

**FIREFIGHTING RESOURCES**  
**OF CALIFORNIA ORGANIZED**  
**FOR POTENTIAL EMERGENCIES**



**PROPOSED 5 YEAR FIRESCOPE  
EXPANSION AND IMPLEMENTATION  
PLAN**

## **PREFACE**

The intent of this ~~draft~~ proposal is to provide the OES Fire and Rescue Service Advisory Committee/FIRESCOPE Board of Directors with information relative to the extension of FIRESCOPE components (ICS/MACS) throughout the State and the continued development and implementation of such.

All levels of the FIRESCOPE Decision Process have contributed greatly to formulate this ~~draft~~ proposal for your review and discussion. Although this proposal identifies the need requirements in general statements or comments, the intent demonstrates an organized and logical approach to extension and implementation over a five year period.

The material within this proposal is organized into five sections.

- EXECUTIVE SUMMARY - presents an overview of the FIRESCOPE Program and the Five Year Plan.
- FIVE YEAR NARRATIVE - description of proposals in a narrative format for each of the five years.
- FIVE YEAR GRAPHIC - condensed graphic portrayal of proposals for each of the five years.
- FUNDING SUMMARY - information related to fiscal and funding elements of the existing FIRESCOPE Program and this proposal.
- SUPPORTIVES - Orange County Fire Department Incident Report emphasizes value of FIRESCOPE components.

NOTE: More agencies and organizations need to contribute reports and support letters for final document.

The Federal Emergency Management Agency (FEMA) recognized **YOU** and the FIREScope Program, in July of 1986, with a national award as an "Exemplary Practice in Emergency Management". Dr. Sheldon S. Steinberg, Ed.D., stated in his monograph...."My enthusiasm and respect for a program which exemplifies the finest in multigovernmental practice, professional standards, and demonstrated positive impact. It is our hope that other emergency programs at Federal, State, and local levels apply the concepts and practices proven so effective by FIREScope dedicated people."

We are now at the crossroads of providing the citizens of this State with the latest technologies in an escalated proven program, *FIREScope*, to mitigate, to the greatest extent possible, personal and economic loss from emergencies and disasters.

## **PROPOSED IMPLEMENTATION PLAN EXECUTIVE SUMMARY**

The FIREScope research, development, and application program originally resulted from Congressional action in 1971-72, which gave the U.S. Forest Service the mission of assisting *Southern California* fire services in the development of a means to provide a significant step forward in multi-agency coordination on multi-jurisdictional fires.

To accomplish this, Congress appropriated funds through the U.S. Forest Service, who in turn, established a program office and manager for the project, which was to include guidance and participation from all elements of the fire service. A decision process was then set in place, utilizing representatives of seven key fire service agencies, who were then referred to as "Partner Agencies."

Since the initial focus was placed on major wildland fire problems, it is not coincidental that those agencies had wildland fire responsibilities. They are the U.S. Forest Service, California Department of Forestry and Fire Protection, Los Angeles County Fire Department, Los Angeles City Fire Department, Santa Barbara County Fire Department, Ventura County Fire Department, and the California Office of Emergency Services Fire and Rescue Division (representing the statewide Mutual Aid System and all other fire departments).

Following establishment of FIREScope, an initial problem analysis identified five major components to be pursued to meet the program mission:

- Develop standard terminology and incident organization structure
- Provide multi-agency communications
- Develop improved methods for status-keeping
- Develop improved methods of forecasting fire behavior
- Provide multi-agency training in systems developed under FIREScope



Two specific systems were directed toward achieving those components:

1. **Multi-Agency Coordination System (MACS)**: The "managerial" element of FIREScope which melds the day-to-day operations of partner agencies and guides the application of FIREScope.
2. **Incident Command System (ICS)**: An on-the-ground "people" system for on-site management of emergencies.

Accompanying research and development efforts on the associated hardware, software, training, and implementation needs were completed in 1977 as follows:

- Meteorological Network
- Data Base
- Training
- Communications
- Coordination Systems
- Incident Intelligence Systems

Testing, evaluation, and partial implementation of system components by the partner agencies proved conclusively the need to move forward with the total program. Thus in 1977, a four-year implementation plan was created and a four-year federal funding program established through the U.S. Forest Service. Unfortunately, fiscal constraints resulted in the termination of federal support funding in 1980, leaving approximately 40% of the implementation plan to be completed.

It should be noted that management and maintenance of FIREScope components were to be assumed by the State of California through the Office of Emergency Services, and the U.S. Forest Service Region Five on a 75% - 25% basis, respectively, with a projected ongoing annual cost of approximately \$800,000. With the termination of funds in 1980, that cooperative funding effort had reached \$425,000, which has continued to this date.

With the severe fiscal constraints both at federal and state level, the program has remained in a maintenance mode. However, the Office of Emergency Services was suc-

cessful in obtaining budget funds in fiscal year 1985-86 to conduct an independent evaluation and needs assessment study of FIREScope components to validate past and current value, and provide recommendations for the application of FIREScope to meet present and future needs. The study was conducted by the Ryland Research Corporation and completed in mid-1987.

With the implementation of FIREScope components and a phenomenal acceptance and use of those components by the fire service and other disciplines, it was necessary that the "Decision Process", originally established for the FIREScope program in Southern California, be expanded to meet statewide needs. That original Decision Process consisted of four separate but interacting levels which functioned through a set of procedures and charters. These levels are Board of Directors, Operations Team, Task Force, and Specialist Groups.

As a result, a group was formed to address the Northern California extension of these FIREScope components; this group was called CALFIRMS (California Fire Information Resource Management System). It was composed of several local, State, and Federal fire service agencies. They worked closely with the FIREScope Decision Process, specifically the Operations Team and Board of Directors, in an extension program.

In 1986 the FIREScope program underwent a major modification within the Decision Process. In order to provide statewide input into the FIREScope Decision Process, and since five of the eight member agencies were already represented on the OES Fire and Rescue Service Advisory Committee, it was decided to integrate the FIREScope Board of Directors with the Advisory Committee and include three member agencies not represented on the committee.

In November, 1987, CALFIRMS met with the FIREScope Operations Team. It was decided to integrate both groups into one level of the Decision Process; this provided statewide input. They are now known as Operations Team North and Operations Team South, with coordination of the two by the Chairmen. The result is today's Decision Process (see chart, page 5).

The Ryland Report was evaluated by the FIREScope Decision Process, and recommendations were made for the continued development and implementation of the

program. These recommendations included updating some original FIREScope objectives, in addition to changes to meet today's needs.

This proposed implementation plan is based on the original two program components: "Incident Command System", and "Multi-Agency Coordination System". There are six elements, prioritized on the basis of need and funding. These are elements which can be fully or partially completed through cooperative efforts of the combined fire service, and those which cannot be completed without special funding. Funding will be required for continued development, implementation, and maintenance.

The elements in order of priority are:

- Program Administration
- Incident Command System
- Multi-Agency Coordination System
- Communications
- Mapping
- Other

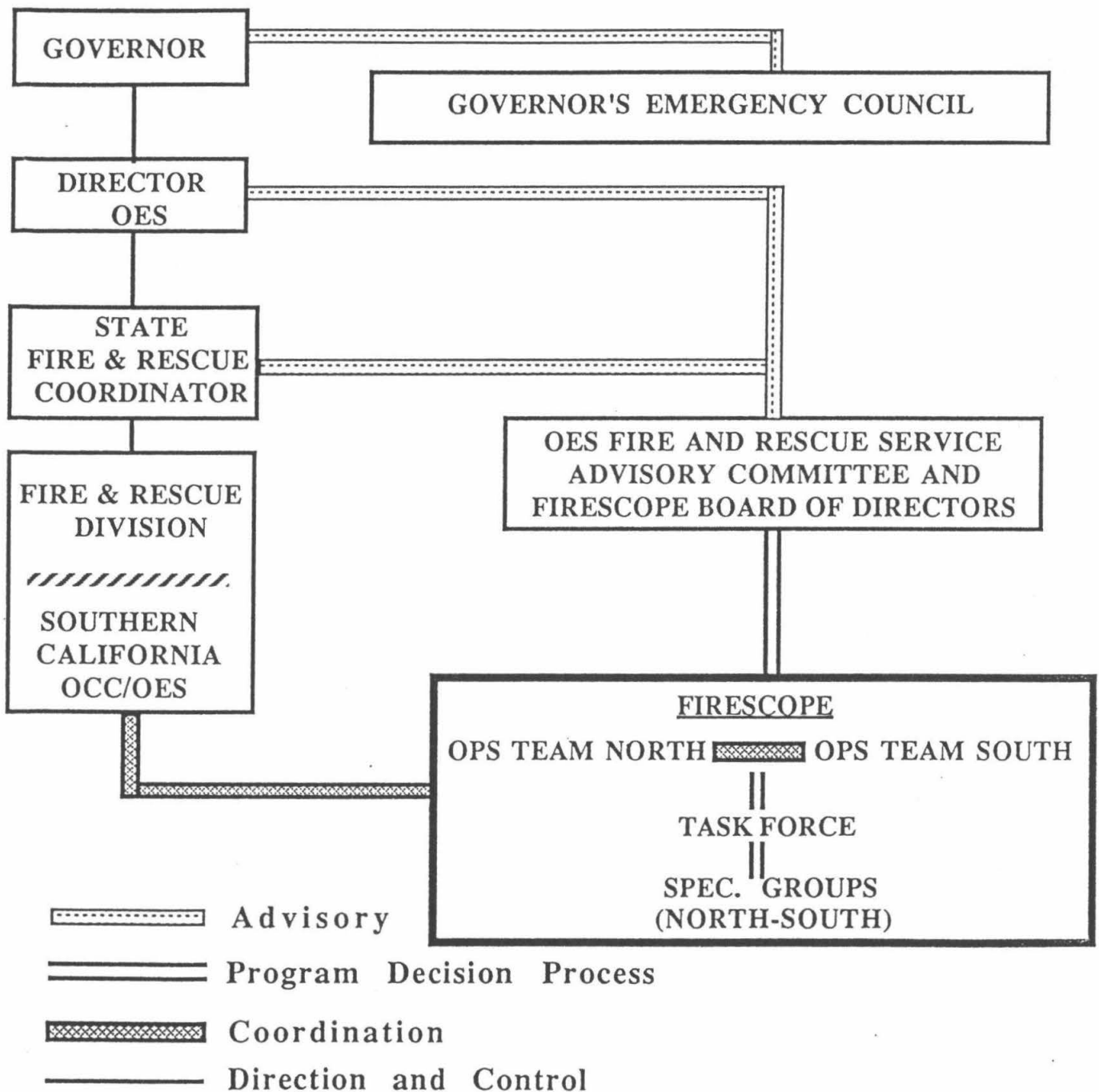
Full implementation is estimated at \$ 21.85 million over a five-year period, with additional in-kind support required from all involved, and the annual ongoing maintenance program as reflected in the current OES budget.

