



# FIRESCOPE COMMUNICATIONS SPECIALIST GROUP

APRIL 21-22, 2004  
SOUTH OPS - RIVERSIDE  
MINUTES

## Welcome and Introductions

Chief Bob Praytor (OES Fire & Rescue), Chief Dave Stone (LA County), and Chief Bill Plough (CDF) welcomed everyone to the meeting on behalf of the FIRESCOPE Task Force and Operations Team.

In Attendance -

Jim Arledge	Battalion Chief	Ventura County Fire
Mike Burton	Division Chief	Riverside County Fire
Brent Finster	Telecom. Manager	Contra Costa County Fire Chiefs Assoc.
Bob Harris	Technical Supervisor	USFS – F&AM – South Cache
Tim Henry	Battalion Chief	Fresno City Fire
Chris Hinshaw	Assistant Manager	San Diego Co.Sheriff/Imperial Valley Fire Chiefs Assoc.
Mike Gunderman	Electronics Technician	USFS – F&AM – South Cache (Alternate)
Craig Kinoshita	Battalion Chief	Orange County Fire
Peter Lawrence	Battalion Chief	Oceanside Fire
Frank McCarthy	Captain	LA County Fire
Tim McClelland	Assistant Chief	CDF South Ops
Denny Neville	Deputy Chief, ret.	Elfin Forest Fire
Kevin Nida	Battalion Chief	LA City Fire
Mark Rau	Management Analyst	City of Clovis (Alternate)
Don Root	Deputy Chief, Telecom.	OES Telecommunications
Jim Swanson	Captain	Santa Clara County Fire

Absent –

Don Stabler	Senior Dispatcher/Chair	CA Fire Chiefs Assoc. Communications North Sec.
Eric Martinez		USFS – San Bernardino NF
Gary Fisher	Fire Chief	Vista Fire
Lee Kraft	Captain	Clovis Fire (Alternate Mark Rau present)
Michael Urquides	Division Chief	Salinas Rural Fire
Tom Reaves	Fire Chief	Foster City Fire
Tom Tornell	Battalion Chief	Santa Clara County Fire

The current roster is attached to the end of this document. <Members should inform the Secretary of any changes and should note missing information identified by the fields highlighted in yellow.>

## Logistics

Chief Praytor, as host of the meeting, briefed those in attendance on the facility and agenda.

## Overview-FIRESCOPE Decision Process

Chief Praytor and Chief Stone described the history of the FIRESCOPE Decision Process as contained in MACS 410-4. The FIRESCOPE Communications Specialist Group is a standing committee that assists

the Task Force in the development, implementation, and maintenance of FIREScope products related to Communications.

### **Review of MACS Documents**

The FIREScope Communications Specialist Group is responsible for maintaining Appendix A of the FIREScope FOG (ICS 420-1). The current version is somewhat outdated due to changes over the last few years.

Realizing that there is considerable work that needs to be done to address technology and operational issues in regards to interoperability and other issues (the Blue Ribbon Commission report), it was determined that the best strategy was to clean up what absolutely had to be done on the tight printing schedule that exists. A disclaimer will be appropriate that FIREScope considers this to be a work in progress and additional information will be forthcoming via the website.

A considerable amount of time was then spent re-writing Appendix A ([see attached Annex #1](#)).

The Group recommends that the California Travel Channel Map be included in Appendix A.

### **Elections**

Per MACS 410-4, the Chair for a FIREScope Specialist Group is elected for a one-year term and the election will be held at the first meeting of each calendar year. The Chair is responsible for being a point of contact for the Task Force Liaison in coordination of work and exchange of information, scheduling of meetings, attending Task Force meetings and maintaining a current membership roster.

An election process was held for Communications Specialist Group officer positions. The following people were elected by acclamation:

Tim McClelland, Chair  
Craig Kinoshita, Vice-Chair  
Brent Finster, Secretary

### **Draft a Group Charter**

The Group reviewed the existing Group Charter and found that it needed significant updating. Those in attendance drafted a new Group Charter. The new Charter ([see attached Annex #2](#)) was approved by consensus and will be provided to Chief Stone for recommended approval by the FIREScope Task Force.

### **Determine Scope of Work**

The need to draft and adopt an annual Scope of Work was set aside due to other pressing business.

