California Interoperability Field Operations Guide

June 2020

Cal OES

GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Letter of Introduction

Since the first version of the California Interoperability Field Operations Guide (Cal-IFOG) was published in 2010, it has become an indispensable tool in day-to-day Public Safety communications and it encourages more efficient and effective use of our limited mutual aid spectrum.

The Cal IFOG is a living document that is updated through the feedback provided by every operational area throughout California. Please accept my sincere gratitude for your efforts and I understand that without your input this update would not have been possible.

The purpose of the Cal-IFOG is to provide a single source document for the usage guidelines of the statewide and National Interoperability channels in support of the California Statewide Communication Interoperability Plan (CalSCIP). Please keep in mind that the mutual aid frequencies are open to all emergency responders, who are encouraged to program their radios as appropriate and authorized. As always, Federal Communications Commission (FCC) rules and regulations with regards to licensing and operations should be followed.

Every effort was made to ensure the information presented is accurate. In the event you do find an error, please contact either the California Statewide Interoperability Executive Committee (CalSIEC), your Planning Area, or the Statewide Interoperability Coordinator (SWIC), and they will ensure the updates make it into the next version. Thank you to all that contributed to the development of the Cal-IFOG and those dedicated to ensuring that it stays relevant for years to come.

Budge Currier, Statewide Interoperability Coordinator
Hank O'Neill, Deputy Statewide Interoperability Coordinator

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Cal SCIP Mission Statement

Provide strategic direction for interoperable communications and a unified public safety response communications plan that promotes national standards and addresses the unique requirements of emergency responders and designated public service organizations serving the people of California.

The purpose of the California Interoperability Field Operations Guide (Cal-IFOG) is to be the emergency responders' everyday guide for interoperable radio communications.

The Cal-IFOG is a critical component of interoperability and provides practical guidelines in support of the California Statewide Communication Interoperability Plan (CalSCIP) by providing emergency responders with information to achieve interoperability across the state. The Cal-IFOG:

- Increases efficiency in establishing interoperable communications during incidents.

- Creates a consistent knowledge base of interoperable communications frequencies and networks.

- Provides helpful tools for pre-planning and interoperable communications training and exercises.

All frequency information in the Cal-IFOG is presented in the format as it applies to programming mobile and portable radios.

Oversight Process

The Cal-IFOG is a living document that will be continuously updated with an official updated version available as needed. The California Statewide Interoperability Executive Committee (CalSIEC) oversees the Cal-IFOG while the California Statewide Interoperability Coordinator (SWIC) within the California Governor's Office of Emergency Services (Cal OES) facilitates the update process.

Please send all comments, corrections, updates and questions to the SWIC at SWIC@caloes.ca.gov.

Regional Structures

Mutual Aid Regions

To facilitate mutual aid response, California is divided into Mutual Aid Regions—six Fire Mutual Aid Regions and seven Law Enforcement Mutual Aid Regions—for all-hazards mutual aid coordination. The mutual aid regional system is based on four organizational levels: local agencies, counties (Operational Areas), regions, and the State. The mutual aid regional system allows for geographically adjacent emergency response agencies within an Operational Area to assist each other in mutual aid response. Should the event require assistance from outside the Operational Area, the region will provide assistance to the impacted Area. If the combined resources of the region are insufficient to cope with the incident, the Regional Coordinator will contact the appropriate State Mutual Aid Coordinator at Cal OES for assistance with resource requests.

CalSIEC Planning Areas

The CalSIEC Planning Areas are designed around radio propagation boundaries and structured for interoperability focused planning, management, policy development, and regional interoperability communications system build out. Though the CalSIEC Planning Area boundaries generally include one or more Mutual Aid Regions, incident response continues to be managed through the mutual aid regional system.

California Regions

CA Mutual Aid-Region III

CA Mutual Aid-Region II

CA Mutual Aid-Region IV

CA Mutual Aid-Region V

CA Mutual Aid-Region VI

CA Mutual Aid-Region I

Northern Planning Area
Capital Bay Planning Area
Central Planning Area
Southern Planning Area

Dark Lines delineate the
Mutual Aid Regions

Shaded Areas
denote the Planning Areas

N
W E
S

0   50   100   150   200   Miles
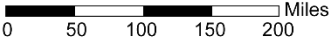
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Chpt 2 - Guidelines for Interoperable Radio Communications

Eligibility for Participation in a Mutual Aid System

As a general rule, mutual aid systems are open to all emergency responders of the discipline(s) for whom the system is designed.

Use of Interoperability Channels

All radio transmissions on interoperability channels are for official use only. The radio frequencies may legally be used under the following circumstances:

- The user agency retains a Federal Communications Commission (FCC) license or a National Telecommunications and Information Administration (NTIA) authorization for these frequencies, or the user is covered by another authority's license.

- A Frequency Use Agreement for mobile and portable use is granted by Cal OES and endorsed by the CalSIEC, allowing an agency to use any interoperability frequencies licensed to the State of California.

  For more information on the Frequency Use Agreement process, please see this section or e-mail SWIC@caloes.ca.gov.

- The NTIA issues a "Special Temporary Authorization" for the use of Federal channels in a particular area/event.

- The user is assigned to an incident with those radio frequencies/channels/talkgroups listed on the Incident Radio Communications Plan (Incident Command System [ICS] Form 205).

- The use of the frequency is necessary for the IMMEDIATE protection of life or property. When necessary, radio users may use prudent measures beyond the specifics of their license.

Note: The Cal-IFOG does not grant authority to operate on radio frequencies. Such authority comes in the situations indicated above.

Licensing of Interoperability Channels

All radio transmitters, both base and mobile, require a current FCC license before being placed in operation. For agencies who hold a FCC Part 90 frequency license, the National Interoperability channels can be programmed into mobiles and portables without further authorization. For more information, see Chapter 18.

Plain Language

All communications shall be in plain language. Radio codes, acronyms, and abbreviations are to be avoided as they may cause confusion between agencies.

- Plain words such as "help," "assistance," and "back-up" may have different operational meanings to different agencies.
- The words "emergency traffic" should be used in the context of a life-threatening situation.
- The word "help" should not be used alone unless in the context of a life-threatening situation.
- Requests for assistance or backup should clarify the reason for the request.
- All verbal requests for assistance or backup should specify the reason(s) for the request and be acknowledged by the receiving station.

See Appendix B for a glossary of common plain language words and phrases.

Channel/Talkgroup Names

Standardized channel/talkgroup names should be stated in widely used terms (e.g., "VFIRE22" or "NIFC TAC 2"). Channel/talkgroup numbers corresponding to how a specific radio is programmed should not be used unless the resource cannot display Alphabetic characters (e.g., "Channel 1" or "Channel A14").

Identification Process

The agency name or identifier shall precede the unit identifier.

- When calling another unit/ICS position, the standard is to identify who you are calling first, followed by your call sign (e.g., "Fremont Engine 51, Cal Fire Battalion 1614," "Division B, XAL Strike Team 2001C," or "4 Charlie Baker, Sacramento Battalion 2104"). This process is critical, especially when a unit is broadcasting an emergency.
- Units must use their agency-assigned unit designator during transmissions. These should not be shortened and should include the entire set of letters and/or numbers.
- Base stations should identify themselves by using their agency name along with any other usual identifier. Base stations must use the FCC call sign shown on their license at least once every 30 minutes or at the end of a contact.
- When neighboring agencies, operating on different radio systems, respond to mutual aid incidents, units should finish their transmission with the channel they are transmitting on (e.g., "Fremont Engine 51, Division B on VFIRE22," "Operations, Division A on Command").

Channel Monitor

Personnel should monitor interoperability channels prior to transmitting to minimize the possibility of interference with communications in progress. To do so, radio operators can place the radio in the "monitor" mode (front panel switch) or take the microphone off hook (for some radios this disables CTCSS).

Encryption

The use of any interoperability channel for transmission of any encoded, encrypted, or scrambled message is prohibited.

Out-of-Area/Itinerant Mobiles

Base stations are encouraged to monitor interoperability channels at all times. Typically, these channels are the only means for personnel traveling outside their normal jurisdiction to obtain assistance or to report traffic collisions, fires, or other hazards.

Priority Levels

Statewide interoperability systems are governed by priority levels that must be respected at all times. Priority is given to disaster and emergency operations, urgent operations, special events, and drills, tests, and exercises. When a higher priority use is required, all lower priority traffic yields the frequency in areas where interference could occur. Check the interoperability system plans for each interoperability channel's priority levels.

Priority levels for these systems are as follows:

- **Priority 1**: Disaster and extreme emergency operations for mutual aid and interagency communications
- **Priority 2**: Emergency or urgent operations involving imminent safety of life or protection of property
- **Priority 3**: Special event control activities, such as a planned event involving the participation of two or more agencies
- **Priority 4**: Drills, tests and exercises
- **Priority 5**: Single agency secondary communications

Message Precedence

Message Precedence is a classification system that establishes the priority of message content while a channel is in use – i.e., it helps determine which message has precedence over another on a channel. It is used for both verbal and written message traffic. The order of precedence of messages is:

1. **New Incident**: Messages pertaining to a new incident. Once the new incident is addressed, it no longer has precedence unless it has a higher priority.
2. **Emergency**: Messages involving the imminent safety of life or protection of property, including messages to request supplies, materials or instructions vital to relief of emergency operations.
3. **Priority**: Messages that are official and time-bound but are not covered in the emergency category. Priority messages may include notice of deaths or injury in a disaster area.

4. **Welfare**: Messages involving the health and welfare of an individual in a disaster area.
5. **Routine**: Messages pertaining to routine operations.

Chpt 3 - Statewide Mutual Aid Radio Plans and Systems

SMARS

Cal OES owns and operates three interconnected mobile relay radio networks for mutual aid coordination and oversees a number of communications channels for field-level coordination purposes. The Statewide Mutual Aid Radio System (SMARS) is the overarching program encompassing the interconnected networks: the California Emergency Services Radio System (CESRS), California Law Enforcement Radio System (CLERS), and Cal OES Fire and Rescue Mutual Aid Coordination Network (FIRE Net).

CRIS

Cal OES is implementing the California Radio Interoperable System (CRIS) which will provide an interoperable radio system that will allow state, local, and federal public safety responders to seamlessly communicate with each other across most of the State of California. System coverage will include the major traffic arteries throughout the state as well as 60% of the state's geographical area and 90% of the state's population. The system will be designed to provide secured end-to-end encrypted communications and prioritize operations for public safety users while allowing non-public safety agencies use of the system.

CALCORD

Eligibility: All California local government public safety agencies.

The California On-Scene Emergency Coordination System (CALCORD) provides a common radio frequency to be used by State and local public safety and special emergency agencies during emergencies where interagency coordination is required.

The CALCORD channel is only to be used in mobile and portable units at the scene of any emergency incident requiring coordinate action by more than one agency. These agencies must be eligible to operate in the Public Safety or Special Emergency Radio Services. Base stations are not authorized on CALCORD unless specifically authorized and licensed by Cal OES. Use of this system is limited to emergency operations, with the exception of tests and

drills. Sustained operations must be coordinated with Cal OES Telecommunications Duty Officer via the Warning Center at 916-845-8911.

CESRS

Eligibility: Cal OES and county-level emergency services.

CESRS is the network Cal OES uses for direction and control/mutual aid coordination. It connects Cal OES Regions, field staff, and many Operational Area Emergency Operations Centers (EOCs) via two-way radios.

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 (no tones) for line-of-sight travel communications.

CLERS

Eligibility: Law enforcement agencies.

CLERS is the law enforcement community's mutual aid coordination radio network. It supports dispatcher-to-dispatcher communications at any level (City to Operational Area to Region to State) and is not intended to be used by field units.

CALAW

Eligibility: All law enforcement agencies, including certain special districts, public educational institutions, federal law enforcement agencies, and other public entities.

The California Law Enforcement Mutual Aid Radio System (CALAW) is designed for necessary day-to-day operations, provided such use does not interfere with a higher priority need in the area. The National Law Enforcement Mutual Aid Radio System (VLAW31 formerly called NALEMARS) is one of the channels included within the CALAW pool of frequencies, allowing for communication with similarly equipped units from agencies in other parts of the United States.

Law Enforcement agencies must inform other area (line-of-sight) user agencies when they are involved in high priority usage of

CALAW channels. Such notification should be via several of these four forms:

- A broadcast should be made on CALAW.
- A CLETS message to adjoining CALAW users. Agencies may wish to utilize the California Law Enforcement Telecommunications System (CLETS) "User Group Notification" feature.
- California Law Enforcement Radio System (CLERS) notification (via point-to-point radio system).
- Telephone calls to area frequent users.

CALAW9 and 9D: Due to special license restrictions, this channel is available only to Law Enforcement agencies located north of (and including) the counties of Monterey, Kings, Tulare, and Inyo.

CALAW5D: Due to special license restrictions, this simplex channel is available only to Law Enforcement agencies with base stations located within 50 miles of Los Angeles City Hall (mobiles and portables within 80 miles).

Cal OES Fire and Rescue Mutual Aid Coordination Network

Eligibility: Fire Mutual Aid Coordinators at the State, regional, and Operational Area levels.

The Cal OES Fire and Rescue Mutual Aid Coordination Network is known as FIRE Net. It was formerly known as the Office of Emergency Services (OES) FIRE. FIRE Net is a dedicated radio network to support the Fire and Rescue Mutual Aid System. Cal OES FIRE Net supports the 65 Fire Operational Areas and the six Mutual Aid Regions as well as all Cal OES fire engines and support vehicles.

For sustained operations authorization, contact the Cal OES Fire and Rescue Duty Officer via the Warning Center at 916-845-8911.

VFIRE

Eligibility: Fire agencies.

The six VFIRE channels are designated by the Federal Communications Commission as "Intersystem" channels, and are

intended solely for interagency fire operations; i.e., mutual aid. VFIRE21 may be used under special conditions for alerting or warning and for announcements of special interest and is Command only otherwise. In California VFIRE22 through VFIRE26 are intended for on-scene use only.

CAFIRE

Eligibility: Fire and EMS agencies.

The California Fire and Medical Mutual Aid Radio Systems (CAFIRE formerly FIREMARS) consists of two repeated channels (one statewide, CAFIRE1, one usable in the 48 northern counties, CAFIRE2) in the 800 MHz spectrum for fire and emergency medical services (EMS) communications. Fire Department UHF Mutual Aid (FDUMA) is the implementation of CAFIRE UHF in Los Angeles County. It was named to differentiate it from other CAFIRE channels without having to resort to using a numeric identifier after the channel name. Use of FDUMA is restricted to Los Angeles County.

VMED28

Eligibility: Any agency that delivers medical services.

The basic usage of VMED28, (formerly called Hospital Emergency Administrative Radio - HEAR) is limited to communications between hospitals and ambulances or, in cases of large-scale and disaster operations, between hospitals intended for emergency traffic. Certain areas of California have established separate operational plans that supersede the basic plan.

Cal OES HF

Eligibility: All California state agencies that have emergency assignments during periods of disasters and have a requirement to communicate with other California agencies. The Cal OES High Frequency (HF) system is a fixed omni-directional simplex radio system maintained at the Regional Emergency Operation Centers and State Operations Centers.

STACOM

Eligibility: State civil defense and emergency management agencies.

As part of Cal OES HF, the State Communications System (STACOM) HF (2-8 MHz) system is designed to provide point-to-point emergency radio communications coverage across the state. This system implements the FCC "State Emergency Capability Using Radio Effectively" ("Operation SECURE") capability and is licensed and operated in accordance with FCC Rules Part 90 - Private Land Mobile Services and in accordance with FCC Public Notice 2419. STACOM is not used for routine operation.

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Chpt 4 - Statewide System Maps

Fire Mutual Aid Radio System
（ CALFIRE ）

Legend
CALFIRE1
CALFIRE2

CALFIRE FCC ID/ Frequency:
- CALFIRE1 : 853.9875/808.9875 MHz
- CALFIRE2 : 851.9125/806.9125 MHz
- All On Tone 6- 156.7 Hz.
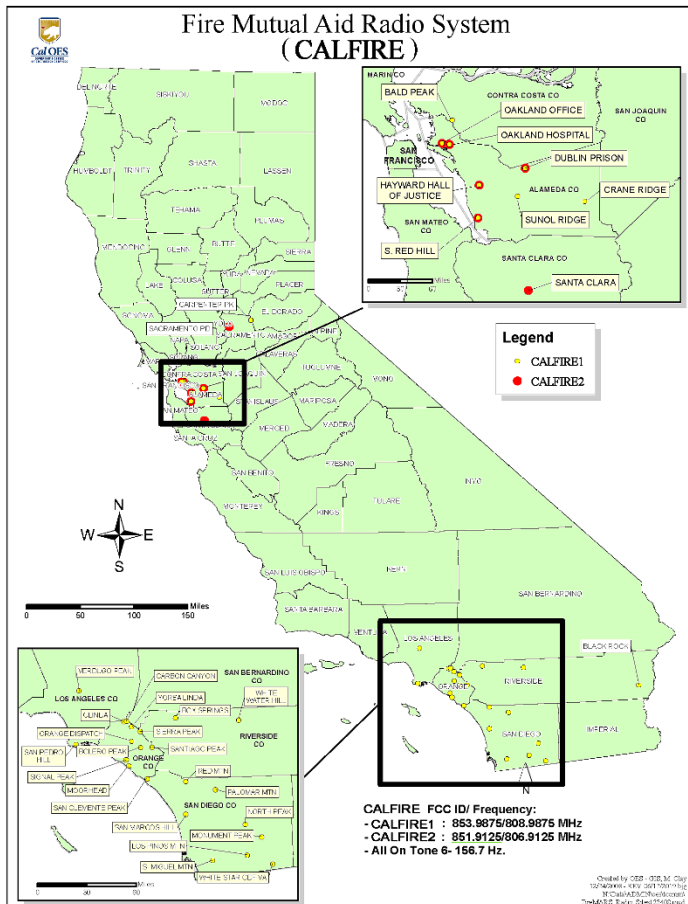
Fire and Rescue Radio Network
Mountain Top Repeaters - Microwave Circuit
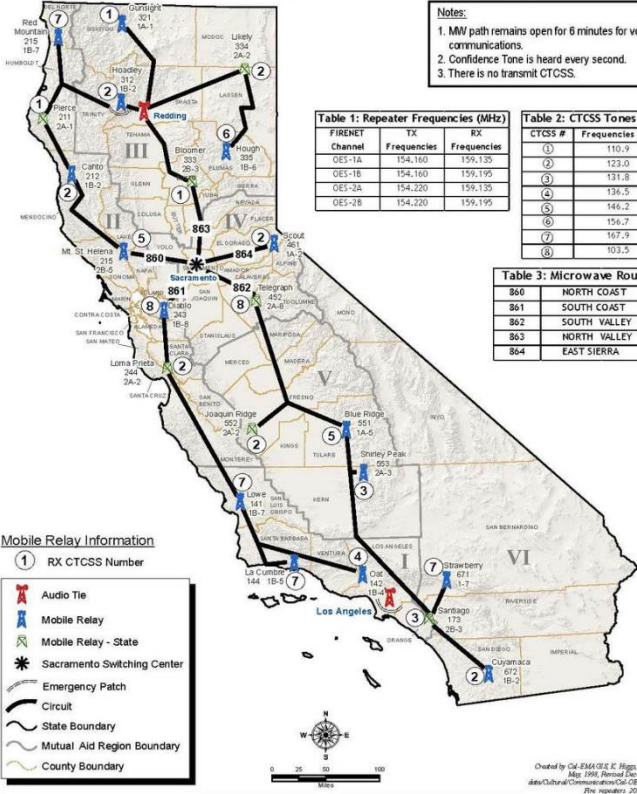
Notes:
1. MW path remains open for 6 minutes for voice communications.
2. Confidence Tone is heard every second.
3. There is no transmit CTCSS.

Table 1: Repeater Frequencies (MHz)

FIRENET Channel	TX Frequencies	RX Frequencies
OES-1A	154.160	159.135
OES-1B	154.160	159.195
OES-2A	154.220	159.135
OES-2B	154.220	159.195

Table 2: CTCSS Tones (Hz)

CTCSS #	Frequencies (Hz)
①	110.9
②	123.0
③	131.8
④	136.5
⑤	146.2
⑥	156.7
⑦	167.9
⑧	103.5

Table 3: Microwave Routes

860	NORTH COAST
861	SOUTH COAST
862	SOUTH VALLEY
863	NORTH VALLEY
864	EAST SIERRA

Mobile Relay Information

① RX CTCSS Number

- Audio Tie
- Mobile Relay
- Mobile Relay - State
- ✳ Sacramento Switching Center
- Emergency Patch
- Circuit
- State Boundary
- Mutual Aid Region Boundary
- County Boundary

Map labels:
Red Mountain 215 1B-7, Gunsight 321 1A-1, Likely 334 2A-2, Hoadley 312 1B-2, Redding, Pierce 211 2A-1, Bloomer 333 1B-6, Hough 335 1B-6, Canto 212 1B-2, 863, Mt. St. Helena 215 2B-5, 860, 864, Scout 461 1B-2, Diablo 243 1B-8, 861, 862, Telegraph 452 2A-B, Sacramento, Lorna Prieta 244 2A-2, Joaquin Ridge 562 2A-2, Blue Ridge 551 1A-5, Shirley Peak 553 2A-3, Lowe 141 1B-7, La Cumbre 144 1B-5, Oat 142 1B-4, Strawberry 671 1-7, Santiago 173 2B-3, Cuyamaca 672 1B-2, Los Angeles

0 25 50 100
Miles

STATE OF CALIFORNIA
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

California Emergency Services Radio System - CESRS
Routing and Dialing

228 Red Mountain (Dell Norte)
234 Antelope Peak
235 Likely Mountain
** Soda Creek Ridge
276 Hatchet Montain
233 Sugarloaf Mountain
236 Shaffer Mountain
227 Mount Pierce
237 Hough Mountain
** Cahto Peak
232 Bloomer Mountain
**275 Donner Beacon
225 Laughlin Ridge
243 Scout Peak
Mt. Saint Helena
266 Pinegrove Peak (NV)
278 Mount Tamalpais
242 Mount Zion
Telegraph Hill
**274 Mount Diablo
**Pacheco Peak
262 Sherwin Summit
232 Loma Prieta Pk.
252 Black-Mountain
222 Calandra Lo.
253 Round Mountain
204 Mount Lowe
*277 Mount Hauser
264 Strawberry Peak
203 Red Mountain (Ventura)
202 Mount Lukens
265 Cuyamaca

* Standalone Repeater, not connected to the microwave circuit. USE CTCSS TONE ONLY. DTMF will not work

** Cal Fire (CDF) equipment, standalone repeater

Notes:
1. MW path remains open for 6 minutes for voice communications.
2. Confidence Tone is heard every 30 seconds.
3. CWID is announced via morse code per FCC requirements.

TABLE 1: REPEATER TX FRQUENCY

	FREQUENCY	CTCSS TONES	
TX	153.755 MHz	192.8 Hz	(16)

TABLE 2: REPEATER RX FRQUENCY

	FREQUENCY	CTCSS TONES	
RX	154.980 MHz	110.9 Hz	(1)
		123.0 Hz	(2)
		131.8 Hz	(3)
		136.5 Hz	(4)
		146.2 Hz	(5)
		156.7 Hz	(6)
		127.3 Hz	(12)
		141.3 Hz	(13)
		151.4 Hz	(14)
		162.2 Hz	(15)

Repeater Information

(1) Relay Single Tone Number & Mountain Top Location

237 DTMF# (Mountain top)

Microwave Route Access Numbers
— 850 South Valley
— 851 North Valley
— 852 North Coast
— 853 South Coast
— 854 East Sierra

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October 11, 2008, Revised November 17, 2015
United Cultural Commons.content/Project/
Cal-OES_2-Current/CESRS_routing_20151106.mxd

STATE OF CALIFORNIA
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

California Law Enforcement Radio System - CLERS
Routing and Dialing

* Site has SSC-300 decoder

Site's CLERS was removed in January, 2012

Notes:
1. End user 5-digit codes can be found in CLERS TDM chapter (TDM52250.3.0) of the CLERS Operational Manual.
2. A pulsed confidence tone (850 Hz) is sent by the distant repeater for six (6) seconds indicating that the path is connected to the distant user.
3. MW path remains open to voice communication for six (6) minutes.
4. Manual dialing is allowed for all sites.
5. For details about MW routes see Drawing 763050-026.

TABLE 1: CLERS FREQ

CH. NAME	RX FREQ	TX FREQ
CLERS 1	158.7900	155.4300
CLERS 2	155.0700	159.0300
CLERS 3	154.7100	155.8700
CLERS 4	155.9100	158.7300
CLERS 5	155.7000	154.8150
CLERS 6	453.6750	458.6750
CLERS 7	453.8750	458.8750
CLERS 8	453.8250	458.8250

TABLE 2: CTCSS TONES

CTCSS #	Frequencies (Hz)
①	110.9
②	123.0
③	131.8
④	136.5
⑤	146.2

Legend:
- Switching Center
- Control Point with M/W Drop
- Microwave Interconnected Mountaintop
- Microwave Interconnected Mountaintop (Tone #)
- Independent Mountain Top

CLERS Route
- Microwave Channel
- Common Trunk Circuits

0 25 50 100
Miles

HAMAKER CLERS 5 B76 ②
ANTELOPE CLERS 5 B73 ③
HORSE MT. CLERS 5 B75 ④
HOADLEY CLERS 5 B74
LIKELY CLERS 5 B71 ④
SHAFFER CLERS 5 B72 ④
BLOOMER CLERS 7 B11 ④
WOLF CLERS 2 B12 ④
BROCKWAY CLERS 1 B13
LAUGHLIN RIDGE CLERS 8
MT. TAMALPAIS CLERS 7 B14 ②
MT. DIABLO CLERS 1 B15 ②
TELEGRAPH CLERS 7 B17 ④
MT. BULLION CLERS 6 B18 ④
FREMONT PEAK CLERS 7 B16 ②
JOAQUIN RIDGE CLERS 1 B27 ③
BLUE RIDGE CLERS 2 B19 ④
GOVERNMENT PEAK CLERS 4 B61 ③
MT. LOWE CLERS 6 B21 ④
RED MT. CLERS 6 B22 ⑤
SANTIAGO CLERS 1 B23
CACTUS CITY CLERS 3 B24 ③
CUYAMUCA PEAK CLERS 6 B25

Created by Cal-EMA - GIS, E. Bigg, E. Simpson
November 24, 2008. Revised November 13, 2013
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Cal-OES_T-Comm\CLERS_routing_11132013.mxd

Chpt 5 - California CTCSS/NAC Plan

California's State agencies use the following standard 16 Continuous Tone-Coded Squelch System (CTCSS) 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.

Tone	CTCSS	NAC[1]	Tone	CTCSS	NAC[1]
1	110.9	$455	17	67.0	$29E
2	123.0	$4CE	18	71.9	$2CF
3	131.8	$526	19	74.4	$2E8
4	136.5	$555	20	77.0	$302
5	146.2	$5B6	21	79.7	$31D
6	156.7	$61F	22	82.5	$339
7	167.9	$68F	23	84.5	$356
8	103.5	$40B	24	88.5	$375
9	100.0	$3E8	25	91.5	$393
10	107.2	$430	26	94.8	$3B4
11	114.8	$47C	27	97.4	$3CE
12	127.3	$4F9	28	118.8	$4A4
13	141.3	$585	29	173.8	$6CA
14	151.4	$5EA	30	179.9	$707
15	162.2	$656	31	186.2	$746
16	192.8	$788	32	203.5	$7F3

[1] *Some radio manufacturers require a $ and some do not. When programming radios, check the requirements of your radio.*

About CTCSS

A CTCSS, or tone squelch, reduces channel traffic by filtering out other users using a different CTCSS tone or no CTCSS. Another form of coded squelch is Digital Coded Squelch (DCS), which, like CTCSS, is used with analog transmissions. The Network Access Code (NAC) is a feature of Project 25 digital radios and serves a function similar to CTCSS or DCS. There are two conventions to express NACs. One is to express the NAC value in hexadecimal notation, the other is to use decimal notation There are two ways to indicate that a number is in hexadecimal notation, also known as "hex" or "base 16". One way is to precede the number with the "$" character (this is the expression used throughout this document). Another is to precede the number with "0x" (zero and lowercase "x"). Still another is to follow the number with a subscript "16".