An important responsibility of the Program Administration would be to seek means of augmenting the program. This could be through cooperating with local, State, Federal, and private organizations to assist in development of mutually beneficial technologies and to utilize the program to test such technologies. For example, the National Oceanographic and Atmospheric Administration (NOAA) might wish to develop and test a new weather technology which could be beneficial to the fire service and which the fire service could test. Likewise, similar cooperation could take place with a computer software company.

Details of the five-year proposed implementation plan are described in this document. As the FIREScope Program progresses with current and projected research, development, implementation, and ongoing maintenance, total operating and maintenance costs will increase.

# FIRESCOPE DECISION PROCESS

## ORGANIZATION CHART



## ***FIRESCOPE CONTINUED DESIGN AND IMPLEMENTATION***

With the termination of federal funding in 1981, leaving an estimated 40% of the system design incomplete, the FIRESCOPE Program was put into a "maintenance" mode under the direction of OES Fire and Rescue Division. While this stopped progress, it provided the opportunity for an evaluation of the total Program through the FIRESCOPE Decision Process. In the review of OES budget proposals, the State Department of Finance recommended an independent, overall review of the project to validate the need to complete the Program and/or to terminate it.

This proposal presents a detailed plan for future FIRESCOPE design and implementation.

This plan and projected target date for completion are contingent upon approved state sponsorship and funding. Since a beginning budget date has not been established, projected funding schedules are identified as Year 1, 2, 3, 4, and 5.

This plan also recognizes difficulties inherent in melding the restrictions of budget process timing, current commitment implementation efforts, and the uncertainties of yet-to-come completed research and design. As such, the five-year proposal presented here enumerates the first year tasks in detail, the second year tasks in broader terms, and the final years only in the generalized descriptions necessary to allow intelligent progress to an ultimate configuration of the intended full design.

Presenting the Implementation Plan in this manner allows (in fact, requires) that participants in the Decision Process have a voice in the continued development and implementation of FIRESCOPE. The implementation phase has been designed with sufficient flexibility to allow the Decision Process an opportunity to evaluate and/or re-evaluate on an annual basis, priorities in each element of the program. This is particularly important in the application and use of state-of-the-art technologies and equipment.

## ***PROGRAM PLAN YEAR 1***

### ***PROGRAM ADMINISTRATION***

Due to the complex nature of an inter-governmental program such as FIREScope, a fully dedicated program staff is necessary to manage the functional requirements and program objectives in the most cost efficient manner.

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#### ***PROGRAM STAFFING***

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##### **Program Administrator**

This person should be of sufficient stature to interact - relate - meet - discuss with department directors, agency secretaries, administrators, legislators, etc. at local, state, federal, and private levels. This person must understand funding programs and seek and secure additional sources of funding and support.

##### **Program Manager**

This person should be of sufficient stature, with knowledge and experience in managing multi-agency programs and have a clear understanding of contracting requirements and responsibilities.

##### **Executive Secretary/ Administrative Technician**

This person should be of sufficient stature and knowledge to interact with and support the program, Program Administrator, Program Manager, and Mapping Coordinator.

##### **Mapping Coordinator**

This person should be of sufficient stature to interact with local, State, Federal, and private levels in mapping responsibilities.

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## *PROGRAM MANAGEMENT*

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With a dedicated program administration staff (salary, benefits) there is a need to provide the logistical requirements to support the operation. Consideration must be given to provide adequate office space, equipment, supplies, utilities, phones, postage, personal computers and software, vehicles, transportation cost, conference fees (local-state-national-international), and per diem.

- Staffed and supported program administration will be responsible for managing the expansion, integration, development, and implementation of the FIREScope Program with agency support and commitment.
- In addition, is the responsibility to further develop and implement a budgetary process and program to meet goals and objectives. This includes maintenance, future funding, augmented sources of funding, and support from a multitude of agencies and programs.

**(Budgeted at 600,000)**

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## *EDUCATION/INFORMATION*

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Program Management elements will require the specific development of brochures, newsletters, and video programs which define and support the FIREScope Program goals, objectives, and accomplishments to solicit additional assistance and/or financial augmentation.

**(Budgeted at 30,000)**

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## *PARTICIPATING AGENCY SUPPORT*

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Fire agencies are an intricate element in the development and implementation plan for FIREScope, and without such involvement this comprehensive program will never reach its desired goals. Monetary support to participating agencies that are involved in the specific program task projects (ICS - MACS-communications-mapping-others) is necessary, and reimbursements for salary, per diem, travel, and other related expenses should be provided. This monetary support will support the multi-agency representation at all levels of the Decision Process.



(Budgeted at 1,000,000)

PROGRAM ADMINISTRATION TOTAL: \$1,630,000
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## **YEAR 1**

### ***INCIDENT COMMAND SYSTEM - ALL RISK (ICS)***

FIRESCOPE's original charter focused on Southern California wildland fires. However, fire agencies in California are faced with a wide range of potentially hazardous situations which require effective and coordinated incident management. These include floods, hazardous materials situations, multi-casualty incidents, major high rise fires, harbor/refinery incidents, major aircraft crashes, volcanic eruptions, and an increasing danger of major earthquakes. While each of these emergencies will be tactically handled somewhat differently, the overall incident management approach will utilize the elements of the ICS. Defined ICS development activity will be focused at ensuring that the ICS is applied to these types of incidents in a uniform and Decision Process approved manner providing statewide consistency in ICS applications within the fire service.

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### ***DEVELOPMENT***

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Extreme priority has dictated the development of the ICS organization, position descriptions, duties and responsibilities for fire service application in multi-casualty - hazardous materials - and earthquake incidents during the first year. In concert with this is the development of supportive elements such as training courses, lesson plans, and audio visuals to ensure proper application.

(Budgeted at 145,000)



## *VIDEO PROGRAM*

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The wildland/urban interface or intermix areas are throughout the State. An I-220 video tape (ICS general information) would aide greatly in the implementation of wildland ICS to all fire agencies and ensure proper application statewide.

(Budgeted at 30,000)

ICS TOTAL: \$175,000
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## *YEAR 1*

### *MULTI-AGENCY COORDINATION SYSTEM (MACS)*

#### *STATEWIDE OCC/MACS APPLICATION*

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The OCC/MACS is designed to perform regional information management, situation assessment, resource coordination, and other services as appropriate, to support existing Federal, State, and local fire protection agencies in Southern California. MACS specifies the procedures, hardware, and personnel required to integrate the command-dispatch functions of the individual organizations to increase significantly both opportunities and capabilities for coordination of emergency operations, with emphasis on multiple-incident situations.

This concept needs to be reviewed, redefined, and goals developed for statewide application as related to fire service all risk responsibilities and requirements.

(Budgeted at 20,000)

MACS TOTAL: \$20,000
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## **YEAR 1 COMMUNICATIONS**

### ***FREQUENCY MANAGEMENT***

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Early in the FIREScope Program it was recognized that interagency communications would be necessary for effective emergency management. Radios became available with many channels. It was determined that agencies could share frequencies within certain guidelines. In order to do so, a memorandum of understanding was signed by the seven member agencies, and guidelines were developed to manage the frequencies.

The concept of frequency sharing needs to be taken statewide, but frequency use must be managed. A simple memorandum of understanding would not work for a statewide system. A Frequency Management System must be studied and developed.

**(Budgeted at 75,000)**

### ***STATEWIDE COMMUNICATIONS***

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A reliable system that is not vulnerable to damage from earthquakes and other disasters is needed for communications between fire service agencies. This system would be between fixed sites such as dispatch centers and OCC's and between those sites and temporary sites, i.e., Incident Command Posts. Satellite communications and/or similar technologies would probably fill this need for both voice and data transmission. A system meeting these criteria should be studied and developed.

