

AGENDA

Communications Advisory Committee

Date: August 14, 2007
Time: 1:00 P.M.
Place: Regional Fire Training Center Library
1220 Fire Science Lane
Modesto, California 95351

I. CALL MEETING TO ORDER

- 1.1 Welcome and Instructions by the committee chairperson
- 1.2 Roll Call

II. APPROVAL OF CONSENT CALENDAR

Items on Consent Calendar may be pulled from the Consent Calendar and discussed at the request of a Director.

- 2.1 Approval of Agenda - Approval of August's meeting agenda.
- 2.2 Approval of Minutes - Review and approval of minutes from July's meeting.

III. PUBLIC COMMENT PERIOD

- 3.1 As necessary

IV. AGENDA ITEMS

- 4.1 Discuss the CAD implementation (update).
- 4.2 Discuss the Countywide Radio Maintenance Contract (update).
- 4.3 Discuss the Countywide Paging Tones (Minitor Pagers, etc). SR-911 will have someone present to give explanation of paging tones, the problems we are having, and information on the issue.
- 4.4 Discuss the Countywide Radio Coverage Study (update).
- 4.5 Discuss the Countywide RMS System (update). Also includes One Stop Permitting project.
- 4.6 Discuss the Fire Frequency Sharing project (update).

V. ANNOUNCEMENTS

- 5.1 Next Regular Scheduled Meeting.