### **Assignments**

#### **Interoperability/CALSIEC-**

Don Root provided information about the California Statewide Interoperability Executive Council (CALSIEC). California is mandated by the FCC Rules to have a statewide governing board to coordinate public safety interoperability. OES is responsible for oversight of this initiative. CALSIEC was formed in the fall of 2003 and is still in its infant stages. There are ten working sub-groups within the CALSIEC organization, one of which is the Fire Service Working Group. The intent of the CALSIEC effort is to combine all of the existing interoperability concerns and issues into a single source document or plan. The next CALSIEC meeting is Wednesday, June 9, 2004 in the Sacramento area.

OES has determined that there need not be a new sub-group developed within CALSIEC to represent the Fire Service but that the Fire Service Working Group should actually be the same as the FIREScope Communications Specialist Group. Members present approved this concept.

Don requested that the FIREScope Communications Specialist Group identify two individuals to serve on the CALSIEC Executive Board. It should be noted that in addition to the two representatives from FIREScope, there will be two individuals from the California Fire Chiefs Association that will sit on the CALSIEC Executive Board representing the Fire Service as well. One will be Chief John Penido from San Marino Fire Department and the other will be Chief Randy Bradley of Lawrence-Livermore Lab Fire.

The Chair solicited nominations to represent FIREScope on the CALSIEC Executive Board. As a result, Brent Finster, representing the Northern portion of the State, and Kevin Nida, representing the Southern portion, were appointed to CALSIEC.

Don also provided information on the newly identified interoperability channels that will become available as of January 1, 2005.

Don volunteered to create a list server for CALSIEC Fire working group with a future link to the FIREScope website.

### **CDF/OES TK790 Group 3 Frequency List Review -**

Don Root presented the Group with the new CDF/OES channel plan. This plan is based on the Kenwood TK-790 mobile radio. The TK-790 is a 254 channel radio with several specific California-modifications including front panel Operator Selectable Tone selection and an on-the-fly Tactical/Command Group. Generally, Group 1 and Group 2 are used for the local CDF unit (OES uses Group 2 for OES-specific local government channels in the OES Engine fleet). Group 3, in either a CDF or OES radio, is a standard channel plan utilized for Mutual Aid.

There have been several modifications to the TK-790 Group 3 in preparation for the 2004 fire season. They include some narrowbanded channels (both Federal and State), new NIFC channels and channel names, new county/operational area mutual aid channels, an embedded programming version number accessible from the display, as well as some general error resolution and housekeeping cleanup.

There was discussion about the CDF/OES plan versus the FIREScope 32 channel minimum standard. This will be discussed in greater detail at future Group meetings.

### **Education to Fire Chiefs on 2004 Fire Season Communications Issues -**

Chief Praytor explained that OES was tasked by the FIREScope Board of Directors to distribute a white paper to the state's fire chiefs, prior to this fire season, to discuss the migration to narrowband and how that impacts local government Fire Service agencies.

The group drafted a document ([see attached Annex #3](#)) that will be recommended for distribution from OES Fire & Rescue Branch. In addition, the same language will be added to Appendix A of the FIREScope FOG when re-printed.

### **FIREScope Communications Technical Advisory Group -**

Chief Praytor requested that the Group identify members who could be available to answer technical questions that come thru the FIREScope website from fire service agencies. The Group formed a sub-group known as the Communications Technical Advisory Group (CTAG). The following individuals volunteered to be CTAG members: Mike Burton, Chris Hinshaw, Don Root, and Bob Harris.

### **Good of the Order -**

Don Root mentioned that the 16 tone plan was now standard for all federal, state and local agencies. In addition, for digital Project 25 radios, a standard 16 Network Access Code (NAC) list had also been developed.

The Group evaluated its representation and determined that additional membership opportunities should be extended to:

Bureau of Land Management  
National Park Service  
Tribal governments involved in the Fire Service

An agency's Fire Chief or department head must nominate individuals interested in Group membership by contacting Chief Praytor. The FIRESCOPE Task Force makes the final decision on Group membership.