**(Budgeted at 75,000)**

<b>COMMUNICATIONS TOTAL \$150,000</b>
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## **YEAR 1**

### **MAPPING**

FIRESCOPE, in cooperation with United States Geological Survey and member agencies, designed an excellent Mapping System that provided standardization and a common locator system for all agencies to use. This system was designed with and for "all risk" applications. Statewide, three requirements are necessary within the Mapping Program:

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#### **MAP REPOSITORIES**

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Complete the two map repositories with current ortho-photo and topographic products (statewide), so as to be able to manually reproduce such for "all risk" incidents and planning activities.

**(Budgeted at 120,000)**

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#### **MAINTENANCE**

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Maintain, evaluate, and acquire upgraded mapping products (ortho-photo, topographic) in sensitive areas statewide. This would include; build ups in wild-land/urban interface areas, earthquake prone areas, dam inundation areas, major hazardous material location areas, nuclear impacted areas, etc.

**(Budgeted at 150,000)**

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#### **COMPUTER APPLICATIONS**

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Acquire, implement, and maintain a system to produce computer generated maps and data overlays in various scales for "all risk" applications, statewide, at two locations.

**(Budgeted at 700,000)**

<b>MAPPING TOTAL: \$970,000</b>
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## YEAR 1

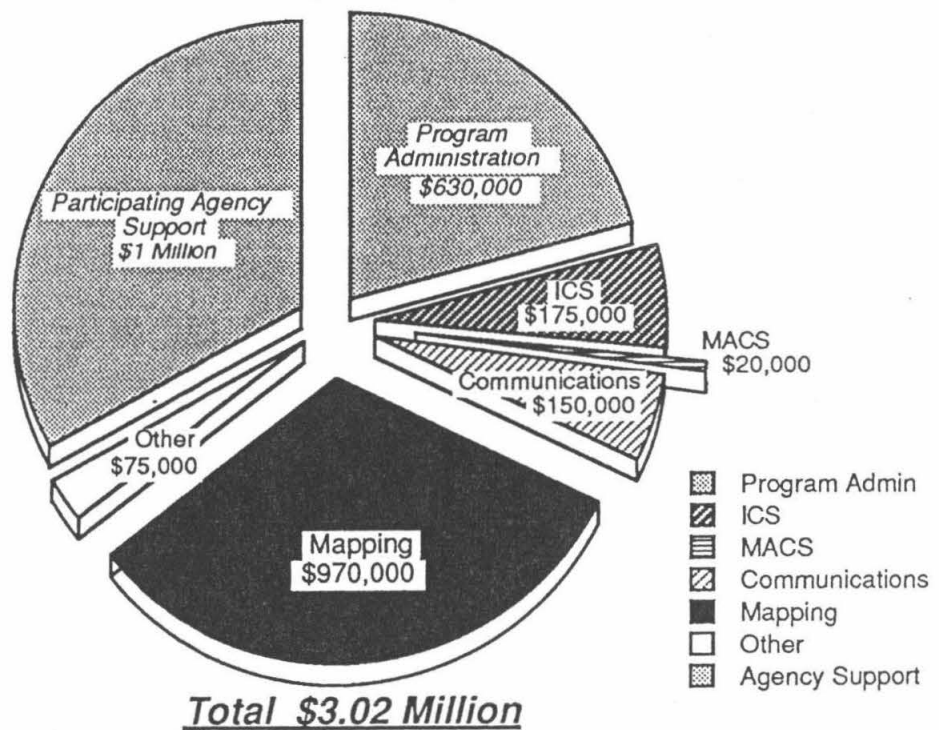
### METEOROLOGY

Many Remote Automated Weather Stations (RAWS) exist throughout the State, owned by many different public and private organizations. A study is needed to determine locations of RAWS, availability of information, cooperative agreements necessary, and computer software and programming needed to utilize this information in conjunction with programs such as fire modeling and wind dispersion models.

(Budgeted at 75,000)

METEOROLOGY TOTAL: \$75,000
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Proposed Five Year Expansion and Implementation Plan  
***Year 1 Funding Appropriations***



## ***PROGRAM PLAN***

### ***YEAR 2***

## ***PROGRAM ADMINISTRATION***

### ***STAFFING/PROGRAM MANAGEMENT***

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With a dedicated program administration staff (salary, benefits) there is a need to provide the logistical requirements to support the operation. Consideration must be given to provide adequate office space, equipment, supplies, utilities, phones, postage, personal computers and software, vehicles, transportation cost, conference fees (local-state-national-international), and per diem.

- Staffed and supported program administration will be responsible for managing the expansion, integration, development, and implementation of the FIREScope Program with agency support and commitment.
- In addition, is the responsibility to further develop and implement a budgetary process and program to meet goals and objectives. This includes maintenance, future funding, alternate sources of funding, and support from a multitude of agencies and programs.

**(Budgeted at 600,000)**

### ***EDUCATION/INFORMATION***

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Program Management elements will require the specific development of brochures, newsletters, and video programs which define and support the FIREScope Program goals, objectives, and accomplishments to solicit additional assistance and/or financial augmentation.

**(Budgeted at 30,000)**

### PARTICIPATING AGENCY SUPPORT

Fire agencies are an intricate element in the implementation plan for FIREScope, and without such involvement this comprehensive program will never reach its desired goals. Monetary support to participating agencies that are involved in the specific program task projects (ICS-MACS-communications-mapping-others) is necessary to provide reimbursements for salary, per diem, travel, and other related expenses. This monetary support will support the multi-agency representation at all levels of the Decision Process.

(Budgeted at 1,000,000)

<b>PROGRAM ADMINISTRATION TOTAL:</b> <b>\$1,630,000</b>
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### **YEAR 2**

### **INCIDENT COMMAND SYSTEM - ALL RISK (ICS)**

#### DEVELOPMENT

Develop the ICS organization, position descriptions, duties and responsibilities for fire service applications in high rise incidents. In concert with this, is the development of supportive elements such as training courses, lesson plans, and audio visuals, to ensure proper application.

(Budgeted at 65,000)

#### COURSE/LESSON PLAN USE

With the implementation of the ICS as it relates to fire service applications in wildland, multi-casualty, hazardous materials, earthquake, and high rise, there is a requirement to develop and implement a system for monitoring ICS training courses and lesson plan use and validity throughout the State.

(Budgeted at 20,000)

## *INSTRUCTOR QUALIFICATIONS*

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With the implementation of the ICS as it relates to fire service applications in wildland, multi-casualty, hazardous materials, earthquake, and high rise, there is a requirement to develop a system for identifying qualified instructors in ICS.

(Budgeted at 20,000)

ICS TOTAL: \$105,000
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## *YEAR 2*

### *MULTI-AGENCY COORDINATION SYSTEM (MACS)*

#### *STATEWIDE OCC/MACS DESIGN*

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The OCC/MACS is designed to perform regional information management, situation assessment, resource coordination, and other services as appropriate, to support existing Federal, State, and local fire protection agencies in Southern California. Design of statewide OCC/MACS and operational procedures needed for fire service related "all risk" applications, should include, but not be limited to:

- Site Locations
- Space requirements
- Communications requirements
- Communication hardware
- Computer hardware
- Computer software
- Office support systems
- Personnel requirements
- Operational procedures

(Budgeted at 150,000)



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*SOUTHERN CALIFORNIA OCC/MACS - ALL RISK*

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- Perform a detailed review, revision, and complete development of OCC/MACS Operational Procedures for fire service related "all risk" applications at the Southern California OCC in concert with statewide OCC/MACS design.

**(Budgeted at 35,000)**

- Develop positional description and related documents for OCC/MACS staff functions (SITSTAT, ADP, clerical, etc.) which support the MACS Program.

**(Budgeted at 20,000)**

<b>MACS TOTAL: \$205,000</b>
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**YEAR 2  
COMMUNICATIONS**

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*STATEWIDE CACHES*

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Caches of portable radios can provide needed interagency communications at the scene of an incident. While caches are presently available, the number is woefully inadequate, as evidenced by the siege of fires in the Fall of 1987. New frequencies are becoming available for such purposes. The FIREScope Communications Specialist Group has determined that seven (7) caches of thirty (30) radios each are needed for the fire service statewide.

**(Budgeted at 350,000)**

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*FREQUENCY MANAGMENT*

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The concept of radio frequency sharing needs to be taken statewide, but frequency use must be managed. Study and development of the Frequency Management Plan will continue.

**(Budgeted at 75,000)**

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## STATEWIDE COMMUNICATIONS

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Study and development of the statewide Communication System will continue, and will include:

Agency - Agency  
Agency - OCC  
OCC - OCC  
Incident - Agency  
Incident - OCC

(Budgeted at 75,000)

COMMUNICATIONS TOTAL: \$500,000
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## YEAR 2

### MAPPING

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#### MAINTENANCE

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Maintain, evaluate, and acquire upgraded mapping products (ortho-photo, topographic) in sensitive areas statewide. This would include; build ups in wildland/urban interface areas, earthquake prone areas, dam inundation areas, major hazardous material location areas, nuclear impacted areas, etc.