Different vendors use trademarked names for CTCSS and DCS:

Vendor	CTCSS	DCS
Motorola	Private Line (PL)®	Digital Private Line (DPL)®
Bendix/King	Channel Guard (CG)®	Digital Channel Guard (CDG)®
Kenwood	Quiet Talk (QT)®	Digital Quiet Talk (DQT)®

About Project 25

Project 25 (P25) is a set of digital land mobile radio standards produced through the joint efforts of the Association of Public Safety Communications Officials International (APCO), the National Association of State Telecommunications Directors (NASTD), and selected Federal Agencies, in cooperation with the Telecommunications Industry Association (TIA). P25 is an open architecture, user driven suite of standards that define digital radio communications system architectures. P25 radios were designed to improve spectral efficiency, provide backwards compatibility, provide a migration path, enhance interoperability, and improve vendor competition. P25 supports conventional and trunked operation, secure communications, and is available from multiple manufacturers.

P25 Digital Codes

NAC	
$293	Default NAC
$F7E	Receiver will unsquelch with any incoming NAC. Used on Receiver frequency only.
$F7F	A repeater with this NAC will allow incoming signals to be repeated with the NAC intact

Talkgroup ID (TGID)	
$0001	Default
$0000	No-one, talkgroup with no users – used for individual call
$FFFF	Talkgroup which includes everyone

Unit ID	
$000000	No-one – never associated with a radio unit
$000001-$98767F	For general use
$989680-$FFFFFE	For talkgroup use or other special purposes
$FFFFFF	Designates everyone – used when implementing a group call with a TGID3

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Chpt 6 - Mutual Aid Radio System Call Signs

Listed below are the FCC call signs that should be used by portable and mobile units when using the state interoperability channels.

Channel Name	Call Sign
CALCORD	KB82490
CESRS	KG3310
FIRE Net	KC5112
CAFIRE1 & 2	WPAT870
VFIRE (all)	KC5112
CLERS (VHF & UHF)	Limited[1]
VSAR16	KNCE436
LLAW1	KK3942
CALAW1 & 2	KK3942
CALAW4	KK3942
CALAW5	WIJ645
CALAW8 & 9	WPAT870
VLAW31	KK3942
VLAW32	WQEN775
VMED28	KNCE436
VMED29	WQEN775
VCALL/VTAC	WQEN775
UCALL/UTAC	WQEN775
8CALL/8TAC	WPAT870
[1] *Limited to Cal OES, CHP and DOJ at this time.*	

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Chpt 7 - ANSI/NPSTC Standardized Channel Naming Format

The National Public Safety Telecommunications Council (NPSTC) is a federation of 15 national public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. It has developed and vetted a standardized naming format as the single reference for the common identification of public safety interoperable radio channels. Each FCC-designated interoperability channel in the Public Safety Radio Services (47 CFR Part 90) will have a unique name established according to the following 8-character standard format: **Btype##M**. A 6-character name is only used in equipment that is not capable of implementing the eight-character name. The format is broken down in the following table. For more information see APCO/NPSTC ANS 1.104.1-2010.

B- Spectrum Band	
The Spectrum Band Designator is a unique single alpha or numeric character to designate the public safety spectrum segment the channel is found within:	
L	VHF Low Band (30-50 MHz)
V	VHF High Band (150.8-160 MHz)
U	UHF Band (450-470 MHz)
7	700 MHz Public Safety Narrowband Voice Band (769-775/799-805 MHz)
8	800 MHz National Public Safety Planning Advisory Committee (NPSPAC) band (806-809/851-854 MHz)
All frequencies are in compliance with FCC narrow banding rules	
Type – Channel Use Designator	
The Channel Use Designator is an alphanumeric 3- or 4-place tag to signify the primary operational purpose of the channel.	
AG	Channel is dedicated nationwide for the express purpose of low power, low level (less than 1500' AGL) Air-Ground operations.
CALL	Channel is dedicated nationwide for the express purpose of interoperability calling only.

B- Spectrum Band	
DATA	Channel is reserved nationwide for the express purpose of data transmissions only.
Type – Channel Use Designator	
FIRE	Channel is primarily used for interagency incident communications by fire service licensees.
GTAC	Channel is primarily used for interagency incident communications between public safety licensees and eligible non-governmental organizations (NGOs).
LAW	Channel is primarily used for interagency incident communications by police service licensee.
MED	Channel is primarily used for interagency incident communications by EMS licensee.
MOB	Channel is primarily used for on-scene interagency incident communications by any public safety licensee using vehicular repeaters (FCC Station Class MO3).
SAR	Channel is primarily used for interagency incident communications for Search and Rescue Operations.
TAC	Channel is primarily used for interagency communications by any public safety eligible licensee.
TRVL	Channel is primarily used for interagency communications by any public safety eligible licensee to coordinate travel when responding to/from an incident outside of an agency's own jurisdiction.
## - Unique Channel Identifier	

The Unique Channel Identifier is a numeric 1- or 2-place tag to uniquely identify the specific channel. Channel identifiers are grouped by band segment as follows:

1-9	VHF Low Band (30-50 MHz)
10-39	VHF High Band (150.8-162 MHz)
40-49	UHF Band (450-470 MHz)
50-89	700 MHz Public Safety Narrowband Voice Band (769-775/799-805 MHz)
90-99	800 MHz NPSPAC band (806-809/851-854 MHz)

Note: Calling channels are channels ending in zero ("0")

B- Spectrum Band
M – Modifier
The Modifier is a single alphanumeric tag to identify a modification to the default operation type on the channel/channel pair.

D	Direct or "talk around" use (simplex operations on the output channel of a pair normally designated for half-duplex or mobile relay operations).

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Chpt 8 - State Radio Systems

The tables below depict channels that are licensed and managed by the State. They are statewide channels, except as noted, and require specific authorization for their use. They may be used for interoperability purposes as authorized.

Description	Channel Name	RX Freq	TX Freq	Location (CTCSS Tone)
Emergency Mgmt	CESRS	153.7550	154.9800	Multiple[1]
Emergency Mgmt	CESRSD	153.7550	153.7550	
Emergency Mgmt	CESRS2D	153.7400	153.7400	
Fire	Cal OES (OES) 1	154.1600	154.1600	
Fire	Cal OES (OES) 1A	154.1600	159.1350	Multiple[1]
Fire	Cal OES (OES) 1B	154.1600	159.1950	Multiple[1]
Fire	Cal OES (OES) 2	154.2200	154.2200	
Fire	Cal OES (OES) 2A	154.2200	159.1350	Multiple[1]
Fire	Cal OES (OES) 2B	154.2200	159.1950	Multiple[1]

[1] These systems use the State of California standard 32-tone Continuous Tone-Coded Squelch System (CTCSS) plan to select specific repeaters across the State.

CLERS Repeater Frequencies				
Site #	Receiver		Transmitter		Location
	Freq	CTCSS	Freq	CTCSS	
1	155.670	(2) 123.0	154.710	(2) 123.0	MT. DIABLO
2	155.430	(1) 110.9	158.790	(1) 110.9	SANTIAGO PK.
3	159.030	(1) 110.9	155.070	(1) 110.9	WOLF MTN
4	155.430	(3) 131.8	158.790	(3) 131.8	CACTUS CITY

CLERS Repeater Frequencies					
Site #	**Receiver**		**Transmitter**		**Location**
	Freq	**CTCSS**	**Freq**	**CTCSS**	
1	155.670	(2) 123.0	154.710	(2) 123.0	MT. DIABLO
5	154.815	(2) 123.0	155.700	(2) 123.0	HAMAKER
6	154.815	(3) 131.8	155.700	(3) 131.8	ANTELOPE PK.
7	154.815	(1) 110.9	155.700	(1) 110.9	HORSE MTN
8	154.815	(5) 146.2	155.700	(5) 146.2	HOADLEY
9	154.815	(4) 136.5	155.700	(4) 136.5	LIKELY MTN
10	154.815	(1) 110.9	155.700	(1) 110.9	SHAFFER
11	155.670	(1) 110.9	154.710	(1) 110.9	BROCKWAY SUM.
12	155.670	(3) 131.8	154.710	(3) 131.8	JOAQUIN RIDGE
13	159.030	(1) 110.9	155.070	(1) 110.9	BLUE RIDGE
14	158.730	(3) 131.8	155.910	(3) 131.8	GOVERNMENT PK.
15	458.875	(1) 110.9	453.875	(1) 110.9	BLOOMER
16	458.875	(4) 136.5	453.875	(4) 136.5	TELEGRAPH PK.
17	458.875	(2) 123.0	453.875	(2) 123.0	FREMONT PK.
18	458.675	(2) 123.0	453.675	(2) 123.0	MT. LOWE
19	458.675	(3) 131.8	453.675	(3) 131.8	RED MTN. (Ventura)
20	458.675	(1) 110.9	453.675	(1) 110.9	CUYAMACA PK.
21	458.675	(4) 136.5	453.675	(4) 136.5	MT. BULLION
22	458.875	(3) 131.8	453.875	(3) 131.8	MT. TAMALPAIS

(#) The number in parentheses corresponds with the CTCSS tones 1 through 5 from the California CTCSS Plan in this section.

Chpt 9 - California Conventional Radio Interoperability Channels

IMPORTANT NOTES:

All the interoperability channels identified can (with the exception of VFIRE21) be temporarily linked utilizing the proper priority levels (except priority level 5) for the duration of test or exercises and incidents, emergencies or disasters to local government public safety channels either directly within a jurisdiction or utilizing the simplex frequencies between jurisdictions. They can also be linked to each other. None of these frequencies can be linked on a permanent or semi-permanent basis. For frequency management purposes, the use of the interoperability frequencies for tests or exercises and incidents, emergencies or disasters must first be coordinated by Cal OES (and then authorized or not) regardless if the actual equipment (fixed, mobile or temporary) is owned and/or licensed by Cal OES or local governments. To coordinate the use of the frequencies, contact the Cal OES Warning Center at (916) 845-8911.

With the exception of the 700 MHz Interoperability Channels, all operations on Cal-IFOG frequencies shall be analog, and the use of encryption is prohibited.

The responsible monitoring agency in each Operational Area shall ensure all LLAW1, CALAW4, CALAW8, CALAW9, CAFIRE1, CAFIRE2, 8TAC91, 8TAC92, 8TAC93 and 8TAC94 repeaters are in the disabled mode until their use is requested by an authorized agency. Once the use of the repeater is no longer needed, it shall be returned to the disabled mode.

VHF Low Band (Using California Channel Names)				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)1**	**Transmit Freq (Input)**	**CTCSS Tone Hz1**
LAW[2]	LLAW1 (LLAW1)	39.4600	45.8600	156.7
LAW[3]	LLAW1D (LLAW1D)	39.4600	39.4600	156.7
FIRE (Proposed)	LFIRE2 (LFIRE2)	39.4800	39.4800	156.7
LAW[4]	LLAW3D (LLAW3D)	45.8600	45.8600	156.7
FIRE	LFIRE4 (LFIRE4)	45.8800	45.8800	156.7

[1] *Default operation should be carrier squelch receive, CTCSS transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.*

[2] *In California, LLAW1 is used as a repeater, paired with nationwide LLAW3D.*

[3] *In the ANSI/NPSTC standard and NIFOG, this channel is known as LLAW1. The ID LLAW1D is used in California to distinguish this channel from the use of LLAW1 as a repeater.*

[4] *In the ANSI/NPSTC standard and NIFOG, this channel is known as LLAW3D. In California, this channel is used as the repeater input for LLAW1. Do not use for simplex (direct) communication in California.*

VHF High Band				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz**
CALL	VCALL10 (VCAL10)	155.7525	155.7525	156.7
TAC	VTAC11 (VTAC11)	151.1375	151.1375	156.7
TAC	VTAC12 (VTAC12)	154.4525	154.4525	156.7
TAC	VTAC13 (VTAC13)	158.7375	158.7375	156.7
TAC	VTAC14 (VTAC14)	159.4725	159.4725	156.7
TAC[1]	VTAC17 (VTAC17)	161.8500	157.2500	156.7
TAC[1]	VTAC17D (VTAC17D)	161.8500	161.8500	156.7
FIRE	VFIRE21 (VFIR21)	154.2800	154.2800	156.7
FIRE[2]	VFIRE22 (VFIR22)	154.2650	154.2650	156.7
FIRE[2]	VFIRE23 (VFIR23)	154.2950	154.2950	156.7
FIRE[2]	VFIRE24 (VFIR24)	154.2725	154.2725	156.7
FIRE[2]	VFIRE25 (VFIR25)	154.2875	154.2875	156.7
FIRE[2]	VFIRE26 (VFIR26)	154.3025	154.3025	156.7
MED	VMED28 (VMED28)	155.3400	155.3400	Various
MED	VMED29 (VMED29)	155.3475	155.3475	156.7
LAW	VLAW31 (VLAW31)	155.4750	155.4750	CSQ/156.7
LAW	VLAW32 (VLAW32)	155.4825	155.4825	156.7

VHF High Band				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz**
LAW	CALAW1 (CALAW1)	154.9200	154.9200	156.7
LAW[3]	CALAW2 (CALAW2)	154.9350	154.9350	156.7
TAC	CALCORD (CACORD)	156.0750	156.0750	156.7
SAR	VSAR16 (VSAR16)	155.160	155.160	127.3
TAC Rpt[4]	VTAC33	159.4725	151.1375	156.7/136.5
TAC Rpt[4]	VTAC34	158.7375	154.4525	156.7/136.5
TAC Rpt[4]	VTAC35	159.4725	158.7375	156.7/136.5
TAC Rpt[4]	VTAC36	151.1375	159.4725	156.7/136.5
TAC Rpt[4]	VTAC37	154.4525	158.7375	156.7/136.5
TAC Rpt[4]	VTAC38	158.7375	159.4725	156.7/136.5

[1] *Permitted use only in Reno VHF Public Coast Service Area #34, including the California counties of Alpine, Inyo, Lassen, Mono, Plumas, and Sierra.*
Base stations: 50 Watts max, antenna HAAT 400 feet max. Mobile stations: 20 Watts max, antenna HAAT 15 FEET max. These channels are for tactical use and may not be operated on board aircraft in flight. These channels use narrowband FM and the same frequencies as VHF Marine Channel 25, which uses wideband FM. Use only where authorized. In the authorized areas, interoperability communications have priority over grandfathered public coast and public safety licensees.
[2] *These channels are intended for on-scene use and mobile only.*
[3] *This channel is restricted to portable (handheld) use, with a maximum of 10 watts output power.*
[4] *VTAC33-38 recommended for deployable tactical repeater use only (FCC Station Class FB2T). VTAC36-38 are preferred; VTAC33-35 should be used only when necessary due to interference.*

UHF				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz**
CALL	UCALL40 (UCAL40)	453.2125	458.2125	156.7
CALL	UCALL40D (CAL40D)	453.2125	453.2125	156.7
TAC	UTAC41 (UTAC41)	453.4625	458.4625	156.7
TAC	UTAC41D (TAC41D)	453.4625	453.4625	156.7
TAC	UTAC42 (UTAC42)	453.7125	458.7125	156.7
TAC	UTAC42D (TAC42D)	453.7125	453.7125	156.7
TAC	UTAC43 (UTAC43)	453.8625	458.8625	156.7
TAC	UTAC43D (TAC43D)	453.8625	453.8625	156.7
LAW	CALAW4 (CALAW4)	460.0250	465.0250	Varies
LAW	CALAW4D (CLAW4D)	460.0250	460.0250	Varies
TAC[1]	SCMA C (SCMA C)	484.2125	487.2125	167.9/146.2
TAC[1]	SCMA E (SCMA E)	484.2125	487.2125	167.9/167.9
TAC[1]	SCMA N (SCMA N)	484.2125	487.2125	167.9/156.7
TAC[1]	SCMA W (SCMA W)	484.2125	487.2125	167.9/173.8
TAC[1]	SCMA D (SCMA D)	484.2125	484.2125	167.9/167.9
LAW[1]	CALAW5D (CLAW5D)	484.2375	484.2375	156.7
FIRE[2]	FDUMA (FDUMA)	487.2375	487.2375	156.7

UHF				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz**
[1] Small Cities Mutual Aid (SCMA) and CALAW5D are only permitted for use in Los Angeles County. *[2] Fire Department UHF Mutual Aid (FDUMA) is only permitted for use in Los Angeles County.*				

700 MHz National Interoperability Channels				
Primary Use	**ANSI/NPSTC ID[3,4]**	**Receive Freq (Output)[1]**	**Transmit Freq (Input)[1]**	**NAC Hz[2]**
CALL	7CALL50	769.24375	799.24375	$F7E/$293
	7CALL50D	769.24375	769.24375	$F7E/$293
TAC	7TAC51	769.14375	799.14375	$F7E/$293
	7TAC51D	769.14375	769.14375	$F7E/$293
TAC	7TAC52	769.64375	799.64375	$F7E/$293
	7TAC52D	769.64375	769.64375	$F7E/$293
TAC	7TAC53	770.14375	800.14375	$F7E/$293
	7TAC53D	770.14375	770.14375	$F7E/$293
TAC	7TAC54	770.64375	800.64375	$F7E/$293
	7TAC54D	770.64375	770.64375	$F7E/$293
TAC	7TAC55	769.74375	799.74375	$F7E/$293
	7TAC55D	769.74375	769.74375	$F7E/$293
TAC	7TAC56	770.24375	800.24375	$F7E/$293
	7TAC56D	770.24375	770.24375	$F7E/$293
GTAC	7GTAC57	770.99375	800.99375	$F7E/$293
	7GTAC57D	770.99375	770.99375	$F7E/$293
MOB	7MOB59	770.89375	800.89375	$F7E/$293
	7MOB59D	770.89375	770.89375	$F7E/$293
LAW	7LAW61	770.39375	800.39375	$F7E/$293
	7LAW61D	770.39375	770.39375	$F7E/$293

700 MHz National Interoperability Channels				
Primary Use	ANSI/NPSTC ID[3,4]	Receive Freq (Output)[1]	Transmit Freq (Input)[1]	NAC Hz[2]
LAW	7LAW62	770.49375	800.49375	$F7E/$293
LAW	7LAW62D	770.49375	770.49375	$F7E/$293
FIRE	7FIRE63	769.89375	799.89375	$F7E/$293
FIRE	7FIRE63D	769.89375	769.89375	$F7E/$293
FIRE	7FIRE64	769.99375	799.99375	$F7E/$293
FIRE	7FIRE64D	769.99375	769.99375	$F7E/$293
MED	7MED65	769.39375	799.39375	$F7E/$293
MED	7MED65D	769.39375	769.39375	$F7E/$293
MED	7MED66	769.49375	799.49375	$F7E/$293
MED	7MED66D	769.49375	769.49375	$F7E/$293
DATA	7DATA69	770.74375	800.74375	$F7E/$293
DATA	7DATA69D	770.74375	770.74375	$F7E/$293
CALL	7CALL70	773.25625	803.25625	$F7E/$293
CALL	7CALL70D	773.25625	773.25625	$F7E/$293
TAC (secondary trunked)	7TAC71	773.10625	803.10625	$F7E/$293
TAC (secondary trunked)	7TAC71D	773.10625	773.10625	$F7E/$293
TAC (secondary trunked)	7TAC72	773.60625	803.60625	$F7E/$293
TAC (secondary trunked)	7TAC72D	773.60625	773.60625	$F7E/$293
TAC (secondary trunked)	7TAC73	774.10625	804.10625	$F7E/$293
TAC (secondary trunked)	7TAC73D	774.10625	774.10625	$F7E/$293
TAC (secondary trunked)	7TAC74	774.60625	804.60625	$F7E/$293
TAC (secondary trunked)	7TAC74D	774.60625	774.60625	$F7E/$293
TAC	7TAC75	773.75625	803.75625	$F7E/$293
TAC	7TAC75D	773.75625	773.75625	$F7E/$293
TAC	7TAC76	774.25625	804.25625	$F7E/$293
TAC	7TAC76D	774.25625	774.25625	$F7E/$293

700 MHz National Interoperability Channels				
Primary Use	**ANSI/NPSTC ID[3,4]**	**Receive Freq (Output)[1]**	**Transmit Freq (Input)[1]**	**NAC Hz[2]**
GTAC	7GTAC77	774.85625	804.85625	$F7E/$293
	7GTAC77D	774.85625	774.85625	$F7E/$293
MOB	7MOB79	774.50625	804.50625	$F7E/$293
	7MOB79D	774.50625	774.50625	$F7E/$293
LAW	7LAW81	774.35625	804.35625	$F7E/$293
	7LAW81D	774.35625	774.35625	$F7E/$293
LAW	7LAW82	774.00625	804.00625	$F7E/$293
	7LAW82D	774.00625	774.00625	$F7E/$293
FIRE	7FIRE83	773.50625	803.50625	$F7E/$293
	7FIRE83D	773.50625	773.50625	$F7E/$293
FIRE	7FIRE84	773.85625	803.85625	$F7E/$293
	7FIRE84D	773.85625	773.85625	$F7E/$293
MED	7MED86	773.00625	803.00625	$F7E/$293
	7MED86D	773.00625	773.00625	$F7E/$293
MED	7MED87	773.35625	803.35625	$F7E/$293
	7MED87D	773.35625	773.35625	$F7E/$293
DATA	7DATA89	774.75625	804.75625	$F7E/$293
	7DATA89D	774.75625	774.75625	$F7E/$293

[1] *All 700 MHz Interoperability Channels are to be programmed as Project 25 Phase 1 (12.5 kHz channel occupancy) as per FCC Rules, and that the use of encryption is prohibited.*

[2] *The National Interoperability Field Operations Guide, published by the U.S. Department of Homeland Security's Office of Emergency Communications, recommends the default NAC $293 be programmed for transmit, and NAC $F7E be programmed for receive. Talk Group ID: $00001. Manufacturer's ID: $00. Message ID: $00000000000000000000.*

[3] *7DATA69D has been approved for statewide use as a travel channel for Fire/EMS.*

[4] *7DATA89D has been approved for statewide use as a travel channel for Law Enforcement.*

California-Only 800 MHz				
Type	**Standard CA ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz[1]**
LAW	CALAW8 (CALAW8)	853.5125	808.5125	156.7
LAW	CALAW8D (CLAW8D)	853.5125	853.5125	156.7
FIRE	CAFIRE1 (CFIRE1)	853.9875	808.9875	156.7
FIRE	CAFIRE1D (CFIR1D)	853.9875	853.9875	156.7
LAW[2]	CALAW9 (CALAW9)	851.2000	806.2000	156.7
LAW[2]	CALAW9D (CLAW9D)	851.2000	851.2000	156.7
FIRE[2]	CAFIRE2 (CFIRE2)	851.9125	806.9125	156.7
FIRE[2]	CAFIRE2D (CFIR2D)	851.9125	851.9125	156.7

[1] Default operation should be carrier squelch receive, CTCSS transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.
[2] Permitted use only in the 48 northern California counties.

US and Canada 800 MHz				
Type	**ANSI/NPSTC ID (Short Name)**	**Receive Freq (Output)**	**Transmit Freq (Input)**	**CTCSS Tone Hz**
CALL	8CALL90 (CAL90)	851.0125	806.0125	156.7
CALL–Direct	8CALL90D (CAL90D)	851.0125	851.0125	156.7
TAC	8TAC91 (TAC91)	851.5125	806.5125	156.7
TAC–Direct	8TAC91D (TAC91D)	851.5125	851.5125	156.7
TAC	8TAC92 (TAC92)	852.0125	807.0125	156.7
TAC–Direct	8TAC92D (TAC92D)	852.0125	852.0125	156.7
TAC	8TAC93 (TAC93)	852.5125	807.5125	156.7
TAC–Direct	8TAC93D (TAC93D)	852.5125	852.5125	156.7
TAC	8TAC94 (TAC94)	853.0125	808.0125	156.7
TAC–Direct	8TAC94D (TAC94D)	853.0125	853.0125	156.7

UHF MED			
Use	**ID**	**Base/Mobile Transmit1 (Repeater Receive)**	**Use (Repeater Transmit)**
MED Common Dispatch	MED-10	462.9750	467.9750
MED Common Dispatch	MED-101	462.98125 U	467.98125 U
MED Common Dispatch	MED-102	462.9875	467.9875
MED Common Dispatch	MED-103	462.99375 U	467.99375 U
MED Common Dispatch	MED-9	462.9500	467.9500
MED Common Dispatch	MED-91	462.95625 U	467.95625 U
MED Common Dispatch	MED-92	462.9625	467.9625
MED Common Dispatch	MED-93	462.96875 U	467.96875 U
MED Common	MED-1	463.0000	468.0000
MED Common	MED-11	463.00625 U	468.00625 U
MED Common	MED-12	463.0125	468.0125
MED Common	MED-13	463.01875 U	468.01875 U
MED Common	MED-2	463.0250	468.0250
MED Common	MED-21	463.03125 U	468.03125 U
MED Common	MED-22	463.0375	468.0375 N/U
MED Common	MED-23	463.04375 U	468.04375 U
MED Common	MED-3	463.0500	468.0500
MED Common	MED-31	463.05625 U	468.05625 U
MED Common	MED-32	463.0625	468.0625
MED Common	MED-33	463.06875 U	468.06875 U
MED Common	MED-4	463.0750	468.0750

UHF MED			
Use	**ID**	**Base/Mobile Transmit1 (Repeater Receive)**	**Use (Repeater Transmit)**
MED Common	MED-41	463.08125 U	468.08125 U
MED Common	MED-42	463.0875	468.0875
MED Common	MED-43	463.09375 U	468.09375 U
MED Common	MED-5	463.1000	468.1000
MED Common	MED-51	463.10625 U	468.10625 U
MED Common	MED-52	463.1125	468.1125
MED Common	MED-53	463.11875 U	468.11875 U
MED Common	MED-6	463.1250	468.1250
MED Common	MED-61	463.13125 U	468.13125 U
MED Common	MED-62	463.1375	468.1375
MED Common	MED-63	463.14375 U	468.14375 U
MED Common	MED-7	463.1500	468.1500
MED Common	MED-71	463.15625 U	468.15625 U
MED Common	MED-72	463.1625	468.1625
MED Common	MED-73	463.16875 U	468.16875 U
MED Common	MED-8	463.1750	468.1750
MED Common	MED-81	463.18125 U	468.18125 U
MED Common	MED-82	463.1875	468.1875
MED Common	MED-83	463.19375 U	468.19375 U

[1] *U indicates the bandwidth = 6.25 kHz modulation bandwidth (ultra-narrow band)*

Direct mode: receive & transmit on "Base & Mobile TX" freq. Repeater mode: transmit on "Mobile TX" freq., receive on "Base & Mobile TX" freq. CTCSS as required by local plan. Add "D" to channel name when operating in "Direct" mode. Note: CTCSS tones across the state are currently non-standardized and vary among the various local and regional EMS Authorities. Radios equipped for use on these frequencies should

UHF MED			
Use	**ID**	**Base/Mobile Transmit1 (Repeater Receive)**	**Use (Repeater Transmit)**
incorporate Multiple CTCSS tones or Operator Selectable Tone capabilities, which allow the user to select appropriate CTCSS tones.			

STACOM			
Channel Name	**RX Frequency[1]**	**TX Frequency[1]**	**Usage Details[2]**
STACOM 1	7480 kHz	7480 kHz	Day and night. Primary channel
STACOM 2	7802 kHz	7802 kHz	Daytime. Use restricted to one hour before sunrise and one hour after sunset, local times
STACOM 3	5140 kHz	5140 kHz	Day and night
STACOM 4	2419 kHz	2419 kHz	Day and night
STACOM 5	2422 kHz	2422 kHz	Day and night
STACOM 6	2812 kHz	2812 kHz	Day and night
STACOM 7	2804 kHz	2804 kHz	Day and night
STACOM 8	2326 kHz	2326 kHz	Day and night. Interstate Coordination
STACOM 9	5195 kHz	5195 kHz	Day and night. Interstate Coordination. Limited to States of California, Nevada, Oregon, and Arizona.
STACOM 10	7805 kHz	7805 kHz	Day and night. Interstate Coordination
State communications system (STACOM) is a high frequency single-side band radio system. For more information about STACOM, please refer to here. *[1] These channels use Upper Sideband (USB) modulation. The frequency shown is the suppressed carrier reference frequency.*			

STACOM			
Channel Name	**RX Frequency**[1]	**TX Frequency**[1]	**Usage Details**[2]
[2] *Due to the effects of the high frequency propagation, there may be periods when communication is difficult or noisy. In addition, interference from other users, both domestic and foreign, may be expected at times as the State does not have any claim to the exclusive use of any HF frequencies assigned. Due to these problems, alternate frequencies have been assigned by the FCC.*			

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Chpt 10 - Federal Interoperability Channels

Conditions for Use of Federal Interoperability Channels

Federal incident response (IR) and law enforcement (LE) channels are available for use among Federal agencies and between Federal agencies and non-Federal entities with which Federal agencies have a requirement to operate. These channels may not be used for interoperability with other State, regional, or local radio stations and should not be used as a substitute for regular interoperability channels. Channels can be licensed to non-Federal entities to enable joint operations for IR and LE subject to the condition that federal agencies are involved in the incident and they have requested interoperability with the non-Federal public safety radio users. IR and LE channels are restricted to interoperability communications and are not authorized for administrative or routine use.

