



FIRESCOPE Radio Communications Guidelines

MACS 441-1

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This document contains information relative to the Incident Command System (ICS) component of the National Interagency Incident Management System (NIIMS). This is the same Incident Command System developed by FIRESCOPE.

Additional information and documentation can be obtained from the following resources:

OES FIRESCOPE OCC
Document Control
2524 Mulberry Street
Riverside, CA 92501-2200
(951) 782-4174
Fax (951) 782-4239
www.firescope.org

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 high band is the default radio frequency band utilized by the California fire service. There are one hundred (100) VHF channels that should be pre-programmed 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 high band should ensure that their mobile and portable radios and dispatch centers are properly programmed to operate on the UHF, 700 and 800 MHz interoperability channels contained within the FIRESCOPE STATEWIDE CHANNEL PLAN.

IMPORTANT COMMUNICATIONS ISSUES

Travel Channel

The **C**alifornia **E**mergency **S**ervices **R**adio **S**ystem (CESRS) is the only VHF statewide channel authorized for use as a Travel Channel within the State of California. As a Travel Channel, CESRS must be used in the Direct Mode for line-of-sight travel communications. Agencies with a need to contact a State ECC or OES resources during an emergency are authorized to use Repeat Mode.

Narrowbanding

ALL VHF and UHF radios **MUST** be narrowband compliant. Any non-compliant radio equipment used on narrowband channels may present a **life-safety hazard**. All radios that are not capable of narrowband technology **shall be** taken out-of-service and not placed into service by another fire service agency (e.g. donations, personal or 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/talkgroups can be pre-programmed into radios, it is important to note that in order to transmit on those channels/talkgroups (including channels listed in the FIRESCOPE STATEWIDE CHANNEL PLAN) the user: 1) must be authorized by the FCC or NTIA to transmit on those frequencies, 2) must have a radio use agreement or Memorandum of Understanding with the agency which is licensed for the channels, or 3) must be assigned to an incident with that channel/talkgroup listed on the 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, the initial contact channel will be VFIRE21. Incident Communications Centers (ICC's) and Staging Area Managers should monitor VFIRE21 or another specified initial contact channel to assist resources arriving at the incident.
3. Local policy will dictate radio channel/talkgroup assignments for an incident until a Communications Unit Leader (COML) establishes the 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/talkgroups 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/talkgroup names should be stated, e.g. "VFIRE22", or "NIFC Tac 2". Channel/talkgroup numbers corresponding to how a specific radio is programmed should not be used except if published in an IAP (e.g. "Channel 1", or "Channel A14").
6. When calling another unit/ICS position, the standard is to identify who you are calling first, followed by your call sign (e.g. "Engine 2111, Battalion 2104" or "Division B, Strike Team 6412C"). Recognize that on large mutual aid incidents, there may be several units with the same radio ID. In those cases, the agency name should also be used (e.g. Oceanside Engine 2111, Oceanside Battalion 2104").
7. 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.
8. Radio programming that enables data signaling (e.g. MDC1200 push-to-talk identification) is prohibited on interoperability channels (e.g. VFIRE22, VFIRE23, etc.)
9. Vehicular repeater systems (mobile extenders) **SHALL NOT** be used outside the local agency's normal area of operation.
10. 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/talkgroups 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 Communications Interoperability Plan (Cal-SCIP).
11. Family Radio Service (FRS) and Reim/Bendix King (BK) EPH radios are **prohibited** from use on Federal and State of California incidents. Use of any non-public safety radio (e.g. FRS, GMRS, etc.) or use of a frequency/talkgroup not identified on the Incident Radio Communications Plan (ICS Form 205) is prohibited.

- 12. The use of any frequency outside the agency’s normal, licensed area of operation is prohibited by FCC and NTIA rules and will likely cause harmful interference to other users (e.g. Strike Teams using a local channel in a distant part of the state). **The FCC will enforce this rule beginning 2015.**

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, 700 and 800 MHz interoperability channels are also available to support mutual aid and all-risk incidents.

USAGE NOTES for ICS 217A COMMUNICATIONS RESOURCE WORKSHEETS:

- 1. VFIRE channels are for fire/fire-based EMS inter-agency use. No single-agency/routine communications permitted. Tone 6 (156.7 Hz.) is used as the common tone (transmit and receive). Additional VFIRE operational policies are outlined in California’s Office of Emergency Services (OES) Fire Operations Bulletin #28 and the California Statewide Communications Interoperability Plan (Cal-SCIP).
- 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 Communications Interoperability Plan (Cal-SCIP). Contact OES Telecommunications for information.
- 3. The following **thirty-two** standard tones are used by the Fire Service in California for repeater access and/or tone protection in radios. However, if radios can only be programmed with 16 tones, then program tones 1 through 16.

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
17. 67.0	18. 71.9	19. 74.4	20. 77.0	21. 79.7	22. 82.5	23. 85.4	24. 88.5
25. 91.5	26. 94.8	27. 97.4	28. 118.8	29. 173.8	30. 179.9	31. 186.2	32. 203.5

- 4. Mobile transmitters are to be set to lowest available power setting* on; VFIRE’s, VTAC’s, UTAC’s, Cal-Fire Tac’s, NIFC Command and Tac’s and all Air-to-Ground channels, etc.
*Lowest available power setting means operations shall be at 10 watts or the lowest power setting above 10 watts available in the radio.