(Budgeted at 150,000)

MAPPING TOTAL: \$150,000
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## **YEAR 2**

### **METEOROLOGY**

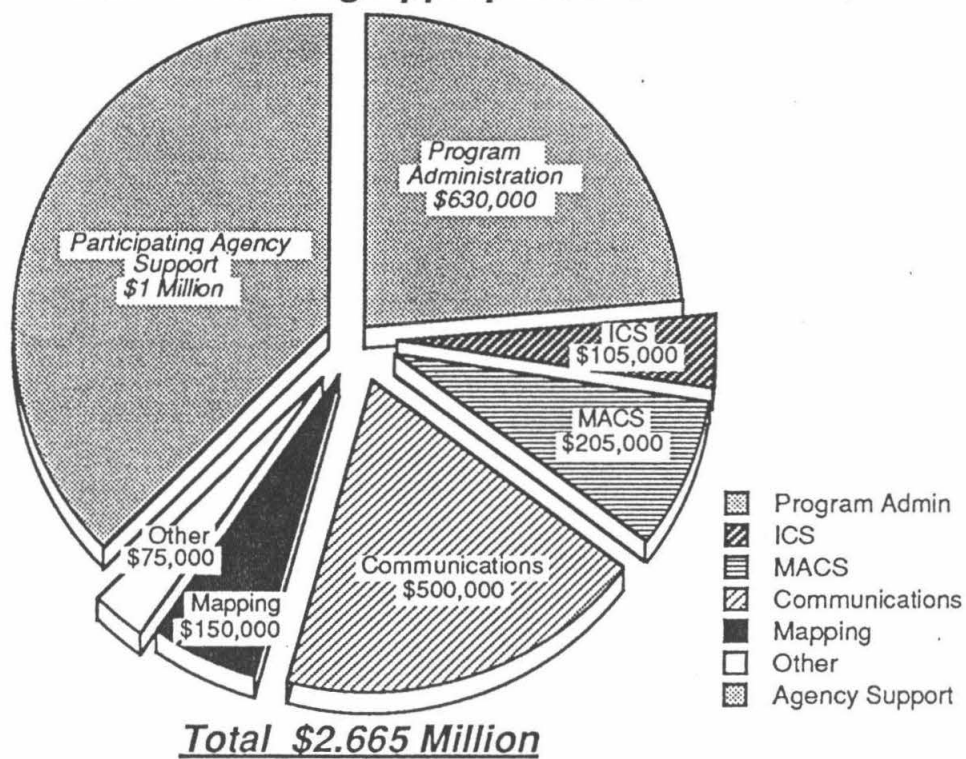
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The study of Remote Automated Weather Stations (RAWS) will continue, agreements would be promulgated, and the information would be integrated into the computer system.

(Budgeted at 75,000)

<b>METEOROLOGY TOTAL: \$75,000</b>
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Proposed Five Year Expansion and Implementation Plan  
***Year 2 Funding Appropriations***



## ***PROGRAM PLAN***

### ***YEAR 3***

## ***PROGRAM ADMINISTRATION***

### ***STAFFING/PROGRAM MANAGEMENT***

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With a dedicated program administration staff (salary, benefits) there is a need to provide the logistical requirements to support the operation. Consideration must be given to provide adequate office space, equipment, supplies, utilities, phones, postage, personal computers and software, vehicles, transportation cost, conference fees (local-state-national-international), and per diem.

- Staffed and supported program administration will be responsible for managing the expansion, integration, development, and implementation of the FIREScope Program with agency support and commitment.
- In addition, is the responsibility to further develop and implement a budgetary process and program to meet goals and objectives. This includes maintenance, future funding, alternate sources of funding, and support from a multitude of agencies and programs.

**(Budgeted at 600,000)**

### ***EDUCATION/INFORMATION***

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Program Management elements will require the specific development of brochures, newsletters, and video programs which define and support the FIREScope Program goals, objectives, and accomplishments to solicit additional assistance and/or financial augmentation.

**(Budgeted at 30,000)**

### ***PARTICIPATING AGENCY SUPPORT***

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Fire agencies are an intricate element in the implementation plan for FIREScope, and without such involvement this comprehensive program will

never reach its desired goals. Monetary support to participating agencies that are involved in the specific program task projects (ICS-MACS-communications-mapping-others) is necessary to provide reimbursements for salary, per diem, travel, and other related expenses. This monetary support will support the multi-agency representation at all levels of the Decision Process.

(Budgeted at 1,000,000)

<b>PROGRAM ADMINISTRATION TOTAL:</b> <b>\$1,630,000</b>
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### **YEAR 3**

#### **INCIDENT COMMAND SYSTEM - ALL RISK (ICS)**

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##### *DEVELOPMENT*

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Identify and prioritize other fire service related "all risk" incidents that would require development of ICS organization, positional descriptions, duties, and requirements such as flood, crash/fire rescue, waterfront (harbor/marine), other. Develop the ICS organization, position descriptions, duties and responsibilities for fire service applications in identified Priority 1 placement. In concert with this is the development of supportive elements such as training courses, lesson plans, and audio visuals to ensure proper application.

(Budgeted at 75,000)

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##### *POSITION QUALIFICATIONS*

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With the implementation of ICS to fire service related "all risk" incidents in wild-land, multi-casualty, hazardous materials, earthquake, high rise, and Priority 1, develop fire service "all risk" position qualifications and acceptance by using agencies.

(Budgeted at 100,000)

<b>ICS TOTAL: \$175,000</b>
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### **YEAR 3**

## **MULTI-AGENCY COORDINATION SYSTEM (MACS)**

### **STATEWIDE OCC/MACS IMPLEMENTATION**

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Based on the design, implement the statewide OCC/MACS Program as approved; this could include:

- Site Location(s)
- Space requirements
- Communications requirements
- Communications hardware
- Computer hardware
- Computer software
- Office support systems
- Personnel requirements
- Operational procedures
- (Budgeted at 4,000,000)

<b>MACS TOTAL: \$4,000,000</b>
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### **YEAR 3**

## **COMMUNICATIONS**

### **FREQUENCY MANAGEMENT**

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The concept of radio frequency sharing needs to be taken statewide, but frequency use must be managed. Study and development of the statewide Frequency Management Plan will continue, be finalized and implemented.

(Budgeted at 75,000)

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### **STATEWIDE COMMUNICATIONS**

---

Study and development of the statewide Communications System will continue, and will include:

Agency - Agency

Agency - OCC

OCC - OCC

Incident - Agency

Incident - OCC

**(Budgeted at 75,000)**

<b>COMMUNICATIONS TOTAL: \$150,000</b>
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### **YEAR 3**

### **MAPPING**

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#### **MAINTENANCE**

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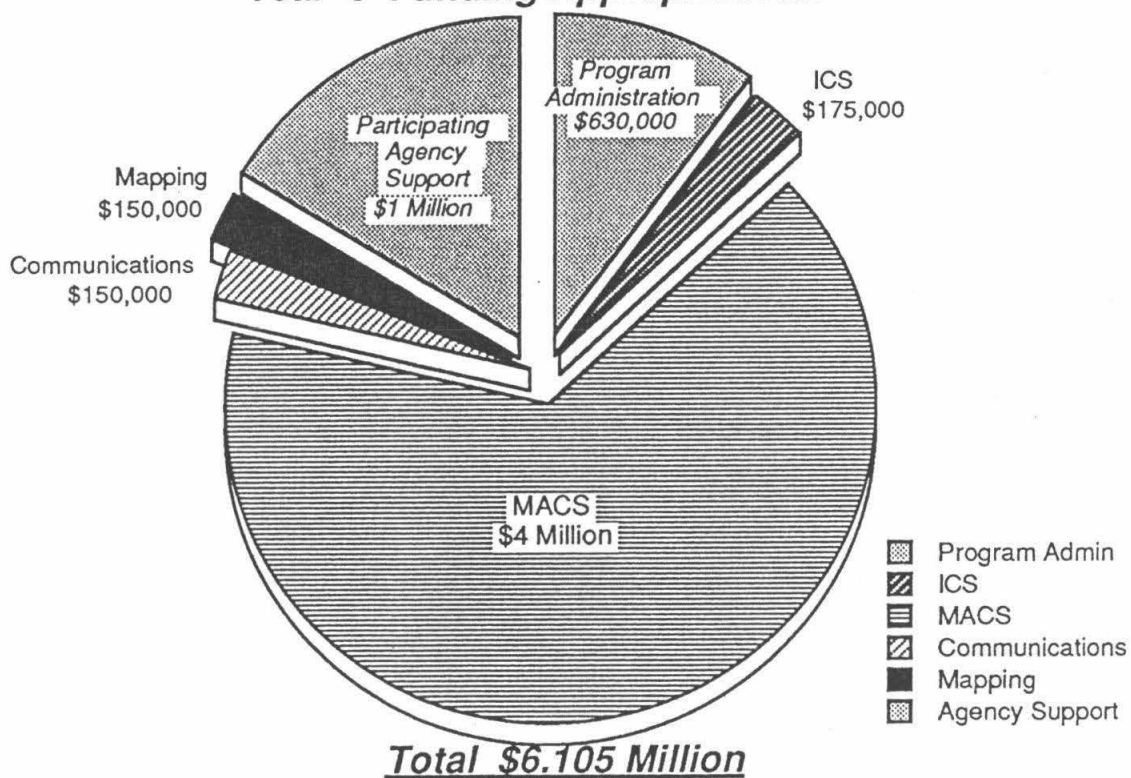
Maintain, evaluate, and acquire upgraded mapping products (ortho-photo, topographic) in sensitive areas statewide. This would include; build ups in wildland/urban interface areas, earthquake prone areas, dam inundation areas, major hazardous material location areas, nuclear impacted areas, etc.