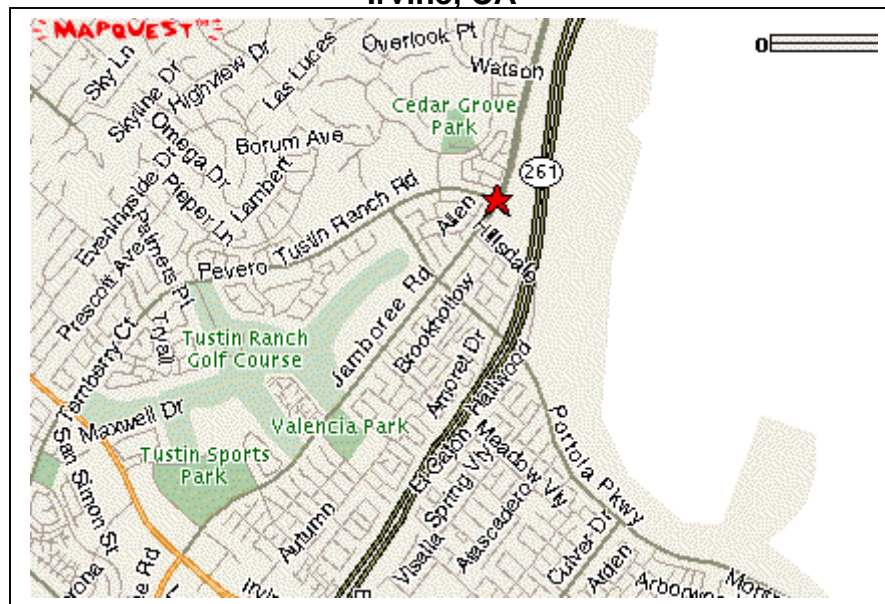
Tim McClelland informed the Group that Glen Savage is the new CDF Telecommunications Manager in Sacramento. Glen worked previously for the State Department of General Services and is familiar with the California Fire Service. To clarify, Command and Control issues regarding CDF will go thru North Ops Assistant Chief Cesar Partida or South Ops Assistant Chief Tim McClelland. Technical issues will go through Glen Savage at Sacramento headquarters.

### **Schedule Next Meeting**

The next meeting of the FIRESCOPE Communications Specialist Group is scheduled:

**June 7, 2004 1300 to 1700**  
and  
**June 8, 2004 0900 to 1700**

**Orange County Fire Authority  
One Fire Authority Road  
Irvine, CA**



**Agenda items for the next meeting should be sent to the FIRESCOPE Communications Specialist Group Secretary at email [bfinster@cccfd.org](mailto:bfinster@cccfd.org)**

## ANNEX #1

### FIRESCOPE RADIO COMMUNICATIONS GUIDELINES

FIRESCOPE Radio Communications Guidelines are derived from the Cooperative Agreements for Use of Radio Frequencies between fire service agencies of California allowing for mutual use of radio frequencies during mutual aid efforts.

There are 32 specific channels that should be pre-programmed into all radios utilized by fire service agencies providing mutual aid in California. See the FIRESCOPE STATEWIDE FREQUENCY CHANNEL PLAN on page A-3.

### IMPORTANT COMMUNICATIONS ISSUES FOR THE 2004 FIRE SEASON

Effective with the 2004 fire season, ALL VHF radios used on Federal and some State of California radio channels must be re-programmed.

The National Telecommunications and Information Administration (the Federal Government's frequency manager) has mandated that Federal agency VHF frequencies must be narrow-banded by January 1, 2005. Although the FCC rules provide that most state and local government frequencies are not required to be narrow-banded until sometime in the future, this migration affects state and local government agencies **immediately**.

During the fall of 2003, USFS started the process of narrow-banding all VHF communications systems. NIFC has implemented the same changes to the National Interagency Radio Support Cache. In addition to the federal changes, certain State of California frequencies have been converted to narrow-band operation.

It is imperative that qualified service personnel inspect all mobile and portable VHF radio communications equipment immediately in order to determine if it is capable of, and programmed for, narrow-band operation. Of particular importance is the inspection of all VHF radio equipment manufactured prior to January 1, 2000.

Any non-compliant radio equipment used on narrow-band channels may present a **life-safety hazard** for all users.

The FIRESCOPE Communications Specialist Group and the California Statewide Interoperability Executive Committee (CALSIEC) are formulating revised standards for radio equipment and frequency utilization to address interoperability concerns within the California Fire Service.