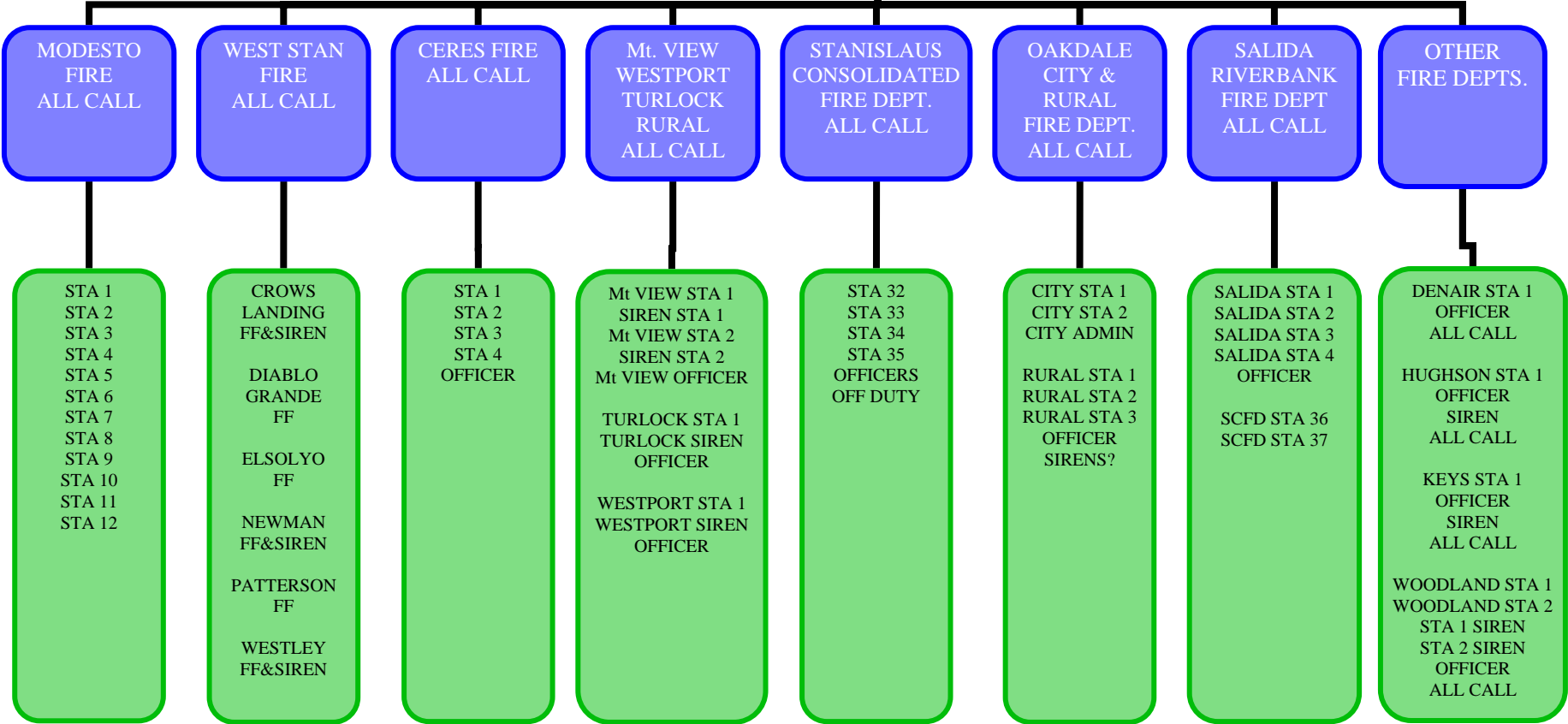
VI. CORRESPONDENCE

- 6.1 No correspondence submitted.

VII. ADJOURNMENT

INDIVIDUAL AGENCY	CONFIG	GROUP	REGION	CAP	A Tone	B Tone
County Wide All Call	All Agencies	All Agencies				
Burbank Paradise	Firefighter Officer		Central			
Ceres	Station 1 Station 2 Station 3 Station 4 Officer All call		Central Central Central Central			
Crows Landing	Firefighter Siren West Stan Officer	West Stan	West			
Denair	Firefighter Officer		South			
Diablo Grande	Firefighter West Stan Officer	West Stan	West			
El Solyo	Firefighter West Stan Officer	West Stan	West			
Hughson	Firefighter Officer Siren		Central			
Keyes	Firefighter Officer ? Siren		Central			
Mountain View Station 1	Station 1 FF Station 2 FF Officer All Call Station 1 Siren Station 2 Siren	MV/TR/Westport MV/TR/Westport	South South			
Newman	Firefighter West Stan Officer Siren????	West Stan	West			
Oakdale City	Station 1 Station 2 All Call Admin	OC/OR	East East			
Oakdale Rural	Station 1 FF Station 2 FF Station 3 FF All call Officer Sirens???	OC/OR	East East East			
Patterson	Firefighter West Stan Officer Siren???	West Stan	West			

SR911 FIRE DISPATCH
ALL CALL



PLAN TO RESTRUCTURE THE FIRE PAGING TONE SYSTEM WITIN STANISLAUS COUNTY

INTRODUCTON: The purpose of this plan is to increase the efficiency and flexibility of the fire alerting system used by fire agencies within Stanislaus County. As we sit at the cusp of fire frequency sharing, and the radio reprogramming associated with that plan, this seems like an optimal time to address the paging issue as well. This plan applies to all agencies dispatched through Stanislaus Regional 9-1-1.

BACKGROUND: Currently fire agency alerting, or paging is done using the paging scheme known as "two-tone sequential" paging. This system involves transmitting 'tones' at specific frequencies, which when used in combination open the squelch of a compatibly programmed voice pager such as the Motorola * Minitor.

In the past, fire fighter alert pagers were crystal controlled as to frequency. The frequency of "tones" received were decoded by a device attuned to vibrate at a specific frequency. When the proper tones were perceived the squelch was opened. This technology has been replaced by pagers which are EPROM programmable as to radio frequency and two-tone sequential frequency.

Our system currently uses tone combinations from several of Motorola's tone groups as well as tones from other vendors such as Plectron* and possibly others. This lack of consistency limits us from establishing 'all calls' and intra-district group calls. Also some of the tone frequencies currently employed on the low end of the spectrum are inefficient and contribute to individual pagers not unsquelching, which are realized as missed pages.

Our current system also utilizes numerous tones for some agencies, while using less tones for others. Where specific run cards require a multi-agency response, some dispatches necessitate the setting of numerous tones which consume a significant amount of air time. This is particularly problematic in greater alarm responses. Although the breakout of command channels through fire frequency sharing would greatly ease this burden in terms of talk back to the dispatch center, the issue of tones taking up recording time on pagers with the stored voice feature as well as the length of time agencies await to voicing of a response location remains. Contributing to this plethora of tones are the use of officer tones, firefighter tones, multiple firefighter group tones and "siren" tones.