**(Budgeted at 150,000)**

<b>MAPPING TOTAL: \$150,000</b>
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Proposed Five Year Expansion and Implementation Plan  
**Year 3 Funding Appropriations**



## ***PROGRAM PLAN***

### ***YEAR 4***

#### ***PROGRAM ADMINISTRATION***

##### ***STAFFING/PROGRAM MANAGEMENT***

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With a dedicated program administration staff (salary, benefits) there is a need to provide the logistical requirements to support the operation. Consideration must be given to provide adequate office space, equipment, supplies, utilities, phones, postage, personal computers and software, vehicles, transportation cost, conference fees (local-state-national-international), and per diem.

- Staffed and supported program administration will be responsible for managing the expansion, integration, development, and implementation of the FIREScope Program with agency support and commitment.
- In addition, is the responsibility to further develop and implement a budgetary process and program to meet goals and objectives. This includes maintenance, future funding, alternate sources of funding, and support from a multitude of agencies and programs.

**(Budgeted at 600,000)**

##### ***EDUCATION/INFORMATION***

---

Program Management elements will require the specific development of brochures, newsletters, and video programs which define and support the FIREScope Program goals, objectives, and accomplishments to solicit additional assistance and/or financial augmentation.

**(Budgeted at 30,000)**

##### ***PARTICIPATING AGENCY SUPPORT***

---

Fire agencies are an intricate element in the implementation plan for FIREScope, and without such involvement this comprehensive program will

never reach its desired goals. Monetary support to participating agencies that are involved in the specific program task projects (ICS-MACS-communications-mapping-others) is necessary to provide reimbursements for salary, per diem, travel, and other related expenses. This monetary support will support the multi-agency representation at all levels of the Decision Process.

(Budgeted at 1,000,000)

<b>PROGRAM ADMINISTRATION TOTAL:</b> <b>\$1,630,000</b>
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#### **YEAR 4**

### **INCIDENT COMMAND SYSTEM - ALL RISK (ICS)**

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#### *DEVELOPMENT*

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Identify and prioritize other fire service related "all risk" incidents that would require development of ICS organization, positional descriptions, duties, and requirements such as flood, crash/fire rescue, waterfront (harbor/marine), other. Develop the ICS organization, position descriptions, duties and responsibilities for fire service applications in identified Priority 2 placement. In concert with this is the development of supportive elements such as training courses, lesson plans, and audio visuals to ensure proper application.

(Budgeted at 75,000)

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#### *POSITION QUALIFICATIONS*

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Develop fire service "all risk" position qualifications and acceptance by using agencies for Priority 2 ICS development.

(Budgeted at 25,000)

<b>ICS TOTAL: \$100,000</b>
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## **YEAR 4**

### **MULTI-AGENCY COORDINATION SYSTEM (MACS)**

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#### **STATEWIDE OCC/MACS MAINTENANCE**

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Maintain the statewide OCC/MACS facility as approved and implemented. This includes operation, maintenance, and personnel responsibilities.

**(Budgeted at 600,000)**

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#### **TRAINING**

---

Develop the training courses and lesson plans for the identified OCC/MACS staff functions and responsibilities, this will include:

Organization

Job descriptions

Duties and responsibilities

**(Budgeted at 50,000)**

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#### **EXERCISE**

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Develop an OCC/MACS exercise format that would include:

Individual OCC operations

Multiple statewide OCC operations

Interaction with participating agency/systems operations

**(Budgeted at 50,000)**

<b>MACS TOTAL: \$700,000</b>
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## **YEAR 4**

### **COMMUNICATIONS**

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The statewide Communication System would be built as developed and designed during the first three years to include:

Agency - Agency

Agency - OCC

OCC - OCC

Incident - Agency

Incident - OCC

(Budgeted at 2,500,000)

COMMUNICATIONS TOTAL: \$2,500,000
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## **YEAR 4**

### **MAPPING**

#### **MAINTENANCE**

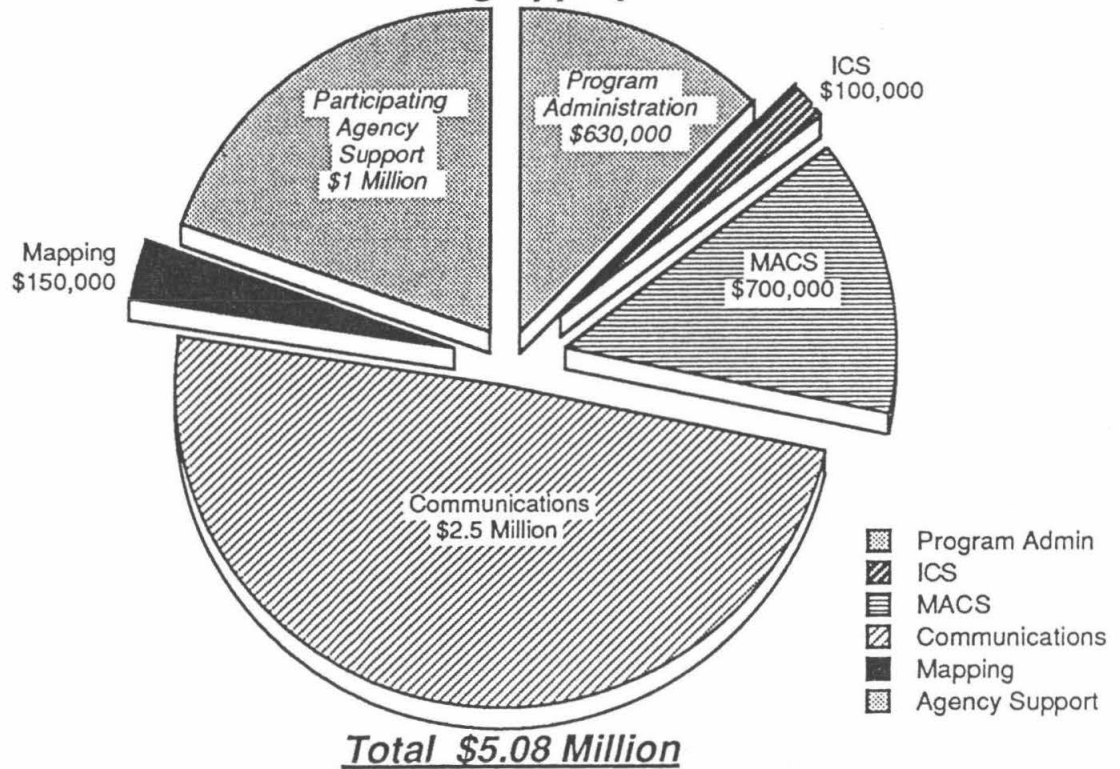
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Maintain, evaluate, and acquire upgraded mapping products (ortho-photo, topographic) in sensitive areas statewide. This would include; build ups in wildland/urban interface areas, earthquake prone areas, dam inundation areas, major hazardous material location areas, nuclear impacted areas, etc.

(Budgeted at 150,000)

MAPPING TOTAL: \$150,000
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Proposed Five Year Expansion and Implementation Plan  
**Year 4 Funding Appropriations**



## **PROGRAM PLAN**

### **YEAR 5**

#### **PROGRAM ADMINISTRATION**

##### **STAFFING/PROGRAM MANAGEMENT**

---

With a dedicated program administration staff (salary, benefits) there is a need to provide the logistical requirements to support the operation. Consideration must be given to provide adequate office space, equipment, supplies, utilities, phones, postage, personal computers and software, vehicles, transportation cost, conference fees (local-state-national-international), and per diem.

- Staffed and supported program administration will be responsible for managing the expansion, integration, development, and implementation of the FIREScope Program with agency support and commitment.
- In addition, is the responsibility to further develop and implement a budgetary process and program to meet goals and objectives. This includes maintenance, future funding, alternate sources of funding, and support from a multitude of agencies and programs.

**(Budgeted at 600,000)**

##### **EDUCATION/INFORMATION**

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Program Management elements will require the specific development of brochures, newsletters, and video programs which define and support the FIREScope Program goals, objectives, and accomplishments to solicit additional assistance and/or financial augmentation.

**(Budgeted at 30,000)**

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### *PARTICIPATING AGENCY SUPPORT*

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Fire agencies are an intricate element in the implementation plan for FIREScope, and without such involvement this comprehensive program will never reach its desired goals. Monetary support to participating agencies that are involved in the specific program task projects (ICS-MACS-communications-mapping-others) is necessary to provide reimbursements for salary, per diem, travel, and other related expenses. This monetary support will support the multi-agency representation at all levels of the Decision Process.