Modes for Using Federal Interoperability Channels

It is recommended that radio users use analog for all IR channels (CTCSS 167.9 Hz) and Law Enforcement (LE) channels LE A, LE 1, LE B, LE 10, and LE 16 (CTCSS 167.9 Hz). P25 digital should be used for the remaining LE channels, NAC $68F. CTCSS should always be transmitted on the analog channels, but carrier squelch (CSQ, no CTCSS) should be used on receive. Radio users should consider enabling or disabling CTCSS on receive by a switch or button; otherwise they should use CSQ on receive.

For more information on Federal Interoperability Channels, please refer to the National Interoperability Field Operations Guide (NIFOG).

Federal VHF Incident Response (IR)				
Recommended Use (Subject to availability and local plans)	**NTIA ID**	**Note**	**Mobile RX (MHz) (Output)**	**Mobile TX (MHz) (Input)**
Incident Calling	NC 1	Calling	169.5375	164.7125
Incident Command 1	IR 1		170.0125	165.2500
Medical Evacuation Control	IR 2		170.4125	165.9625
Logistics Control	IR 3		170.6875	166.5750
Interagency Convoy	IR 4		173.0375	167.3250
Incident Calling (Direct)	IR 5	Direct for NC 1 Calling	169.5375	169.5375
Incident Command 1 (Direct)	IR 6	Direct for IR 1	170.0125	170.0125
Medical Evacuation Control (Direct)	IR 7	Direct for IR 2	170.4125	170.4125
Logistics Control (Direct)	IR 8	Direct for IR 3	170.6875	170.6875
Interagency Convoy (Direct)	IR 9	Direct for IR 4	173.0375	173.0375
Default operations should be carrier squelch receive, CTCSS 167.9 transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.				

Federal UHF Incident Response (IR)				
Recommended Use (Subject to availability & local plans)	**NTIA ID**	**Note**	**Mobile RX (MHz) (Output)**	**Mobile TX (MHz) (Input)**
Incident Calling	NC 2	Calling	410.2375	419.2375
Ad Hoc Assignment	IR 10		410.4375	419.4375
Ad Hoc Assignment	IR 11		410.6375	419.6375
SAR Incident Command	IR 12		410.8375	419.8375
Ad Hoc Assignment	IR 13		413.1875	413.1875
Interagency Convoy	IR 14		413.2125	413.2125
Incident Calling (Direct)	IR 15	Direct for NC 2 Calling	410.2375	410.2375
Ad Hoc Assignment (Direct)	IR 16	Direct for IR 10	410.4375	410.4375
Ad Hoc Assignment (Direct)	IR 17	Direct for IR 11	410.6375	410.6375
SAR Incident Command (Direct)	IR 18	Direct for IR 12	410.8375	410.8375
Default operations should be carrier squelch receive, CTCSS 167.9 transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.				

Federal VHF Law Enforcement (LE)				
Type	**NTIA ID**	**Note**	**Mobile RX (MHz) (Output)**	**Mobile TX (MHz) (Input)**
CALL	LE A[1]	Analog	167.0875	167.0875
TAC	LE 1[1]	Analog	167.0875	162.0875
TAC	LE 2		167.2500	162.2625
TAC	LE 3		167.7500	162.8375

Federal VHF Law Enforcement (LE)				
Type	**NTIA ID**	**Note**	**Mobile RX (MHz) (Output)**	**Mobile TX (MHz) (Input)**
TAC	LE 4		168.1125	163.2875
TAC	LE 5		168.4625	163.4250
TAC	LE 6	Direct for LE 2	167.2500	167.2500
TAC	LE 7	Direct for LE 3	167.7500	167.7500
TAC	LE 8	Direct for LE 4	168.1125	168.1125
TAC	LE 9	Direct for LE 5	168.4625	168.4625
[1] *LE A and LE 1 are analog, with CTCSS 167.9 Tx and CSQ Rx. All other LE channels are digital with NAC $68F.*				

Federal UHF Law Enforcement (LE)				
Type	**NTIA ID**	**Note**	**Mobile RX (MHz) (Output)**	**Mobile TX (MHz) (Input)**
CALL	LE B[1]	Analog	414.0375	414.0375
TAC	LE 10[1]	Analog	409.9875	418.9875
TAC	LE 11		410.1875	419.1875
TAC	LE 12		410.6125	419.6125
TAC	LE 13		414.0625	414.0625
TAC	LE 14		414.3125	414.3125
TAC	LE 15		414.3375	414.3375
TAC	LE 16[1]	Direct for LE 10 – Analog	409.9875	409.9875
TAC	LE 17	Direct for LE 11	410.1875	410.1875
TAC	LE 18	Direct for LE 12	410.6125	410.6125
[1] LE B, LE 10, and LE 16 are analog, with CTCSS 167.9 Tx and CSQ Rx. All other LE channels are digital with NAC $68F.				

Federal/Non-Federal Search and Rescue Command			
ID[1]	Mobile RX (MHz) (Output)	Mobile TX (MHz) (Input)	CTCSS
IR 12	410.8375	419.8375	167.9 Tx, CSQ Rx
VTAC14	159.4725	159.4725	156.7 Tx, CSQ Rx (156.7 Rx if user selectable)
UTAC43	453.8625	458.8625	156.7 Tx, CSQ Rx (156.7 Rx if user selectable)
VHF Marine Channel 17[2]	156.8500 (this use requires FCC Special Temporary Authority)	156.8500 (this use requires FCC Special Temporary Authority)	NONE

[1] If a repeater is not available, substitute the corresponding talk around channels: IR 18 for IR 12, UTAC43D for UTAC43, 8TAC94D for 8TAC94.
[2] VHF Marine channel 17 is wideband FM, emission 16K00F3E.

Federal/Non-Federal Search and Rescue Operations	
SAR Function	**Frequency (MHz)**
Ground Operations	155.1600 (VSAR16) VHF Narrowband, PL tone 127.3
Maritime Operations[1]	157.0500 or 157.1500 (VHF Marine ch.21A or 23A) as specified by U.S. Coast Guard (USCG) Sector Commander
Air Operations – civilian	123.1000 MHz AM (may not be used for tests or exercises)
Air Operations – USCG/Military	345.0 MHz AM for initial contact only, then move to 282.8 MHz AM or other working channel
Air Rescue Assets to Air Rescue Assets (deconfliction)	As chartered on standard air chart or MULTICOM 122.850 (south or west sector) & 122.900 MHz (north or east sector), or as specified by the Federal Aviation Administration (FAA). 122.850 may not be used for tests or exercises.
Ground to Air SAR Working Channel	157.175 83A (21A, 23A, 81A alternates as specified by local USCG Sector Commander)
Ground to Maritime SAR Working Channel[2]	157.0500 21A (23A, 81A, and 83A alternate as specified by local USCG Sector Commander)
Maritime/Air/Ground SAR Working Channel[2]	157.1750 83A (21A, 23A, and 81A alternate as specified by local USCG Sector Commander)
EMS/Medical Support	155.3400 (VMED28) VHF Narrowband
Hailing[1] & DISTRESS only – Maritime/Air/Ground	156.8000 VHF Marine channel 16

[1] Use VHF Marine channel 16 to make contact (30 seconds max), then move to the appropriate working channel as directed by the local USCG Sector Commander. Non-maritime use of any VHF Maritime channel requires FCC Special Temporary Authority or appropriate license. VHF marine channels use wideband FM. Emission 16K00F3E.
[2] VHF Marine channels: 21A = 157.0500 23A = 157.1500 81A= 157.0750 83A = 157.1750 MHz.

Federal/Non-Federal Search and Rescue Operations	
SAR Function	**Frequency (MHz)**
Direction from USCG, FCC, or FAA overrides information in this table. This table does not convey authority to operate.	

The 25 Cities Project Federal Interoperability Channels

The 25 Cities Project Federal Interoperability Channels were developed through the Department of Justice "25 Cities" project to support local, state, federal and tribal voice communications interoperability. Each metropolitan area has agreed upon policies and procedures regarding use of these channels. Most 25 Cities VHF channels are accessible by non-VHF users via permanent or ad hoc patching capabilities. All agencies interested in using these frequencies, who are not currently participating in the 25 Cities effort, should contact the local FBI Radio Manager prior to programming any equipment.

California 25 Cities Project Federal Interoperability Channels	
City	Channel Name
Los Angeles Richard Swanson FBI (310) 420-6468	LA FIO1 (VHF P25 Voted System) Repeater Tx: 173.5500 MHz/ Rx: 163.1625 MHz CTCSS Tones: NAC $653
	LA FIO2 (VHF P25 Voted System) Repeater Tx: 172.41250 MHz/ Rx: 162.8875 MHz CTCSS Tones: NAC $653
	LA FIO3 (VHF P25 Voted System) Repeater Tx: 173.6000 MHz/ Rx: 164.1875 MHz CTCSS Tones: NAC $653
San Francisco	SF MA U-A (UHF Stand Alone 125-watt repeater - Analog)

California 25 Cities Project Federal Interoperability Channels	
City	Channel Name
Todd Kessler FBI (415) 553-7437 office (415) 850-6171 cell	Repeater Tx: 409.0125 MHz/Rx: 418.0125 MHz CTCSS Tones: PL 167.9
	SF MA V-A (VHF Stand Alone 125-watt repeater - Analog) Repeater Tx: 168.7625 MHz / Rx: 162.9000 MHz CTCSS Tones: PL 167.9
	CALAW 7 (LLAW1) (Low Band repeater - Analog) Repeater Tx: 39.46 MHz / Rx: 45.86 MHz CTCSS Tones: PL 156.7
	SF MA T-A (UHF-T Band Stand Alone 125-watt repeater - Analog) Repeater Tx: 483.1375 MHz / Rx: 486.1375 MHz CTCSS Tones: PL 156.7
	8TAC94 (ITAC-4 - Analog) Repeater Tx: 868.0125 MHz/ Rx:823.0125 MHz CTCSS Tones: PL 156.7
	SF FED-V (VHF P25 Stand Alone 125-watt repeater) Repeater Tx:171.6125 MHz / Rx:163.7750 MHz CTCSS Tones: NAC $653
	SF FED-U (UHF P25 Stand Alone 125-watt repeater) Repeater Tx:410.4125 MHz / Rx:419.4125MHz CTCSS Tones: NAC $653
	All of the above repeaters can be networked together.
	SF FED-ED,

California 25 Cities Project Federal Interoperability Channels	
City	Channel Name
San Francisco Multi-Cast Repeater System with 15 receivers	Repeater Tx:170.5625 MHz / Rx:165.0750 MHz CTCSS Tones: NAC $653
	SF FED-ES, Repeater Tx:169.8875 MHz / Rx:165.0750 MHz CTCSS Tones: NAC $653
	SF FED-ET, Repeater Tx:169.6375 MHz / Rx:165.0750 MHz CTCSS Tones: NAC $653
	SF FED-ED, Repeater Tx:170.3750 MHz / Rx:165.0750 MHz CTCSS Tones: NAC $653
San Diego Don Root, SD Sheriff's Department (858) 694-3903	VHF CALAW1 (Analog) Base Station Tx: 154.92 MHz/ Rx: 154.92 MHz CTCSS: Carrier Squelch
	VHF VLAW31 (Analog) Base Station Tx: 154.475 MHz/ Rx:155.475 MHz CTCSS: Carrier Squelch
	800 CAFIRE1 (Analog) Base Station Tx: 853.9875 MHz/ Rx:809.9875 MHz CTCSS: PL 156.7
	800 CALAW8 (Analog) Base Station Tx: 853.5125 MHz/ Rx:809.5125 MHz CTCSS: PL 156.7

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Chpt 11 - Statewide Interoperability Gateways

Guidelines for Interoperability Channel Patching

1. Notify Cal OES Telecommunications Duty Officer of any interoperability frequency needs.

2. Always secure permission from licensee before patching.

3. Consider terrain and other agencies affected and potential interference before patching.

4. Patching should usually be accomplished on tactical or command channels.

5. Always indicate patched channels on the ICS-205.

6. Because of co-channel interference and receiver desensitization, patching from a vehicle should be limited to one channel on low-band, VHF-high, UHF, and 800 MHz due to rooftop antenna separation issues.

7. Generally, use low RF power when patching channels to reduce interference.

8. Continually monitor all patched channels for interference and other technical problems.

9. Only patch channels as long as necessary.

10. Always announce on the effected channels when the patch is brought up, brought down and when channels are added, or removed from the patch.

Cal OES Mobile Interoperability Gateway Units (MIGUs)			
MIGU	**Location**	**Address**	**Phone**
MIGU-1 Mutual-Aid Region 1	Los Alamitos	4671 Liberty Avenue, Los Alamitos, CA 90720	(916) 845-8911
MIGU-2 Mutual-Aid Region 2	San Mateo County	400 County Center Redwood City, CA 94063	(650) 245-2686

Cal OES Mobile Interoperability Gateway Units (MIGUs)			
MIGU	**Location**	**Address**	**Phone**
MIGU-3 Mutual-Aid Region 3	Shasta County SO	300 Park Marina Circle Redding, CA 96001	(530) 245-6059 (530) 245-6000
MIGU-4 Cal OES HQ	Mather	3650 Schriever Ave, Mather, CA 95655	(916) 845-8911
MIGU-5 Mutual-Aid Region 5	Fresno County	1055 Goldens State Blvd, Selma, CA	(559) 600-3111
MIGU-6 Mutual-Aid Region 6	San Bernardino County	655 East Third Street San Bernardino, CA 92415	(909) 387-0696

ALL UNITS AVAILABLE THROUGH REQUEST TO THE CALIFORNIA STATE WARNING CENTER AT (916) 845-8911. Appropriate discipline (Fire, Law, EMS) contact will be notified for Mission Request and the Telecommunications Duty Officer will be notified.

California Highway Patrol Raytheon JPS ACU-1000 Gateways in Rapid Response Vehicles (RRVs)		
Location	**Address**	**Phone**
RRV 1 - Northern	2485 Sonoma Street, Redding, CA 96001	(530) 225-2715
RRV 2 - Valley	11336 Trade Center Drive, Rancho Cordova, CA 95742	(916) 464-2090
RRV 3 - Golden Gate	1551 Benicia Road, Vallejo, CA 94591	(707) 648-4180
RRV 4 - Central	5179 North Gates Avenue, Fresno, CA 93722	(559) 277-7250
RRV 5 - Southern	411 N. Central Ave., #410, Glendale, CA 91203	(818) 240-8200
RRV 6 - Border	9330 Farnham Street, San Diego, CA 92123	(858) 650-3600
RRV 7 - Coastal	4115 Broad Street, #B-10, San Luis Obispo, CA 93401	(805) 549-3261

California Highway Patrol Raytheon JPS ACU-1000 Gateways in Rapid Response Vehicles (RRVs)		
Location	**Address**	**Phone**
RRV 8 - Inland	847 E. Brier Drive, San Bernardino, CA 92408	(909) 806-2400
RRV 9 - Headquarters	601 North 7th Street, Sacramento, CA 95811	(916) 843-4199

California Highway Patrol Raytheon JPS ACU-1000 Gateways in Communications Centers		
Location	**Address**	**Phone**
Headquarters	601 North 7th Street, Sacramento, CA 95811	(916) 843-4199
Bakersfield	4040 Buck Owens Blvd., Bakersfield, CA 93308	(661) 864-4400
Barstow	300 E. Mt. View, Barstow, CA 92311	(760) 255-8750
Bishop	469 S. Main Street, Bishop, CA 93514	(760) 872-5900
Border	7183 Opportunity Road, San Diego, CA 92111	(858) 637-3800
Capitol	State Capitol, Rm 1149, Sacramento, CA 95814	(916) 445-2895
Chico	995 Fir Street, Chico, CA 95928	(530) 879-1900
El Centro	2331 Highway 86, Imperial, CA 92251	(760) 482-2550
Fresno	1382 West Olive Avenue, Fresno, CA 93728	(559) 441-5400
Golden Gate	1551 Benicia Road, Vallejo, CA 94591	(707) 551-4100
Humboldt	255 East Samoa Blvd., Arcata, CA 95521	(707) 268-2000
Indio	79-650 Varner Road, Indio, CA 92203	(760) 772-8900
Inland	847 E. Brier Drive, San Bernardino, CA 92408	(909) 388-8000
Los Angeles	2901 W Broadway, Los Angeles, CA 90041	(323) 982-4900
Merced	1500 Bell Drive, Atwater, CA 95301	(209) 356-2900
Monterey	960 E. Blanco Road, Salinas, CA 93901	(831) 796-2160

Orange County	6681 Marine Way, Irvine, CA 92618	(949) 559-7888
Redding	2503 Cascade Blvd., Redding, CA 96003	(530) 242-3210
Sacramento	3165 Gold Valley Drive, Rancho Cordova, CA 95670	(916) 861-1300
San Luis Obispo	675 California Blvd., San Luis Obispo, CA 93401	(805) 593-3333
Stockton	3330 N. Ad Art Road, Stockton, CA 95215	(209) 943-8600
Susanville	472-400 Diamond Crest Rd., Susanville, CA 96130	(530) 257-9605
Truckee	10077 State Rte. 89 South, Truckee, CA 96161	(530) 582-7500
Ukiah	540 South Orchard Avenue, Ukiah, CA 95482	(707) 467-4000
Ventura	4656 Valentine Road, Ventura, CA 93003	(805) 477-4174
Yreka	1739 South Main Street, Yreka, CA 96097	(530) 841-6000

Chpt 12 - NOAA Weather Radio Broadcast

The National Oceanic and Atmospheric Administration (NOAA) Weather Radio broadcasts National Weather Service (NWS) warnings, watches, forecasts, and other non-weather-related hazard information 24 hours a day.

Weather Radio Broadcasts – Receive Only (WX1-WX7 US & Canada)						
WX1	WX2	WX3	WX4	WX5	WX6	WX7
162.400	162.425	162.450	162.475	162.500	162.525	162.550

Channels WX1-WX7 are used in the US & Canada; channels WX8-WX9 are used for Canada Marine Weather broadcasts in some areas. These channels should be programmed as wideband FM (16K0F3E) RECEIVE ONLY. Some radio manufacturers number the US weather channels in the order they came into use, others number them in frequency order. For programming in land-mobile radios, frequency order is recommended.

NWR Station Listing for California

Site Name	Transmitter Name	Call Sign	Freq	PWR	WFO
Eureka	Mt. Pierce	KEC82	162.400	330	Eureka, CA
Point Arena	Cold Springs Peak	KIH30	162.550	330	Eureka, CA
Horse Mtn	Willow Creek	WZ2550	162.450	150	Eureka, CA
Ukiah	Laughlin Range	WNG720	162.525	300	Eureka, CA
Yosemite	Turtleback Dome	KAD94	162.450	80	Hanford, CA
El Paso Mtns	Ridgecrest	WNG659	162.425	300	Hanford, CA
Bakersfield	Shirley Peak	WXL89	162.550	100	Hanford, CA
Fresno	Bear Mtn.	KIH62	162.400	300	Hanford, CA
Bishop	Bishop	WZ2524	162.425	100	Las Vegas, NV
Contra Costa County	Mt. Diablo	WNG655	162.425	100	Monterey, CA
Sonoma County	Sonoma County	WZ2504	162.475	300	Monterey, CA
Monterey	Mt. Umunhum	KEC49	162.550	330	Monterey, CA
Big Rock Ridge	N. San Francisco Bay	KDX54	162.500	100	Monterey, CA
San Francisco	Mount Pise	KHB49	162.400	500	Monterey, CA
Monterey Marine	Mt. Umunhum	WWF64	162.450	100	Monterey, CA
Santa Barbara Marine	Broadcast Peak	WWF62	162.475	100	Oxnard, CA
San Simeon	Hearst Castle	WNG592	162.525	100	Oxnard, CA
Santa Barbara	Broadcast Peak	KIH34	162.400	330	Oxnard, CA
San Luis Obispo	Cuesta Peak	KIH31	162.550	330	Oxnard, CA
Sandberg	Los Angeles County	WZ2505	162.425	100	Oxnard, CA
Malibu Marine	Point Dume	KWL22	162.425	300	Oxnard, CA
Avalon	Catalina Island	WNG584	162.525	100	Oxnard, CA
Los Angeles	Mt. Lukens	KWO37	162.550	300	Oxnard, CA

Site Name	Transmitter Name	Call Sign	Freq	PWR	WFO
Yuma	Black Mtn.	WXL87	162.550	100	Phoenix, AZ
Conway Summit (OUT OF SERVICE)	Bridgeport	WNG595	162.525	300	Reno, NV
Sacramento	Fairplay	KEC57	162.550	330	Sacramento, CA
Redding	South Fork Mtn.	WXL88	162.550	100	Sacramento, CA
Grass Valley	Wolf Creek Mtn.	WWF67	162.400	100	Sacramento, CA
San Diego	Mt. Woodson	KEC62	162.400	100	San Diego, CA
Coachella	Riverside County	KIG78	162.400	100	San Diego, CA
Victorville	San Bernardino	WXM66	162.500	100	San Diego, CA
Coachella / Spanish	Riverside County	WNG712	162.525	120	San Diego, CA
Santa Ana	Beeks Place	WWG21	162.450	100	San Diego, CA
San Diego Marine	Mount Soledad	WNG637	162.425	100	San Diego, CA

NOAA Weather Radio Transmitters

California

Legend	
☐	Coverage Area
☐	Not Covered
☐	Oceans, Lakes and Rivers

KIH37 Brookings
WWF97 Mt. Ashland
Oregon
Idaho
WZ2550
WXL97 Klamath Falls
KEC82 Willow Creek
Eureka
WXL88 Redding
WNG720 Ukiah
WWF67 Grass Valley
WWG20 Fernley
KIH30 WZ2504 Sonoma County
Point Arena
WXK58 Reno
KEC57 Sacramento
KDX54 Big Rock Ridge
WNG665 Contra Costa County
WWF59 Hawthorne
KHB49 San Francisco
WNG595 Conway Summit
KEC49 Monterey
KAD94 Yosemite
WWF64 Monterey Marine
California
WZ2524 Silver Peak
Nevada
Utah
KIH62 Fresno
WNG592 San Simeon
WXL89 Bakersfield
KIH31 San Luis Obispo
WZ2505 Sandberg
WNG659 El Paso Mtns
WWF62 Santa Barbara Marine
KWO37 Los Angeles
KIH34 Santa Barbara
KWL22 Malibu Marine
WXM66 Victorville
KGC45 Bullhead City
KXI84 Lake Havasu
WWG21 Santa Ana
WNG584 Avalon
KIG78 Coachella
WNG712 Coachella / Spanish
Arizona
WNG637 San Diego Marine
KEC62 San Diego
WXL87 Yuma

Miles
0 25 50 100 150 200

Chpt 13 - Contact Information

Cal OES Contact Information	
Cal OES Warning Center 24-hour number	(916) 845-8911
Cal OES Telecommunications Duty Officer	(916) 845-8911

Auxiliary Communications Service
Cal OES's Auxiliary Communications Services Program (ACS) operates as the State Radio Amateur Civil Emergency Service (RACES) Unit. For more information, please visit www.caloes.ca.gov and search "ACS". For ACS support during an emergency, call the Cal OES Warning Center at (916) 845-8911.

Law Enforcement Mutual Aid Administrative Regions (916) 845-8700 or (916) 845-8911	
Region I	Los Angeles and Orange Counties
Region I A	San Luis Obispo, Santa Barbara, and Ventura Counties
Region II	Alameda, Contra Costa, Del Norte, Humboldt, Lake, Napa, Marin, Mendocino, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma Counties
Region III	Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, and Yuba Counties
Region IV	Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tuolumne, and Yolo Counties
Region V	Madera, Mariposa, Merced, Fresno, Kern, Kings, and Tulare Counties
Region VI	Imperial, Inyo, Mono, Riverside, San Bernardino, and San Diego Counties

Fire and Rescue Mutual Aid Regions	
Region I **(805) 445-1166**	Los Angeles, Orange, San Luis Obispo, Santa Barbara, and Ventura Counties
Region II **(925) 245-0420**	Alameda, Contra Costa, Del Norte, Humboldt, Lake, Napa, Marin, Mendocino, Monterey, Napa, San Francisco, San Mateo, San Benito, Santa Clara, Santa Cruz, Solano, and Sonoma Counties
Region III **(530) 345-4643**	Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra Siskiyou, Sutter, Tehama, Trinity, and Yuba Counties
Region IV **(916) 845-8476**	Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tuolumne, and Yolo Counties
Region V **(209) 966-5460**	Fresno, Kings, Kern, Madera, Mariposa, Merced, Tulare Counties
Region VI **(951) 320-2106**	Imperial, Inyo, Mono, Riverside, San Bernardino, and San Diego Counties

California Highway Patrol	
Emergency Notification and Tactical Alert Center (ENTAC) 24-hour number	(916) 843-4199 (916) 524-7932 (cell)

Caltrans	
Headquarters 24-hour Communications Center 1120 "N" Street, Room 3220 Sacramento, CA 95814	(916) 653-3442

Caltrans Transportation Management Centers (TMC)		
District	**Address/Phone**	**Operation Hours**
District 1	1656 Union Street Eureka, CA 95501 Telephone: (707) 441-5747	16 hours Monday through Friday, covering commute hours, and seasonally 24/7 during storms.

Caltrans Transportation Management Centers (TMC)		
District	**Address/Phone**	**Operation Hours**
District 2	1657 Riverside Drive Redding, CA 96001 Telephone: (530) 225-3016	16 hours Monday through Friday, covering commute hours, and seasonally 24/7 during storms.
District 3	3165 Gold Valley Drive Rancho Cordova, CA 95742 Telephone: (916) 859-7900	24/7
District 4	111 Grand Avenue Oakland, CA 94612 Telephone: (510) 286-6914	24/7
District 5	50 Higuera Street San Luis Obispo, CA 93401 Telephone: (805) 549-3212	12 hours Monday through Friday covering commute hours, and seasonally 24/7 during storms.
District 6	1352 West Olive Avenue Fresno, CA 93728 Telephone: (559) 445-6166	24/7
District 7	2901 West Broadway Los Angeles, CA 90041 Telephone: (323) 259-1922	24/7
District 8	13892 Victoria Street Fontana, CA 92336 Telephone: (909) 356-3711	24/7
District 9	500 South Main Bishop, CA 93514 Telephone: (760) 872-0718	12 hours Monday through Friday covering commutes hours, and seasonally 24/7 during storms.
District 10	1976 E. Dr. Martin Luther King Jr. Boulevard, Stockton, CA 95205 Telephone: (209) 948-7556	24/7
District 11	7183 Opportunity Road San Diego, CA 92111 Telephone: (858) 467-3090	24 hours Monday through Friday, and seasonally 24/7 during storms.

Caltrans Transportation Management Centers (TMC)		
District	**Address/Phone**	**Operation Hours**
District 12	6681 Marine Way Irvine, CA 92618 (949) 936-3600	24/7

Cellular Utilities	
Sprint/Nextel	24-hour Phone Number: (888) 639-0020 Sprint Emergency Response Team 24-hour support hotline (888) 639-0020
Verizon	Verizon Communications Response Team: (800) 981-9558 Significant Events Center: (949) 286-7378
AT&T	Western Region Command Center 24-hour Number: (800) 832-6662
T-Mobile	Customer Service Number (877) 453-1304

Chpt 14 - Satellite Communication Systems

OASIS

OASIS - Operational Area Satellite Information Service

Cal OES operates an 84-endpoint network of Ku Band fixed and transportable terminals.

Among the transportable assets are six Mobile Interoperability Gateway Units (MIGUs), one quartered in each of the six Mutual Aid Regions. Along with satellite reach back communications and VoIP telephones, these units are equipped with radio interoperability switches and radios on public safety bands VHF through 800 MHz.

Subject to availability, The MIGUs can be mission tasked through the Cal OES Warning Center.