RECOMMENDATIONS:

Improvements in pager technology such as EPROM programmable pagers and portables allows for great flexibility in system configuration and reconfiguration. As the vast majority of fire alerting pagers within the Stanislaus County fire system have been replaced with these programmable pagers, and with fire frequency sharing on the near horizon, now is an optimal time to improve our fire alerting system.

After evaluating our current fire alerting system, and in harmony with an ongoing overall improvement in our radio system, we recommend the following:

1) Adopt a standard and optimum tone group for all fire agencies within Stanislaus county.

a) Advantages:

- i) Consistent tone generation in the most efficient tone group for our needs.
- ii) Allows for a county wide all-call function as well as intra-district group calls.
- iii) Allows for group calling of agencies who frequently operate together.
- iv) Allows for easier future reconfiguration in the event of reorganization.

2) Standardize the tone paging format throughout agencies:

a) Advantages:

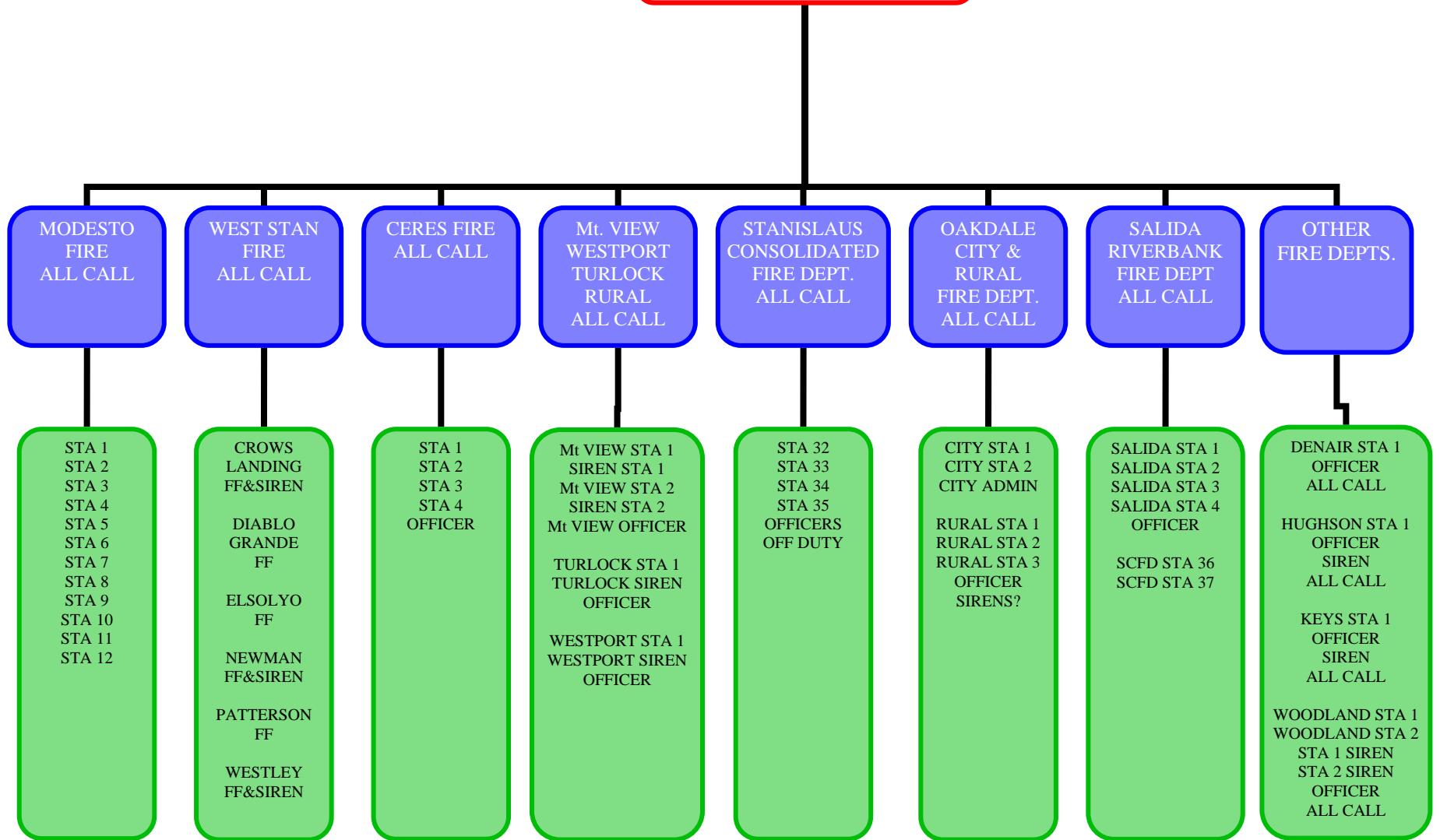
- i) New pager technology allows the user to select which of their own agency tones they wish to receive. A fire officer can decide if he/she wishes to receive officer and fire fighter notification or officer notification only, thus reducing unneeded sleep interruptions for chief/company officers not "on call". These are programmable options.
- ii) Minimizes the number of tones set during small and large scale dispatches, thus minimizing consumption of air time.
- iii) Group calls can be established encompassing neighboring districts who frequently operate together. For major incidents or greater alarms one tone can alert several districts who have previously entered into automatic aid agreements.
- iv) A county-wide 'all call' could be established for using during major or disaster operations.