5. Use of the NIFC Command, Tactical and Logistics channels 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.
6. 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 Cal-Fire Southern Region/South Operations GACC or Northern Region Command Center/North Operations GACC.
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 common tone (transmit and receive).
8. **Not available for use** in Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties.
9. AIR GUARD – 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 channel **must** encode a CTCSS of 110.9 Hz. All Incident Radio Communications Plans (ICS Form 205) on incidents that use federal or Cal-Fire aircraft **SHALL** have AIR GUARD programmed in the last available channel slot of all portable radios. Communications Unit Leaders shall place AIR GUARD in channel slot 16 (Bendix-King GPH & DPH and other manufacturers who use 16 channels in a zone/group) and channel slot 20 (Bendix-King GPH-CMD and DPH-CMD).
AIR GUARD 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.
10. The **California Emergency Services Radio System (CESRS)** is the only VHF statewide channel authorized for use as a Travel Channel within the State of California. As a Travel Channel, CESRS must be used in the Direct Mode for line-of-sight travel communications. Agencies with a need to contact a State ECC or OES resources during an emergency are authorized to use Repeat Mode.
11. Users with radios that are capable of switching between direct and repeat should program the repeat channel (and not two separate channels, a direct channel and a repeat channel).
12. Users with radios that are NOT capable of switching between direct and repeat should program both the repeater and direct version of each repeated channel and place a “D” in the display to identify the direct version.

13. Radios **shall** be programmed so as to enable the end-user with the ability to choose from the first 16 (minimum) or all 32 (preferably) CTCSS tones listed in Usage Note #3 [e.g. Channel Guard (CG), Operator Selectable Tone (OST), Multiple Private Line (MPL), etc.].
14. Cal-OES and the FIREScope Communications Specialist Group are no longer authorized to publish Federal frequencies not identified as National Interoperability channels. These radio frequency assignments are Freedom of Information Act (FOIA) release exempt and are to be protected as Sensitive but Unclassified (SBU) data. To obtain frequency information for this channel, please contact your OES Region Assistant Chief.

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 217A	Frequency Band	Description
	VHF HIGH BAND	FIRESCOPE STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
1	Simplex – Air/Mo	AIRGUARD	EMERGENCY ONLY	168.6250	CSQ	168.6250	Tone 1 110.9	N	H	A	Usage Note 9
2	Simplex – Mo only	CALCORD	Cal-OES	156.0750	Tone 6 156.7	156.0750	Tone 6 156.7	N	H	A	Usage Note 2
3	Simplex – Air/Mo	CDF A/G 1	Cal-Fire	151.2200	CSQ	151.2200	Tone 16 192.8	N	L	A	Usage Note 4
4	Simplex – Air/Mo	CDF A/G 2	Cal-Fire	159.2625	Tone 16 192.8	159.2625	Tone 16 192.8	N	L	A	Usage Note 4 NEW FREQ 2015
5	Simplex – Air/Mo	CDF A/G 3	Cal-Fire	159.3675	Tone 16 192.8	159.3675	Tone 16 192.8	N	L	A	Usage Note 4 NEW FREQ 2015
6	Repeater Pair	CDF C-1	Cal-Fire	151.3550	Tone 8 103.5	159.3000	OST	N	H	A	Usage Note 3, 6, 11, 13
7	Repeater Pair	CDF C-2	Cal-Fire	151.2650	Tone 8 103.5	159.3300	OST	N	H	A	Usage Note 3, 6, 11, 13
8	Repeater Pair	CDF C-3	Cal-Fire	151.3400	Tone 8 103.5	159.3450	OST	N	H	A	Usage Note 3, 6, 11, 13
9	Repeater Pair	CDF C-4	Cal-Fire	151.4000	Tone 8 103.5	159.3750	OST	N	H	A	Usage Note 3, 6, 11, 13
10	Repeater Pair	CDF C-5	Cal-Fire	151.3175	Tone 8 103.5	159.3525	OST	N	H	A	Usage Note 3, 6, 11, 13
11	Repeater Pair	CDF C-6	Cal-Fire	151.2500	Tone 8 103.5	159.3600	OST	N	H	A	Usage Note 3, 6, 11, 13
12	Repeater Pair	CDF C-7	Cal-Fire	151.4600	Tone 8 103.5	159.3900	OST	N	H	A	Usage Note 3, 6, 11, 13
13	Repeater Pair	CDF C-8	Cal-Fire	151.4450	Tone 8 103.5	159.3450	OST	N	H	A	Usage Note 3, 6, 11, 13
14	Repeater Pair	CDF C-9	Cal-Fire	151.1750	Tone 8 103.5	159.4500	OST	N	H	A	Usage Note 3, 6, 11, 13
15	Repeater Pair	CDF C-10	Cal-Fire	151.1900	Tone 8 103.5	159.2250	OST	N	H	A	Usage Note 3, 6, 11, 13
16	Repeater Pair	CDF C-11	Cal-Fire	151.1675	Tone 8 103.5	159.3975	OST	N	L	A	Usage Note 3, 6, 11, 13 NEW FREQ 2015
17	Simplex – Mo only	CDF T-1	Cal-Fire	151.1450	Tone 16 192.8	151.1450	Tone 16 192.8	N	L	A	Usage Note 4, 6
18	Simplex – Mo only	CDF T-2	Cal-Fire	151.1600	Tone 16 192.8	151.1600	Tone 16 192.8	N	L	A	Usage Note 4, 6
19	Simplex – Mo only	CDF T-3	Cal-Fire	151.1750	Tone 16 192.8	151.1750	Tone 16 192.8	N	L	A	Usage Note 4, 6
20	Simplex – Mo only	CDF T-4	Cal-Fire	151.1900	Tone 16 192.8	151.1900	Tone 16 192.8	N	L	A	Usage Note 4, 6