OASIS Network Operations Center	
Via an OASIS Phone	3-1602 or 6-1602

OASIS Phone Network Directory (rev. 11/2019)		
Mather Hub	PSTN Access into OASIS	(916) 912-4685
Mather Hub	OASIS Access Out to the PSTN	Dial 10 digit number

OASIS Phone Network Directory (rev. 11/2019)		
Site Location	**Host Name**	**Extensions**
Alameda County OES	alameda	2-0901 - 2-0908
Alpine County Sheriff's Office	alpine	4-5001 - 4-5008
Amador County OES	amador	4-5101 - 4-5108
Butte County	butte	3-6301 - 3-6308
Calaveras County	calaveras	4-5901 - 4-5908
Colusa County OES	colusa	3-5801 - 3-5808
Contra Costa County OES	contracosta	2-1101 - 2-1108

OASIS Phone Network Directory (rev. 11/2019)		
Site Location	**Host Name**	**Extensions**
Del Norte County Sheriff's Office	delnorte	2-4401 - 2-4408
El Dorado County OES El Dorado County Sheriff's Sheriff's Dispatch 24 hr. OES Deputy Sheriff's OES Sgt. OES Lt.	eldorado	4-2501 4-2508 4-2501 4-2502 & 4-2504 4-2503 4-2505
Fresno County EMS Dispatch	fresno	5-5201 - 5-5208
Glenn County Sheriff's Office	glenn	3-5701 - 3-5708
Humboldt County OES	humboldt	2-1201 - 2-1208
Imperial County OES	imperial	6-2601 - 6-2608
Inyo County Sheriff's Administrative Facility	inyo	6-2701 - 6-2708
Kern County Fire Dispatch ECC	kern	5-2801 - 5-2808
Kings County	kings	5-5301 - 5-5308
Lake County	lake	2-2901 - 2-2908
Lassen County	lassen	3-6501 - 3-6508
Los Angeles City OES	lacityoes	6-1301 - 6-1308
Los Angeles County Emergency Operations Center	laeoc	6-1401 - 6-1408
Madera County Sheriff's Office	madera	5-4901 - 5-4908
Marin County OES	marin	2-0301 - 2-0308
Mariposa County Sheriff's Office	mariposa	5-6701 - 5-6708
Mendocino County Emergency Service Authority	mendocino	2-4501 - 2-4508
Merced County	merced	5-6001 - 5-6008
Modoc County Sheriff's Office	modoc	3-5601 - 3-5608
Mono County OES	mono	6-3001 - 6-3008
Monterey County	monterey	2-3101 - 2-3108

OASIS Phone Network Directory (rev. 11/2019)		
Site Location	**Host Name**	**Extensions**
Napa County	napa	2-3201 - 2-3208
Nevada County Sheriff's Department	nevada	4-3301 - 4-3308
Orange County Sheriff-Coroner Dept.	orangesheriff	6-1501 - 6-1508
Placer County Emergency Operations Center	placer	4-3401 - 4-3408
Plumas County	plumas	3-6401 - 3-6408
Riverside County Emergency Services	riverside	6-0601 - 6-0608
Sacramento County Emergency Operations Center	sac-eoo	4-3501 - 4-3508
San Benito County	sanbenito	2-3601 - 2-3608
San Bernardino County Emergency Ops. Center	sanbern-eoc	6-0801 - 6-0808
San Diego County Emergency Ops. Center	sandiego	6-0701 - 6-0708
San Francisco OES	sanfran	2-0501 - 2-0508
San Joaquin County OES	sanjoaquin	4-1601 - 4-1608
San Luis Obispo County	sanluisobispo	6-4601 - 6-4608
San Mateo County Sheriff's OES	sanmateooes	2-1701 – 2-1708
Santa Barbara County OES	santabarbara	6-1801 - 6-1808
Santa Clara County OES	santaclara	2-1901 - 2-1908
Santa Cruz County	santacruz	2-0401 - 2-0408
Shasta County - Shascom	shascom	3-3701 - 3-3708
Sierra County Sheriff's Office	sierra	3-6801 - 3-6808
Siskiyou County Sheriff's Office	siskiyou	3-5501 - 3-5508
Solano County Sheriff's Office	solano	2-3801 - 2-3808
Sonoma County OES	sonoma	2-2001 - 2-2008

OASIS Phone Network Directory (rev. 11/2019)		
Site Location	**Host Name**	**Extensions**
Stanislaus County	stanislaus	4-4701 - 4-4708
Sutter County Sheriff's Office	sutter	3-6201 - 3-6208
Tehama County OES	tehama	3-3901 - 3-3908
Trinity County Sheriff's Office	trinity	3-6601 - 3-6608
Tulare County - California Dept. of Forestry	tulare	5-5401 - 5-5408
Tuolumne Co Sheriff's Office	tuolumne	4-6101 - 4-6108
Ventura County Sheriff's Department	ventura	6-2101 - 6-2108
Yolo OES	yolo oes	4-4001 - 4-4008
Yuba County OES	yuba	3-4101 - 3-4108

Special Units		
Site Location	**Host Name**	**Extensions**
California Institute of Technology Seismological Lab Los Angeles	caltech-seismo	6-1001 - 6-1008
US Geological Survey (Menlo Park)	sanmateousgs	2-7101 - 2-7108
UC Berkeley	ucberkeley	2-7001 - 2-7008
State Military Department - National Guard - Sacramento	sacnatlguard	4-7201 - 4-7208
Riverside County - Firescope	riverfscope	6-4801 - 6-4808
Shasta County - Firescope North	firescopenorth	3-0201 - 3-0208

Cal OES HQ Mather			
Site Location	**Host Name**	**Location**	**Extensions**
Sacramento Mather OES HQ CSWC	oescswc	State Warning Center	8-0401 & 8-0402

Cal OES HQ Mather			
Site Location	**Host Name**	**Location**	**Extensions**
SOC Director / Deputy Director	Oessoc	SOC Bldg. A	8-0406
SOC Plans & Intelligence Chief	Oessoc	SOC Bldg. A	8-0405
SOC Administration & Finance Chief	Oessoc	SOC Bldg. A	8-0404
SOC Operations Chief	Oessoc	SOC Bldg. A	8-0408
SOC Mission Coordinator	Oessoc	SOC Bldg. A	8-0407
SOC Logistics Chief	Oessoc	SOC Bldg. A	8-0403
SOC DOT/Caltrans Representative	Oessoc	SOC Bldg. A	8-0415
Law EOC	oeslaweoc	2nd FL Bldg. A	8-0411
Fire EOC	oesfireeoc	2nd FL Bldg. A	8-0410
Executive Conference Room	oesexec	2nd FL Bldg. B	8-0412
State Operations Communications Center	oessocc	SOCC Rm A132	8-0414
Tcomm OASIS Test Circuit	oestcmtest	Bldg. A Radio Vault	8-0424

Cal OES Southern Region			
Site Location	**Host Name**	**Location**	**Extensions**
SREOC Director	oessouthern	REOC Bldg. 283	8-0301
SREOC Deputy Director	oessouthern	REOC Bldg. 283	8-0302
SREOC Operations Chief	oessouthern	REOC Bldg. 283	8-0303
SREOC SIT/STAT Unit Leader	oessouthern	REOC Bldg. 283	8-0304

Cal OES Southern Region			
Site Location	**Host Name**	**Location**	**Extensions**
SREOC Personnel	oessouthern	REOC Bldg. 283	8-0305
SREOC Procurement	oessouthern	REOC Bldg. 283	8-0306
SREOC Resource Tracking	oessouthern	REOC Bldg. 283	8-0307
SREOC Logistics Chief	oessouthern	REOC Bldg. 283	8-0308
SREOC Deputy Operations Chief	oessouthern	REOC Bldg. 283	8-0309
SREOC Care & Shelter Manager	oessouthern	REOC Bldg. 283	8-0310
SREOC Construction Engineering	oessouthern	REOC Bldg. 283	8-0311
SREOC Cal OES Fire & Rescue	oessouthern	REOC Bldg. 283	8-0312
SREOC CALTRANS	oessouthern	REOC Bldg. 283	8-0313
SREOC Cal OES Law	oessouthern	REOC Bldg. 283	8-0314
SREOC California National Guard	oessouthern	REOC Bldg. 283	8-0315
SREOC FEMA {spare floater}	oessouthern	REOC Bldg. 283	8-0316
SREOC Regional Administrator Office	oessouthern	REOC Bldg. 283-East	8-0317
SREOC Regional Administrator Office	oessouthern	REOC Bldg. 283-East	8-0318
SREOC Conference Room	oessouthern	REOC Bldg. 283-East	8-0319
SREOC Conference Room	oessouthern	REOC Bldg. 283-East	8-0320
SREOC Conference Room	oessouthern	REOC Bldg. 283-East	8-0321

Cal OES Southern Region			
Site Location	**Host Name**	**Location**	**Extensions**
SREOC Conference Room	oessouthern	REOC Bldg. 283-East	8-0322
SREOC Communications Center	oessouthern	REOC Bldg. 283	8-0323
SREOC Communications Unit Leader	oessouthern	REOC Bldg. 283	8-0324

Cal OES Coastal Region			
Site Location	**Host Name**	**Location**	**Extensions**
CR Communications Coordinator	oescoastal	Office Cube	8-0101
CREOC Logistics	oescoastal	REOC	8-0106
CREOC Ops/Plans	oescoastal	REOC	8-0103
CREOC Sit Stat	oescoastal	REOC	8-0102
CREOC Ops	oescoastal	Main Conference Rm	8-0107
CREOC Med	oescoastal	Central Cubes	8-0104
CREOC Plans	oescoastal	REOC	8-0105
CREOC Communications Center	oescoastal	Communications Center	8-0108

Cal OES Transportables			
Site Location	**Host Name**	**Tech Extension**[1]	**Extensions**
Cal OES Comm 61	comm61	7-6124	7-6101 - 7-6123
Cal OES Comm 62	comm62	7-6224	7-6201 - 7-6223
Cal OES Comm 64	comm64	7-6424	7-6401 - 7-6423
Cal OES MIGU 1	MIGU 1	7-6624	7-6601 - 7-6624
Cal OES MIGU 2	MIGU 2	7-6724	7-6701 - 7-6724
Cal OES MIGU 3	MIGU 3	7-6824	7-6801 - 7-6824

Cal OES Transportables			
Site Location	**Host Name**	**Tech Extension**[1]	**Extensions**
Cal OES MIGU 4	MIGU 4	7-6924	7-6901 - 7-6924
Cal OES MIGU 5	MIGU 5	7-7024	7-7001 - 7-7024
Cal OES MIGU 6	MIGU 6	7-7124	7-7101 - 7-7124
[1] Tech Work Line is never issued for customer use.			

CT SATCOM

CT SATCOM – Caltrans Satellite Communication Network

Caltrans operates fixed satellite ph6ones and mobile trailers with satellite communications for voice, data, and video.

Caltrans Fixed Satellite (CT SATCOM) (916) 282-1812		
Site Location	**Host Name**	**Extensions**
Caltrans HQ, Sacramento Communications Center	CALTRANS-HQ	1305
Caltrans District 4, Oakland TMC	CALTRANS-D04	0401
Caltrans District 7, Los Angeles District Office TMC	CALTRANS-D07	0701
Caltrans District 8, San Bernardino District Office TMC	CALTRANS-D08	0801

Caltrans Mobile Satellite (CT SATCOM) (916) 282-1812		
Site Location	**Host Name**	**Extensions**
Caltrans District 1, Fortuna	CTSATCOM1	0149-0172
Caltrans District 3, Marysville	CTSATCOM3	0349-0372
Caltrans District 4, San Francisco	CTSATCOM4	0449-0472
Caltrans District 7, Los Angeles	CTSATCOM7	0749-0772

Chpt 15 - GETS and WPS

The Government Emergency Telecommunications Service (GETS) enables personnel to complete a phone call with high probability when normal calling methods are unsuccessful.

Wireless Priority Service (WPS) is a priority calling capability that greatly increases the probability of call completion during an event while using their cellular phone.

GETS/WPS User Assistance: *1-800-818-4387* **OR** *1-703-818-4387*

How to make a GETS Call

1. View PIN and the GETS access number on GETS Card.
2. Access outside telephone line and dial (710) 627-4387 (on cell phones: enter (710) 627-4387 and push SEND key).
3. The call will be routed to one of the three GETS carriers. It may take 60+ seconds to connect to a GETS carrier during heavy network congestion.
4. Listen for the tone, then enter the twelve-digit PIN on front of GETS Card (do not enter # after last digit).
5. Listen for voice prompt: "Please enter your Destination Number now".
6. Enter the Destination Number (omit the 1 before the Area Code).
7. You will hear an announcement, "You are using GETS, "AT&T", "Sprint", or "Verizon". Network will route your call to the destination telephone number – may take 60+ seconds after the announcement to connect to Destination Number during heavy network congestion.

How to make a WPS Call

1. Confirm radio signal on WPS subscribed cell phone.
2. Enter *272 + Destination Number and push SEND key (example: *272 703 818 4387 + SEND).
3. Network will route call to the Destination Number. It may take 60+ seconds to connect the call. On most cell phones the screen will display*272 + the Destination Number. Some phones may display call status messages such as call queued and/or provide audible tones indicating the call has been queued.
4. If first attempt does not complete, end the call and retry by pressing send key to auto redial; or add *272 prefix to emergency numbers stored in cell phone contact list for quick dialing. Some cell phones automatically retry calls that do not complete – the screen message will indicate if the phone is re-trying the call.

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Chpt 16 - Licensed Repeater Locations

CALAW4 UHF

MAR = Mutual Aid Region

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
CALAW4 UHF (460.0250/465.0250 MHz) Licensed Repeater Locations
1	Orange	Fullerton	WQFR948	156.7	156.7
1	Orange	Loma Ridge	KBV892	156.7	156.7
1	Orange	Moorhead Res.	KBV892	156.7	156.7
1	Orange	Ortega Hwy Site	WQFR948	156.7	156.7
1	Orange	San Clemente	KBV892	156.7	156.7
1	Orange	Santiago Peak	KBV892	156.7	156.7
1	Orange	Sierra Peak	KBV892	156.7	156.7
1	Orange	Signal Peak	KBV892	156.7	156.7
2	Alameda	Albany PD	KKG946		
2	Alameda	UC Berkeley	KQP502	162.2	162.2
2	Contra Costa	Antioch	KNNF498	156.7	156.7
2	Contra Costa	Martinez CC	KRX568	127.3	127.3
2	Contra Costa	Walnut Creek PD	KZO392	156.7	156.7
2	Marin	San Rafael	WQOP335	156.7	156.7
2	Marin	Sonoma Mtn	WQOP335	156.7	156.7
2	Monterey	Salinas	KTS628	146.2	146.2
2	San Francisco	San Francisco Christmas Tree Pt	KQS275	167.9	167.9
2	San Francisco	Twin Peaks CHP	KYJ331	131.8	
2	Santa Clara	Santa Clara Co Disp	KTV807		
2	SOLANO	VALLEJO CHP	WNVM904	127.3	127.3
2	Sonoma	Santa Rosa PD	KMK981	127.3	127.3
3	SUTTER	SUTTER BUTTES	WQNU682	156.7	156.7
4	Nevada	Truckee CHP	KAZ604	CSQ	CSQ

CALAW4 UHF (460.0250/465.0250 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
4	SACRAMENTO	SACRAMENTO	KYK296	127.3	127.3
4	San Joaquin	Lodi	KXU225	131.8	131.8
4	SAN JOAQUIN	STOCKTON	KZF907	186.2	186.2
4	Stanislaus	Modesto	WQP824	173.8	173.8
5	FRESNO	CLOVIS	KYI953		
5	Fresno	Fresno (2 locations)	WNBM858	136.5	136.5
5	KERN	BAKERSFIELD	WNFX713	131.8	131.8
5	Madera	Chowchilla	KMK974	107.2	107.2
5	TULARE	VISALIA	KNEX656	131.8	131.8
6	Riverside	Riverside	WQPF470	156.7	131.8
6	RIVERSIDE	BOX SPRINGS	WPIZ329	131.8	131.8

LLAW1 VHF Low

LLAW1 VHF Low (39.4600/45.8600 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	Baldwin Hills	WQBC548	156.7	156.7
1	Orange	Moorhead Reservoir	KBV892	156.7	156.7
1	Orange	San Clemente Peak	KBV892	156.7	156.7
1	Orange	Santiago Peak	KBV892	156.7	156.7
1	Orange	Sierra Peak	KBV892	156.7	156.7
1	Orange	Signal Peak	KBV892	156.7	156.7
2	San Francisco	Christmas Tree Point	KQS275	156.7	156.7
2	Sonoma	Sonoma Mtn	WQOM497	156.7	156.7
3	Sutter	Sutter Buttes	WQNU682	156.7	156.7

LLAW1 VHF Low (39.4600/45.8600 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
4	Nevada	Truckee	KAZ604	156.7	156.7
5	NONE				
6	Imperial	Superstition Mtn	KJF891	156.7	156.7
6	San Diego	Kearny Mesa	KJF891	156.7	156.7
6	San Diego	Lyons Peak	KJF891	156.7	156.7
6	San Diego	Palomar Mtn	KJF891	156.7	156.7
6	San Diego	White Star	KJF891	156.7	156.7
6	San Diego	Kearny Mesa	KJF891	156.7	156.7

CALAW8

CALAW8 (853.5125/808.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	San Pedro Hills	WPPX553	156.7	156.7
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda	WPIT443	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Fullerton	WQFS553	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7

CALAW8 (853.5125/808.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Orange	Seal Beach	WQFS553	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Sierra Peak	WPIT445	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
2	Alameda	Crane Ridge	WPMH823	156.7	156.7
2	Alameda	Sunol Ridge	WPMH823	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland Highland	WPNY310	156.7	156.7
2	Alameda	Oakland	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	San Francisco	Christmas Tree Point	WQJR602	156.7	156.7
2	Solano	Benica	WQQK777	156.7	156.7
2	Solano	Cement Hill	WQQK777	156.7	156.7
2	Solano	Vallejo	WQQK777	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
5	NONE				
6	Imperial	Superstition Mtn	WPAT870	156.7	156.7
6	Riverside	Arlington Mtn	WQQC827	156.7	156.7
6	Riverside	Quail Mesa Blythe	WQFU769	156.7	156.7

CALAW8 (853.5125/808.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
6	Riverside	Box Springs	WPIT741	156.7	156.7
6	Riverside	Cactus City	WPIT743	156.7	156.7
6	Riverside	Chuckwalla	WQFU769	156.7	156.7
6	Riverside	Elsinore Peak	WQFU769	156.7	156.7
6	Riverside	Indio Hill	WQFU769	156.7	156.7
6	Riverside	David Mtn	WQFU769	156.7	156.7
6	Riverside	Santa Rosa Mtn	WQFU769	156.7	156.7
6	Riverside	Whitewater Hill	WPIT739	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7
6	San Diego	Black Mtn	WPAT870	156.7	156.7
6	San Diego	Cowles Mtn	WPAT870	156.7	156.7
6	San Diego	Hillcrest	WPAT870	156.7	156.7
6	San Diego	Point Loma	WPAT870	156.7	156.7
6	San Diego	Mt Soledad	WPAT870	156.7	156.7
6	San Diego	Mt Woodson	WPAT870	156.7	156.7
6	San Diego	San Onofre BP	WPAT870	156.7	156.7
6	San Diego	San Ysidro	WPAT870	156.7	156.7

CALAW9

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
CALAW9 (851.2000/806.2000 MHz) Licensed Repeater Locations
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	San Francisco	Christmas Tree Pt	WQTR456	156.7	156.7
2	San Francisco	Airport	WQTR456	156.7	156.7
3	Not Available				
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
5	NONE				
6	NONE				

CAFIRE1

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
CAFIRE1 (853.9875/806.9875 MHz) Licensed Repeater Locations
1	Los Angeles	San Pedro Hills	WPPX553	156.7	156.7
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7	156.7
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7

CAFIRE1 (853.9875/806.9875 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Olinda	WPIT443	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
2	Alameda	Bald Peak, (CC Co.)	WPMH823	156.7	156.7
2	Alameda	Crane Ridge	WPMH823	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland, Highland	WPNY310	156.7	156.7
2	Alameda	Oakland, Lakeside	WPNY310	156.7	156.7
2	Alameda	Sunol Ridge	WPMH823	156.7	156.7
2	San Francisco	Christmas Tree Pt	WQTR456	156.7	156.7
2	San Francisco	San Francisco Airport	WQTR456	156.7	156.7
2	Solano	Benicia	WQQK777	156.7	156.7
2	Solano	Cement Hill	WQQK777	156.7	156.7
2	Solano	Vallejo	WQQK777	156.7	156.7
3	NONE				
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7

CAFIRE1 (853.9875/806.9875 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
5	NONE				
6	Imperial	Superstition Mtn	WPAT870	156.7	156.7
6	Riverside	Box Springs Mtn	WPIT741	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7
6	San Diego	Black Mtn	WPAT870	156.7	156.7
6	San Diego	Cowles Mtn	WPAT870	156.7	156.7
6	San Diego	Hillcrest	WPAT870	156.7	156.7
6	San Diego	Point Loma	WPAT870	156.7	156.7
6	San Diego	Mt Soledad	WPAT870	156.7	156.7
6	San Diego	Mt Woodson	WPAT870	156.7	156.7
6	San Diego	San Onofre BP	WPAT870	156.7	156.7
6	San Diego	San Ysidro	WPAT870	156.7	156.7

CAFIRE2

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
	CAFIRE2 (851.9125/806.9125 MHz) Licensed Repeater Locations				
1	NONE				
2	Alameda	Dublin	WPNY310	156.78	156.7
2	Alameda	Fremont	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland, Highland	WPNY310	156.7	156.7
2	Alameda	Oakland, Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	San Francisco	San Francisco Airport	WQTR456	156.7	156.7
2	San Francisco	Christmas Tree Point	WQTR456	156.7	156.7
2	Santa Clara	County Dispatch	WPES897	156.7	156.7
3	NONE				
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
5	NONE				
6	NONE				

8CALL90

8CALL90 (851.0125/806.0125 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
1	Los Angeles	San Pedro Hills	WPPX553	156.7	156.7
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7	156.7
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda Site	WPIT443	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Fullerton	WQJJ267	156.7	156.7
1	Orange	Laguna Beach	WPIT722	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	San Juan Cap., Ortega	WPIT435	156.7	156.7
1	Orange	Santa Ana	WPIT717	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Seal Beach	WQJJ267	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Silverado	WPIT447	156.7	156.7
1	Orange	South Laguna	WPIT725	156.7	156.7
1	Orange	Westminster	WPIT720	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
1	Ventura	Ventura EOC	WQQW940	156.7	156.7
2	Alameda	Bald Peak (CC Co)	WPMH823	156.7	156.7

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	Alameda	Crane Ridge	WPMH823	156.7	156.7
2	Alameda	Sunol Ridge	WPMH823	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland Highland	WPNY310	156.7	156.7
2	Alameda	Oakland Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Marin	Barnabe Peak	WQQL235	156.7	156.7
2	Marin	Dollar Hill	WQQL235	156.7	156.7
2	San Francisco	Christmas Tree Pt	WQTR456	156.7	156.7
2	Solano	Mt Vaca	WQQK777	156.7	156.7
2	Sonoma	Mt Jackson	WQQL647	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Placer	Roseville	WQUK602	156.7	156.7
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
5	NONE				
6	Imperial	Superstition Mtn	WPAT870	156.7	156.7
6	Riverside	Blythe, Quail Mesa AZ	WQFU679	156.7	156.7
6	Riverside	Blythe, Black Rock	WPIT742	156.7	156.7
6	Riverside	Box Springs	WPIT741	156.7	156.7
6	Riverside	Chuckwalla	WQFU679	156.7	156.7
6	Riverside	Elsinore Peak	WQFU679	156.7	156.7
6	Riverside	Indio Hill	WQFU679	156.7	156.7
6	Riverside	Santa Rosa Mtn	WQFU679	156.7	156.7
6	Riverside	Whitewater Hill	WPIT739	156.7	156.7
6	Riverside	Mt. David	WQFU679	156.7	156.7
6	Riverside	Arlington Mtn	WQQC827	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7

8CALL90 (851.0125/806.0125 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7

8TAC91

8TAC91 (851.5125/806.5125 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
1	Los Angeles	San Pedro Hills	WPPX553	156.7 / 110.9	156.7 / 110.9
1	Los Angeles	Verdugo Peak (LA Co)	WPPX553	156.7 / 110.9	156.7 / 110.9
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda	WPIT443	156.7	156.7
1	Orange	Carbon Canyon Reservoir	WPIT723	156.7	156.7

8TAC91 (851.5125/806.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Orange	Fullerton	WPIT721	156.7	156.7
1	Orange	Laguna Beach	WPIT722	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	San Juan Cap., Ortega	WPIT435	156.7	156.7
1	Orange	Santa Ana	WPIT717	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Silverado	WPIT447	156.7	156.7
1	Orange	South Laguna	WPIT725	156.7	156.7
1	Orange	Westminster	WPIT720	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland, Highland	WPNY310	156.7	156.7
2	Alameda	Oakland, Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Alameda	Bald Peak (CC Co)	WPMH823	156.7	156.7
2	Contra Costa	Brentwood PD	WQXW721	156.7	156.7
2	San Francisco	Christmas Tree Point	WQTR456	156.7	156.7

\				8TAC91 (851.5125/806.5125 MHz) Licensed Repeater Locations		

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	Solano	Benicia	WQQK777	156.7	156.7
2	Solano	Cement Hill	WQQK777	156.7	156.7
2	Solano	Vallejo	WQQK777	156.7	156.7
2	Sonoma	Sonoma Mtn	WQQL647	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Placer	Roseville	WQUK602	156.7	156.7
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
4	Sacramento	Twitchell Island	WQXW721	156.7	156.7

8TAC91 (851.5125/806.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
4	San Joaquin	Ag Center	WQXW721	156.7	156.7
5	NONE				
6	Riverside	Box Springs	WPIT741	156.7	156.7
6	Riverside	Elsinore Peak	WQFU679	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mt.	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7

8TAC92

8TAC92 (852.0125/807.0125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	San Pedro Hills	WPPX553	156.7 / 110.9	156.7 / 110.9

8TAC92 (852.0125/807.0125 MHz)
Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7 / 110.9	156.7 / 110.9
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda	WPIT443	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Fullerton	WPIT721	156.7	156.7
1	Orange	Laguna Beach	WPIT722	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	San Juan Cap., Ortega	WPIT435	156.7	156.7
1	Orange	Santa Ana	WPIT717	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Silverado	WPIT447	156.7	156.7
1	Orange	South Laguna	WPIT725	156.7	156.7
1	Orange	Westminster	WPIT720	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7

8TAC92 (852.0125/807.0125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland, Highland	WPNY310	156.7	156.7
2	Alameda	Oakland, Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Contra Costa	Brentwood PD	WQXW721	156.7	156.7
2	San Francisco	Christmas Tree Point	WQTR456	156.7	156.7
2	Sonoma	Oak Ridge	WQQL647	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7

8TAC92 (852.0125/807.0125 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
4	Sacramento	Twitchell Island	WQXW721	156.7	156.7
4	San Joaquin	Ag Center	WQXW721	156.7	156.7
5	NONE				
6	Riverside	Mt. David	WQFU679	156.7	156.7
6	Riverside	Whitewater Hill	WPIT739	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7

8TAC93

8TAC93 (852.5125/807.5125 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	San Pedro Hills	WPPX553	156.7	156.7
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7	156.7
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda	WPIT443	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Fullerton	WPIT721	156.7	156.7
1	Orange	Laguna Beach	WPIT722	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	San Juan Cap., Ortega	WPIT435	156.7	156.7
1	Orange	Santa Ana	WPIT717	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Silverado	WPIT447	156.7	156.7
1	Orange	South Laguna	WPIT725	156.7	156.7
1	Orange	Westminster	WPIT720	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland Highland	WPNY310	156.7	156.7

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
	8TAC93 (852.5125/807.5125 MHz) Licensed Repeater Locations				
2	Alameda	Oakland Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Contra Costa	Brentwood PD	WQXW721	156.7	156.7
2	San Francisco	Christmas Tree Point	WQTR456	156.7	156.7
2	Solano	Benicia	WQQK777	156.7	156.7
2	Solano	Cement Hill	WQQK777	156.7	156.7
2	Solano	Vallejo	WQQK777	156.7	156.7
2	Sonoma	Seaview Ridge	WQQL647	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Sacramento	Carpenter Peak	WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
4	Sacramento	Twitchell Island	WQXW721	156.7	156.7
4	San Joaquin	Ag Center	WQXW721	156.7	156.7
5	NONE				
6	Riverside	Indio Hill	WQFU679	156.7	156.7
6	Riverside	Santa Rosa Mtn	WQFU679	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7