3) Associate siren and apparatus bay door function with the firefighter tone.

a) Advantage:

- i) Less tones being set, thus less consumption of air time.
- ii) Depending on the hardware used in the station, each fire chief could select the activation of lights, radio speakers, opening station doors or activating station siren based. Additionally not setting a separate door or siren tone reduces the potential for human error.

SR911 FIRE DISPATCH
ALL CALL



CONCLUSION:

The advantages of county wide organization of fire alerting are evident in terms of efficiency and reduced tone time during incidents, especially incidents of a critical nature. Please evaluate the points presented and consider the potential improvements to our system.

Respectfully submitted:

APPENDIX A – COMMUNICATIONS

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 channels during mutual aid efforts.

VHF Highband is the default radio frequency band utilized by the California fire service. There are seventy (70) specific channels that should be preprogrammed into all VHF radios utilized by fire service agencies providing mutual aid in California (see the FIRESCOPE STATEWIDE CHANNEL PLAN).

Fire service agencies whose normal dispatch system is on a band other than VHF Highband should ensure that their mobile radios, portable radios, and dispatch centers are properly licensed and programmed to operate on the UHF and 800 MHz. interoperability channels contained within the FIRESCOPE STATEWIDE CHANNEL PLAN.

IMPORTANT COMMUNICATIONS ISSUES

Travel Net Change

CALIFORNIA TRAVEL NET channel is no longer to be used after January 1, 2007. The California Emergency Services Radio System (CESRS) may now be utilized as a travel net. Strike Teams or other resources in travel status should use the “CESRS Direct” talk-around channel for line-of-sight communications. Use of CESRS repeaters is limited to those circumstances when users are not able to make contact using CESRS Direct.

Narrow-Banding

All VHF radios used on Federal Government radio channels and some State of California radio channels should have already been re-programmed within the last two years to accommodate the transition to narrow-banding.

The National Telecommunications and Information Administration (the Federal Government’s frequency manager) mandated that the federal agency VHF frequencies 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 2013, this migration has already affected state and local government agencies. All federal agency channels (including USFS, BLM, NPS and the NIFC National Incident Radio Support Cache radios) are now narrow-banded. 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.

Radios that are not capable of narrow-band technology should be completely taken out-of-service and not placed into service by another fire service agency (e.g., donations, personal volunteer use, etc.). Any radios returned to the vendor or disposed of as surplus, should have all programming deleted or crystals removed.