The convention calls for frequency lists to show four digits after the decimal place (five digits for 700 MHz frequencies). "N" or a "W" depending on whether the frequency is narrow or wide band. Mode refers to either "A" (Analog), "D" (Digital i.e. P25) or "M" (Mixed) mode. All channels are shown as if programmed in a control station, mobile or portable radio. Portable repeater(s) and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	VHF HIGH BAND	FIRESCOPE STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
21	Simplex – Mo only	CDF T-5	Cal-Fire	151.2500	Tone 16 192.8	151.2500	Tone 16 192.8	N	L	A	Usage Note 4, 6
22	Simplex – Mo only	CDF T-6	Cal-Fire	151.3250	Tone 16 192.8	151.3250	Tone 16 192.8	N	L	A	Usage Note 4, 6
23	Simplex – Mo only	CDF T-7	Cal-Fire	151.3400	Tone 16 192.8	151.3400	Tone 16 192.8	N	L	A	Usage Note 4, 6
24	Simplex – Mo only	CDF T-8	Cal-Fire	151.3700	Tone 16 192.8	151.3700	Tone 16 192.8	N	L	A	Usage Note 4, 6
25	Simplex – Mo only	CDF T-9	Cal-Fire	151.3850	Tone 16 192.8	151.3850	Tone 16 192.8	N	L	A	Usage Note 4, 6
26	Simplex – Mo only	CDF T-10	Cal-Fire	151.4000	Tone 16 192.8	151.4000	Tone 16 192.8	N	L	A	Usage Note 4, 6
27	Simplex – Mo only	CDF T-11	Cal-Fire	151.4450	Tone 16 192.8	151.4450	Tone 16 192.8	N	L	A	Usage Note 4, 6
28	Simplex – Mo only	CDF T-12	Cal-Fire	151.4600	Tone 16 192.8	151.4600	Tone 16 192.8	N	L	A	Usage Note 4, 6
29	Simplex – Mo only	CDF T-13	Cal-Fire	151.3775	Tone 16 192.8	151.3775	Tone 16 192.8	N	L	A	Usage Note 4, 6
30	Simplex – Mo only	CDF T-14	Cal-Fire	159.2250	Tone 16 192.8	159.2250	Tone 16 192.8	N	L	A	Usage Note 4, 6
31	Simplex – Mo only	CDF T-15	Cal-Fire	159.2700	Tone 16 192.8	159.2700	Tone 16 192.8	N	L	A	Usage Note 4, 6
32	Simplex – Mo only	CDF T-16	Cal-Fire	159.2850	Tone 16 192.8	159.2850	Tone 16 192.8	N	L	A	Usage Note 4, 6
33	Simplex – Mo only	CDF T-17	Cal-Fire	159.3150	Tone 16 192.8	159.3150	Tone 16 192.8	N	L	A	Usage Note 4, 6
34	Simplex – Mo only	CDF T-18	Cal-Fire	159.3450	Tone 16 192.8	159.3450	Tone 16 192.8	N	L	A	Usage Note 4, 6
35	Simplex – Mo only	CDF T-19	Cal-Fire	159.3600	Tone 16 192.8	159.3600	Tone 16 192.8	N	L	A	Usage Note 4, 6
36	Simplex – Mo only	CDF T-20	Cal-Fire	159.3750	Tone 16 192.8	159.3750	Tone 16 192.8	N	L	A	Usage Note 4, 6
37	Simplex – Mo only	CDF T-21	Cal-Fire	159.3900	Tone 16 192.8	159.3900	Tone 16 192.8	N	L	A	Usage Note 4, 6
38	Simplex – Mo only	CDF T-22	Cal-Fire	159.4050	Tone 16 192.8	159.4050	Tone 16 192.8	N	L	A	Usage Note 4, 6
39	Simplex – Mo only	CDF T-23	Cal-Fire	159.4500	Tone 16 192.8	159.4500	Tone 16 192.8	N	L	A	Usage Note 4, 6
40	Simplex – Mo only	CDF T-24	Cal-Fire	151.3175	Tone 16 192.8	151.3175	Tone 16 192.8	N	L	A	Usage Note 4, 6