For additional information, check the FIRESCOPE website ([www.firescope.org](http://www.firescope.org)) regularly.

### GUIDELINES

1. While numerous frequencies can be pre-programmed into radios, it is important to note that in order to use those frequencies (including those frequencies listed in the FIRESCOPE STATEWIDE FREQUENCY CHANNEL PLAN) an agency: 1) must be licensed for those frequencies, or 2) must have a frequency use agreement or memorandum of understanding with the agency which is licensed for the frequencies, or 3) must be specifically authorized based on an approved ICS205 Incident Communications Plan.
2. Each agency requesting mutual aid will advise responding agencies of initial contact frequency for the incident. Generally these initial contact channels will be WHITE 1 or CALIFORNIA TRAVEL NET.

3. Local policy will dictate frequency assignments for an incident until an Incident Communications Plan is established.
4. The Communications Unit Leader (COML) is responsible for managing assigned frequencies. The COML must clear the use of local, state and federal frequencies with the controlling agencies prior to inclusion in an Incident Communications Plan.
5. Clear text (plain English) should be used for all communications. CODES SHALL NOT BE USED. Actual frequencies and channel names should be stated, e.g. "154.265, White 2", or "168.200, NIFC Tac 2". Channel numbers should not be used.
6. Data communications (i.e. automated or push button status keeping for "computer aided dispatch" [CAD] systems) shall not be used outside the local agency's normal area of operation.
7. Frequency (mobile) extenders shall not be used outside the local agency's normal area of operation.

#### **VHF (150-174 MHz) OPERATIONS**

The FIRESCOPE Radio Communications Guidelines were developed to assist California Fire Service agencies in buying and programming synthesized radios so as to maximize their effectiveness for Mutual Aid. The Guidelines are based on "VHF High Band" (150-174 MHz) as most of the California Fire Service operates in this band. Only certain frequencies are available for use statewide; these are the "White" Fire Mutual Aid channels, OES channels, CDF channels, and U.S. Forest Service (NIFC) channels, all of which are "VHF High Band."

These channels should be pre-programmed into all radios utilized by fire service agencies providing mutual aid in California:

**FIRESCOPE STATEWIDE FREQUENCY CHANNEL PLAN**

Channel ID	Receive and Xmit Direct	Repeater Transmit	Band-Width	Transmit Power	Usage Notes
WHITE 1	154.2800		WIDE	HIGH	1
WHITE 2	154.2650		WIDE	HIGH	1
WHITE 3	154.2950		WIDE	HIGH	1
CALCORD	156.0750		WIDE	HIGH	2
CDF COMMAND 1	151.3550	159.3000	WIDE	HIGH	3
CDF COMMAND 2	151.2650	159.3300	WIDE	HIGH	3
CDF COMMAND 3	151.3400	159.3450	WIDE	HIGH	3
CA TRAVEL NET	169.1250	168.3250	NARROW	HIGH	3, 4
OES 1	154.1600		WIDE	HIGH	
OES 2	154.2200		WIDE	HIGH	
CDF TAC 2	151.1600		WIDE	HIGH	
CDF TAC 10	151.4000		WIDE	HIGH	
NIFC COMMAND 1	168.7000	170.9750	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 2	168.1000	170.4500	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 3	168.0750	170.4250	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 4	166.6125	168.4000	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 5	167.1000	169.7500	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 6	168.4750	173.8125	NARROW	LOW	3, 4, 5, 6
NIFC COMMAND 7	162.9625	171.7875	NARROW	LOW	3, 4, 5, 6
NIFC TAC 1	168.0500		NARROW	LOW	4, 5, 6
NIFC TAC 2	168.2000		NARROW	LOW	4, 5, 6
NIFC TAC 3	168.6000		NARROW	LOW	4, 5, 6
NIFC TAC 4	164.1375		NARROW	LOW	4, 5, 6
NIFC TAC 5	166.7250		NARROW	LOW	4, 5, 6
NIFC TAC 6	166.7750		NARROW	LOW	4, 5, 6
NIFC TAC 7	168.2500		NARROW	LOW	4, 5, 6
USFS R5 TAC 4	173.9125		NARROW	LOW	5, 6
USFS R5 TAC 5	173.9625		NARROW	LOW	5, 6
USFS R5 TAC 6	173.9875		NARROW	LOW	5, 6
USFS AIR-GROUND	170.0000		NARROW	LOW	5, 6
CDF AIR-GROUND	151.2200		WIDE	LOW	5
BLM AIR-GROUND	167.9500		NARROW	LOW	5, 6

**USAGE NOTES:**

1. The White channels require individual agency licensing from the FCC. White Channel operational policies are outlined in OES Fire Operations Bulletin 28.
2. Use of CALCORD is subject to the CALCORD Plan, under an executed CALCORD agreement with OES. Contact OES Telecommunications (916-845-8630) for information.