**(Budgeted at 1,000,000)**

<b>PROGRAM ADMINISTRATION TOTAL: \$1,630,000</b>
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### **YEAR 5**

### **INCIDENT COMMAND SYSTEM - ALL RISK (ICS)**

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#### *DEVELOPMENT*

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Identify and prioritize other fire service related "all risk" incidents that would require development of ICS organization, positional descriptions, duties, and requirements such as flood, crash/fire rescue, waterfront (harbor/marine), other. Develop the ICS organization, position descriptions, duties and responsibilities for fire service applications in identified Priority 3 placement. In concert with this is the development of supportive elements such as training courses, lesson plans, and audio visuals to ensure proper application.

**(Budgeted at 75,000)**



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### *POSITION QUALIFICATIONS*

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Develop fire service "all risk" position qualifications and acceptance by using agencies for Priority 3 ICS development.

(Budgeted at 25,000)

ICS TOTAL: \$100,000
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### *YEAR 5*

### *MULTI-AGENCY COORDINATION SYSTEM (MACS)*

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#### *STATEWIDE OCC/MACS MAINTENANCE*

---

Maintain the statewide OCC/MACS facility as approved and implemented. This includes operation, maintenance, and personnel responsibilities.

(Budgeted at 600,000)

MACS TOTAL: \$600,000
-----------------------

### *YEAR 5*

---

### *COMMUNICATIONS*

---

The statewide Communication System will be completed as developed and designed to include:

Agency - Agency  
Agency - OCC  
OCC - OCC  
Incident - Agency  
Incident - OCC

(Budgeted at 2,500,000)

COMMUNICATIONS TOTAL: \$2,500,000
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**YEAR 5**

**MAPPING**

**MAINTENANCE**

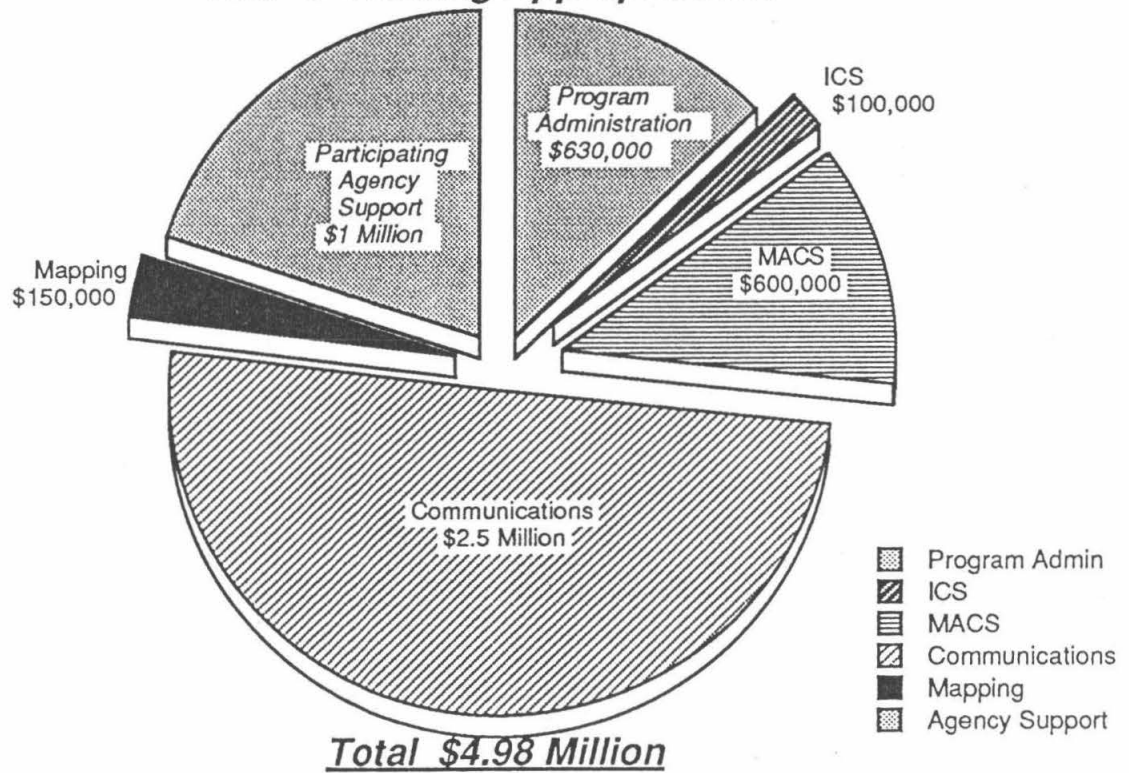
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Maintain, evaluate, and acquire upgraded mapping products (ortho-photo, topographic) in sensitive areas statewide. This would include; build ups in wildland/urban interface areas, earthquake prone areas, dam inundation areas, major hazardous material location areas, nuclear impacted areas, etc.

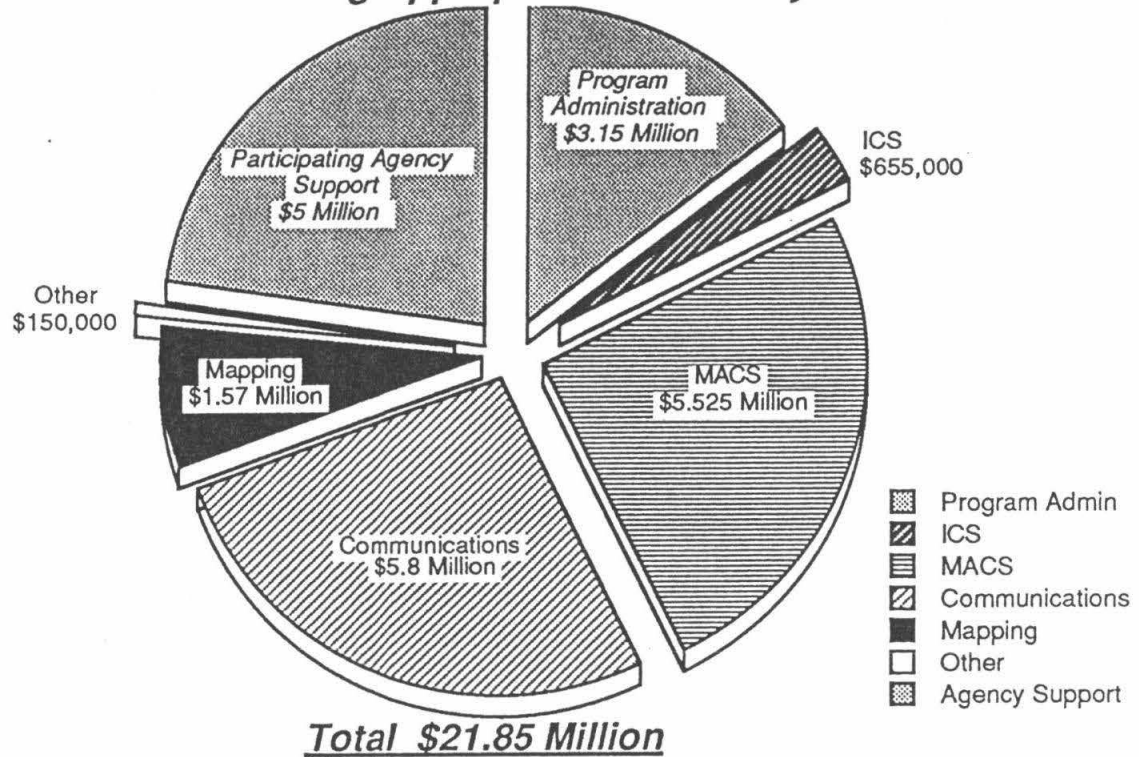
(Budgeted at 150,000)

<b>MAPPING TOTAL: \$150,000</b>
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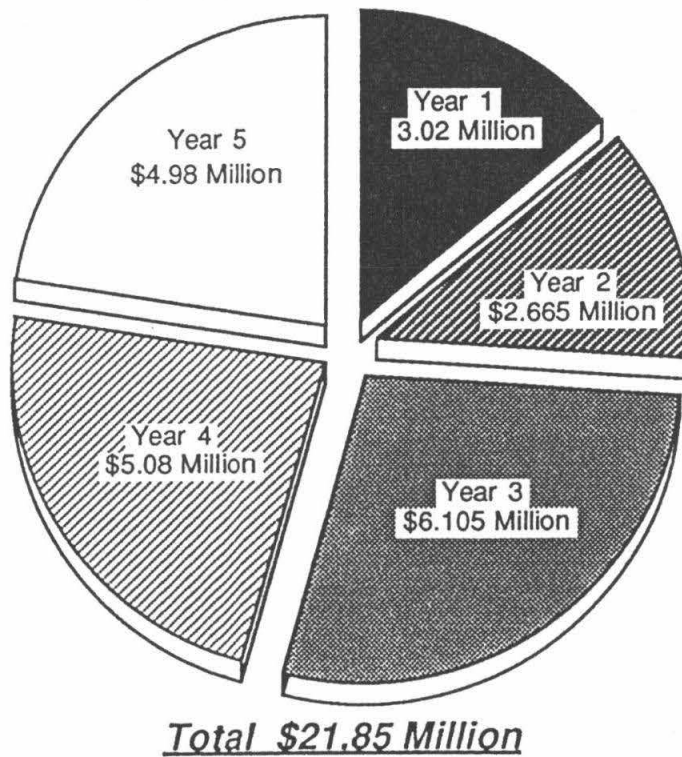
Proposed Five Year Expansion and Implementation Plan  
**Year 5 Funding Appropriations**