The convention calls for frequency lists to show four digits after the decimal place (five digits for 700 MHz frequencies). "N" or a "W" depending on whether the frequency is narrow or wide band. Mode refers to either "A" (Analog), "D" (Digital i.e. P25) or "M" (Mixed) mode. All channels are shown as if programmed in a control station, mobile or portable radio. Portable repeater(s) and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A					Frequency Band				Description		
					VHF HIGH BAND				FIRESCOPE STATEWIDE CHANNEL PLAN 2015		
Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
41	Simplex – Mo only	CDF T-25	Cal-Fire	159.3525	Tone 16 192.8	159.3525	Tone 16 192.8	N	L	A	Usage Note 4, 6
42	Simplex – Mo only	CDF T-26	Cal-Fire	159.2925	Tone 16 192.8	159.2925	Tone 16 192.8	N	L	A	Usage Note 4, 6 NEW FREQ 2015
43	Simplex – Mo only	CDF T-27	Cal-Fire	159.3075	Tone 16 192.8	159.3075	Tone 16 192.8	N	L	A	Usage Note 4, 6 NEW FREQ 2015
44	Simplex – Mo only	CDF T-28	Cal-Fire	151.1825	Tone 16 192.8	151.1825	Tone 16 192.8	N	L	A	Usage Note 4, 6 NEW FREQ 2015
45	Simplex – Mo only	CDF T-29	Cal-Fire	151.3475	Tone 16 192.8	151.3475	Tone 16 192.8	N	L	A	Usage Note 4, 6 NEW FREQ 2015
46	Repeater Pair	CESRS	Cal-OES	153.7550	Tone 16 192.8	154.9800	OST	N	H	A	Usage Note 3, 10, 13
47	Simplex – Mo only	CESRS-D	CA Travel Net	153.7550	CSQ	153.7550	NONE	N	H	A	Usage Note 10
48	Repeater Pair	NIFC C-1	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
49	Repeater Pair	NIFC C-2	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
50	Repeater Pair	NIFC C-3	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
51	Repeater Pair	NIFC C-4	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
52	Repeater Pair	NIFC C-5	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
53	Repeater Pair	NIFC C-6	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
54	Repeater Pair	NIFC C-8	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
55	Repeater Pair	NIFC C-9	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
56	Repeater Pair	NIFC C-10	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
57	Repeater Pair	NIFC C-11	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
58	Repeater Pair	NIFC C-12	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 11, 13, 14
59	Simplex – Mo only	NIFC T-1	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14
60	Simplex – Mo only	NIFC T-2	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14

The convention calls for frequency lists to show four digits after the decimal place (five digits for 700 MHz frequencies). "N" or a "W" depending on whether the frequency is narrow or wide band. Mode refers to either "A" (Analog), "D" (Digital i.e. P25) or "M" (Mixed) mode. All channels are shown as if programmed in a control station, mobile or portable radio. Portable repeater(s) and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A						Frequency Band				Description	
						VHF HIGH BAND				FIRESCOPE STATEWIDE CHANNEL PLAN 2015	
Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
61	Simplex – Mo only	NIFC T-3	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14
62	Simplex – Mo only	NIFC T-5	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14
63	Simplex – Mo only	NIFC T-6	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14
64	Simplex – Mo only	NIFC T-7	NIFC/NIRSC	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 5, 13, 14
65	Repeater Pair	OES 1A	Cal-OES "Fire Net"	154.1600	CSQ	159.1350	OST	N	H	A	Usage Note 3, 11, 13
66	Repeater Pair	OES 1B	Cal-OES "Fire Net"	154.1600	CSQ	159.1950	OST	N	H	A	Usage Note 3, 11, 13
67	Repeater Pair	OES 2A	Cal-OES "Fire Net"	154.2200	CSQ	159.1350	OST	N	H	A	Usage Note 3, 11, 13
68	Repeater Pair	OES 2B	Cal-OES "Fire Net"	154.2200	CSQ	159.1950	OST	N	H	A	Usage Note 3, 11, 13
69	Simplex – Air/Mo	A/G 08	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
70	Simplex – Air/Mo	A/G 14	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
71	Simplex – Air/Mo	A/G 24	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
72	Simplex – Air/Mo	A/G 41	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
73	Simplex – Air/Mo	A/G 43	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
74	Simplex – Air/Mo	A/G 53	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
75	Simplex – Air/Mo	A/G 59	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 6, 14
76	Simplex – Mo only	R5 T-4	USFS R5 Fire	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 6, 13, 14
77	Simplex – Mo only	R5 T-5	USFS R5 Fire	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 6, 13, 14
78	Simplex – Mo only	R5 T-6	USFS R5 Fire	REDACTED	CSQ	REDACTED	OST	N	L	A	Usage Note 3, 4, 6, 13, 14
79	Simplex – Base/Mo	VFIRE21	Natl Fire Interop	154.2800	Tone 6 156.7	154.2800	Tone 6 156.7	N	H	A	Usage Note 1,
80	Simplex – Mo only	VFIRE22	Natl Fire Interop	154.2650	Tone 6 156.7	154.2650	Tone 6 156.7	N	L	A	Usage Note 1, 4