3. Federal and State of California agencies use the following sixteen standard tones for repeater access. These must be included for repeater use. These tones must be programmed on the transmit side **only** of mobile and portable radios.

1. 110.9	2. 123.0	3. 131.8	4. 136.5
5. 146.2	6. 156.7	7. 167.9	8. 103.5
9. 100.0	10. 107.2	11. 114.8	12. 127.3
13. 141.3	14. 151.4	15. 162.2	16. 192.8

4. In order to program California Travel Net, all "Note 4" channels (NIFC Command and Tactical channels) must be programmed in the radio.
5. Transmitters are to be set to lowest available power setting on this frequency.
6. For use when assigned by an Incident. Incident COML's must obtain authorization for the use of these channels through the NIFC Communications Duty Officer (208-387-5644).

#### 800 MHz OPERATIONS

The following Interoperability Channels in the 800 MHz band are available for use by the California Fire Service:

Channel ID	Receive and Xmit Direct	Repeater Transmit	Usage Notes
Int'l Calling Channel (ICALL)	866.0125	821.0125	7
Int'l Tactical Channel 1 (ITAC 1)	866.5125	821.5125	7
Int'l Tactical Channel 2 (ITAC 2)	867.0125	822.0125	7
Int'l Tactical Channel 3 (ITAC 3)	867.5125	822.5125	7
Int'l Tactical Channel 4 (ITAC 4)	868.0125	823.0125	7
Statewide Fire / EMS Tactical (FIREMARS)	868.9875	823.9875	8
Northern CA Fire / EMS Tactical (FIREMARS 2)	866.9125	821.9125	8, 9

#### **USAGE NOTES:**

7. These channels are for inter-agency / inter-discipline use. No single-agency, routine communications permitted. Tone 6 (156.7 Hz.) is used as the International common tone (transmit and receive).
8. Use as a Fire and EMS single-agency or strike-team common channel is permitted. Tone 6 (156.7 Hz.) is used as the common tone (transmit and receive). Use is subject to an executed use agreement with OES. Contact OES Telecommunications (916-845-8630) for information.
9. Not available for use in Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties.



## **ANNEX #2**

### **FIRESCOPE COMMUNICATIONS SPECIALIST GROUP CHARTER**

#### **MISSION STATEMENT**

The FIRESCOPE Communications Specialist Group consists of communications technology, operations, and administrative professionals. The Group's mission is to improve communications from both an operational and technical perspective. The group achieves this mission by evaluating and making recommendations regarding existing and future wireless voice and data communications technologies and procedures to the FIRESCOPE Decision Process.

#### **RESPONSIBILITIES**

1. Evaluate existing and future technologies for application to the California Emergency Services
2. Facilitate communications interoperability
3. Serve as the Fire Service Working Group to the California Statewide Interoperability Executive Committee (CALSIEC)
4. Maintain a Communications Technical Advisory Group to act as a resource for California Emergency Service agencies regarding communications technology issues
5. Provide periodic reports for the FIRESCOPE Decision Process
6. Develop, review, and recommend plans, procedures, and standards related to Emergency Services communications
7. Develop, review, and recommend cooperative agreements
8. Maintain products developed by the FIRESCOPE Communications Specialist Group
9. Maintain coordination with other organizations and act as a conduit for information exchange
10. Perform other communications-related duties as assigned by the FIRESCOPE Task Force

#### **SUB-GROUPS**

Sub-groups will be established by the Group when appropriate.