GUIDELINES

1. While numerous radio channels can be preprogrammed into radios, it is important to note that in order to use those channels (including those channels listed in the FIRESCOPE STATEWIDE CHANNEL PLAN), an agency: 1) must be licensed to transmit on those frequencies, 2) must have a radio use agreement or Memorandum of Understanding with the agency that is licensed for the channels, or 3) must be specifically authorized based upon an approved Incident Radio Communications Plan (ICS Form 205).
2. Any agency requesting mutual aid will advise responding agencies of an initial contact channel for the incident. Generally, this initial contact channel will be WHITE 1. Incident Communications Centers (ICC's) and Staging Area Managers should monitor WHITE 1 or another specified initial contact channel to assist resources arriving at the incident.
3. Local policy will dictate radio channel assignments for an incident until a Communications Unit Leader (COML) establishes an Incident Radio Communications Plan (ICS Form 205).
4. The Incident Commander or, if assigned, the Communications Unit Leader is responsible for managing assigned radio channels and must clear the use of local, state and federal frequencies with the controlling agencies prior to inclusion in an Incident Radio Communications Plan (ICS Form 205).
5. Clear text (plain English) should be used for all communications. CODES SHALL NOT BE USED. Standardized channel names should be stated, e.g., "WHITE 2," or "NIFC TAC 2." Channel numbers corresponding to how a specific radio is programmed should not be used (e.g., "Channel 1," or "Channel A14").
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. Vehicular repeater systems (mobile extenders) shall not be used outside the local agency's normal area of operation.

8. The use of gateways (including portable, mobile or fixed) shall be limited to the smallest geographical area of coverage to meet the temporary needs of the incident. Gateways shall only be used on channels that are specifically licensed for that type of operation (e.g., temporary mobile relay) and must be specifically authorized based upon an approved Incident Radio Communications Plan (ICS Form 205), or be recognized as a fixed gateway included in the California Statewide Strategic Communications Interoperability Plan (CalSCIP).
9. Family Radio Service (FRS) radios are prohibited from use on Federal and State of California incidents.
10. The use of any frequency outside the agency's normal, licensed area of operation is prohibited by FCC rules and will likely cause harmful interference to other users (e.g., Strike Teams using a local tactical channel in a distant part of the state).

FIRESCOPE STATEWIDE CHANNEL PLAN

The FIRESCOPE Statewide Channel Plan was developed to assist California Fire Service agencies in buying and programming synthesized radios so as to maximize their effectiveness for mutual aid responses.

Regardless of the radio system used on a daily basis, all California Fire Service agencies should maintain an adequate number of VHF mobile and portable radios to support mutual aid operations. In addition to the VHF interoperability channels, UHF and 800 MHz. interoperability channels are also available to support mutual aid and all-risk incidents.

USAGE NOTES FOR ICS 217-A COMMUNICATIONS RESOURCE WORKSHEETS:

1. The WHITE channels require individual agency licensing from the FCC. WHITE channel operational policies are outlined in OES Fire Operations Bulletin 28 and/or the California Statewide Strategic Communications Interoperability Plan (CalSCIP). Contact OES Fire and Rescue for information.
2. Use of CALCORD is subject to the CALCORD Plan, under an executed CALCORD Agreement with OES and/or in accordance with the California Statewide Strategic Communications Interoperability Plan (CalSCIP). Contact OES Telecommunications 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. **Important** – Some radios do not function properly on the following channels: V-CALL, V-TAC 2, and V-TAC 4. Note: Communications Unit Leaders should not assign those specific channels for incident use if it is possible that Bendix-King EPH radios (including the current NIFC, CDF, and OES cache radios) might be utilized on their incident. Prior to use on an incident it is important to determine whether or not another manufacturer's radio models have V-CALL, V-TAC 2 or V-TAC 4 functioning problems.
5. Transmitters are to be set to lowest available power setting on these channels (V-TAC's, U-TAC's, CDF Tactical, NIFC Commands, NIFC Tactical, etc.).
6. Use of the NIFC Commands and NIFC Tactical is based upon an approved Incident Radio Communications Plan (ICS Form 205). Communications Unit Leaders must obtain authorization for the use of these channels through the NIFC Communications Duty Officer.
7. For use based upon an approved Incident Radio Communications Plan (ICS Form 205). Communications Unit Leaders must obtain authorization for the use of these channels through the CDF Southern Region/South Operations GACC or Northern Region Command Center/North Operations GACC.
8. Specific channel usage guidelines are still being determined, and will be published in the California Statewide Strategic Communications Interoperability Plan (CalSCIP). Until the CalSCIP is finalized, these channels are for inter-agency/inter-discipline use. No single-agency, routine communications permitted. Tone 6 (156.7 Hz.) is used as the common tone (mobile transmit side only at this time).
9. These channels are for inter-agency/inter-discipline use. No single-agency, routine communications permitted. Tone 6 (156.7 Hz.) is used as the common tone (transmit and receive).
10. Use as a fire and fire-based 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 until such time as the California Statewide Strategic Communications Interoperability Plan (CalSCIP) is finalized. Contact OES Telecommunications for information.
11. **Not available for use** in Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties.
12. AIRGUARD – 168.625 MHz. – A National Interagency Air Guard frequency for government aircraft assigned to incidents. It is used for emergency communications by aviation. A separate receiver is required to permit continuous monitoring in aircraft. Transmitters on this frequency should be equipped with an encoder on 110.9 Hz. All Incident Radio Communications Plans (ICS Form 205) on incidents that use federal or CAL FIRE aircraft should have AIR GUARD programmed in the last available channel slot of cache portable radios.