The convention calls for frequency lists to show four digits after the decimal place (five digits for 700 MHz frequencies). "N" or a "W" depending on whether the frequency is narrow or wide band. Mode refers to either "A" (Analog), "D" (Digital i.e. P25) or "M" (Mixed) mode. All channels are shown as if programmed in a control station, mobile or portable radio. Portable repeater(s) and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A						Frequency Band			Description			
						VHF HIGH BAND			FIREScope STATEWIDE CHANNEL PLAN 2015			
Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks	
81	Simplex – Mo only	VFIRE23	Natl Fire Interop	154.2950	Tone 6 156.7	154.2950	Tone 6 156.7	N	L	A	Usage Note 1, 4	
82	Simplex – Mo only	VFIRE24	Natl Fire Interop	154.2725	Tone 6 156.7	154.2725	Tone 6 156.7	N	L	A	Usage Note 1, 4	
83	Simplex – Mo only	VFIRE25	Natl Fire Interop	154.2875	Tone 6 156.7	154.2875	Tone 6 156.7	N	L	A	Usage Note 1, 4	
84	Simplex – Mo only	VFIRE26	Natl Fire Interop	154.3025	Tone 6 156.7	154.3025	Tone 6 156.7	N	L	A	Usage Note 1, 4	
85	Simplex – Base/Mo	VCALL10	National Interop	155.7525	CSQ	155.7525	Tone 6 156.7	N	H	A	Usage Note 7	
86	Simplex – Base/Mo	VTAC11	National Interop	151.1375	Tone 6 156.7	151.1375	Tone 6 156.7	N	L	A	Usage Note 4, 7	
87	Simplex – Base/Mo	VTAC12	National Interop	154.4525	Tone 6 156.7	154.4525	Tone 6 156.7	N	L	A	Usage Note 4, 7	
88	Simplex – Base/Mo	VTAC13	National Interop	158.7375	Tone 6 156.7	158.7375	Tone 6 156.7	N	L	A	Usage Note 4, 7	
89	Simplex – Base/Mo	VTAC14	National Interop	159.4725	Tone 6 156.7	159.4725	Tone 6 156.7	N	L	A	Usage Note 4, 7	
90	Portable Repeater	VTAC33	National Interop	159.4725	Tone 4 136.5	151.1375	Tone 4 136.5	N	L	A	Usage Note 4, 7	
91	Portable Repeater	VTAC34	National Interop	158.7375	Tone 4 136.5	154.4525	Tone 4 136.5	N	L	A	Usage Note 4, 7	
92	Portable Repeater	VTAC35	National Interop	159.4725	Tone 4 136.5	158.7375	Tone 4 136.5	N	L	A	Usage Note 4, 7	
93	Portable Repeater	VTAC36	National Interop	151.1375	Tone 4 136.5	159.4725	Tone 4 136.5	N	L	A	Usage Note 4, 7	
94	Portable Repeater	VTAC37	National Interop	154.4525	Tone 4 136.5	158.7375	Tone 4 136.5	N	L	A	Usage Note 4, 7	
95	Portable Repeater	VTAC38	National Interop	158.7375	Tone 4 136.5	159.4725	Tone 4 136.5	N	L	A	Usage Note 4, 7	
96	Simplex – Air/Mo	REDACTED	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 14	
97	Simplex – Air/Mo	REDACTED	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 14 NEW FREQ 2015	
98	Simplex – Air/Mo	REDACTED	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 14 NEW FREQ 2015	
99	Simplex – Air/Mo	REDACTED	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 14 NEW FREQ 2015	
100	Simplex – Air/Mo	REDACTED	NIFC/NIRSC	REDACTED	CSQ	REDACTED	NONE	N	L	A	Usage Note 4, 5, 14 NEW FREQ 2015	

The convention calls for frequency lists to show four digits after the decimal place (five digits for 700 MHz frequencies). "N" or a "W" depending on whether the frequency is narrow or wide band. Mode refers to either "A" (Analog), "D" (Digital i.e. P25) or "M" (Mixed) mode. All channels are shown as if programmed in a control station, mobile or portable radio. Portable repeater(s) and base stations must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	UHF & UHF-T	FIREScope STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
1	Simplex – Mo only	FDUMA	Cal-OES Fire Interop	487.2375	Tone 6 156.7	487.2375	Tone 6 156.7	N	H	A	Cal-OES Interop in LAC ONLY
2	Repeater Pair	UCALL40	National Interop	453.2125	CSQ	458.2125	Tone 6 156.7	N	H	A	Usage Note 3, 7, 11, 13
3	Repeater Pair	UTAC41	National Interop	453.4625	CSQ	458.4625	OST	N	H	A	Usage Note 3, 7, 11, 13
4	Repeater Pair	UTAC42	National Interop	453.7125	CSQ	458.7125	OST	N	H	A	Usage Note 3, 7, 11, 13
5	Repeater Pair	UTAC43	National Interop	453.8625	CSQ	458.8625	OST	N	H	A	Usage Note 3, 7, 11, 13
6	Repeater Pair	NC 2 CALL	Fed Interop	410.2375	Tone 7 167.9	419.2375	Tone 7 167.9	N	H	A	CALLING
7	Repeater Pair	IR 10	Fed Interop	410.4375	Tone 7 167.9	419.4375	Tone 7 167.9	N	H	A	
8	Repeater Pair	IR 11	Fed Interop	410.6375	Tone 7 167.9	419.6375	Tone 7 167.9	N	H	A	
9	Repeater Pair	IR 12	Fed Interop	410.8375	Tone 7 167.9	419.8375	Tone 7 167.9	N	H	A	SAR Incident Command
10	Simplex	IR 13	Fed Interop	413.1875	Tone 7 167.9	413.1875	Tone 7 167.9	N	H	A	
11	Simplex	IR 14	Fed Interop	413.2125	Tone 7 167.9	413.2125	Tone 7 167.9	N	H	A	Interagency Convoy
12	Simplex	IR 15	Fed Interop	410.2375	Tone 7 167.9	410.2375	Tone 7 167.9	N	H	A	CALLING (Direct)
13	Simplex	IR 16	Fed Interop	410.4375	Tone 7 167.9	410.4375	Tone 7 167.9	N	H	A	Direct for IR 10
14	Simplex	IR 17	Fed Interop	410.6375	Tone 7 167.9	410.6375	Tone 7 167.9	N	H	A	Direct for IR 11
15	Simplex	IR 18	Fed Interop	410.8375	Tone 7 167.9	410.8375	Tone 7 167.9	N	H	A	Direct for IR 12 - SAR Incident Cmd