8TAC93 (852.5125/807.5125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7

8TAC94

8TAC94 (853.0125/808.0125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	San Pedro Hills	WPPX553	156.7 / 110.9	156.7 / 110.9
1	Los Angeles	Verdugo Peak (LA City)	WPPX553	156.7 / 110.9	156.7 / 110.9
1	Los Angeles	Blackjack	WQQJ310	156.7	156.7
1	Los Angeles	Oat Mtn	WQQJ310	156.7	156.7
1	Los Angeles	Rolling Hills	WQQJ310	156.7	156.7
1	Los Angeles	San Dimas	WQQJ310	156.7	156.7
1	Los Angeles	Verdugo Peak (LA Co)	WQQJ310	156.7	156.7
1	Orange	Bolero Peak	WPIT724	156.7	156.7
1	Orange	Brea, Olinda	WPIT443	156.7	156.7
1	Orange	Carbon Canyon	WPIT723	156.7	156.7
1	Orange	Fullerton	WPIT721	156.7	156.7
1	Orange	Laguna Beach	WPIT722	156.7	156.7
1	Orange	Moorhead Reservoir	WPIT718	156.7	156.7

8TAC94 (853.0125/808.0125 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Orange	Loma Ridge	WPIT439	156.7	156.7
1	Orange	San Clemente	WPIT431	156.7	156.7
1	Orange	San Juan Cap., Ortega	WPIT435	156.7	156.7
1	Orange	Santa Ana	WPIT717	156.7	156.7
1	Orange	Santiago Peak	WPIT716	156.7	156.7
1	Orange	Sierra Peak	WPIT455	156.7	156.7
1	Orange	Signal Peak	WPIT451	156.7	156.7
1	Orange	Silverado	WPIT447	156.7	156.7
1	Orange	South Laguna	WPIT725	156.7	156.7
1	Orange	Westminster	WPIT720	156.7	156.7
1	Orange	Yorba Linda	WPIT727	156.7	156.7
1	Ventura	Rasnow Peak	WQQW940	156.7	156.7
1	Ventura	Rincon Peak	WQQW940	156.7	156.7
1	Ventura	Rocketdyne	WQQW940	156.7	156.7
1	Ventura	Sisar Peak	WQQW940	156.7	156.7
2	Alameda	Dublin	WPNY310	156.7	156.7
2	Alameda	Hayward	WPNY310	156.7	156.7
2	Alameda	Oakland Highland	WPNY310	156.7	156.7
2	Alameda	Oakland Lakeside	WPNY310	156.7	156.7
2	Alameda	South Red Hill	WPNY310	156.7	156.7
2	Contra Costa	Brentwood PD	WQXW721	156.7	156.7

8TAC94 (853.0125/808.0125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	San Francisco	Christmas Tree Point,	WQTR546	156.7	156.7
2	Sonoma	Mt Jackson	WQQL647	156.7	156.7
3	Sutter	Sutter Buttes	WQNR470	156.7	156.7
4	Sacramento	Carpenter Peak	WQIB408WQQI573	156.7	156.7
4	Sacramento	Rancho Murrieta	WQQI573	156.7	156.7
4	Sacramento	Citrus Heights	WQQI573	156.7	156.7
4	Sacramento	Freeport	WQQX321	156.7	156.7
4	Sacramento	Galt	WQQX321	156.7	156.7
4	Sacramento	Gibson Ranch	WQQX321	156.7	156.7
4	Sacramento	Sacramento Main Jail	WQQX321	156.7	156.7
4	Sacramento	Elk Grove	WQQX321	156.7	156.7
4	Sacramento	Brighton Heights	WQQX321	156.7	156.7
4	Sacramento	Twitchell Island	WQXW721	156.7	156.7
4	San Joaquin	Ag Center	WQXW721	156.7	156.7
5	NONE				
6	Riverside	Blythe, Quail Mesa AZ	WQFU679	156.7	156.7
6	Riverside	Box Springs	WPIT741	156.7	156.7

8TAC94 (853.0125/808.0125 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
6	Riverside	Chuckwalla	WQFU679	156.7	156.7
6	San Diego	White Star	WPNV383	156.7	156.7
6	San Diego	Los Pinos	WPNV382	156.7	156.7
6	San Diego	Monument Peak	WPNV382	156.7	156.7
6	San Diego	North Peak	WPNV382	156.7	156.7
6	San Diego	Palomar Mtn	WPNV383	156.7	156.7
6	San Diego	Red Mtn	WPNV383	156.7	156.7
6	San Diego	Lake San Marcos Peak	WPNV382	156.7	156.7
6	San Diego	San Miguel Mtn	WPNV382	156.7	156.7

UCALL40

UCALL40 (453.2125/458.2125 MHz) Licensed Repeater Locations					
MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	Los Angeles (LAX)	WQAN354		
1	Ventura	Simi Valley	WQOM462	CSQ	156.7
1	Ventura	Ventura EOC	WQTS935	CSQ	156.7
2	Solano	Benicia	WQJL894		
2	Solano	Cement Hill	WQJL894		
2	Solano	Mt. Vaca	WQJL894		
2	Marin	Barnabe Peak	WQOP335	156.7	156.7

UCALL40 (453.2125/458.2125 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	Marin	San Pedro Ridge	WQOP335	156.7	156.7
2	Sonoma	Mt Jackson	WQOM497	156.7	156.7
3	Sutter	Sutter Buttes	WQNU682	156.7	156.7
4	NONE				
5	NONE				
6	Imperial	Hendrix Peak	WQEN775		
6	Imperial	Superstition Mtn	WQEN775		
6	Riverside	Arlington Mtn	WQPF470	156.7	156.7
6	San Diego	Cowles Mtn	WQEN775	156.7	156.7
6	San Diego	Kearny Mesa	WQEN775	156.7	156.7
6	San Diego	Lake San Marcos Peak	WQEN775	156.7	156.7
6	San Diego	Lyons Peak	WQEN775	156.7	156.7
6	San Diego	Palomar Mtn	WQEN775	156.7	156.7
6	San Diego	White Star	WQEN775	156.7	156.7

UTAC41

UTAC41 (453.4625/458.4625 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
1	Los Angeles	Los Angeles (LAX)	WQAN354		
2	Contra Costa	Brentwood PD	WQXX604	156.7	156.7
3	Sutter	Sutter Buttes	WQNU682	156.7	156.7
4	Sacramento	Twitchell Island	WQXX604	156.7	156.7
4	San Joaquin	Ag Center	WQXX604	156.7	156.7
5	Fresno	Fresno	WQEW940		
5	Fresno	Joaquin Ridge	WQEW940		
5	Fresno	Meadow Lakes	WQEW940		
5	Fresno	Squaw Valley	WQEW940		

UTAC41 (453.4625/458.4625 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
6	Riverside	Arlington Mtn	WQPF470	156.7	156.7

UTAC42

UTAC42 (453.7125/458.7125 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
1	Los Angeles	Los Angeles (LAX)	WQAN354		
1	Ventura	Simi Valley	WQOM462	156.7	156.7
2	Contra Costa	Brentwood PD	WQXX604	156.7	156.7
2	Sonoma	Oak Ridge	WQOM497	156.7	156.7
3	Sutter	Sutter Buttes	WQNU682	156.7	156.7
4	Sacramento	Twitchell Island	WQXX604	156.7	156.7
4	San Joaquin	Ag Center	WQXX604	156.7	156.7
5	NONE				
6	NONE				

UTAC43

UTAC43 (453.8625/458.8625 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx Tone**	**Tx Tone**
1	Los Angeles	Los Angeles (LAX)	WQAN354		
1	Ventura	McCoy Mtn	WQOM462	156.7	156.7
1	Ventura	Rasnow Peak	WQTS935	156.7	156.7
1	Ventura	Rincon Peak	WQTS935	156.7	156.7
1	Ventura	Rocketdyne	WQTS935	156.7	156.7
1	Ventura	Sisar Peak	WQTS935	156.7	156.7
2	Solano	Benicia	WQJL894		

UTAC43 (453.8625/458.8625 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx Tone	Tx Tone
2	Solano	Cement Hill	WQJL894		
2	Solano	Mt Vaca	WQJL894		
2	Sonoma	Mt Jackson	WQOM497	156.7	156.7
3	Sutter	Sutter Buttes	WQNU682	156.7	156.7
4	NONE				
5	Fresno	Fresno	WQEW940		
5	Fresno	Joaquin Ridge	WQEW940		
5	Fresno	Meadow Lakes	WQEW940		
5	Fresno	Squaw Valley	WQEW940		
6	Imperial	Hendrix Peak	WQEN775	156.7	156.7
6	Imperial	Superstition Mtn	WQEN775	156.7	156.7
6	San Diego	Cowles Mtn	WQEN775	156.7	156.7
6	San Diego	Kearny Mesa	WQEN775	156.7	156.7
6	San Diego	Lake San Marcos Peak	WQEN775	156.7	156.7
6	San Diego	Lyons Peak	WQEN775	156.7	156.7
6	San Diego	Palomar Mtn	WQEN775	156.7	156.7
6	San Diego	White Star	WQEN775	156.7	156.7

7CALL50

7CALL50 (769.24375/799.24375 MHz) Licensed Repeater Locations

MAR	County	Site	Call Sign	Rx NAC	Tx NAC
1	Orange	Loma Ridge	WQPW737	$F7E	$293
1	Orange	Signal Peak	WQPW737	$F7E	$293
1	Orange	Ortega Hwy	WQPW737	$F7E	$293
1	Orange	Olinda	WQPW737	$F7E	$293
2	Marin	Barnabe Peak	WQPX461	$F7E	$293
2	Marin	Mt Vision, Point Reyes	WQPX461	$F7E	$293

7CALL50 (769.24375/799.24375 MHz) Licensed Repeater Locations					
MAR	**County**	**Site**	**Call Sign**	**Rx NAC**	**Tx NAC**
2	Marin	San Pedro Ridge	WQPX461	$F7E	$293
2	Marin	Dollar Hill	WQPX461	$F7E	$293
2	Marin	Big Rock	WQPX462	$F7E	$293
2	Marin	Mt Tamalpais	WQPX462	$F7E	$293
2	Marin	Stewart Point	WQPX462	$F7E	$293
4	NONE				
5	NONE				
6	Imperial	Hendrix Peak	WQQA826	$F7E	$293
6	Imperial	Superstition Mtn	WQQA826	$F7E	$293
6	Riverside	Arlington Mtn	WQQZ633	$F7E	$293
6	San Diego	Cowles Mtn	WQQA826	$F7E	$293
6	San Diego	Kearny Mesa	WQQA826	$F7E	$293
6	San Diego	Lake San Marcos Peak	WQQA826	$F7E	$293
6	San Diego	Lyons Peak	WQQA826	$F7E	$293
6	San Diego	Palomar Mtn	WQQA826	$F7E	$293
6	San Diego	White Star	WQQA826	$F7E	$293

These locations have additional 700 MHz interoperability frequencies. Make contact on 7CALL50 for assignment of other available 700 MHz interoperability frequencies.

Chpt 17 - Authorization Procedures for Interoperability Channels

The State of California is the designated authorized licensee of all state designated interoperability and non-Federal National Interoperability Channels. In order to operate on these frequencies, the licensee (*State of California*) must designate you as a unit of their system, in accordance with FCC rule 90.421. Agencies that desire to program these channels must request authorization from Cal OES Public Safety Communications. In cases where use is necessary for the imminent protection of human life and property, authority to transmit is automatic and will be temporary until the emergency has ended.

The following procedures are divided into two general uses: Mobiles Only and Fixed Sites. "Mobiles Only" refers to agencies requesting to program only handheld and/or vehicular mounted radios. Procedures listed under "Fixed Sites" are for agencies seeking to operate/modify radio stations at fixed locations.

State Frequency Coordination and Licensing

The Cal OES Public Safety Communications (PSC) is responsible for ensuring all state communication systems and licenses comply with federal regulations. This includes ensuring license requests to program Interoperability channels comply with the technical and operational policies of the California Statewide Interoperability Executive Committee (CalSIEC).

A license request to operate a fixed radio site using state and/or National Interoperability frequencies must be accompanied with an endorsement from CalSIEC. Once obtained, PSC will obtain a license to include you as an authorized licensee.

Licensing Fees

Charges are levied on all applicant organizations when seeking a new frequency or making a license change, system modification, or any other technical change which requires an official FCC license modification or transaction to take place.

The PSC frequency coordination contract charges are $100 and up, per frequency, per location. There is also a flat rate charge of 4 hours of engineering per FCC 601 application, charged at the

current hourly rate, to process the application package and any necessary supporting documentation that may be needed.

For more details on the fee structure and process, please visit the Public Safety Communications (PSC) website or contact the Frequency Coordination and Licensing Unit at (916) 657-6153.

https://www.caloes.ca.gov/cal-oes-divisions/public-safety-communications/technical-services-branch/technical-services-branch-divisions-services

Mobiles Only

Mobiles Only (Car-to-Car or Direct Only)	
1	**Draft a "Letter of Intent" (LOI) on your agency letterhead** The letter should contain general information on the requested channels, proposed site(s) and area of operations. If the system is to serve more than a single political entity, provide additional details such as a list of all individuals responsible for the project.
2	**Complete the State of California Radio Frequency Usage Form (TDe-400)** This form is required by PSC and requires the requesting agency to provide technical details
3	**Sign Memorandum of Understanding (MOU)** State designated mutual-aid plans require requesting agencies to sign associated MOU. Non-federal National Interoperability Channels only require a TDe-400.
4	**Send the LOI and completed form(s) via postal mail or email to:** California Governor's Office of Emergency Services Attn: Statewide Interoperability Coordinator 601 Sequoia Pacific Blvd. Sacramento, CA 95811 Email: SWIC@caloes.ca.gov
5	**Program Radios** You may program channels into radios but may not transmit until final authorization is received. **Contact the PSC FCC Unit at (916) 657-6153 for a status on authorization.**

Fixed Sites

State designated Interoperability frequencies are a limited resource that is shared across the state. Therefore, fixed sites that transmit on these frequencies have the potential to cause harmful interference if not properly coordinated.

Agencies seeking to program and transmit from fixed sites will need to coordinate and receive support of neighboring jurisdictions. Furthermore, the applicant will need an endorsement from the California Statewide Interoperability Executive Committee (CalSIEC) before the PSC files the license request with the FCC. Requests that diverge from National or Statewide policy on the proper use of Interoperable frequencies will not be endorsed. **PSC licensing fees do apply to these requests**. Contact the PSC frequency coordination and FCC licensing unit (916) 657-6153 to determine the associated costs.

Fixed Sites	
1	**Draft a Letter of Intent (LOI) on your agency letterhead**
	The letter should contain general information on the requested channels, proposed site(s) and area of operations. If the system is to serve more than a single political entity, provide additional details such as a list of all individuals responsible for the project.
2	**Submit proposal package for CalSIEC Planning Area review**
	Proposal packages must be reviewed by a CalSIEC Planning Area prior to CalSIEC endorsement. Each Planning Area governance body meets on a quarterly basis. It is recommended that you contact the Planning Area chair and arrange to have your proposal package reviewed by the committee. System proposals must be in compliance with State and Federal guidelines for Mutual-Aid and Interoperability Channels.
	Contact the California Statewide Interoperability Coordinator's Office or the Cal OES Emergency Communications Division for assistance with contacting the CalSIEC Planning Areas. More information can also be found on the CalSIEC website https://www.caloes.ca.gov/cal-

Fixed Sites	
	oes-divisions/public-safety-communications/ca-9-1-1-emergency-communications-branch/california-interoperable-communications.
3	**Develop a proposal package** The proposal package should include coverage plots, applicable frequencies and channels, and other supporting documents. Supporting documents include Standard Operating Procedures, letters of recommendations or endorsements from neighboring jurisdictions, and/or concurrence from regional frequency coordination groups. The SWIC and Cal OES TDO are available to assist with the coordination process
4	**Forward the CalSIEC Planning Area endorsement letter to the California Statewide Interoperability Coordinators Office**
5	**CalSIEC Formal Review** Following the CalSIEC Planning Area endorsement, the CICO will forward the package to the CalSIEC Standing committees for review. Following the review, the application will go to the CalSIEC for final endorsement. The CalSIEC endorsement letter will be forwarded to the PSC FCC unit for administrative processing.
6	**Fill out a FCC 601 license form Schedules D and H** The full text of the 601 and additional required schedules may be downloaded from the FCC at http://www.fcc.gov/formpage.html . We strongly suggest you review the entire form 601 and schedules D and H before filling out the forms in the application package.
7	**Send the LOI and completed form(s) via postal mail or email to:** California Office of Emergency Services Attn: Statewide Interoperability Coordinator 601 Sequoia Pacific Blvd. Sacramento CA 95811 Email: SWIC@caloes.ca.gov
8	**Program Radios/Equipment** Requestors may program channels into radios but may not transmit until final FCC authorization is received.

Fixed Sites
Contact the PSC FCC Unit at (916) 657-6153 for a status on FCC authorization.

Chpt 18 - Interoperability Channel Request Process

The California State Warning Center (CSWC) is the <u>single point of entry</u> for all interoperability channel requests for <u>pre-planned events.</u> During emergencies, public safety representatives make immediate use of the interoperability channels for which they are licensed.

To request a channel:

1. Determine what channel will best fit your pre-planned event's needs.

2. Send a request to the CSWC by email warning.center@oes.ca.gov or by phone (916) 845-8911. All Law Enforcement channel requests should be sent through a California Law Enforcement Telecommunications System (CLETS) message. Requests should contain the following information:

   a. County (ex: San Bernardino)

   b. Frequency (ex: VCALL10)

   c. Contact Information (Requestor name and/or alternate, 24h POC and agency. ex: Joe Smith; 555-1212; jsmith@sbf.gov)

   d. Phone (requestor and/or alternate)

   e. Email Address (requestor and/or alternate)

   f. Incident priority level (ex: Priority 3)

   g. Event description (explanation of communications needs. ex: Testing VCALL for multi day exercise)

   h. Start date

   i. Start time

   j. End date

   k. End time

   l. Attach your ICS 217 or 205 if it is available

3. When you are finished using the channel or your allocated time has expired, you must cease use of the channel and repeaters
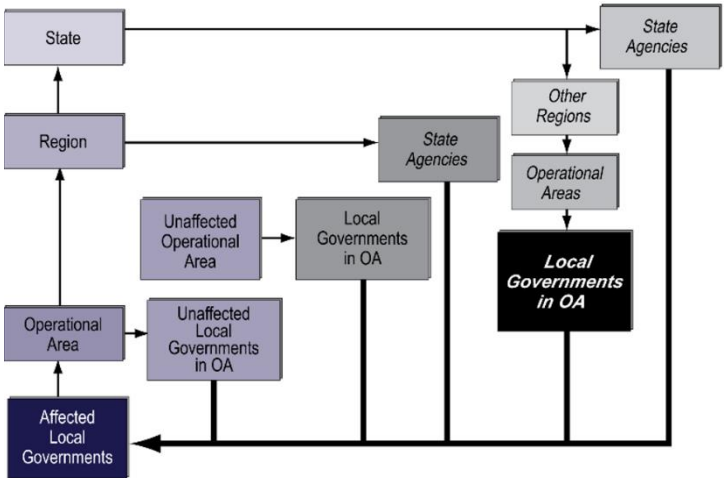
so that it will be available for others to use. To extend the use of a channel, a new channel request must be sent.

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Appx A - Reference and Planning Tools

## Mutual Aid System Concept

Flow of Requests and Resources Chart

←	Resource requests
OA	Operational Area

Notes: Local government may request mutual aid directly from other local governments where local agreements exist.
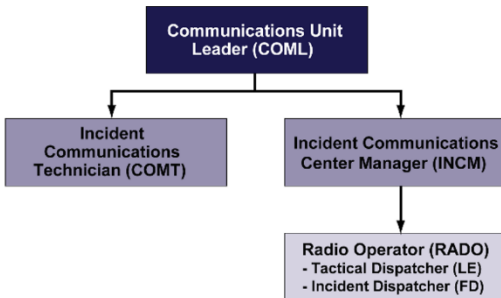
Discipline-specific mutual aid systems may have procedures that provide additional methods of obtaining state resources.

Volunteer and private agencies may be involved at each level.

Incident Command System Structure
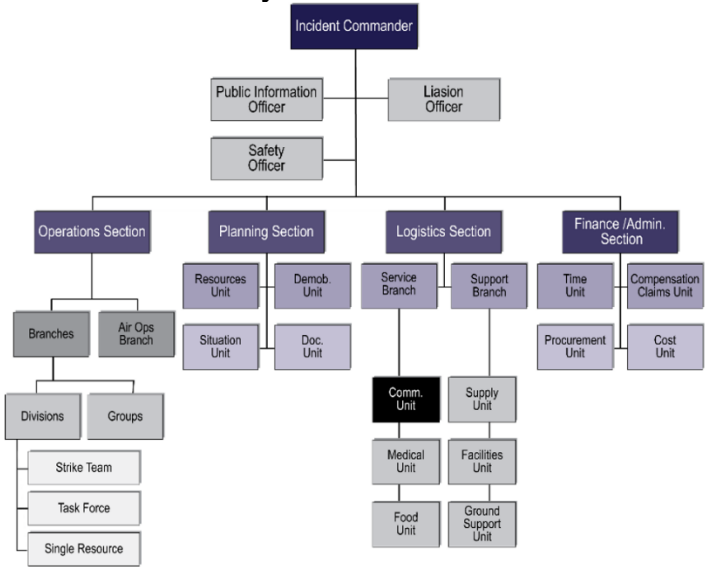
Regional Communications Unit Personnel
Organizational Chart

Communications Unit Leader Position Checklist

The following checklist should be considered as the minimum requirements for the COML position. Note that some of the tasks are one-time actions while others are ongoing or repeated for the duration of the incident.

1. Obtain briefing from the Logistics Section Chief or Service Branch Director:

    - Organize and staff the unit as appropriate.

    - Assign Communications Center Manager and Lead Incident Dispatcher.

2. Assign Message Center Manager and ensure adequate staff is assigned to answer phones and attend fax machines.

3. Assess communications systems/frequencies in use; advise on communications capabilities and limitations.

4. Develop and implement effective communications procedures (flow) internal and external to the incident and Incident Command Post.

5. Assess the Incident Command Post's phone load and request additional lines as needed.

6. Prepare and implement an Incident Radio Communications Plan (Incident Command System [ICS] Form 205):

    - Obtain a current organizational chart.

    - Determine the most hazardous tactical activity; ensure adequate communications.

    - Administer communications assignments to all other Operations elements, including volunteer, contract, or mutual aid.

    - Determine Command communications needs.

    - Determine support communications needs.

    - Establish and post any specific procedures for use of the Incident Command Post communications equipment.

7. Include cellular phones and pagers in the Communications List (ICS Form 205A), if appropriate:

- Determine specific organizational elements to be assigned to telephones.
- Identify all facilities/locations with which communications must be established (e.g., shelters, press area, liaison area, agency facilities, other governmental entities' Emergency Operations Centers). Identify and document phone numbers for each of these locations.
- Determine which phones/numbers should be used by what personnel and for what purpose. Assign specific telephone numbers for incoming calls and report these numbers to staff and off-site parties such as other local jurisdictions, State, and Federal agencies.
- Do not publicize OUTGOING call lines.

8. Activate the volunteer radio organizations, serve as their contact point, and supervise their integration into the communications system.

9. Ensure radio and telephone logs are available and being used.

10. Determine the need for and research availability of additional nets and systems:
    - Order through the Supply Unit after approval by the Section Chief.
    - Federal systems: Additional radios and other communications devices, including repeaters, radiotelephone interconnects and satellite down-link capabilities may be available through the Federal Emergency Management Agency or the U.S. Department of Agriculture's Forest Service.

11. Document malfunctioning communications equipment and facilitate repairs.

12. Establish and maintain a communications equipment accountability system.

13. Provide technical information, as required, on:
    - Adequacy of communications system currently in use.
    - Geographic limitation on communications equipment.

- Equipment capabilities.
- Amount and types of equipment available.
- Anticipated problems in the use of communications equipment.

14. Estimate the unit's needs for expected operations, order relief personnel.
15. Provide briefing to relief personnel on current activities and unusual situations.
16. Document all activity in a Unit Log (ICS Form 214).

Communication Assets Survey and Mapping Information

California's State and local emergency response agencies are completing a statewide capabilities assessment through the use of the Communication Assets Survey and Mapping (CASM) tool. CASM serves as a repository of information for State and local public safety communications assets and methods of interoperability.

The tool was developed by the Department of Homeland Security (DHS) Office of Domestic Preparedness to effectively analyze public safety communications equipment data, identify interoperability gaps in communications plans, and improve statewide and regional collaboration on solutions for improvement. CASM is administered by the DHS Cybersecurity and Infrastructure Security Agency (CISA).

For your local CASM administrator, contact the California Statewide Interoperability Coordinator's office (SWIC) at SWIC@caloes.ca.gov.

Appx B - Plain Language Words and Phrases

Plain Language	Meaning or Usage
Affirmative	Yes.
At scene	Used when a unit arrives at the scene of an incident.
Available	Used when a unit is ready for a new assignment or can return to quarters.
Available at residence	Used by administrative or staff personnel to indicate they are available and on-call at their residence.
Available at scene	Used when a unit is still committed to an incident but could be dispatched to a new emergency if needed.
Burning operation	Used to indicate that a fire is started intentionally, usually by the fire department, to eliminate burnable fuels in order to prevent the spread of wildfires.
Can handle	Used when the amount of equipment needed to handle the incident is on-scene. Ex: "San Luis, Battalion 3412 can handle with units at scene."
Call _____ by phone	Self-explanatory.
Copy, copies	Used to acknowledge message received. Unit radio id must also be used. Ex: "Engine 2563 copies."
Disregard last message	Self-explanatory.
Emergency traffic	Term used to gain control of a radio frequency to report an emergency. All other radio users will refrain from using that frequency until cleared for use by a dispatcher or incident commander.
Emergency traffic only	Used by radio users to confine all radio traffic to an emergency in progress or a new incident.
Enroute	Normally used by administrative or staff personnel to designate destination. Enroute is not a substitute for responding.

Plain Language	Meaning or Usage
Fire under control	Used by the fire department to indicate that a fire is no longer increasing in size or complexity and no additional resources are required to extinguish it.
In-quarters, with station name or number	Used to indicate that a unit is in a station. Ex: "Oroville, Engine 2176 in-quarters, Jarbo Gap Station."
In-service	Indicates the unit is operating, but not in response to a dispatch. Ex: "San Andreas, Engine 4460, in-service, fire prevention inspections."
Is _____ available for a phone call?	Self-explanatory.
Loud and clear	Self-explanatory.
Negative	No.
Out-of-service	Indicates a unit is out of service. When the unit is back in service a phrase like the following example should be used: Ex: "Redding, Engine 2460, out-of-service, [give reason], [provide duration]."
Repeat	Used to ask for a transmission to be spoken again.
Report on conditions	Used by the fire department for a unit (usually the first arriving) to describe the incident in a concise manner, allowing other responders and dispatch to comprehend the incident.
Respond, Responding	Used during dispatch to direct units to proceed to an incident or to refer to units proceeding to an incident. Ex: "Engine 3365, respond...." or St. Helena, Engine 1475 responding."
Resume normal [radio] traffic	Self-explanatory.
Return to _____	Normally used to direct units that are available to a station or other location.
Standby	Self-explanatory.

Plain Language	Meaning or Usage
Stop transmitting	Self-explanatory.
Uncovered	Indicates a unit is not in-service, because there are no personnel to operate it.
Unreadable	Used when signal received is not clear. Try to add the specific trouble. Ex: "Unreadable, background noise."
Vehicle registration check	Self-explanatory.
Weather	Self-explanatory.
What is your location?	Self-explanatory.

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Appx C - Phonetic Alphabet Standards

Standard International		APCO	
A	Alpha	A	Adam
B	Bravo	B	Boy
C	Charlie	C	Charles
D	Delta	D	David
E	Echo	E	Edward
F	Foxtrot	F	Frank
G	Golf	G	George
H	Hotel	H	Henry
I	India	I	Ida
J	Juliet	J	John
K	Kilo	K	King
L	Lima	L	Lincoln
M	Mike	M	Mary
N	November	N	Nora
O	Oscar	O	Ocean
P	Papa	P	Paul
Q	Quebec	Q	Queen
R	Romeo	R	Robert
S	Sierra	S	Sam
T	Tango	T	Tom
U	Uniform	U	Union
V	Victor	V	Victor
W	Whiskey	W	William
X	X-ray	X	X-ray
Y	Yankee	Y	Young
Z	Zulu	Z	Zebra

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Appx D - Operational Area Data

The 58 Operational Areas are listed alphabetically.