Proposed Five Year Expansion and Implementation Plan  
***Five Year Funding Appropriation Totals by Element***



***Funding Appropriation Totals by Year***



**PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN**  
**GENERIC PROJECT DEVELOPMENT, IMPLEMENTATION, AND MAINTENANCE**

	LEAD IN WORK	CONTRACT DEVELOP- MENT	REVIEW	CONTRACT AWARD PROCESS	CONTRACT/ TASK WORK	SPECIFIED REVIEWS	FINAL REVIEWS	IMPLE- MENTATION	MAIN- TENANCE
PROGRAM OFFICE									
ADVISORY COMMITTEE									
OPERATIONS TEAMS									
TASK FORCE									
SPECIALIST GROUPS									
	LEAD IN WORK	CONTRACT DEVELOP- MENT	REVIEW	CONTRACT AWARD PROCESS	CONTRACT/ TASK WORK	SPECIFIED REVIEWS	FINAL REVIEWS	IMPLE- MENTATION	MAIN- TENANCE

**LEAD IN WORK INCLUDES:**

DETERMINATION OF NEED  
 PROPOSALS  
 BRAIN STORMING

CONCEPTUALIZING  
 NEEDS ASSESSMENT  
 PRIORITIZATION  
 PERFORMANCE OBJECTIVES

## PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN

### I. COST

THREE OPTIONS WERE DISCUSSED IN REGARDS TO SUPPORTING THE GOALS AND OBJECTIVES OF THE PROGRAM.

A. CONTRACT COST ONLY

B. • CONTRACT COST

- PROGRAM TO FUND TRAVEL AND PER DIEM FOR PARTICIPATING AGENCIES.

C. • CONTRACT COST

- PARTICIPATING AGENCIES TOTALLY FUNDED TO SUPPORT PROGRAM.

THIS REPORT REFLECTS OPTION C.

### II. CONTRACT/CONTRACTOR PROGRAM RELATIONSHIP

A. PROGRAM ADMINISTRATION IS RESPONSIBLE TO MANAGE/OVERSEE ALL CONTRACTING TO SUPPORT THE PROGRAM. THIS INCLUDES LEAD IN WORK-DEVELOPMENT - REQUEST FOR PROPOSALS - ACCEPTANCE PROCESS - CONTRACTOR SELECTION PROCESS - AWARDING -REVIEWS - FINAL ACCEPTANCE OF CONTRACT WORK.

B. ALL CONTRACTS WILL REQUIRE PARTICIPATION OF THE DECISION PROCESS, FROM LEAD IN DEVELOPMENT TO FINAL ACCEPTANCE OF CONTRACT WORK.

C. THE PROGRAM MANAGER WILL ACT AS CONTRACTING OFFICER.

D. CONTRACTS AWARDED MUST IDENTIFY THE LEVELS OF THE DECISION PROCESS INVOLVED IN MEETING THE CONTRACT OBLIGATION.

E. CONTRACTS AWARDED MUST IDENTIFY THE AGENCY SUPPORT NECESSARY TO MEET CONTRACT OBLIGATIONS SUCH AS LEVEL OF TECHNICAL EXPERTISE, TIME COMMITMENT BY WEEK, LOCATION OF CONTRACT WORK, ETC.

## PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN

### I. PROGRAM ADMINISTRATION

#### A. PERSONNEL

1. PROGRAM ADMINISTRATOR
2. PROGRAM MANAGER
3. EXECUTIVE SECRETARY/ADMINISTRATIVE  
TECHNICIAN
4. MAPPING COORDINATOR

SUB-TOTAL

#### B. PROGRAM MANAGEMENT

1. MANAGE THE EXPANSION, INTEGRATION,  
DEVELOPMENT AND IMPLEMENTATION OF THE  
PROGRAM.
2. DEVELOP PLANS AND PROCEDURES TO ASSIST  
OTHER AGENCIES IN ADOPTION OF APPROVED  
TRAINING.
3. SUPPORT DEVELOPMENT AND OPERATION OF LOCAL  
INTERAGENCY GROUPS.
4. DEVELOP AND IMPLEMENT A BUDGETARY PROGRAM.

#### C. EDUCATION AND INFORMATION

#### D. SUPPORT TO PARTICIPATING AGENCIES

TOTALS

YR 1	YR 2	YR 3	YR 4	YR 5	COST
600	600	600	600	600	3.0 M
					*
					*
					*
30	30	30	30	30	150
1 M	1 M	1 M	1 M	1 M	5.0 M
1.63	1.63	1.63	1.63	1.63	8.15 M

\* WORK TO BE ACCOMPLISHED BY PROGRAM  
ADMINISTRATION PERSONNEL.



## PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN

### II. INCIDENT COMMAND SYSTEM

#### A. DEVELOP FIRE SERVICE ORGANIZATION AND POSITION DESCRIPTIONS FOR:

1. HAZARDOUS MATERIALS	20					20
2. EARTHQUAKE	20					20
3. HIGH RISE		25				25
4. OTHERS AS IDENTIFIED			30	30	30	90

#### B. DEVELOP TRAINING AND TRAINING MATERIALS FOR:

1. BASIC ICS (I-220)	30					30
2. MULTI-CASUALTY	35					35
3. HAZARDOUS MATERIALS	35					35
4. EARTHQUAKE	35					35
5. HIGH RISE		40				40
6. OTHERS AS IDENTIFIED			45	45	45	135

C. SYSTEM FOR MONITORING LESSON PLAN USAGE		20				20
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D. DEVELOP FIRE SERVICE ALL RISK QUALIFICATION SYSTEM			100	25	25	150
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E. DEVELOP SYSTEM FOR IDENTIFYING QUALIFIED INSTRUCTORS		20				20
---	--	----	--	--	--	----

TOTALS

YR 1	YR 2	YR 3	YR 4	YR 5	COST
175	105	175	100	100	655



## PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN

### III. MULTI-AGENCY COORDINATION SYSTEM (MACS)

	YR 1	YR 2	YR 3	YR 4	YR 5	COST
A. DEVELOP OCC/MACS GOALS, ALL RISK, FOR FIRE SERVICE STATEWIDE.	20					20
B. DEVELOP STATEWIDE OCC/MACS DESIGN AND PROCEDURES		150				150
C. IMPLEMENT STATEWIDE OCC/MACS.			4 M			4 M
D. MAINTAIN STATEWIDE OCC/MACS.				600	600	1.2 M
E. DEVELOP SOUTHERN CALIFORNIA OCC/ MACS OPERATIONAL PROCEDURES.		35				35
F. DEVELOP POSITIONAL DESCRIPTIONS FOR OCC/MACS STAFF FUNCTIONS.		20				20
G. DEVELOP MACS TRAINING AND EXERCISES.				100		100
H. CONDUCT MACS TRAINING AND EXERCISES.					**	
TOTALS	20	205	4 M	700	600	5.525 M

\*\* COST ABSORBED BY PARTICIPATING AGENCIES.

# *PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN*

## IV. COMMUNICATIONS

	YR 1	YR 2	YR 3	YR 4	YR 5	COST
A. DEVELOP A STATEWIDE FIRE SERVICE RADIO FREQUENCY MANAGEMENT PLAN.	75	75	75			225
B. SIX RADIO CACHES FOR ON-INCIDENT INTERAGENCY COMMUNICATIONS.		350				350
C. DEVELOP AND IMPLEMENT STATEWIDE FIRE SERVICE INTERAGENCY COMMUNICATION SYSTEM.	75	75	75	2.5 M	2.5 M	5.225 M
TOTALS	150	500	150	2.5 M	2.5 M	5.8 M



## VI. OTHER PROGRAMS

## B. REMOTE AUTOMATED WEATHER STATION (RAWS) NETWORK

### C. INFRARED IMAGERY \*\*\*\*

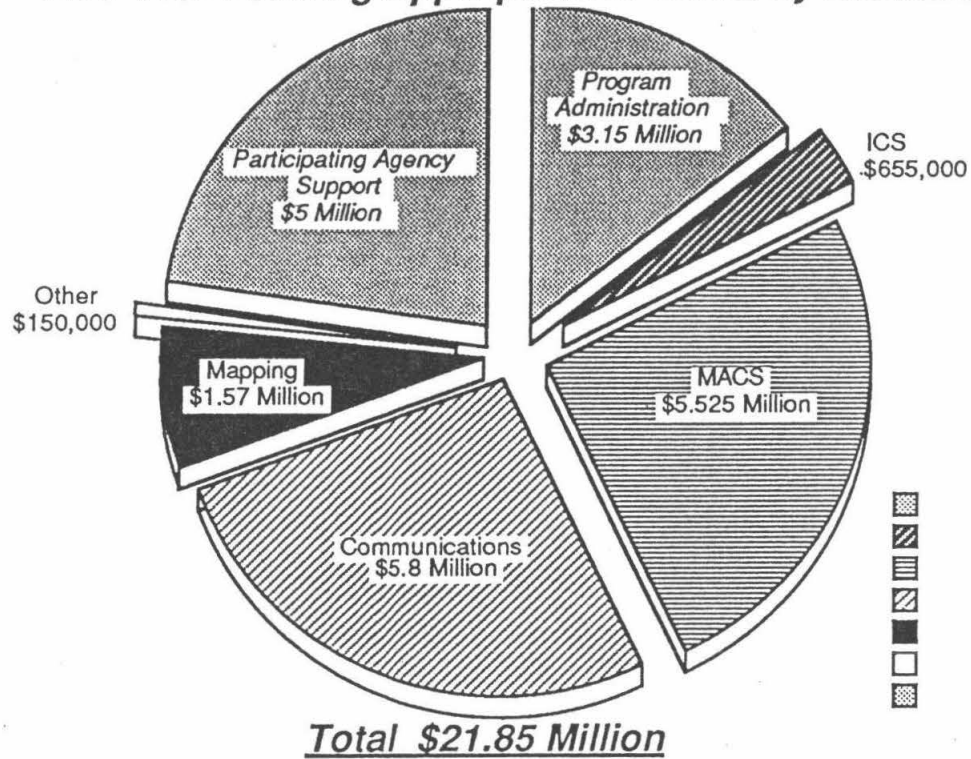
\*\*\*\* AS TECHNOLOGY IMPROVES, THESE WOULD NEED STUDY AND IMPLEMENTATION AS APPROPRIATE WITH ASSOCIATED COSTS.