AIRGUARD is restricted to the following use:

- a. Air-to-air emergency contact and coordination
- b. Ground-to-air emergency contact
- c. Initial call, recall, and re-direction of aircraft when no other contact frequency is available

13. CALIFORNIA TRAVEL NET channel is no longer to be used after January 1, 2007. The California Emergency Services Radio System (CESRS) may now be utilized as a travel net. Strike Teams or other resources in travel status should use the CESRS DIRECT talk-around channel for line-of-sight communications. Use of CESRS repeaters is limited to those circumstances when users are not able to make contact using CESRS DIRECT.

NOTE: For additional information concerning the appropriate usage of channels identified in the FIRESCOPE STATEWIDE CHANNEL PLAN, contact OES Telecommunications or your respective Communications Unit Leader (COML).

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217-A 032307					Frequency Band VHF HIGHBAND	Description FIRESCOPE STATEWIDE CHANNEL PLAN – 2007				
					Page 1 of 5					
Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	N or W	RX Tone/NAC	TX Freq	N or W	Tx Tone/NAC	Mode	Remarks
Simplex – Base/Mo	WHITE 1	Fire	154.2800	W	None	Simplex		None	A	Usage Note 1
Simplex – Mo only	WHITE 2	Fire	154.2650	W	None	Simplex		None	A	Usage Note 1
Simplex – Mo only	WHITE 3	Fire	154.2950	W	None	Simplex		None	A	Usage Note 1
Simplex – Mo only	CALCORD	Any Public Safety	156.0750	W	None	Simplex		None	A	Usage Note 2
Simplex – Base/Mo	VCALL	Any Public Safety	155.7525	N	None	Simplex		156.7	A	Usage Note 4, 8
Simplex – Base/Mo	VTAC1	Any Public Safety	151.1375	N	None	Simplex		156.7	A	Usage Note 5, 8
Simplex – Base/Mo	VTAC2	Any Public Safety	154.4525	N	None	Simplex		156.7	A	Usage Note 4, 5, 8
Simplex – Base/Mo	VTAC3	Any Public Safety	158.7375	N	None	Simplex		156.7	A	Usage Note 5, 8
Simplex – Base/Mo	VTAC4	Any Public Safety	159.4725	N	None	Simplex		156.7	A	Usage Note 4, 5, 8
Simplex – Mo only	OES 1	Fire	154.1600	W	None	Simplex		None	A	
Simplex – Mo only	OES 2	Fire	154.2200	W	None	Simplex		None	A	
Simplex – Mo only	CESRS D	Multiple	153.7550	W	None	153.7550	W	None	A	Usage Note 13
Repeater Pair	CESRS	Multiple	153.7550	W	None	154.9800	W	Multi	A	Usage Note 3, 13
Repeater Pair	CDF C1	Fire	151.3550	W	None	159.3000	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C2	Fire	151.2650	W	None	159.3300	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C3	Fire	151.3400	W	None	159.3450	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C4	Fire	151.4000	W	None	159.3750	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C5	Fire	151.3700	W	None	159.2850	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C6	Fire	151.2500	W	None	159.3600	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C7	Fire	151.4600	W	None	159.3900	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C8	Fire	151.4450	W	None	159.3450	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C9	Fire	151.1750	W	None	159.4500	W	Multi	A	Usage Note 3, 7
Repeater Pair	CDF C10	Fire	151.1900	W	None	159.2250	W	Multi	A	Usage Note 3, 7
Simplex – Mo only	CDF T1	Fire	151.1450	N	None	Simplex		None	A	Usage Note 5, 7
Simplex – Mo only	CDF T2	Fire	151.1600	W	None	Simplex		None	A	Usage Note 5, 7