A map of California showing all 58 operational areas (counties): Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Shasta, Lassen, Tehama, Plumas, Mendocino, Glenn, Butte, Sierra, Colusa, Nevada, Sutter, Yuba, Placer, Lake, Sonoma, Yolo, El Dorado, Sacramento, Alpine, Napa, Amador, Solano, Calaveras, Marin, Contra Costa, San Joaquin, Tuolumne, Alameda, Stanislaus, Mariposa, Mono, San Mateo, Santa Clara, Merced, Santa Cruz, Madera, San Benito, Fresno, Monterey, Tulare, Inyo, Kings, San Luis Obispo, Kern, Santa Barbara, San Bernardino, Ventura, Los Angeles, Orange, Riverside, San Diego, Imperial.

California Military Department

24-Hour Monitoring Facilities
Emergency-Activated 24-Hour Monitoring Suite
Upon receipt of the California Emergency Management Agency (Cal OES) mission number, the California Military Department monitors all bands of communication utilizing the Incident Commander's Command and Control Communications Unit (IC4U). The IC4U is manned 24 hours a day with military members of the California National Guard. The California Military Department call signs are mission specific and assigned as directed by Incident Commanders.

Joint Operations Center (JOC) 24-hour Monitoring Suite:
Telephone: (916) 854-3440

Channel Capabilities
California Military Department interoperability channels are determined by the ICS 205 for a particular incident.

VHF Low			
Type	**Name**	**Frequency Range**	**CTCSS**
Command & Control	Radio #11, #12 SINCGARS CFE AN/VRC 89A	30 – 88 MHz (Military) (150 Hz Tone)	N/A
Command & Control	Radio #9 VHF - Low Band	35 – 50 MHz W	Variable

VHF High			
Type	**Name**	**Frequency Range**	**CTCSS**
Command & Control	Radio #3, #4 VHF	VHF 136 -174 MHz N/W	Variable

UHF			
Type	**Name**	**Frequency Range**	**CTCSS**
Command & Control	Radios #5, #6 UHF	450 - 512 MHz N/W	Variable

UHF			
Type	**Name**	**Frequency Range**	**CTCSS**
Command & Control	Radio #10 UHF	403 - 470 MHz N/W	Variable

HF			
Type	**Name**	**Frequency Range**	**CTCSS**
Command & Control	Transworld TW-7000	.5 – 30 MHz	N/A

HAM				
Type	**Name**	**2 meter**	**70 cm**	**CTCSS**
Command & Control	Radio #8 TMG 707	144.000-148.000 N/W	430.000-460.000 N/W	Variable

800 MHz			
Type	**Name**	**Frequency Range**	**Mode**
Command & Control	Radios #1, #2 800 MHz	806 – 870 MHz	Conventional

CB			
Type	**Name**	**Channels 1-40**	**CTCSS**
Command & Control	Radio #7 19 DX3 Cobra	26.965 – 27.405 MHz (AM)	N/A

Shared Channels

The California Military Department does **not** have shared channels.

Alameda County OA

24-Hour Monitoring Facilities
The Alameda County Regional Emergency Communications Center (ACRECC) is a 24-hour monitoring facility. The primary point of contact for ACRECC is (925) 447-6880 (emergency) or (925) 447-4257 (non-emergency).

The center is known by the following call sign: **"ALCO"**

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1 – (VFIRE 21)	154.2800	154.2800	None - (156.7)
Fire	VHF TAC 4	154.0700	154.0700	None
Fire	OES 1B	154.1600	159.1950	None

Motorola 800 MHz Trunked Radio	
Type	**Talkgroup Name**
Fire	IA FIRE - (XAL FIRE1)
EMS	IA EMS – (XAL EMS1)
EMS	CMED
Fire	CNTRL 1 – (XAL DSP1)
Fire	CNTRL 2 – (XAL DSP2)
Fire	CNTRL 4 – (XAL EMRG)

Shared Channel Infrastructure
ACRECC maintains a console system with the ability to patch the channels listed above locally to any other locally controlled interoperability channels.

Alpine County OA

24-Hour Monitoring Facilities

The Alpine County Sheriff's Office provides 24-hour monitoring of Sheriff's Office-only channels through the Markleeville Dispatch Center (M-F, 8:00 a.m. - 5:00 p.m.) and Douglas County, Nevada Dispatch Center all other times. The Douglas County Dispatch Center is the County's designated 9-1-1 Public Safety Answering Point (PSAP) and transfers mutual aid and 9-1-1 traffic to the Markleeville Office when the office is open. Otherwise, Douglas Dispatch handles all traffic and relays.

These centers are known by the following call signs:

Alpine County Dispatch Center: **"Markleeville"**
Telephone: (530) 694-2231

Douglas County Dispatch Center: **"Douglas"**
Telephone: (775) 782-7891

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None

Shared Channel Infrastructure

There are no shared gateways or channel banks in the Alpine OA's communications system. Alpine conducts interoperability via CALAW or the Sheriff's Office main frequency. Current interoperability is accomplished through shared programming VHF or the presence of CHP radios in all patrol vehicles. Alpine County is attempting to construct a new repeater system over the next three to five years, which will include microwave with full gateways and cross-county interoperability.

Amador County OA

24-Hour Monitoring Facilities
Amador County does not provide 24-hour monitoring of interoperability channels. The Amador County Sheriff's Office Communications Center is the initial point of contact for all county law enforcement, fire, ambulance, and OES services throughout the Amador County OA as well as the after-hours contact for city police departments and the county public works department.

This center is known by the following call sign: **"Amador"**

Countywide Coordinated Communications Center
Telephone: (209) 223-6513

CAL FIRE-Amador-El Dorado ECC
This center is known by the following call sign: **"Camino"**
24/7 Telephone: (530) 647-5250

Regularly Monitored Channels
None

Shared Channel Infrastructure
No data currently available

Butte County OA

24-Hour Monitoring Facilities
Butte County operates two 24-hour dispatch centers.

The Sheriff's dispatch, located in Oroville, operates countywide on all Sheriff's channels. The Butte County Sheriff's dispatch is known by the following call sign: **"Butte County"**

Butte County Emergency Management

24/7 Telephone Sheriff Dispatch: (530) 538-7322
24/7 OASIS Sheriff Dispatch: 3-6301

The CAL-Fire-Butte County Fire dispatch, also located in Oroville, is a combined city/county countywide communications center.

The CAL-Fire-Butte County Fire dispatch is known by the following call sign: **"Oroville"**

CAL-Fire-Butte County Fire ECC
24/7 Telephone: (530) 538-6841

Emergency Services Coordinator: Lori Pini

Telephone: (530) 283-7447

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	VCALL10	155.7525	155.7525	156.7
Fire	VFIRE21	154.2800	154.2800	156.7

Shared Channel Infrastructure
Butte Operational Area Radio (BOAR)

VHF High - All Hazards Interoperability Radio System				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
All Hazards	BOAR	151.4900	155.1150	114.8 Rx / 173.8 Tx

Calaveras County OA

24-Hour Monitoring Facilities

Calaveras County does not provide 24-hour monitoring of interoperability channels. The Calaveras County Sheriff's Office Dispatch Center is the initial point of contact for all county law enforcement, fire, ambulance, and Office of Emergency Services (OES) throughout the Calaveras County OA. The County Sheriff's Office Dispatch Center also serves as the after-hours contact for the city police department and the county public works department.

This center is known by the following call sign: **"Calaveras"**

Calaveras County Sheriff's Office Dispatch Center
Telephone: (209) 754-6500

CAL FIRE-Tuolumne-Calaveras ECC
This center is known by the following call sign: **"San Andreas"**
24/7 Telephone: (209) 754-1187

Regularly Monitored Channels
No data currently available

Shared Channel Infrastructure
No data currently available

Colusa County OA

24-Hour Monitoring Facilities
Colusa County Sheriff's Office
929 Bridge Street, Colusa, CA 95932
24-hour phone number: (530) 458-0200
Main Fax: (530) 458-4697 / Alternative Fax: (530) 458-2665

The Colusa County Sheriff's Office is known by the following call sign: **"Colusa County"**

CLETS Mnemonic: CLS0

NLETS ORI: CA0060000

Emergency Services Coordinator: Russ Jones

Telephone: (530) 458-0230

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	None

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CLERS	453.8750	458.8750	110.9
Law	CALAW 5[1]	460.0250	465.0250	156.7
Tactical	UTAC41[1]	453.4625	458.4625	156.7

[1] *These channels are not always enabled. They are included in a multi-frequency radio and must be "selected" to enable the channel.*

Shared Channel Infrastructure
Gateway Infrastructure: The Colusa County Sheriff's Office maintains a Raytheon JPS ACU-T gateway. This gateway device can cross-connect VHF high-band, UHF, low-band and 800 MHz radios. These radios contain all local, state, national and federal interoperability channels as well as many surrounding OA local

frequencies. The gateway equipment list includes a Yamaha Rhino for mountain top deployments.

Contra Costa County OA

24-Hour Monitoring Facilities

Contra Costa County OA has two primary monitoring agencies within the county. The Contra Costa County Sheriff's Department and Contra Costa County Regional Fire Communications Center provide 24-hour monitoring of interoperability channels.

The Contra Costa County Sheriff's Department is known by the following call sign: **"Contra Costa Sheriff"**

Telephone: (925) 646-2441

The Contra Costa County Regional Fire Communications Center is known by the following call sign: **"CON FIRE"**

Telephone: (925) 941-3335

Regularly Monitored Channels

VHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1	154.2800	154.2800	None

UHF – Law but available upon request				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 5	460.0250	465.0250	156.7
Note: This is a local mutual aid channel to which the county sheriff's department controls access. It is available upon request.				

Shared Channel Infrastructure

Contra Costa Regional Fire Communications Center maintains a console system with the ability to patch the channels listed above locally to any other locally controlled interoperability channels. Each dispatch center has the ability to deploy gateways upon request.

Del Norte County OA

24-Hour Facilities
Emergency Services Dispatch
Telephone: (707) 464-4191

CAL FIRE-Humboldt-Del Norte ECC
This center is known by the following call sign: **"Fortuna"**

24/7 Telephone: (707) 725-4412

Regularly Monitored Channels
No data currently available

Shared Channel Infrastructure
No data currently available

El Dorado County OA

24-Hour Facilities

El Dorado County maintains three 24-hour dispatch centers providing 911 services on the west slope of the Sierra Nevada's and the South Lake Tahoe Basin.

El Dorado County Sheriff's Office is the Primary PSAP to the OA and is responsible for OES in the county.
This center is known by the following call signs: **"El Dorado Central Dispatch", "Central Dispatch",** or **"Central.**"
Telephone: (530) 621-6600

CAL FIRE-Amador-El Dorado ECC provides dispatch services for fire, EMS, and USFS on the west slope of the OA.
This center is known by the following call sign: **"Camino."**
24/7 Telephone: (530) 647-5250

South Lake Tahoe Police Department provides dispatch services for SLT Police and for fire and EMS in the S. Lake Tahoe Basin of the OA.
This center is known by the following call sign: **"PD."**
24/7 Telephone: (530) 542-6110

Sheriff's Department
Telephone: (530) 621-6600

Emergency Services Coordinator: The County ESC (OES) can be contacted at (530) 621-5895 during business hours.
24-hour coverage for County OES at (530) 621-6600.

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	T6 156.7
Fire	VFIRE 21	154.2800	154.2800	T6 156.7

Shared Channel Infrastructure

VHF High - All Hazards Interoperability Radio System				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
All Hazards	CALCORD	1456.0750	156.0750	T6 156.7

El Dorado County Sheriff's Office and the Sacramento Regional
Radio Communications System (SRRCS) maintain a system patch
between all SRRCS users and El Dorado County Sheriff's Office
"**F2 T9**" VHF radio system on Carpenter Peak at the county line.
The system is activated by the SRRCS user with permission from
El Dorado.

Fresno County OA

24-Hour Monitoring Facilities

CAL FIRE-Fresno County Fire Protection District provides 24-hour monitoring of VFIRE 1 from the CAL FIRE Emergency Communications Center (ECC). This center is the point of contact for all fire departments in Fresno County, with the exception of the following cities: Fresno, Clovis, Selma, Firebaugh, Sanger, and Kingsburg.

This center is known by the following call sign: **"Fresno"**

Fresno CAL FIRE-Fresno County Fire Protection District ECC
Telephone: (559) 294-2009

Fresno Fire Department Dispatch
24/7 Telephone: (559) 600-7800

The Fresno County Sheriff's Office dispatch has a large range of contacts as part of its emergency plan and operations.

Fresno County Sheriff's Office
24/7 Telephone: (559) 600-3111

Fresno Police Department Dispatch
24/7 Telephone: (559) 621-7000

Fresno County EMS Communications Center
24/7 Telephone: (559) 600-7800

The Fresno County EMS Communications Center dispatches for the following FIRE agencies: Fresno Fire, Clovis Fire, Selma Fire, Sanger Fire, Kingsburg Fire, Laton Fire and Riverdale Fire.

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800	154.2800	156.7
Law	CALAW1	154.9200	154.9200	156.7
Law	CALAW4	460.0250	465.0250	Various
Law	VLAW31	155.475 CSQ	155.4750	156.7

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 4	460.0250	460.0250	Varies

Shared Channel Infrastructure

Fresno County LINKNET Channel

Sheriff Channel 8 (Receive 154.650/156.7 Transmit 159.150/156.7)

Fresno PD Channel 8 (Receive 453.525/156.7 Transmit 458.525/156.7)

Sheriff 800 MHz Channel (Receive 854.9625/156.7 Transmit 809.9625/156.7)

Cross-banded for Law Enforcement use within Fresno County.

For more information, please contact Fresno Sheriff Dispatch at (559) 600-3111.

Glenn County OA

24-Hour Facilities
The Glenn County Sheriff's Office Communications Center is the initial POC for all County law enforcement, fire, medical and OES services. (Primary PSAP)

This center is known by the following call sign: "**Glenn County"**

24/7 Dispatch Center
Telephone: (530) 934-6431

24/7 Oasis: 3-5701 - 3-5708
CLETS mnemonic: WIL0
NLETS ORI: CA0110000

Office of Emergency Services
Business Hours: (530) 934-6441
After Hours: (530) 934-6431

CAL FIRE-Tehama-Glenn ECC
This center is known by the following call sign: **"Red Bluff"**
24/7 Telephone: (530) 527-2241

Emergency Services Coordinator: Amy Travis, Glenn County Sheriff's Office (GCSO) Deputy Director of OES
Telephone: (530) 934-6441

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law Enforcement	Sheriffs Dispatch – Needham Grade	153.7850	155.7900	123.0

Humboldt County OA

24-Hour Monitoring Facilities
Sheriff Dispatch
24-hour Telephone: (707) 445-7319

CAL FIRE-Humboldt-Del Norte ECC
This center is known by the following call sign: **"Fortuna"**

24/7 Telephone: (707) 726-1280

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1	154.2800	154.2800	CSQ
ALL	VCALL	155.7525	155.7525	156.7
SAR	SAR	155.1600	155.1600	CSQ

Imperial County OA

24-Hour Facilities
Emergency Services Office
Telephone (non-working hours): (760) 427-2685

Imperial Fire Station #1
Telephone: (442) 265-3010

The **Imperial County Sheriff Department** is known by the following call sign: **"El Centro 2"**

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	None
Fire	VFIRE21	154.2800	154.2800	None

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CALL90	851.0125	806.0125	156.7
Law	CALAW8	853.5125	808.5125	156.7
Fire/EMS	CAFIRE1	853.9875	808.9875	156.7

Shared Channel Infrastructure
The San Diego County – Imperial County Regional Communications System (RCS) provides a shared, multi-agency (State, Local and Federal agencies) interoperable communications system. For more information, please visit https://www.rcs800mhz.org.

Inyo County OA

24-Hour Facilities

The Inyo County provides 24-hour monitoring through its Communications Center, staffed by the Inyo County Sheriff's Office. This center is the point of contact for Inyo County Sheriff's Law Enforcement.

This center is known by the following call sign: **"Control 1"**

Emergency Operations Center
Telephone: (760) 878-0383

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW	154.9200	154.9200	None

Shared Channel Infrastructure

No data currently available

Kern County OA

24-Hour Monitoring Facilities

Kern County operates two 24-hour emergency dispatch centers. The **Sheriff's Dispatch** located in Bakersfield operates county-wide on all Sheriff Channels.

This center is known by the following call sign: **"Control One"**
Sheriff Dispatch
Telephone: (661) 861-3110

The **Fire Dispatch**, also located in Bakersfield, is a combined city/county countywide communications center. Fire dispatches the departments of Kern County, the City of Bakersfield, and the City of California City.

This center is known by the following call sign: **"ECC"**

Fire Dispatch
Telephone: (661) 861-2521 and (661) 324-4542

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	None
Fire	VFIRE21	154.2800	154.2800	None
[1] State VFIRE21 is only monitored in the field by Fire on an as-needed basis.				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 4	460.0250	465.0250	131.8
Law	CALAW 4D	460.0250	460.0250	None
County-wide simulcasted MA	Kern County Mutual Aid	453.2250	458.2250	131.8

Shared Channel Infrastructure

VHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	*CTCSS*
Law	Local Law VHF LB	45.0600	42.3800	136.5
Law	Local Law VHF HB	155.0100	158.7900	D-411

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	LOCAL LAW UHF	453.7250	458.7250	131.8

Kern County, City of Bakersfield, and State of California operate on and monitor a tri-band mutual aid law enforcement channel in the greater Bakersfield area. The channel is called "Local Law." This channel is maintained by the communications shop in the City of Bakersfield.

The Kern County Police Chief's Association also operates under a Memorandum of Understanding (MOU) authorizing each law enforcement agency to operate on all other agency's radio frequencies. With the exception of Bakersfield Police Departments, all in-county police departments operate in the UHF Range II band.

Kern County Police Chief's Association also operates with three gateway switches that can deploy when needed.

Kings County OA

24-Hour Monitoring Facilities

Kings County provides 24-hour monitoring of interoperability channels through its Countywide Coordinated Communications Center, staffed by the Kings County Sheriff's Office. This center is the point of contact for Kings County Law Enforcement and Kings County Fire throughout the Kings County OA.

This center is known by the following call signs: **"Kings County"** or **"County Fire"**

Countywide Coordinated Communications Center
Telephone: (559) 584-9276
CAL FIRE/Fresno County Fire Protection District ECC
This center is known by the following call sign: **"Fresno"**

24/7 Telephone: (559) 294-2009
Emergency Services Coordinator: Amanda Verhaege, Kings County Fire Department, Telephone: (559) 852-2883

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1[1]	154.2800	154.2800	None
Fire	VFIRE 22[1]	154.2650	154.2650	None
MA	CALCORD[1]	156.0750	156.0750	None
[1] *State VFIRE 1, VFIRE 22 and CALCORD are only monitored in the field by Fire on an-as-needed bases.*				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 5	460.0250	465.0250	131.8

Shared Channel Infrastructure
None

Lake County OA

24-Hour Facilities
Lake County Sheriff's Office
This Center is known by the following call sign: **"Central"**
24/7 Telephone: (707) 263-2690

Clearlake Police Department
This Center is known by the following call sign: **"Clearlake"**
24/7 Telephone: (707) 994-8251

CAL FIRE-Sonoma-Lake-Napa ECC
This Center is known by the following call sign: **"St. Helena"**
24/7 Telephone: (707) 963-9636

Regularly Monitored Channels

VHF High - Lake County Sheriff's Office				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7

VHF High - Clear Lake Police Department				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7

VHF High - St. Helena ECC				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7
Fire	VFIRE 21	154.2800	154.2800	156.7

Shared Channel Infrastructure
Lake County uses local frequencies that are shared with all law
enforcement and fire agencies within the county borders.

Lake County Sheriff's Office				
Type	Name	Rx (Output)	Tx (Input)	CTCSS

Lake County Sheriff's Office				
Law	Lake SO Seigler	155.9700	155.6250	88.5
Law	Lake SO Konocti	155.9700	155.6250	88.5
Law	Lake SO Tac	155.0700	155.0700	88.5
Law	Lakeport PD	155.6850	155.6850	88.5

Clearlake Police Department				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	Clearlake PD	155.3175	158.8575	D074N

St. Helena ECC				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Lake Red	155.0250	154.0550	88.5
Fire	Lake Yellow	154.2350	154.2350	88.5
Fire	Lake Blue	154.1750	154.1750	88.5
Fire	LNU East	151.3400	159.3150	136.5

Lassen County OA

24-Hour Facilities
Susanville Interagency Fire Center
This center is known by the call sign: **"Susanville"**
Telephone: (530) 257-5575

Lassen County Sheriff's Office
This center is known by the call sign: **"Lassen County"**
Telephone: (530) 257-6121

Regularly Monitored Channels

VHF High - Lassen County Sheriff's Office				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	None

VHF High - Susanville Interagency Fire Center				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800	154.2800	None

Shared Channel Infrastructure
No data currently available

Los Angeles County OA

24-Hour Monitoring Facilities
Los Angeles County Sheriff's Department
Telephone: (866) 527-8277
(Contact via radio on RTC/SCC Access channel)

California Highway Patrol
Telephone: (323) 982-4971

Los Angeles County Fire Department
Telephone: (323) 881-2455

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1[1]	154.9200	154.9200	None
Fire	VFIRE 1	154.2800	154.2800	None
Fire	Cal OES 1B	154.1600	159.1950	None/136.5
[1] Monitored by the California Highway Patrol				

Shared Channel Infrastructure
CALAW 5 with CTCSS 156.7 is used for interoperability between Los Angeles County and Orange County. The Link is established at the Los Angeles County and Orange County communication centers.

CALAW 22 is used within the County of Los Angeles.

UTAC42 458.7125 (repeater transmit) – 453.7125 (repeater receive) is used for interoperability between Los Angeles County and San Bernardino County. The Link is established at the Los Angeles County communication center and Claremont Police Department. San Bernardino County Sheriff and other dispatch centers in the county monitor and can access this channel. Coverage is throughout the San Bernardino County valley area, Cajon Pass, and the greater Victor Valley.

All **UCALL and UTAC** channels are programmed into Los Angeles County Sheriff's radios. All Los Angeles County Fire Department radios have both VCALL/VTACs and UCALL/UTACs programmed into portable and mobile radios.

Los Angeles Regional Tactical Communications System (LARTCS)

Los Angeles Regional Tactical Communications System Contact and Activation Process
When direct communications with other participating agencies is not available or after the desired agency has been contacted: *1. Contact SCC Watch Commander at (866) LARTCS7 (527-8277), or via SCC access channel.* *2. Advise SCC whom you wish to communicate with.* *3. Advise participating agency(ies) that LARTCS is active and the assigned channel/frequency.* *4. Notify SCC and participating agency when activity is completed.*

LARTCS Channels and Frequencies

Use of the LARTC channels and frequencies can only be granted to agencies that have agreed to, and have submitted, a signed copy of the LARTCS Memorandum of Understanding (MOU). Failure to comply with the operating guidelines set forth in the MOU may be grounds for termination of the MOU.

The only exception to the above is for mutual aid agencies responding into Los Angeles County who have been requested through mutual aid and have a specific channel assignment.

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW7	39.4600	45.8600	156.7

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
All Hzrd	LARTCS-3V	159.1800	155.5200	CSQ/100.0/ 156.7
All Hzrd	LARTCS-4V	159.0300	155.5800	CSQ/100.0
All Hzrd	LARTCS-5V	159.1500	155.3700	CSQ/100.0
All Hzrd	LARTCS-3V (PR)	159.1800	155.5200	CSQ/MPL
All Hzrd	LARTCS-4V (PR)	159.0300	155.5800	CSQ/MPL
All Hzrd	LARTCS-5V (PR) (1)	159.1500	155.3700	CSQ/MPL

All Hzrd = All Hazards, PR = Portable Repeater
(1) LARTCS-5V should be used in West LA County (San Fernando and Santa Clarita Valleys) only.
A) RTC-3V Tx PL tone of 100.0 is for access to the Mt. Lee repeater.
B) RTC-3V Tx PL tone of 156.7 is for access to the Castro Peak repeater.
C) RTC-4V Tx PL tone of 100.0 is for access to the Mt. Lee repeater.
D) RTC-5V Tx PL tone of 100.0 is for access to the Oat Mtn. repeater.

UHF 450-512 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
RTC ACC	LARTC ACC	483.5625	486.5625	CSQ/186.2
All Hzrd	LARTCS-1U/MA1	483.5875	486.5875	CSQ/186.2
All Hzrd	LARTCS-2U/MA2	484.0875	487.0875	CSQ/186.2
All Hzrd	LARTCS-3U/MA3	483.7875	486.7875	CSQ/186.2
All Hzrd	LARTCS-4U/MA4	484.1375	487.1375	CSQ/186.2
All Hzrd	LARTCS-5U/MA5	484.0625	487.0625	CSQ/186.2
All Hzrd	LARTCS-6U[1]	415.8000	406.8000	103.5

All Hzrd = All Hazards. [1]UHF channel for Federal Agencies
LARTCS ACC is LA County Sheriff Radio Center.
LA Countywide "all agency" Mutual Aid channels 1 thru 5.

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
All Hzrd	8-CALL 90 SPH	851.0125 M	806.0125 M	156.7
All Hzrd	8-TAC 91 SPH	851.5125 M	806.5125 M	156.7/110.9
All Hzrd	8-TAC 92 SPH	852.0125 M	807.0125 M	156.7/110.9
All Hzrd	8-TAC 93 SPH	852.5125 M	807.5125 M	156.7/110.9
All Hzrd	8-TAC 94 SPH	853.0125 M	808.0125 M	156.7/110.9
All Hzrd	8-CALL 90 VPK	851.0125 M	806.0125 M	156.7
All Hzrd	8-TAC 91 VPK	851.5125 M	806.5125 M	156.7/123.0
All Hzrd	8-TAC 92 VPK	852.0125 M	807.0125 M	156.7/123.0
All Hzrd	8-TAC 93 VPK	852.5125 M	807.5125 M	156.7/123.0
All Hzrd	8-TAC 94 VPK	853.0125 M	808.0125 M	156.7/123.0
All Hzrd = All Hazards, SPH = San Pedro Hill, VPK = Verdugo Peak "M" indicates mixed analog/digital mode.				

LFD Interoperability/Portable Repeater Vehicles (213) 576-8920
The Los Angeles Fire Department staffs on an on-call basis the following interoperability equipment:

- Suburban with ACU-1000, (2) Analog 800 MHz, (2) UHF Digital 450-482 MHz, (1) Digital 482-512 MHz, (2) Analog 148-174 MHz radios.
- Suburban with ACU-1000, (2) Analog 800 MHz, (1) EDACS Trunked 800 MHz analog, (2) UHF Digital 450-520 MHz, (1) Digital 380-470 MHz, (2) Analog 136-174 MHz radios.
- Repeater Trailer with four 100 watt 800 MHz repeaters & four UHF T-band repeaters.
- Hum-V with two portable 800 MHz repeaters.
- Additional equipment:
    a. 800 MHz portable repeaters.
    b. VHF portable repeaters.

Madera County OA

24-Hour Facilities
Madera County Sheriff's Office
This center is known by the following call sign: "**Madera**"
General Telephone 24/7: (559) 675-7770
Madera County on US Forest Service lands dispatch
Telephone: (559) 500-4546

CAL FIRE-Madera-Mariposa-Merced ECC

This center is known by the following call sign: **"Mariposa"**

24/7 Telephone: (209) 966-3621

Emergency Services Coordinator

Joseph Wilder: (559) 675-7770 ext 231

Cell Phone 24/7: (559) 760-5201 (SAR/OES Duty Officer can be reached via Sheriff's Dispatch)

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Dispatch (Primary)	Madera Co SO1	150.9950	156.2400	156.7
Secondary (Mutual Aid)	Madera Co SO3	151.0700	159.1650	156.7
Law	CALAW 1	154.9200	154.9200	None

Shared Channel Infrastructure

Available radio capacity: ACU 1000 with UHF and VHF capacity and preloaded 7 county (central California) UHF and VHF; ACU with connectors for all major radio manufacturer portable radios.