TOTALS

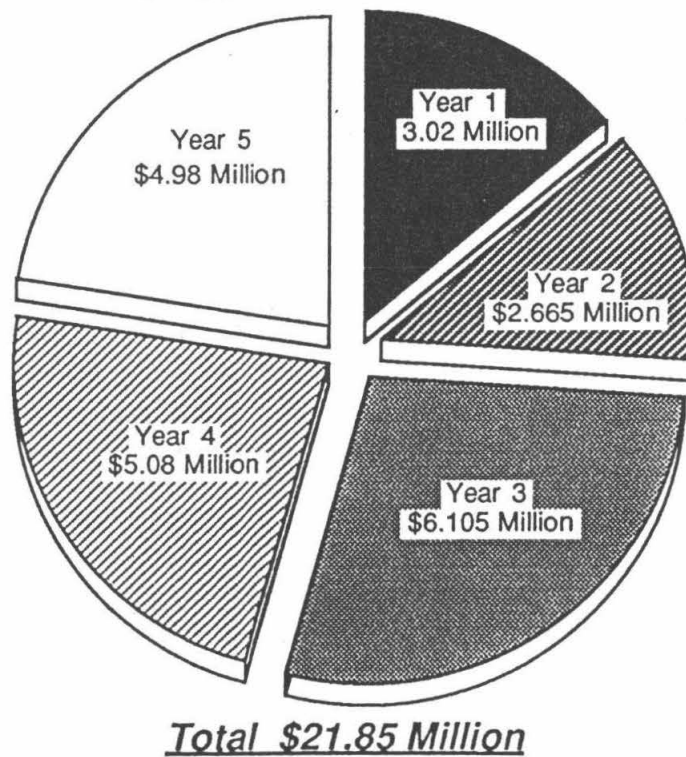
# PROPOSED FIVE YEAR FIRESCOPE EXPANSION AND IMPLEMENTATION PLAN

ELEMENT AND JOB/TASK	YR. 1	YR. 2	YR. 3	YR. 4	YR. 5	COST
I. PROGRAM ADMINISTRATION	1.63 M	1.63 M	1.63 M	1.63 M	1.63 M	8.15 M
II. INCIDENT COMMAND SYSTEM	175	105	175	100	100	655
III. MULTI-AGENCY COORDINATION SYSTEM	20	205	4 M	700	600	5.525 M
IV. COMMUNICATIONS	150	500	150	2.5 M	2.5 M	5.8 M
V. MAPPING	970	150	150	150	150	1.57 M
VI. OTHER	75	75				150
TOTALS	3.02	2.665	6.105	5.08	4.98	21.85 M

**Proposed Five Year Expansion and Implementation Plan  
Five Year Funding Appropriation Totals by Element**



**Funding Appropriation Totals by Year**



## ***FUNDING SUMMARY***

Today's funding requirement to maintain the operational responsibilities of the FIREScope Program, and the Southern California OCC, is shared by the Office of Emergency Services, Fire and Rescue Division (75%), and the United States Forest Service (25%) for hard dollars support. This total amount is \$425,000 for fiscal year 1987-88. In addition to this amount, participating agencies continue to support the program with direct and in-kind contributions (staffing - training - facilities - equipment). This is estimated to be in excess of 15 million dollars in the period from 1973 to 1987.

This plan in the proposed format requires \$21.85 million over a five year extension and implementation period. Because of the complexity of program requirements, parallel programs, supportive elements, and changing technology, a dedicated program administrative staff, education and information, and participating agency support are necessary each of the five years and totals \$1,630,000 per year.

Development, extension, and implementation of the proposed components require continued agency participation. This will ensure reliable and specific need identification and program requirements in a logical sequence.

The proposed budget funding, by each year, is inclusive of program administration requirements (1.63 M) and is:

YEAR 1	3.02 M
YEAR 2	2.665 M
YEAR 3	6.105 M
YEAR 4	5.08 M
YEAR 5	4.98 M

Approved and funded to the extent this proposal suggests would still require continued operational and maintenance funding of existing programs. In addition would be the responsibility to properly fund statewide operations and maintenance of implemented programs. These estimates may vary according

to the level of implementation of this program. This range could be from approximately \$500,000 to \$2,000,000 a year for each year after year five. Strong consideration should be given to continue the Program Administration component in this plan after year five to provide long term continuity, validity of implemented programs, and to research technologies and secure augmented support and funds. This would reflect the larger dollar amount in the range.

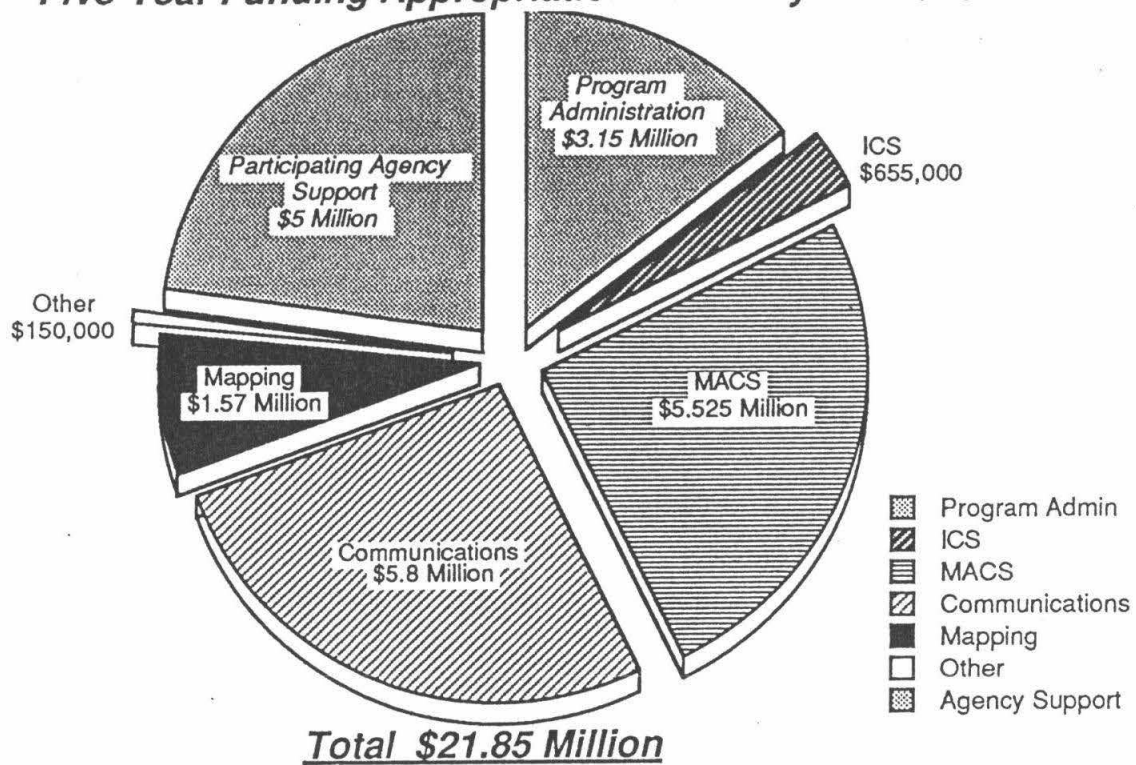
The complexity of this type of program and funding alternatives is overshadowed by the cooperation, commitment, and dedicated support of participating and using agencies. State sponsorship appears to be the continued method to secure the funding necessary and, as approved by the OES Fire and Rescue Service Advisory Committee/FIRESCOPE Board of Directors, as it relates to this plan.

Normal State budgetary processes within OES appears not to be an alternative to secure funding for this program. An envisioned negative situation would be associated with FIRESCOPE competing with existing OES programs and/or projected programs that would downgrade or lessen the importance of FIRESCOPE.

With this concern, the Decision Process, to the level of the Operations Teams, strongly suggests that this program seek legislative sponsorship and support. This must be a concerted effort in cooperation, coordination, and undivided support of OES, California Fire Chiefs Association, California State Firemen's Association, and other Federal, State, and local fire service agencies and organizations.



**Proposed Five Year Expansion and Implementation Plan  
Five Year Funding Appropriation Totals by Element**



**Funding Appropriation Totals by Year**