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217-A 032307					Frequency Band VHF HIGHBAND		Description FIRESCOPE STATEWIDE CHANNEL PLAN – 2007				
Page 2 of 5											
Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	N or W	RX Tone/NAC	TX Freq	N or W	Tx Tone/NAC	Mode	Remarks	
Simplex – Mo only	CDF T3	Fire	151.1750	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T4	Fire	151.1900	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T5	Fire	151.2500	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T6	Fire	151.3250	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T7	Fire	151.3400	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T8	Fire	151.3700	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T9	Fire	151.3850	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T10	Fire	151.4000	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T11	Fire	151.4450	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T12	Fire	151.4600	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T13	Fire	151.4750	N	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T14	Fire	159.2250	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T15	Fire	159.2700	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T16	Fire	159.2850	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T17	Fire	159.3150	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T18	Fire	159.3450	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T19	Fire	159.3600	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T20	Fire	159.3750	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T21	Fire	159.3900	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T22	Fire	159.4050	W	None	Simplex		None	A	Usage Note 5, 7	
Simplex – Mo only	CDF T23	Fire	159.4500	W	None	Simplex		None	A	Usage Note 5, 7	
Repeater Pair	NIFC C1	Fire	168.7000	N	None	170.9750	N	None	A	Usage Note 3, 5, 6	
Repeater Pair	NIFC C2	Fire	168.1000	N	None	170.4500	N	None	A	Usage Note 3, 5, 6	
Repeater Pair	NIFC C3	Fire	168.0750	N	None	170.4250	N	None	A	Usage Note 3, 5, 6	
Repeater Pair	NIFC C4	Fire	166.6125	N	None	168.4000	N	None	A	Usage Note 3, 5, 6	

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217-A 032307					Frequency Band VHF HIGHBAND	Description FIRESCOPE STATEWIDE CHANNEL PLAN – 2007				
					Page 3 of 5					
Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	N or W	RX Tone/NAC	TX Freq	N or W	Tx Tone/NAC	Mode	Remarks
Repeater Pair	NIFC C5	Fire	167.1000	N	None	169.7500	N	None	A	Usage Note 3, 5, 6
Repeater Pair	NIFC C6	Fire	168.4750	N	None	173.8125	N	None	A	Usage Note 3, 5, 6
Repeater Pair	NIFC C7	Fire	162.9625	N	None	171.7875	N	None	A	Usage Note 3, 5, 6
Simplex – Mo only	NIFC T1	Fire	168.0500	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T2	Fire	168.2000	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T3	Fire	168.6000	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T4	Fire	164.1375	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T5	Fire	166.7250	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T6	Fire	166.7750	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	NIFC T7	Fire	168.2500	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	FSR5 T4	Fire	173.9125	N	None	Simplex		None	A	Usage Note 5, 7
Simplex – Mo only	FSR5 T5	Fire	173.9625	N	None	Simplex		None	A	Usage Note 5, 7
Simplex – Mo only	FSR5 T6	Fire	173.9875	N	None	Simplex		None	A	Usage Note 5, 7
Simplex – Air/Mo	AIRGUARD	Fire	168.6250	N	None	Simplex		110.9	A	Usage Note 12
Simplex – Air/Mo	FS A/G	Fire	170.0000	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Air/Mo	BLM A/G	Fire	167.9500	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Air/Mo	CDF A/G	Fire	151.2200	N	None	Simplex		None	A	Usage Note 5
Simplex – Mo only	168.350	Federal Agencies	168.3500	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	163.100	Federal Agencies	163.1000	N	None	Simplex		None	A	Usage Note 5, 6
Simplex – Mo only	168.550	Federal Agencies	168.5500	N	None	Simplex		None	A	Usage Note 5, 6