The convention calls for frequency lists to show four digits after the decimal place. The letter "U", "N", or "W" in the deviation (Dev) column reflects whether the frequency is ultranarrow, narrow, or wide band. Mode refers to either "A" indicating Analog, "D" indicating Digital (e.g. Project 25) or "M" indicating Mixed Mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeaters (and depending on use, base stations) must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	UHF & UHF-T	FIREScope STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
16	Repeater Pair	MED 1	Fire/EMS	463.0000	CSQ	468.0000	OST	N	H	A	Usage Note 3, 13
17	Repeater Pair	MED 2	Fire/EMS	463.0250	CSQ	468.0250	OST	N	H	A	Usage Note 3, 13
18	Repeater Pair	MED 3	Fire/EMS	463.0500	CSQ	468.0500	OST	N	H	A	Usage Note 3, 13
19	Repeater Pair	MED 4	Fire/EMS	463.0750	CSQ	468.0750	OST	N	H	A	Usage Note 3, 13
20	Repeater Pair	MED 5	Fire/EMS	463.1000	CSQ	468.1000	OST	N	H	A	Usage Note 3, 13
21	Repeater Pair	MED 6	Fire/EMS	463.1250	CSQ	468.1250	OST	N	H	A	Usage Note 3, 13
22	Repeater Pair	MED 7	Fire/EMS	463.1500	CSQ	468.1500	OST	N	H	A	Usage Note 3, 13
23	Repeater Pair	MED 8	Fire/EMS	463.1750	CSQ	468.1750	OST	N	H	A	Usage Note 3, 13
24	Repeater Pair	MED 9	Fire/EMS	462.9500	CSQ	467.9500	OST	N	H	A	Usage Note 3, 13
25	Repeater Pair	MED 10	Fire/EMS	462.9750	CSQ	467.9750	OST	N	H	A	Usage Note 3, 13
26	Repeater Pair	MED 12	Fire/EMS	463.0125	CSQ	468.0125	OST	N	H	A	Usage Note 3, 13
27	Repeater Pair	MED 22	Fire/EMS	463.0375	CSQ	468.0375	OST	N	H	A	Usage Note 3, 13
28	Repeater Pair	MED 32	Fire/EMS	463.0625	CSQ	468.0625	OST	N	H	A	Usage Note 3, 13
29	Repeater Pair	MED 42	Fire/EMS	463.0875	CSQ	468.0875	OST	N	H	A	Usage Note 3, 13
30	Repeater Pair	MED 52	Fire/EMS	463.1125	CSQ	468.1125	OST	N	H	A	Usage Note 3, 13
31	Repeater Pair	MED 62	Fire/EMS	463.1375	CSQ	468.1375	OST	N	H	A	Usage Note 3, 13
32	Repeater Pair	MED 72	Fire/EMS	463.1625	CSQ	468.1625	OST	N	H	A	Usage Note 3, 13
33	Repeater Pair	MED 82	Fire/EMS	463.1875	CSQ	468.1875	OST	N	H	A	Usage Note 3, 13
34	Repeater Pair	MED 92	Fire/EMS	462.9625	CSQ	467.9625	OST	N	H	A	Usage Note 3, 13
35	Repeater Pair	MED 102	Fire/EMS	462.9875	CSQ	467.9875	OST	N	H	A	Usage Note 3, 13