#### **MEMBERSHIP**

Membership in the FIRESCOPE Communications Specialist Group will be representative of federal, tribal, state and local fire service agencies including OES Mutual Aid regions, cities and counties within California. Members will be responsible for achieving all elements of the Charter and the tasks contained in the annual Plan of Work. Participants in this category will be voting members and have authority and responsibility to speak for their agency in all matters relating to communications issues. Members are appointed to the Group by the FIRESCOPE Task Force.

The FIRESCOPE Task Force will provide a Liaison, and an Alternate Liaison, to the Communication Specialist Group. The Task Force Liaison will ensure close coordination with other implementation efforts and the Decision Process.

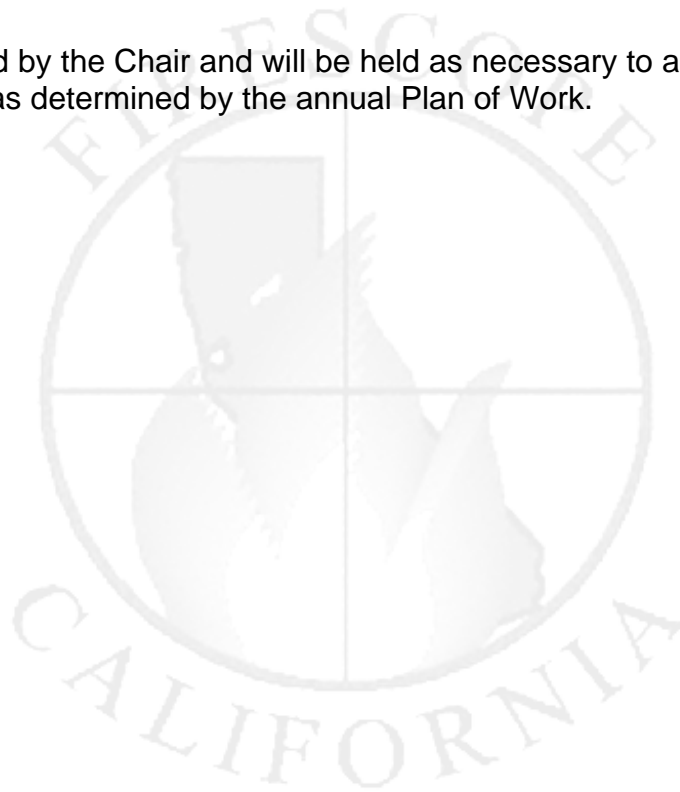
### OFFICERS

Officers of the FIRESCOPE Communications Specialist Group are the positions of Chair, Vice-Chair, and Secretary. Officers must be active members of the Group. Officers will be elected annually on a calendar year basis, January 1 to December 31.

The Chair will be responsible for managing the Group to accomplish the annual Plan of Work and reports in accordance with the FIRESCOPE Decision Process.

### MEETINGS

Meetings will be called by the Chair and will be held as necessary to accomplish the goals and objectives as determined by the annual Plan of Work.



## ANNEX #3

### IMPORTANT COMMUNICATIONS ISSUES FOR THE 2004 FIRE SEASON

Effective with the 2004 fire season, ALL VHF radios used on Federal and some State of California radio channels must be re-programmed.

The National Telecommunications and Information Administration (the Federal Government's frequency manager) has mandated that federal agency VHF frequencies must be narrow-banded by January 1, 2005. Although the FCC rules provide that most state and local government frequencies are not required to be narrow-banded until sometime in the future, this migration affects state and local government agencies **immediately**.

During the fall of 2003, USFS started the process of narrow-banding all VHF communications systems. NIFC has implemented the same changes to the National Interagency Radio Support Cache. In addition to the Federal changes, certain State of California frequencies have been converted to narrow-band operation.

It is imperative that qualified service personnel inspect all mobile and portable VHF radio communications equipment immediately in order to determine if it is capable of, and programmed for, narrow-band operation. Of particular importance is the inspection of all VHF radio equipment manufactured prior to January 1, 2000.

Any non-compliant radio equipment used on narrow-band channels may present a ***life-safety hazard*** for all users.

The FIRESCOPE Communications Specialist Group and the California Statewide Interoperability Executive Committee (CALSIEC) are formulating revised standards for radio equipment and frequency utilization to address interoperability concerns within the California Fire Service.

For additional information, check the FIRESCOPE website ([www.firescope.org](http://www.firescope.org)) regularly.