Madera Platinum 10				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Command	Madera SO3	151.0700	159.1650	156.7/156.7
Command	Chowchilla PD2[1]	453.7500	458.7500	DPL 026
Command	Madera PD2[2]	453.1500	458.1500	293/293 (NAC)
Law Tac	CALAW 1	154.9200	154.9200	CSQ/CSQ
Law Tac	CALAW 4[3]	460.2500	460.2500	CSQ/CSQ
Fire Tac	Madera FD VLY CMD[4]	158.4300	153.1850	156.7/156.7
Fire Tac	CAL FIRE CMD 4[5]	151.4000	159.3750	136.5/136.5
Ems Tac	UTAC1 Madera EMS TAC	453.4625	453.4625	CSQ/156.7
Staging	Madera Staging[6]	151.0400	156.0600	CSQ/CSQ

[1] UHF Command connected to Madera SO3 via ACU
[2] UHF P25 connected to Madera SO3 via ACU
[3] Connected to CALAW1
[4] Valley incident use
[5] For East County use
[6] Mad Co roads channel

Marin County OA

24-Hour Monitoring Facilities
Marin County Sheriff's Public Safety Communications Center
This is the primary Law Dispatch, Urban Fire & EMS Dispatch.
This center is known by the following call sign: **"Marin Comm"**

Telephone: (415) 499-2311

Marin County Fire Department Emergency Communications Center
This is the County Fire Department Dispatch, which is the Rural Fire and EMS Dispatch. It is also the Marin OES Fire Mutual Aid Coordinator.
This center is known by the following call sign: **"Woodacre"**
Telephone: (415) 499-6717

Regularly Monitored Channels

VHF High – Marin County Sheriff's Communications Center				
Rx (Output)	**Rx (Output)**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
154.9200	154.9200	154.9200	156.2400	156.7
155.7525	155.7525	155.7525	159.1650	156.7
¹ Monitored by both Dispatch Facilities				

VHF High – Marin County Fire Department – ECC				
Rx (Output)	**Rx (Output)**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800 N	154.2800 N	156.7
Fire	OES Fire Net 1B	154.1600 N	159.195 N	103.5 Tx
Fire	Marin Local	151.040 N	159.180 N	*Tones 1 - 4
Calling	VCALL 101	155.7525 N	155.7525 N	156.7
¹ Monitored by both Dispatch Facilities. **Tones 1-4: Sonoma Mountain 110.9 Tx, Big Rock 123.0 Tx,* * Mt. Barnabe 131.8 Tx, Mt. Tamalpais 136.5 Tx*				

UHF – Marin County Sheriff's Communications Center				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	UCALL401	453.2125	458.2125	156.7
Law	CALAW4	460.0250	465.0250	156.7
1 Monitored by both Dispatch Facilities.				

UHF – Marin County Fire Department - ECC				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	UCALL401	453.2125	458.2125	156.7
1 Monitored by both Dispatch Facilities.				

700 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**NAC**
Calling	7CALL501	769.24375	799.24375	293
1 Monitored by the Marin County Fire Department-ECC and Marin County Sheriff's Communications Center.				

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CALL90[1]	851.0125	806.0125	156.7
[1] Monitored by the Marin County Fire Department-ECC and Marin County Sheriff's Communications Center.				

All repeaters are in a standby state. Dispatch Centers monitor the receive side. The repeaters can be activated for mobile to mobile Comms.

Shared Channel Infrastructure
No data currently available

Mariposa County OA

24-Hour Monitoring Facilities

Mariposa County operates two 24-hour emergency interoperability dispatch channels.

The **Sheriff's Dispatch Center** is located in the town of Mariposa, which operates county-wide on all sheriff channels.
This center is known by the following call sign: **"Mariposa"**

Telephone: (209) 966-3614 or (209) 966-3615

The **Fire Dispatch Center**, also located in the town of Mariposa, is a State-owned and operated center (CAL FIRE). This center dispatches all CAL FIRE resources in the county as well as all Mariposa County Fire Department and Mariposa Public Utility District equipment under contract.
This center is known by the following call sign: **"Mariposa"**

Telephone: (209) 966-3621

Emergency Services Coordinator:

Sergeant Kevin Packard, Telephone: (209) 966-3615

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None
Fire	VFIRE 1	154.2800	154.2800	None

Shared Channel Infrastructure

The Mariposa OA recognizes that fire and law enforcement are able to communicate with each other using others radio frequencies as agencies operate on VHF. Local CHP are provided VHF radios from the Mariposa Sheriff's Department in order to communicate directly with the agency.

Mariposa Sheriff operates under a MOU with the Madera County Sheriff for use of Madera's gateway.

Mendocino County OA

24-Hour Facilities
Mendocino County Sheriff's Office Dispatch
This center is known by the following call sign: **"Ukiah"** or **"MCSO"**
24/7 Telephone: (707) 463-4086

Ukiah CHP Dispatch
This center is known by the following call sign: **"Ukiah CHP"**
24/7 Telephone: (707) 467-4000

Ukiah Public Safety Department
This center is known by the following call sign: **"Station 36",
"Ukiah PD", and "Ukiah Fire"**
24/7 Telephone: (707) 463-6262 or (707) 463-6250

Willits Police Department
This center is known by the following call sign: **"Willits"**
24/7 Telephone: (707) 459-4611

CAL FIRE-Mendocino ECC
This center is known by the following call sign: **"Howard Forest"**
24/7 Telephone: (707) 459-7403

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1[1]	154.9200	154.9200	156.7

[1] Monitored by Ukiah Sheriff's Dispatch, Ukiah CHP Dispatch, Willits Police Department, and Ukiah Police Department

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	V FIRE 21[1]	154.2800	154.2800	156.7

[1] Monitored by Willits Police Department, and Ukiah Police Department, and CAL FIRE-Mendocino ECC

CAL FIRE-Mendocino ECC

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Cal OES Fire 1B	154.1600	159.1950	None/123.0
Fire	Air Guard	168.6250	168.6250	110.9

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	Mendocino County Sheriff's Office BLUE	154.7550	155.6550	210.7
Law	Mendocino County Sheriff's Office RED	155.9850	159.1500	192.8
Law	Mendocino County Sheriff's Office WHITE	159.0750 158.7300	158.9550	RX 156.7/TX 206.5
Fire	Cal Fire MEU Local	151.3850	159.2700	110.9/MPL

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Mendocino County Fire RED	153.9500	154.3850	123.0/MPL
Fire	Mendocino County Fire BLUE	151.0850	156.1950	136.5/MPL
Fire	Mendocino County Fire GREEN	151.1150	155.4300	123.0/MPL

EMS MED NET System / Hospitals to MEDICS

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
EMS	MED 1	463.0000	468.0000	206.5
EMS	MED 2	463.0250	468.0250	206.5
EMS	MED 3	463.0500	468.0500	127.3
EMS	MED 4	463.0750	468.0750	206.5
EMS	MED 5	463.1000	468.1000	123.0
EMS	MED 6	463.1250	468.1250	206.5
EMS	MED 7	463.1500	468.1500	206.5
EMS	MED 8	463.1750	468.1750	206.5
EMS	MED 9	462.9500	467.9500	206.5
EMS	MED 10	462.9750	467.9750	206.5

Merced County OA

24-Hour Monitoring Facilities

Merced County provides 24-hour monitoring of interoperability channels through its **Countywide Coordinated Communications Center**, staffed by the Merced County Sheriff's Department. This center is the point of contact for all city and county law enforcement, fire, lifeguard, and public works departments throughout the Merced County OA.

This center is known by the following call signs: **"Merced County"** or **"Control One"**

Telephone: (209) 385-7444

CAL FIRE-Madera-Mariposa-Merced ECC

This center is known by the following call sign: **"Mariposa"**

24/7 Telephone: (209) 966-3621

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	I-CALL	866.0125	821.0125	156.7
Law	CALAW 9	868.5125	823.5125	156.7
Fire/EMS	FIREMARS	868.9875	823.9875	156.7

Shared Channel Infrastructure

The Merced County Sheriff's Department maintains a console-based gateway at its Countywide Coordinated Communications Center. This gateway can patch any of the channels listed above to any County of Merced 800 MHz Countywide Coordinated Communications System talkgroup or channel.

Modoc County OA

24-Hour Monitoring Facilities
One Dispatcher on at all times, Main PSAP for Modoc County
This center is known by the following call sign: **"Modoc County"**

Telephone: (530) 233-4416
Emergency Services Coordinator:

Heather Hadwick, Telephone: (530) 233-4416

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	Local Gov	153.920	158.835	110.9, 123.0, 131.8, 136.5, 146.2, 156.7, 167.9, 100.0, 107.2, 127.3
	Green	153.8600	158.8575	110.9, 146.2, 156.7, 167.9, 100.0
	Brown	155.6400	155.6400	110.9
	APD	154.740	158.910	

Shared Channel Infrastructure
Local Gov is a repeater base with handheld coverage in most of the cities and townships. All Fire, Medical, and Law share this channel. Green is a secondary to the Local Gov channel but with minimal coverage for handhelds; it is used to move an isolated incident.

Mono County OA

24-Hour Monitoring Facilities

The County of Mono provides 24-hour monitoring of interoperability channels through the **Mono County Sheriff's Dispatch Center**, staffed by the Mono County Sheriff's Department. This center is the point of contact for all city and county law enforcement, fire, EMS, and public works departments throughout the Mono County OA. The Dispatch Center is located at 100 Emigrant Street, Bridgeport, CA 93517.

This center is known by the following call sign: **"Mono 1"**
Telephone: (760) 932-7549

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7

Shared Channel Infrastructure
No data currently available

Monterey County OA

24-Hour Facilities
Emergency Services Director
Telephone: (831) 755-5010

Emergency Services Manager
Telephone: (831) 795-1900

CAL FIRE-San Benito-Monterey ECC
This center is known by the following call sign: "Monterey"
24/7 Telephone: (831) 647-6222

Regularly Monitored Channels
No data currently available

Shared Channel Infrastructure
No data currently available

Napa County OA

24-Hour Monitoring Facilities

Napa County has two 24-hour communications centers.
Napa Dispatch answers all 9-1-1 calls for the County unincorporated area, City of Napa, City of American Canyon, and Town of Yountville. Napa Dispatch is responsible for all public safety communications within the City of Napa borders, along with Sheriff and Medical dispatching countywide. Napa Dispatch is manned by City of Napa employees.

This center is known by the following call sign: **"NAPA"**

24-hour Telephone: (707) 257-9223
St. Helena Emergency Communication Center (ECC) provides all fire dispatching within the County of Napa, except for the City of Napa (which is handled by Napa Dispatch). St. Helena ECC is a joint Napa County/CAL FIRE dispatch center manned by CAL FIRE employees.

This center is known by the following generic call sign: **"SAINT HELENA".**

24-hour Telephone: (707) 963-9636

Regularly Monitored Channels

Napa Dispatch

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None

St. Helena ECC

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1	154.2800	154.2800	None

Shared Channel Infrastructure
Napa County uses local frequencies that are shared with all law enforcement and fire agencies within the county borders.

Napa Dispatch

Napa Dispatch				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	Primary	155.4300	158.9700	131.8 Tx
Law Secondary	Red	151.0700	159.0450	192.8 Tx

St. Helena ECC

St. Helena ECC				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Cal Fire	LNU EAST	151.3400	159.3150	136.5 Tx
Cal Fire	LNU WEST	151.4600	159.3900	151.4 Tx
County Fire	County Fire	154.4150	154.8600	110.9 Tx

Nevada County OA

24-Hour Monitoring Facilities
Grass Valley Interagency Command Center

This center is known by the following call sign: **"Grass Valley"**
24/7 Telephone: (530) 477-0951

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None
Law	CALAW 2	154.9350	154.9350	None
Law	CALAW 3 / VLAW 31	155.4750	155.4750	None
Coordination	CALCORD	156.0750	156.0750	None
Fire	VFIRE FIRE 1	154.2800	154.2800	None
Fire	VFIRE2	154.2650	154.2650	None
Fire	VFIRE3	154.2950	154.2950	None

Shared Channel Infrastructure
No data currently available

Orange County OA

24-Hour Monitoring Facilities
Orange County provides 24-hour monitoring of interoperability channels through its **Countywide Coordinated Communications Center**, staffed by the Orange County Sheriff's Department. This Center is the point of contact for all city and county law enforcement, fire, lifeguard and public works departments throughout the Orange County OA.

This center is known by the following call signs: **"Orange County"**, **"Control One"**, **"OCC"** or **"Orange County Communications"** Telephone: (714) 628-7000

Regularly Monitored Channels

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	LLAW1	39.4600	45.8600	156.7

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7
Law	VLAW31	155.4750	155.475	156.7
Fire	VFIRE21	154.2800	154.2800	156.7

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW4	460.0250	465.0250	156.7

700 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Call	7CALL50	769.24375	799.24375	$F7E/ $293

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CALL90	851.0125	806.0125	156.7
Law	CALAW8	853.5125	808.5125	156.7
Fire/EMS	CAFIRE1	853.9875	808.9875	156.7

Shared Channel Infrastructure

The Orange County Sheriff's Department maintains a console-based gateway at its Countywide Coordinated Communications Center. This gateway can patch any of the channels listed above to any County of Orange 800 MHz Countywide Coordinated Communications System talkgroup or channel.

Placer County OA

24-Hour Monitoring Facilities
Placer County provides 24-hour monitoring of interoperability channels through its **9-1-1 Dispatch Center**, staffed by the Placer County Sheriff's Office. This center is the point of contact for all law enforcement and fire in the unincorporated portions of the county. This center is known by the following call signs: **Placer County", "Placer",** or **"Placer County Communications"**
Telephone: (530) 886-5375
Emergency Services Coordinator:
Placer County Office of Emergency Services:
Holly Powers, Telephone: (530) 886-5300

Regularly Monitored Channelson P25 Trunking System

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CLERS	155.0700	159.0300	110.9
Law	CALAW1	154.9200	154.9200	None
Fire	VFIRE21	154.2800	154.2800	None
Note: CALAW1 and VFIRE21 are only monitored by Sheriff Dispatch on an as needed basis, i.e., with prior phone or radio coordination.				

Shared Channel Infrastructure
The Placer County Sheriff's Office maintains a console-based patching system at its Communications Center. This patching system has the ability to patch any of the channels listed above to any regularly used law enforcement or fire channels in Placer County.

Plumas County OA

24-Hour Monitoring Facilities

Plumas County provides 24-hour monitoring of interoperability channels through its **Countywide Coordinated Communications Center**, staffed by the Plumas County Sheriff's Department. This center is the point of contact for all city and county law enforcement, fire and after hour public works departments throughout the Plumas County OA.

This center is known by the following call signs: **"Control One"** or **"Fire Control"**

Telephone: (530) 283-6300
Emergency Services Coordinator
Contact Plumas Co Sheriff Dispatch, Telephone: (530) 283-6300

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1[2]	154.9200	154.9200	None
Law	CALAW2	154.9350	154.9350	None
Law	VLAW 31	155.4750	155.4750	None
Coordination	CALCORD	156.0750	156.0750	None
Search and Rescue	NASAR	155.1600	155.1600	None
Fire	VFIRE 21	154.2800	154.2800	None
Fire	VFIRE 22	154.2650	154.2650	None
Fire	VFIRE 23	154.2950	154.2950	None
Interop	VCALL10	155.4725	155.4725	156.7
Interop	VTAC11	151.1375	151.1375	156.7
Interop	VTAC12	154.4525	154.4525	156.7
Interop	VTAC13	158.7375	158.7375	156.7
Interop	VTAC14	159.4725	159.4725	156.7
[1] Monitoring by dispatch must be "enabled" by request.				

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
[2] *CALAW1 is monitored by PCSO dispatch 24/7*				

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Plumas County Fire	155.0850	158.9550	136.5

The Plumas County Sheriff's Department maintains a console-based gateway at its Countywide Coordinated Communications Center. This gateway can patch any of the channels listed above to any County of Plumas VHF high- or low-band Countywide Coordinated Communications System repeater or base station.

Riverside County OA - Fire

24-Hour Monitoring Facilities

Riverside County Fire (RVC FIRE)/CAL FIRE Perris Emergency Communications Center (ECC) provides 24-hour monitoring of interoperability channels through its **Emergency Communications Center**, staffed by the Riverside County Fire Department and/or CAL FIRE personnel. This center is the point of contact for all State/County Fire Response Areas within the Riverside County OA. The Perris ECC is also the point of contact for the following cities that contract with Riverside County Fire for fire protection services: Banning, Beaumont, Calimesa, Canyon Lake, Coachella, Desert Hot Springs, Eastvale, Indian Wells, Indio, Jurupa Valley, Lake Elsinore, La Quinta, Menifee, Moreno Valley, Norco, Palm Desert, Perris, Rancho Mirage, Rubidoux CSD, San Jacinto, Temecula, and Wildomar. The Perris ECC also provides dispatching services and is the point of contact for the following Fire Protection District and Tribal Fire Departments: Idyllwild Fire Protection District, Morongo Fire Department, Soboba Fire Department, and Pechanga Fire Department.

This center is known by the following call signs: **"Perris"** (Primary), **"Riverside"** (Alternate ECC), **"Indio"** (Alternate ECC)

Perris Emergency Communications Center
Telephone: (800) 253-6900
Telephone: (951) 940-6948
Satellite Phone: (888) 251-8483

Riverside Alternate ECC
Telephone: (951) 955-4792

Indio Alternate ECC
Telephone: (760) 775-7827

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800	154.2800	None

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire/EMS	CAFIRE 1	868.9875	808.9875	156.7

Shared Channel Infrastructure

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Western County Disaster Net West River County	W.C.D.N.	33.9200	33.5000	167.9 Rx 110.9, 123.0 Tx

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Cal OES FIRE 1B	154.1600	159.1950	None
Fire	Cal OES FIRE 2B	154.2200	159.1950	None
Fire – MA West County	VFIRE-1 Aka VFIRE21	154.2800	154.2800	None
Fire – MA Coachella Valley	VFIRE-1 Aka VFIRE21	154.2800	154.2800	None
Coachella Valley Disaster Net	C.V.D.N.	155.1450	155.1450	None/ 167.9

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire/EMS	OES FIRE1	868.9875	823.9875	None/ 156.7
CMARS 800 CONV	CMARS	867.5375	822.5375	None/ 71.9

Riverside County OA - Law Enforcement

24-Hour Monitoring Facilities
The County of Riverside, by way of the Riverside Sheriff's Department, provides 24-hour monitoring of interoperability channels through its **Communications Centers**.

Riverside Sheriff's Communications Center – Riverside
7195 Alessandro Blvd.
Riverside, CA 92506
Telephone: (951) 955-2526 (Office, M-F, 9 a.m. - 5:00 p.m.)
Telephone: (951) 776-1010 (24-hour Comm Supervisor)

Riverside Sheriff's Communications Center – Palm Desert
73520 Fred Waring Dr.
Palm Desert, CA 92260
Telephone: (760) 836-1769 (24-hour local office)
Telephone: (951) 776-1020 (24-hour Comm Supervisor)

Riverside Sheriff's Communications Center – Blythe
Colorado River Station
260 N. Spring St.
Blythe, CA 92225
Telephone: (760) 921-7900 (24-hour local office)
Telephone: (760) 921-5763 (Comm Supervisor)

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7

Search and Rescue Repeaters
(The TX/RX listed is for the subscriber accessing the repeater)

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	PINE COVE: "RC SAR PNCV"	155.1600	158.7600	151.4
	PALM SPRINGS TRAM	155.1600	158.7600	151.4/ 118.8

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	SUPPLEMENTAL REPEATER MOBILE"RC SAR SRM"	155.1600	158.7600	151.4/ 192.8
	BOX SPRINGS/ ELSINORE PK: "VHF WEST"	158.8500	154.8900	110.9
	PINE COVE: "RC SAR PNCV"	155.1600	158.7600	151.4
	NORTH MTN: "VHF CENTRAL"	158.8950	155.5800	110.9
	WHITEWATER/ SANTA ROSA/ CACTUS CITY: "VHF DESERT"	159.0900	158.7600	110.9
	CHUCKWALLA/BLACK ROCK: "VHF BLYTHE"	158.8500	154.8900	192.8
	SNOW PK: "RC SAR SNOW	155.1600	158.7600	151.4/ 162.2

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 4	460.0250	465.0250	131.8

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CAL90	855.0125	806.0125	156.7
Law	CALAW8	868.5125	808.5125	156.7
Law	I-TAC 1	866.5125	821.5125	156.7
Law	I-TAC 2	867.0125	822.0125	156.7
Law	I-TAC 3	867.5125	822.5125	156.7
Law	I-TAC 4	868.0125	823.0125	156.7
Fire/EMS		868.9875	823.9875	156.7

Note: The new re-banded 8CALL90 channel is monitored 24/7 countywide by Riverside Sheriff's Dispatch. CALAW 8 is sometimes monitored, but not always.

8TAC91, 8TAC92, 8TAC93 & 8TAC94 repeaters are NOT monitored regularly. These repeaters are usually kept turned off until a user calls Sheriff's Dispatch and requests to use them, then dispatch turns them on for the requestor's operation. These are open to any public safety agency to use

Shared Channel Infrastructure

The County of Riverside deploys a countywide 700 MHz P25 Phase II trunked radio system known as the PSEC system (Public Safety Enterprise Communications) and law enforcement talkgroups are encrypted. The system is regional with the following member agencies who utilize the system for their daily operations: Riverside County Sheriff – All stations and Bureaus (including the contract cities of: Calimesa, Canyon Lake, Coachella, Eastvale, Indian Wells, Jurupa Valley, Lake Elsinore, La Quinta, Menifee, Moreno Valley, Norco, Palm Desert, Perris, Rancho Mirage and Temecula), Banning Police Department, Corona Police Department, Murrieta Police Department, Riverside Police Department, University of California – Riverside (UCR) Police Department, Bureau of Land Management (BLM) – Palm Springs Field Office, Riverside County Code Enforcement, Riverside County Parks, Riverside County Emergency Management Department (EMD and REMSA), Riverside County Fire – Management and Communications Techs only.

PSEC member agency dispatchers can patch any PSEC talkgroup to any other PSEC talkgroup, additionally, PSEC talkgroups can be patched to the CALAW 1, CALAW 4, CALAW 8, and 8TAC91-94 channels.

Riverside County and CAL FIRE have established a county-wide dispatch-to-dispatch microwave circuit, which interoperates with all allied agencies within the county (with the exception of the City of Blythe). Included are the communications centers for the County Fire Department, CHP Indio, and the Indio City, Cathedral City, Palm Springs, Desert Hot Springs, Banning, Beaumont, Hemet, Murrieta, Corona, and both the City and County of Riverside.

Sacramento County OA

24-Hour Monitoring Facilities

The Sacramento Regional Radio Communications System (SRRCS) is the provider of radio communications to all local public safety agencies (law enforcement, fire and EMS) within Sacramento County, as well as the City of West Sacramento (Yolo County). The County of Sacramento, through the SRRCS, provides 24-hour monitoring of the CAL90 800 MHz channel at the **County Communications Center**. Emergency requests through this channel will cause the County Communications Center to notify the appropriate local public safety agency dispatch center to bring up the channel at its location to appropriately resolve the situation. If necessary, the County Communications Center has the capability to bring up any of the eight interoperable channels listed in the 800 MHz table below. The repeaters for these channels are distributed throughout the Sacramento region at SRRCS radio sites.

This center is known by the following call signs: **"Sac County Dispatch"** or **"Sacramento Communications Center"**

24/7 Telephone: (916) 875-6900

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	VTAC 11D	151.1375	151.1375	156.7

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	UTAC 41	458.4625	453.4625	156.7
	UTAC 42	458.7125	453.7125	156.7

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	CAL90[1]	851.0125	806.0125 (4 KHZ)	156.7
Public Safety	TAC 91	851.5125	806.5125 (4 KHZ)	156.7
Public Safety	TAC 92	852.0127	807.0125 (4 KHZ)	156.7
Public Safety	TAC 93	852.5125	807.5125 (4 KHZ)	156.7
Public Safety	TAC 94	853.0125	808.0125 (4 KHZ)	156.7
Law				
(Statewide)	CLAW 8	853.5125	808.5125 (4 KHZ)	156.7
Law Northern CA	CLAW 9	851.2000	806.2000 (4 KHZ)	156.7
Fire/EMS				
(Statewide)	CFIRE1	853.9875	808.9875 (4 KHZ)	156.7
Fire/EMS (Northern CA)	CFIRE2	851.9125	806.9125 (4 KHZ)	156.7
	8TAC 91	806.5125	851.5125	156.7
	8TAC 92	807.0125	852.0125	156.7
	8TAC 93	807.5125	852.5125	156.7
	8TAC 94	808.0125	853.0125	156.7
[1] CAL90 is the only regularly monitored channel. However, the other channels may be brought up for use.				

Shared Channel Infrastructure

Caltrans' Sunrise region is part of the SRRCS. Field staff from the Sunrise region cover the Sacramento, Sutter, Yolo, Placer and El Dorado counties. Law enforcement, fire and EMS mobile and

portable radios within the SRRCS are programmed with the appropriate 800 MHz mutual aid channels and can communicate on a channel when the repeater is active.

San Benito County OA

24-Hour Facilities
Emergency Services Dispatch
Telephone: (831) 636-4100

CAL FIRE-San Benito-Monterey ECC

This center is known by the following call sign: **"Monterey"**
24/7 Telephone: (831) 647-6222

Regularly Monitored Channels
No data currently available

Shared Channel Infrastructure
No data currently available

San Bernardino County OA

24-Hour Facilities
Emergency Operations Center
Telephone: (909) 356-3885

Ontario Fire Dispatch
This center is known by the following call sign: **"Ontario"**
Telephone: (909) 983-5911
Regularly monitored channel: VFIRE21 (see following section)
CAL FIRE-San Bernardino ECC
This center is known by the following call sign: **"San Bernardino"**
Telephone: (909) 883-1112
Regularly monitored channel: VFIRE21 (see following section)
San Bernardino County (CONFIRE) Communications Center
This center is known by the following call sign: **"Comm Center"**
Telephone: (909) 356-3805
Email: dispatchmanagers@confire.org
Regularly monitored channels: VFIRE21, BDC V1 through V7 (see following section)
San Bernardino County Sheriff's Department Dispatch
Telephone: (909) 356-3850 (Valley & Mountain areas)
Telephone: (760) 243-8904 (Desert areas)
Deployed SAR personnel monitor: **"MRA SAR"** or **"SBCo SAR"**
(see following section)
Countywide contact for communications:
Bill Mahan, BC (San Bernardino County FPD)
Telephone: (909) 665-0398
Email: bmahan@sbcfire.org
San Bernardino County Fire Communications Center
Telephone: (909) 822-8072
Telephone: 1-800-340-9110
Telephone: 1-800-472-2376

POC: Bill Mahan, Battalion Chief, San Bernardino Co Fire Dist.,
bmahan@sbcfire.org
Telephone: (909) 665-0398

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
SAR	SBCo SAR	155.7750	153.9050	151.4/MPL
SAR	MRA SAR	155.1600	155.1600	151.4
Fire	VFIRE21	154.2800	154.2800	156.7
Fire	BDC V1	151.1450	154.0550	156.7/MPL
Fire	BDC V2	159.1200	156.0600	167.9/MPL
Fire	BDC V3	151.1525	158.8875	167.9/MPL
Fire	BDC V4	155.1000	155.9100	167.9/MPL
Fire	BDC V5	155.1150	153.9650	167.9/MPL
Fire	BDC V6	154.3850	151.4750	167.9
Fire	BDC V7	154.1900	154.2800	167.9
Fire	VFIRE21	154.2800	154.2800	156.7

* Note: The "BDC" interop repeaters are monitored by "Comm Center".
These can be patched into most Fire talkgroups on the County P25
trunking system.
BDC V1 covers the West Valley region
BDC V2 covers the Mountains / Cajon region
BDC V3 covers the North Desert region
BDC V4 covers the Southeast Desert region
BDC V5 covers the Colorado River area
BDC V6 covers the East Valley region
BDC V7 covers the West Mountain region

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW8-D	853.5125	853.5125	156.7
Fire	8CAFIRE1-D	853.8750	853.9875	156.7

Shared Channel Infrastructure

Swap (cache) Radios			
Jurisdiction	**Agency**	**Units**	**Description**
Countywide	SBCo Radio/ISD		Portables

Shared Channels (Fire/EMS/SAR)				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	VCALL10	155.7525	155.7525	156.7
TAC	VTAC11	151.1375	151.1375	156.7
TAC	VTAC12	154.4525	154.4525	156.7
TAC	VTAC13	158.7375	158.7375	156.7
TAC	VTAC14	159.4725	159.4725	156.7
Tac Rpt	VTAC36	151.1375	159.4725	136.5
Tac Rpt	VTAC37	154.4525	158.7375	136.5
Fire	VFIRE21	154.2800	154.2800	156.7
Fire	VFIRE22	154.2650	154. 2650	156.7
Fire	VFIRE23	154.2950	154. 2950	156.7
Fire	VFIRE25	154.2725	154.2725	156.7
Fire	VFIRE24	154.2875	154.2875	156.7
Fire	VFIRE26	154.3025	154.3025	156.7
TAC	CALCORD	156.0750	156.0750	156.7

Gateways				
Jurisdiction	**Agency**	**Type**	**Quantity**	**Fixed Mobile**
	SBCoFPD	BDC CS1		Mobile
	SBCoFPD	BDC CP1		Mobile

San Diego County OA

24-Hour Facilities
Emergency Operations Center
Office of Emergency Services

Telephone: (858) 565-3490

San Diego County Sheriff's Communications Center Supervisor
Telephone: (858) 565-5030

CAL FIRE-Monte Vista ECC

This center is known by the following call sign: **"Monte Vista"**
24/7 Telephone: (619) 593-0384

Regularly Monitored Channels

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW8[1]	853.5125	808.5125	156.7
Call	8CALL90[1]	851.0125	806.0125	156.7
[1] Monitored by the San Diego County Sheriff's Department				

Shared Channel Infrastructure
The San Diego County – Imperial County Regional Communications System (RCS) provides a shared, multi-agency (State, Local and Federal agencies) interoperable communications system. For more information, please visit https://www.rcs800mhz.org.