The convention calls for frequency lists to show four digits after the decimal place. The letter "U", "N", or "W" in the deviation (Dev) column reflects whether the frequency is ultranarrow, narrow, or wide band. Mode refers to either "A" indicating Analog, "D" indicating Digital (e.g. Project 25) or "M" indicating Mixed Mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeaters (and depending on use, base stations) must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	700 & 800 MHz	FIRESCOPE STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
1	Base-Fixed-Mobile	7CALL50	National Interop	769.24375	\$F7E	799.24375	OST	N	H	D	Usage Note 3, 11, 13
2	Base-Fixed-Mobile	7TAC51	National Interop	769.14375	\$F7E	799.14375	OST	N	H	D	Usage Note 3, 11, 13
3	Base-Fixed-Mobile	7TAC52	National Interop	769.64375	\$F7E	799.64375	OST	N	H	D	Usage Note 3, 11, 13
4	Base-Fixed-Mobile	7TAC53	National Interop	770.14375	\$F7E	800.14375	OST	N	H	D	Usage Note 3, 11, 13
5	Base-Fixed-Mobile	7TAC54	National Interop	770.64375	\$F7E	800.64375	OST	N	H	D	Usage Note 3, 11, 13
6	Base-Fixed-Mobile	7TAC55	National Interop	769.74375	\$F7E	799.74375	OST	N	H	D	Usage Note 3, 11, 13
7	Base-Fixed-Mobile	7TAC56	National Interop	770.24375	\$F7E	800.24375	OST	N	H	D	Usage Note 3, 11, 13
8	Base-Fixed-Mobile	7GTAC57	National Interop	770.99375	\$F7E	800.99375	OST	N	H	D	Usage Note 3, 11, 13
9	Base-Fixed-Mobile	7MOB79	National Interop	774.50625	\$F7E	804.50625	OST	N	H	D	Usage Note 3, 11, 13
10	Base-Fixed-Mobile	7LAW61	Natl LE Interop	770.39375	\$F7E	800.39375	OST	N	H	D	Usage Note 3, 11, 13
11	Base-Fixed-Mobile	7LAW62	Natl LE Interop	770.49375	\$F7E	800.49375	OST	N	H	D	Usage Note 3, 11, 13
12	Base-Fixed-Mobile	7FIRE63	Natl Fire Interop	769.89375	\$F7E	799.89375	OST	N	H	D	Usage Note 3, 11, 13
13	Base-Fixed-Mobile	7FIRE64	Natl Fire Interop	769.99375	\$F7E	799.99375	OST	N	H	D	Usage Note 3, 11, 13
14	Base-Fixed-Mobile	7MED65	Natl EMS Inteorp	769.39375	\$F7E	799.39375	OST	N	H	D	Usage Note 3, 11, 13
15	Base-Fixed-Mobile	7MED66	Natl EMS Inteorp	769.49375	\$F7E	799.49375	OST	N	H	D	Usage Note 3, 11, 13
16	Base-Fixed-Mobile	7DATA69	Natl Mobile Data	770.74375	\$F7E	800.74375	OST	N	X	D	NO Voice Tx Permitted
17	Base-Fixed-Mobile	7CALL70	National Interop	773.25625	\$F7E	803.25625	OST	N	H	D	Usage Note 3, 11, 13
18	Base-Fixed-Mobile	7TAC71	National Interop	773.10625	\$F7E	803.10625	OST	N	H	D	Usage Note 3, 11, 13
19	Base-Fixed-Mobile	7TAC72	National Interop	773.60625	\$F7E	803.60625	OST	N	H	D	Usage Note 3, 11, 13
20	Base-Fixed-Mobile	7TAC73	National Interop	774.10625	\$F7E	804.10625	OST	N	H	D	Usage Note 3, 11, 13

The convention calls for frequency lists to show four digits after the decimal place. The letter "U", "N", or "W" in the deviation (Dev) column reflects whether the frequency is ultranarrow, narrow, or wide band. Mode refers to either "A" indicating Analog, "D" indicating Digital (e.g. Project 25) or "M" indicating Mixed Mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeaters (and depending on use, base stations) must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	700 & 800 MHz	FIREScope STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
21	Base-Fixed-Mobile	7TAC74	National Interop	774.60625	\$F7E	804.60625	OST	N	H	D	Usage Note 3, 11, 13
22	Base-Fixed-Mobile	7TAC75	National Interop	773.75625	\$F7E	803.75625	OST	N	H	D	Usage Note 3, 11, 13
23	Base-Fixed-Mobile	7TAC76	National Interop	774.25625	\$F7E	804.25625	OST	N	H	D	Usage Note 3, 11, 13
24	Base-Fixed-Mobile	7GTAC77	National Interop	774.85625	\$F7E	804.85625	OST	N	H	D	Usage Note 3, 11, 13
25	Base-Fixed-Mobile	7MOB79	National Interop	774.50625	\$F7E	804.50625	OST	N	H	D	Usage Note 3, 11, 13
26	Base-Fixed-Mobile	7LAW81	Natl LE Interop	774.00625	\$F7E	804.00625	OST	N	H	D	Usage Note 3, 11, 13
27	Base-Fixed-Mobile	7LAW82	Natl LE Interop	774.35625	\$F7E	804.35625	OST	N	H	D	Usage Note 3, 11, 13
28	Base-Fixed-Mobile	7FIRE83	Natl Fire Interop	773.50625	\$F7E	803.50625	OST	N	H	D	Usage Note 3, 11, 13
29	Base-Fixed-Mobile	7FIRE84	Natl Fire Interop	773.85625	\$F7E	803.85625	OST	N	H	D	Usage Note 3, 11, 13
30	Base-Fixed-Mobile	7MED86	Natl EMS Inteorp	773.00625	\$F7E	803.00625	OST	N	H	D	Usage Note 3, 11, 13
31	Base-Fixed-Mobile	7MED87	Natl EMS Inteorp	773.35625	\$F7E	803.35625	OST	N	H	D	Usage Note 3, 11, 13
32	Base-Fixed-Mobile	7DATA89	Natl Mobile Data	774.75625	\$F7E	804.75625	OST	N	X	D	NO Voice Tx Permitted
33	Base-Fixed-Mobile	8CAFIRE1	Cal-OES Fire Interop	853.98750	Tone 6 156.7	808.98750	OST	W	H	A	Usage Note 3, 11, 13
34	Base-Fixed-Mobile	8CAFIRE2	Cal-OES Fire Interop	851.91250	Tone 6 156.7	806.91250	OST	W	H	A	Usage Note 3, 8, 11, 13
35	Base-Fixed-Mobile	FIREMARS	Cal-OES Fire Interop	868.98750	Tone 6 156.7	821.91250	OST	W	H	A	Usage Note 3, 11, 13
36	Base-Fixed-Mobile	FIREMARS2	Cal-OES Fire Interop	866.91250	Tone 6 156.7	823.98750	OST	W	H	A	Usage Note 3, 8, 11, 13
37	Base-Fixed-Mobile	8CALL90	National Interop	851.01250	CSQ	806.01250	OST	N	H	A	Usage Note 3, 11, 13
38	Base-Fixed-Mobile	8TAC91	National Interop	851.51250	CSQ	806.51250	OST	N	H	A	Usage Note 3, 11, 13
39	Base-Fixed-Mobile	8TAC92	National Interop	852.01250	CSQ	807.01250	OST	N	H	A	Usage Note 3, 11, 13
40	Base-Fixed-Mobile	8TAC93	National Interop	852.51250	CSQ	807.51250	OST	N	H	A	Usage Note 3, 11, 13
41	Base-Fixed-Mobile	8TAC94	National Interop	853.01250	CSQ	808.01250	OST	N	H	A	Usage Note 3, 11, 13

