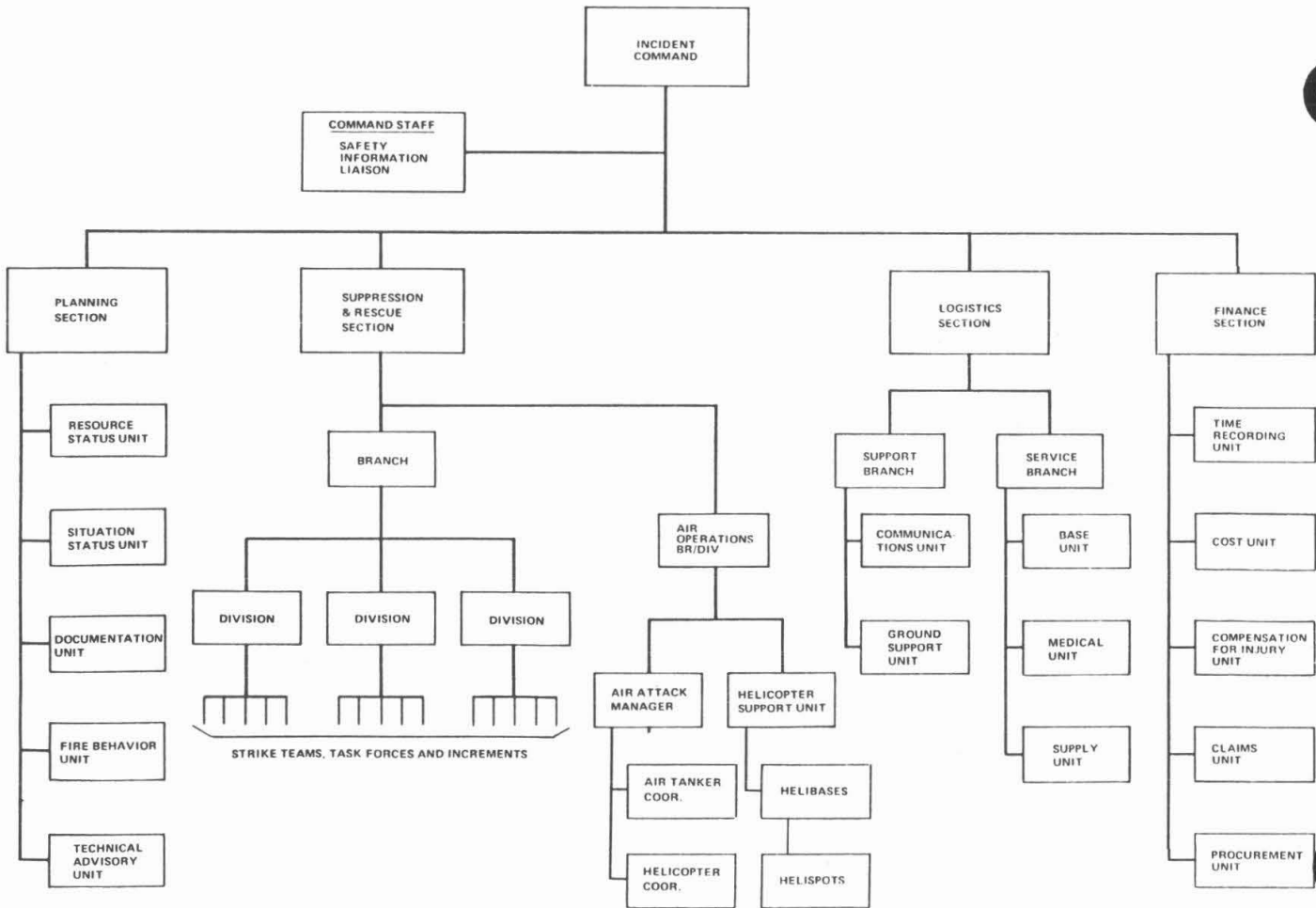
The Incident Command System

A common emergency organization, the Incident Command System (ICS) is being uniformly instituted by many fire services as their standard operating procedure for all emergencies. The ICS has been formally adopted by all of the partner agencies and has

been endorsed by the State Board of Fire Services. Several other agencies are investigating the system for their use.

At the incident level this system standardizes incident organizational structures, data gathering, reporting, and terminology. Utilization of this system has already provided evidence of increased efficiency in management of multijurisdictional incidents.

The ICS has been used and favorably evaluated on hundreds of incidents. It was successfully utilized to manage two flood-related emergencies.



The Multi-Agency Coordination System

Collective decisions on emergency priorities and resource allocations are made through the Multi-Agency Coordination System (MACS). This system improves interagency coordination at top management levels and provides for allocation and timely commitment of multiagency resources to meet incident needs. It is a central point for collecting, screening, and processing essential data, coordination of public information, coordination of training programs, and also provides preplanning assistance to fire protection agencies.

Some of the modern technologies used to support operation of both the ICS and MACS include:

Infrared Telemetry to Ground Stations

A system has been developed and tested for FIREScope that will increase the potential of infrared imagery as a direct fire suppression tool by providing more timely and accurate fire intelligence to assist firemen in development of their suppression strategies and tactical plans. This telemetering link will transmit images directly to a ground station from the aircraft. A mobile and fixed ground-link system will be operational in 1981. This will include the capacity to transmit and receive FLIR (Forward Looking Infrared) telemetry as well as line scan. Continued infrared applications by helicopters and fixed-wing aircraft will increase the effectiveness of infrared scanning and intelligence gathering systems.

Orthophoto Mapping

With assistance from U.S. Geological Survey and other cooperators, FIREScope is developing a standard mapping system to improve coordination and data base collection. It will replace the multitude of different maps now being used. It will also provide accurate locations and boundaries, vegetative types, structural developments, roads, etc. to tactical forces, accurate topographic inputs to computer fire prediction models, and improve data base strategic planning.

Orthophotography has been completed for all of southern California. Master copies of the photography have been delivered to all partner agencies. A standard grid system and symbology have been adopted. Response books and dispatch maps are being prepared for several partner agencies.

Automated Data Processing

A fire spread model is operational to aid fire strategists. This model, currently in use for brush, chamise and grass, computes the forward and lateral rate of fire spread for given weather and fuel conditions. Firespread modeling in only one computer application of FIREScope. Other applications involve the collection, processing, updating, storage, and display of data pertinent to firefighting resources, weather, and the overall incident situation.

Computer terminals are located at 22 National Forest, CDF Ranger Unit, partner agencies and OES Area Coordinator dispatch centers. These will access the FIREScope minicomputer, and will provide users with the capacity to obtain fire predictions, incident situations, suppression resources status, and messages.

Automated Weather Stations

FIREScope is improving the methods for obtaining, communicating, displaying and using weather information. This information is a key requirement for predicting fire behavior and for assessing the current severity of fire weather conditions. The program has developed and tested telemetering weather stations which can continuously monitor and report the weather conditions in critical areas without human assistance.