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217-A 032307					Frequency Band UHF	Description FIRESCOPE STATEWIDE CHANNEL PLAN – 2007				
Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode	Remarks		
Repeater Pair	UCALL	Any Public Safety	453.2125 N	None	458.2125 N	156.7	A	Usage Note 8		
Repeater Pair	UTAC1	Any Public Safety	453.4625 N	None	458.4625 N	156.7	A	Usage Note 5, 8		
Repeater Pair	UTAC2	Any Public Safety	453.7125 N	None	458.7125 N	156.7	A	Usage Note 5, 8		
Repeater Pair	UTAC3	Any Public Safety	453.8625 N	None	458.8625 N	156.7	A	Usage Note 5, 8		
Simplex – Base/Mo	UCALLD	Any Public Safety	453.2125 N	None	Simplex	156.7	A	Usage Note 8		
Simplex – Base/Mo	UTAC1D	Any Public Safety	453.4625 N	None	Simplex	156.7	A	Usage Note 5, 8		
Simplex – Base/Mo	UTAC2D	Any Public Safety	453.7125 N	None	Simplex	156.7	A	Usage Note 5, 8		
Simplex – Base/Mo	UTAC3D	Any Public Safety	453.8625 N	None	Simplex	156.7	A	Usage Note 5, 8		

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217-A 032307 Page 5 of 5				Frequency Band 800 MHz. (prior to re-banding)		Description FIRESCOPE STATEWIDE CHANNEL PLAN – 2007			
Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode	Remarks	
Repeater Pair	ICALL	Any Public Safety	866.0125 W	156.7	821.0125 W	156.7	A	Usage Note 9	
Repeater Pair	ITAC1	Any Public Safety	866.5125 W	156.7	821.5125 W	156.7	A	Usage Note 9	
Repeater Pair	ITAC2	Any Public Safety	867.0125 W	156.7	822.0125 W	156.7	A	Usage Note 9	
Repeater Pair	ITAC3	Any Public Safety	867.5125 W	156.7	822.5125 W	156.7	A	Usage Note 9	
Repeater Pair	ITAC4	Any Public Safety	868.0125 W	156.7	823.0125 W	156.7	A	Usage Note 9	
Repeater Pair	FIREMARS	Fire and Fire Based - EMS	868.9875 W	156.7	823.9875 W	156.7	A	Usage Note 10	
Repeater Pair	FIREMARS 2	Fire and Fire Based - EMS	866.9125 W	156.7	821.9125 W	156.7	A	Usage Note 10, 11	
Simplex – Base/Mo	ICALLD	Any Public Safety	866.0125 W	156.7	Simplex	156.7	A	Usage Note 9	
Simplex – Base/Mo	ITAC1D	Any Public Safety	866.5125 W	156.7	Simplex	156.7	A	Usage Note 9	
Simplex – Base/Mo	ITAC2D	Any Public Safety	867.0125 W	156.7	Simplex	156.7	A	Usage Note 9	
Simplex – Base/Mo	ITAC3D	Any Public Safety	867.5125 W	156.7	Simplex	156.7	A	Usage Note 9	
Simplex – Base/Mo	ITAC4D	Any Public Safety	868.0125 W	156.7	Simplex	156.7	A	Usage Note 9	
Simplex – Base/Mo	FIREMARS D	Fire and Fire Based - EMS	868.9875 W	156.7	Simplex	156.7	A	Usage Note 10	
Simplex – Base/Mo	FIREMARS 2D	Fire and Fire Based - EMS	866.9125 W	156.7	Simplex	156.7	A	Usage Note 10, 11	

NOTE: After being re-banded, the NPSPAC national interoperability channels will be 15 MHz. lower. The California Statewide Interoperability Executive Committee (CALSIIEC) is considering the adoption of a national interoperability channel-naming standard.

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, portable or mobile radio. Repeater and base stations must be programmed with the Rx and Tx reversed.