The convention calls for frequency lists to show four digits after the decimal place. The letter "U", "N", or "W" in the deviation (Dev) column reflects whether the frequency is ultranarrow, narrow, or wide band. Mode refers to either "A" indicating Analog, "D" indicating Digital (e.g. Project 25) or "M" indicating Mixed Mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeaters (and depending on use, base stations) must be programmed with the Rx and Tx reversed.

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET - ICS 217A	Frequency Band	Description
	700 & 800 MHz	FIREScope STATEWIDE CHANNEL PLAN 2015

Ch	Channel Configuration	Channel Name/Trunked Radio System Talkgroup	Eligible Users	RX Freq	RX Tone or CSQ	TX Freq	Tx Tone or NAC	N or W	Pwr	Mode A, D or M	Remarks
42	Base-Fixed-Mobile	ICALL	National Interop	866.01250	Tone 6 156.7	821.01250	OST	W	H	A	Usage Note 3, 11, 13
43	Base-Fixed-Mobile	ITAC1	National Interop	866.51250	Tone 6 156.7	821.51250	OST	W	H	A	Usage Note 3, 11, 13
44	Base-Fixed-Mobile	ITAC2	National Interop	867.01250	Tone 6 156.7	822.01250	OST	W	H	A	Usage Note 3, 11, 13
45	Base-Fixed-Mobile	ITAC3	National Interop	867.51250	Tone 6 156.7	822.51250	OST	W	H	A	Usage Note 3, 11, 13
46	Base-Fixed-Mobile	ITAC4	National Interop	868.01250	Tone 6 156.7	823.01250	OST	W	H	A	Usage Note 3, 11, 13

The convention calls for frequency lists to show four digits after the decimal place. The letter "U", "N", or "W" in the deviation (Dev) column reflects whether the frequency is ultranarrow, narrow, or wide band. Mode refers to either "A" indicating Analog, "D" indicating Digital (e.g. Project 25) or "M" indicating Mixed Mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeaters (and depending on use, base stations) must be programmed with the Rx and Tx reversed.

CALIFORNIA STANDARD 32 TONES

STONE #	CTCSS		NAC
1	110.9	Tone 1 110.9	\$455
2	123.0	Tone 2 123.0	\$4CE
3	131.8	Tone 3 131.8	\$526
4	136.5	Tone 4 136.5	\$555
5	146.2	Tone 5 146.2	\$5B6
6	156.7	Tone 6 156.7	\$61F
7	167.9	Tone 7 167.9	\$68F
8	103.5	Tone 8 103.5	\$40B
9	100.0	Tone 9 100.0	\$3E8
10	107.2	Tone 10 107.2	\$430
11	114.8	Tone 11 114.8	\$47C
12	127.3	Tone 12 127.3	\$4F9
13	141.3	Tone 13 141.3	\$585
14	151.4	Tone 14 151.4	\$5EA
15	162.2	Tone 15 162.2	\$656
16	192.8	Tone 16 192.8	\$788
17	67.0	Tone 17 67.0	N/A
18	71.9	Tone 18 71.9	N/A
19	74.4	Tone 19 74.4	N/A
20	77.0	Tone 20 77.0	N/A
21	79.7	Tone 21 79.7	N/A
22	82.5	Tone 22 82.5	N/A
23	85.4	Tone 23 85.4	N/A
24	88.5	Tone 24 88.5	N/A
25	91.5	Tone 25 91.5	N/A
26	94.8	Tone 26 94.8	N/A
27	97.4	Tone 27 97.4	N/A
28	118.8	Tone 28 118.8	N/A
29	173.8	Tone 29 173.8	N/A
30	179.9	Tone 30 179.9	N/A
31	186.2	Tone 31 186.2	N/A
32	203.5	Tone 32 203.5	N/A

Network Access Code (NAC)	\$293	"Default" NAC
Network Access Code (NAC)	\$F7E	Rx EVERYTHING regardless of NAC