San Francisco County OA

24-Hour Facilities
San Francisco PSAP, Dispatch Supervisor Line
24/4 Telephone: (415) 558-3884 (System Watch), (415) 575-0737 (Police) and (415) 558-3291 (Fire)
Emergency Services Coordinators

DES Watch Center/Duty Officer
demdutyofficer@sfgov.org
(415) 558-2738 desk
(415) 260-2591 cell

Anna Sop
DES Operations Lead
anna.sop@sfgov.org
(415) 218-9781 cell

Bijan Karimi
Acting Deputy Director, Emergency Services
bijan.karimi@sfgov.org
(415) 640-8269 cell

Mutual Aid Repeaters

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE	154.2800	154.2800	156.7

UHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
UHF	SF MA-450	458.2250	453.2250	151.4

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 6	853.5125	808.5125	156.7
Law	CALAW 8	851.2000	806.2000	156.7
Fire/EMS	CAFIRE 1	853.9875	808.9875	156.7
Fire/EMS	CAFIRE 2	851.9125	806.9125	156.7
Fire/EMS	CAFIRE 1	853.9875	808.9875	156.7
Fire/EMS	CAFIRE 2	851.9125	806.9125	156.7
Calling	8CALL90	851.0125	806.0125	156.7
Public Safety	8TAC91	851.5125	806.5125	156.7

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Public Safety	8TAC92	852.0125	807.0125	156.7
Public Safety	8TAC93	852.5125	807.5125	156.7
Public Safety	8TAC94	853.0125	808.0125	156.7

Shared Channel Infrastructure

Repeaters			
CESRS Control Station	153.755	154.980	192.8
MT TAM		154.980	131.8
MT DIABLO		154.980	156.7
LOMA PRIETA		154.980	110.9
VMED 28	155.3400	155.3400	CSQ (2.5kHz/156.7) (12.5kHz)
MED 9	467.9500	462.9500	167.9 (2.5kHz/12.5kHz)

FBI 25 Cities			
SF MA T-A	486.1375	483.1375	156.7 (5khz/25khz)
SF MA V-A	162.9000	168.7625	NAC 653 (2.5khz/12.5khz)
SF FED-V	163.7750	171.6125	NAC 653 (2.5khz/12.5khz)
SF MA U-A	418.0125	409.0125	167.9 (2.5khz/12.5khz)
SF FED-U	419.4125	410.4125	NAC 653 (2.5khz/12.5khz)

San Joaquin County OA – Sheriff

24-Hour Monitoring Facilities
San Joaquin County Sheriff's Department Communications Center
Telephone: (209) 468-5517 or (209) 468-4401

Emergency Services Coordinator
Telephone: (209) 953-6208 / Cell: (209) 351-1540

Regularly Monitored Channels
The San Joaquin County Sheriff's Department does not routinely monitor any national or state interoperability channels.

Shared Channel Infrastructure
The San Joaquin County Sheriff's Department maintains a non-staffed Mobile Communications Vehicle (MLEC) available for call outs with a one-hour lead time. Based at Rough and Ready Island in Stockton, it is equipped with three UHF, two VHF, one Low Band, and one 800 MHz radios. This system gateway can patch the channels listed on San Joaquin County's frequency list.

San Joaquin County OA – City of Lodi

24-Hour Monitoring Facilities
The City of Lodi provides 24-hour monitoring of interoperability channels through the **City of Lodi Public Safety Communications Center**. This center is staffed by the Lodi Police Department and is the main point of contact for the City of Lodi Police and Fire Departments.

The center is known by the following call signs: **"Lodi Police"**; or **"Lodi Police Dispatch"**

24-hour non-emergency telephone: (209) 333-6727

Regularly Monitored Channels
The City of Lodi Public Safety Communications Center does not commonly monitor the national or state interoperability channels; notification comes through the San Joaquin Office of Emergency Services (OES) system.

Shared Channel Infrastructure

The City of Lodi Public Safety Communications Center has the capability of utilizing a channel from the San Joaquin County Sheriff's Office, labeled as "SJCO Interop" along with the CALAW channel. These are not actively monitored.

The City of Lodi maintains a mobile communication unit that has the capability of broadcasting on VHF Low Band, UHF and 800 MHz systems. This unit also maintains a gateway that can patch to any of the pre-programmed channels in the frequency bands listed above.

San Joaquin County OA – City of Tracy

24-Hour Monitoring Facilities

The City of Tracy provides 24-hour monitoring of interoperability channels and is staffed by City of Tracy employees. The center is the point of contact for city law enforcement, public works and EMS calls.

This center is known by the following calls signs: **"Tracy"**; **"Tracy Dispatch"**; or **"Tracy PD"**

Citywide Coordinated Communications Center:
Telephone: (209) 831-4552

Regularly Monitored Channels

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Tracy PD	TPD1	453.9750	453.9750	830
Tracy PD	TPD2	453.9250	453.9250	831

Shared Channel Infrastructure

The City of Tracy does not currently have a gateway system in the 24-hour Public Safety Answering Point (PSAP).

San Joaquin County OA – City of Ripon

24-Hour Monitoring Facilities
The Ripon Police Department provides 24-hour monitoring of interoperability channels through its communications center, which is staffed by the Ripon Police Department. This center is the point of contact for all Ripon Police Department sworn and non-sworn staff.

This center is known by the following call sign: **"Ripon"**

Ripon Police Department Communications Center:
Telephone: (209) 599-2102

Emergency Services Coordinator
Telephone: (209) 953-6208 / Cell: (209) 351-1540

Regularly Monitored Channels
The City of Ripon does not routinely monitor any national or state interoperability channels.

Shared Channel Infrastructure
The Ripon Police Department maintains a console-based gateway at its Countywide Coordinated Communications Center. This gateway can patch any of the channels listed above to any Ripon Police Department 450 MHz radio channel.

San Joaquin County OA – Joint Radio User Group

24-Hour Monitoring Facilities
The San Joaquin County Joint Radio Users Group (SJCJRUG) is comprised of 14 Fire Districts located in San Joaquin County plus two private ambulance providers (Manteca District Ambulance Service and Escalon Community Ambulance Service). The Group is contracted with American Medical Response and is dispatched through its 24-hour **Valley Regional Emergency Communications (VRECC) Center** located in Salida, CA. The primary Dispatch Channel is repeated from two separate mountain top sites and is known by the call sign "**Control 1**."

Regularly Monitored Channels

VRECC regularly monitors the primary dispatch channel listed above, along with three repeated Command Channels, Command 3, 5 and 6. These channels can be patched through the Center.

The channels listed below are simplex tactical channels monitored in the Center and can be patched in the field, as they are simplex and have range limitations. All channels used for interoperability are used by field units only. Communication with the Dispatch Center is accomplished through the repeated Dispatch and Command channels.

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE-1	154.2800	154.2800	None
PRIMARY DISPATCH	CONTROL 1	159.4800	152.9750	110.9
COMMAND	COMMAND 3	154.1300	156.1200	110.9
COMMAND	COMMAND 5	159.1125	154.6575	DPL565
COMMAND	COMMAND 6	152.3525	157.5825	100.0
TAC FIREGROUND	SJ TAC 7	154.0700	154.0700	110.9
TAC FIREGROUND	SJ TAC 8	154.2350	154.2350	156.7
TAC FIREGROUND	SJ TAC 9	159.1725	159.1725	565
TAC FIREGROUND	SJ TAC 10	156.2400	156.2400	565
AIR OPS	CALCOORD	156.0750	156.0750	CSQ

San Joaquin County OA – Fire

24-Hour Monitoring Facilities
Stockton Fire Regional Emergency Communications Center
(provides dispatch services for Stockton, Lathrop, Lodi, Manteca and Tracy.)
This center is known by the following call signs: "**Stockton Control-1**" for Stockton/Lodi dispatch and "**SCD**" for Lathrop/Manteca/Tracy dispatch.
Telephone: (209) 464-4646 Emergency or (209) 464-4648 (Non-emergency)

Regularly Monitored Channels
The Stockton Fire Regional Emergency Communications Center does not routinely monitor any national or state interoperability channels.

Shared Channel Infrastructure
The following two channels are patched via a console-based gateway:

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
STO 4 I/O	Stockton Fire Interoperability	460.6000	465.6000	82.5

VHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
STO VHF	Stockton Fire Interoperability	153.9200	158.7750	118.8

The Stockton Fire Department's Chief Operator's vehicle has a gateway available.

San Luis Obispo County OA

24-Hour Monitoring Facilities
San Luis Obispo County operates two 24-hour emergency dispatch centers.

Law Enforcement (Sheriff)

The **Sheriff PSAP** located in San Luis Obispo, dispatches all law enforcement calls for unincorporated areas. They also dispatch all ambulance units within the county.

This center is known by the following call sign: **"Control 20"**
24/7 Telephone: (805) 781-4550

CAL FIRE-County Fire San Luis Obispo ECC
The **Fire Dispatch center** located in San Luis Obispo, dispatches fire and medical related calls for unincorporated areas and some cities under contract.

This center is known by the following call sign: **"San Luis"**

24/7 Telephone: (805) 543-4242

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE-1	154.2800	154.2800	None
Fire	County Fire Net	154.3850	156.0300	82.5/82.5
Fire	SLU[1]	151.3250	159.3150	Multi[1]
Fire XSL	CMD 4	151.0550	156.0900	192.8

[1] SLU (San Luis Ranger Unit) local net operates on tones 10, 11, 12, 13 (see this section) depending on mobile location

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 5	460.0250	465.0250	None/156.7
Law	Sheriff Red[1]	460.0500	465.0500	123.0/82.5
Law	Sheriff Yellow[1]	460.4750	465.4750	123.0/82.5
EMS	MED 1[2]	463.0000	468.0000	88.5/88.5

[1] Sheriff Red & Yellow is monitored by all seven city police agencies within San Luis Obispo County and Cal Poly State University Police. CHP monitors Red channel.
[2] Med 1 used for county wide ambulance dispatch

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	CALCORD	156.0750	156.0750	None

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 4	460.0250	460.0250	None/156.7

San Luis Obispo County Communications operates a "Mobile Interoperability Gateway Unit" known as MIGU 5. This unit is provided by Cal OES. The mobile unit incorporates radios covering from 2-30 MHz HF & 30-800 MHz VHF/UHF; controlled via two JPS ACU-1000 switches. An OASIS Satellite Earth Station provides 12 phone connections and internet access.

Other resources:
County Office of Emergency Services
Telephone (business hours): (805) 781-5011
Telephone (On Call Duty coordinator): (805) 781-1144

San Mateo County OA

24-Hour Monitoring Facilities
Law, Fire & EMS Dispatch
San Mateo County's Public Safety Dispatch Center (PSC) is located at the county government center in Redwood City. Dispatch services for multiple agencies are facilitated at PSC. This includes the Sheriff, Coroner, Transit Police, various local city police departments and Fire/EMS services in the county. The center also serves as the 24/7 answering point for Law, Fire, EMS & EMMA mutual aid & resource requests.

This center is known by the following call sign: "**San Mateo County**"

24/7 Telephone: (650) 363-4911
400 County Center, Redwood City, CA

San Mateo County Office of Emergency Services
If the above center is not available, the OES office may be called directly.

This center is known by the following call sign: **"Sheriff's OES or OES Base"**

Telephone: (650) 363-4790 (not staffed 24/7)
501 Winslow Street, Redwood City, CA 94063

The San Mateo County Sheriff's Office has a number of mutual aid emergency communications assets at its disposal. Some of these include:

- JPS ACU-T portable gateway, providing interoperability among VHF, UHF, 700 & 800 MHz channels.

- Four portable repeater kits covering VHF, UHF & 800 MHz. Each kit is equipped with external antennas, back up battery's and solar panels for prolonged deployments.

- Three mutual aid radio kits providing cache radios for VHF, UHF, & 700/800 MHz. Each kit is equipped with gang chargers, rechargeable batteries, belt clips and shoulder microphones.

- Mobile Communications Unit (MCU) - The MCU is designed as a small command post, and radio dispatch center. It is

equipped as a mobile office with an onboard generator, satellite internet, color laser printer, ICS vest kit, equipment/personnel accountability kit, and two-way radios.

- Cal OES "Mobile Interoperability Gateway Unit" (MIGU 2). The MIGU is designed as a field communications hub and communications gateway. The primary mission is to provide radio interoperability, OASIS phones and internet to a field command post, mobile EOC or shelter. It can also be used as a repeater platform or remote radio link.

To request any of the above resources, contact the Sheriff's OES On-Call Coordinator at (650) 363-4911. MIGU-2 may also be requested by contacting the Cal OES Warning Center at (916) 845-8911.

San Mateo Consolidated Fire Department operates two VHF portable repeaters, with built in UHF links. They are available and can be deployed at arbitrary locations throughout the area. To request the VHF repeaters, call (650) 363-4911 and ask for Mike Towns to be paged.

Regularly Monitored Channels
San Mateo County Fire & EMS

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
SOUTH DISPATCH	CONTRO L 1A	153.8900	159.0750	114.8/107.2
SOUTH COMMAND	COMMAN D 11	154.3700	156.0150	114.8/123.0
CENTRAL DISPATCH	CONTRO L 2	153.7850	158.8500	156.7
CENTRAL COMMAND	COMMAN D 21	153.9500	156.0450	114.8
NORTH DISPATCH	CONTRO L 3	154.1000	160.0650	114.8
NORTH COMMAND	COMMAN D 31	151.0850	158.7900	123.0
COAST DISPATCH	CONTRO L 1B	154.3400	159.0750	114.8/107.2

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
COAST DISPATCH	CONTROL 1C	154.1450	159.0750	114.8/107.2
COAST DISPATCH	CONTROL 1D	154.2350	159.0750	114.8/107.2
COAST DISPATCH	CONTROL 1E	151.0850	159.0750	114.8/107.2
COAST COMMAND	COMMAND 41	155.8950	160.1700	114.8/162.2
COUNTY WIDE COMMAND	COMMAND 51	151.4750	159.0150	167.9
AMBULANCE DISPATCH	RED	San Mateo County P25 Regional Communications System		

San Mateo County Sherriff

700 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
SHERIFF PATROL	PATPRI 1	San Mateo County P25 Regional Communications System		
SHERIFF PATROL	PATPRI 2	San Mateo County P25 Regional Communications System		
SHERIFF PATROL BACK UP	PATPRI 3	San Mateo County P25 Regional Communications System		
SHERIFF PATROL BACK UP	PATPRI 4	San Mateo County P25 Regional Communications System		
SHERIFF PATROL BACK UP	PATPRI 5	San Mateo County P25 Regional Communications System		
SHERIFF OES	OES	San Mateo County P25 Regional Communications System		

San Mateo County Law Mutual Aid

UHF T-Band				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
COUNTY WIDE M/A	CWMA (GREEN)	488.8875	491.8875	114.8
NORTH TACTICAL	TAC 1	488.8625	491.8625	114.8
CENTRAL TACTICAL	TAC 2	488.7125	491.7125	114.8
SOUTH TACTICAL	TAC 3	488.5375	491.5375	114.8

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
CALLING	VCALL 10	155.7525	155.7525	156.7
TACTICAL	VTAC 11	151.1375	151.1375	156.7
TACTICAL	VTAC 12	154.4525	154.4525	156.7
TACTICAL	VTAC 13	158.7375	158.7375	156.7
TACTICAL	VTAC 14	159.4725	159.4725	156.7
TACTICAL REPEATER	VTAC 33 *	159.4725	151.1375	156.7/136.5
TACTICAL REPEATER	VTAC 34 *	158.7375	154.4525	156.7/136.5
TACTICAL REPEATER	VTAC 35 *	159.4725	158.7375	156.7/136.5
TACTICAL REPEATER	VTAC 36 *	151.1375	159.4725 N	156.7/136.5
TACTICAL REPEATER	VTAC 37 *	154.4525	158.7375 N	156.7/136.5
TACTICAL REPEATER	VTAC 38 *	158.7375	159.4725 N	156.7/136.5
FIRE	VFIRE 21	154.2800	154.2800 N	156.7
FIRE	VFIRE 22	154.2650	154.2650	156.7
FIRE	VFIRE 23	154.2950	154.2950	156.7
FIRE	VFIRE 24	154.2725	154.2725	156.7
FIRE	VFIRE 25	154.2875	154.2875	156.7
FIRE	VFIRE 26	154.3025	154.3025	156.7
TACTICAL	CALCORD	156.0750	156.0750	156.7
LAW	CALAW 1	154.9200	154.9200	156.7
LAW	CALAW 2	154.9350	154.9350	156.7

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
LAW	VLAW 31	155.4750	155.4750	156.7
LAW	*VLAW 32*	*155.4825*	*155.4825*	*156.7*

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
LAW	CALAW 4 *	460.0250	465.0250	156.7
CALLING	UCALL 40 *	453.2125	458.2125	156.7
TAC	UTAC 41 *	453.4625	458.4625	156.7
TAC	UTAC 42 *	453.7125	458.7125	156.7
TAC	UTAC 43 *	453.8625	458.8625	156.7
* There is no permanent repeater in the county. A portable repeater is available; see above.				

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
CALLING	8CALL 90 *	851.0125	806.0125	156.7
TAC	8TAC 91 *	851.5125	806.5125	156.7
TAC	8TAC 92 *	852.0125	807.0125	156.7
TAC	8TAC 93 *	852.5125	807.5125	156.7
TAC	8TAC 94 *	853.0125	808.0125	156.7
LAW	CALAW 4 *	460.0250	465.0250	156.7
* There is no permanent repeater in the county. A portable repeater is available; see above.				

Santa Barbara County OA

24-Hour Monitoring Facilities
Law/Fire/EMS (Sheriff)
24/7 Telephone: (805) 683-2724

Regularly Monitored Channels
Note: Not Regularly Monitored by Dispatch

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None
Fire	VFIRE 1	154.2800	154.2800	None

Note: Not Regularly Monitored by Dispatch

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 5	460.0250	465.0250	None/156.7

Shared Channel Infrastructure

Swap (cache) Radios			
Jurisdiction	**Agency**	**Units**	**Description**
Santa Barbara County	General Services	104	UHF portable radios programmed to the Sheriff's profile.

Shared Channels				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	SB PD	465.100	460.100	82.5/82.5
Fire	Lompoc PD	465.125	460.125	97.4/97.4
Law	Red (SLO/SBC Mutual Aid)	465.050	460.050	82.5/123.0
Red channel only monitored in patrol cars in Northern part of SB County, not operable in dispatch.				

Gateways				
Jurisdiction	**Agency**	**Type**	**Quantity**	**Fixed Mobile**
Santa Barbara County	General Services	ACU 1000	2	Mobile
Santa Barbara County	General Services	ACU 1000	1	Fixed (IVFP)

Shared Systems			
Name	**Service Area**	**Radio System**	**Public Safety Agencies Supported**
SBC	Countywide	UHF/VHF simulcast	SBC Sheriff's Dept./SBC Fire Dept./EMS
SBC	Countywide	Microwave backbone	See above

Santa Clara County OA

24-Hour Facilities
Office of Emergency Services
Telephone: (408) 299-2501

CAL FIRE-Santa Clara ECC
This center is known by the following call sign: **"Morgan Hill"**
24/7 Telephone: (408) 779-4111

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	None
Fire	VFIRE21	154.2800	154.2800	None

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Multi Discipline	Redding Trunked System	8 - 800 MHz Channels	8 - 800 MHz Channels	N/A

Santa Cruz County OA

24-Hour Facilities
Emergency Operations Center Coordinator
Telephone: (831) 471-1190

CAL FIRE-San Mateo-Santa Cruz ECC
This center is known by the following call sign: **"Felton"**

24/7 Telephone: (831) 335-9113

Regularly Monitored Channels
No data currently available

Shared Channel Infrastructure
No data currently available

Shasta County OA

24-Hour Facilities
Emergency Coordinator
Telephone: (530) 245-6540

Sheriff Department
Telephone: (530) 245-6000

CAL FIRE-Shasta-Trinity ECC
This center is known by the following call sign: **"REDDING"**
24/7 Telephone: (530) 225-2411

Emergency Line: (530) 243-1434

SHASCOM 9-1-1
This center is known by the following call sign: **"SHASCOM"**
24/7 Telephone: (530) 245-6500

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	SHU Local	159.2700	151.1600	136.5/OST*
* OST = Operator Selectable Tone				

Shared Channel Infrastructure
No data currently available

Sierra County OA

24-Hour Monitoring Facilities
The Sierra County Sheriff's Office Communications Center is the initial POC for all County law enforcement, fire, medical and OES services (Primary PSAP)

24/7 Dispatch Center

Telephone: (530) 289-3700
24/7 OASIS: 3-6801 – 3-6808

Office of Emergency Services (OES)

Business Hours: (530) 289-2850
After Hours: (530) 289-3700 or (530) 289-3333

Emergency Services Coordinator: Lee Brown

Telephone: (530) 289-2850

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW	154.9200	154.9200	156.7

Shared Channel Infrastructure
No data currently available

Siskiyou County OA

24-Hour Facilities
Siskiyou County Sheriff's Office is the initial POC for all County law enforcement, fire, medical, and OES services

Siskiyou County Sheriff's Office
This center is known by the following call Sign: **"SO"**

Telephone: (530) 841-2900

CAL FIRE-Siskiyou ECC

This center is known by the following call Sign: **"Yreka"**

24/7 telephone: (530) 842-3515

Regularly Monitored Channels
Siskiyou County Sheriff's Office

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	
Law	CLERS5	155.7000	154.8150	110.9

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	Sheriff's Dispatch	154.7700	155.3100	Various T1-T10
Fire	Siskiyou Fire Dispatch	156.1050	154.2500	Various T1-T10
Public Works	Public Works	153.8000	154.1000	Various T1-T5

Solano County OA

24-Hour Facilities
Solano Dispatch: Public Safety Emergency Services for Law, Fire, EMS, Animal Control, Public Works, Parks

The Solano County Dispatch Center is located in downtown Fairfield. The Center dispatches law enforcement and fire and other services for both contracted and unincorporated areas of the county. The Center is staffed 24/7/365.

This dispatch center is known by the following call sign: **"Solano"**

Telephone: (707) 421-7090 (staffed 24/7/365)

Non 24-Hour Facilities
Solano County Office of Emergency Services

The Solano County Office of Emergency Services (OES) is available 24/7/365 via the Solano County Dispatch Center. OES provides Incident Command (IC), Search-And-Rescue (SAR), and other public safety services.
Telephone: (707) 784-1600 (not staffed 24/7)

Regularly Monitored Channels

The following radio channels are monitored 24/7/365 by Solano County Dispatch Center, and provide countywide coverage using simulcast transmitters and voting receivers. All channels are full time repeaters (except UCALL40, 7CALL50 and 8CALL90).

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	SOLANO SO	155.4900	158.7900	107.2
Fire	XSO FIRE	156.0000	153.8600	107.2
Incident/Event	SECA1	155.1300	158.9100	107.2
Incident/Event	SECA2	154.3400	156.1950	107.2/186.2
Incident/Event	SECA3	151.1300	159.0150	107.2/186.2

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	UCALL40	453.2125	458.2125	156.7
Incident/Event	SECA1	483.0875	486.0875	107.2
Incident/Event	SECA2	482.3625	485.2625	107.2

700 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	7CALL50	769.24375	799.24375	P25 NAC F7E / 293

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CALL90	851.0125	806.0125	156.7
Incident/Event	SECA1	858.4625	813.4625	107.2
Incident/Event	SECA2 South			

Shared Channel Infrastructure

The following are mutual aid channels available in Solano County, and are controlled by the Solano County Dispatch Center. All channels (except VFIRE21) provide countywide coverage using simulcast transmitters and voting receivers. VFIRE21 simplex coverage centers around the City of Fairfield. All repeaters are in non-repeat mode. Repeat mode, and patching can be accommodated.

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800	154.2800	156.7

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	UCALL40	453.2125	458.2125	156.7
Tactical	UTAC43	453.8625	458.8625	156.7

700 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	7CALL50	769.24375	799.24375	P25 NAC F7E / 293
Tactical	7TAC72	773.60625	803.60625	P25 NAC F7E / 293

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Calling	8CALL90	851.0125	806.0125	156.7
Tactical	8TAC91	851.5125	806.5125	156.7
Tactical	8TAC92	852.0125	807.0125	156.7
Tactical	8TAC93	852.5125	807.5125	156.7
Tactical	8TAC94	853.0125	808.0125	156.7
Law	CALAW8	853.5125	808.5125	156.7
Fire	CAFIRE1	853.9875	808.9875	156.7

Sonoma County OA

24-Hour Monitoring Facilities

Sonoma County provides 24-hour monitoring of interoperability channels through its Redwood Empire Dispatch Communications Authority (REDCOM) and Sheriff's Department Communications Centers. **REDCOM** is the point of contact for fire and EMS departments throughout the Sonoma County OA. The **Sonoma County Sheriff's Department** is the point of contact for all city and county law enforcement throughout the Sonoma County Operational Area.

Sheriff (Law Enforcement)

This center is known by the following call sign: "**Sonoma Sheriff"**
Telephone: (707) 565-2121

REDCOM (Fire/EMS)

This center is known by the following call sign: **"REDCOM"**

Telephone: (707) 568-5933

CAL FIRE-Sonoma-Lake-Napa ECC

This center is known by the following call sign: **"Saint Helena"**
24/7 Telephone: (707) 963-9636

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE 1	154.2800	154.2800	None
ALL	CESRS	153.7550	154.9800	146.2 or 131.8

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
LE	CALAW4*	460.0250	465.0250	127.3
* Only available in/around Santa Rosa				

Shared Channel Infrastructure

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
ALL	COMM EAST / LLAW1	39.4600	45.8600	156.7/162.2
ALL	COMM WEST	39.8000	45.3400	156.7/162.2
ALL	COMM COAST	39.3800	45.1800	156.7/162.2
ALL	COMM NORTH	39.3200	45.2600	156.7/162.2

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
ALL	COMM EAST VTAC12	154.4525	156.0675 N	156.7/162.2
ALL	COMM WEST VTAC11	151.1375	158.7675 N	156.7/162.2
ALL	COMM COAST	154.4000	158.8725	156.7/162.2
ALL	COMM NORTH VTAC13	158.7375	156.1500	156.7/162.2
ALL	REDCOM	154.3100	159.9150	146.2
*	VICTOR-1	153.9650	153.9650	156.7
*	VICTOR-2	155.0700	155.0700	156.7
*	VICTOR-3	155.2950	155.2950	156.7
*	VICTOR-4	154.7850	154.7850	156.7
*	VICTOR-5	156.1200	156.1200	156.7
*	VICTOR-6	155.7550	155.3775	156.7
*	VICTOR-6R OST	155.3775	159.1500	OST
ALL	SHERIFF 10	151.0100	156.0975	192.8
*Sonoma County Shared Tactical				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
ALL	COMM EAST/UTAC41	453.4625	458.4625	156.7/162.2
ALL	COMM WEST/UTAC43	453.8625	458.8625	156.7/162.2
ALL	COMM COAST	453.1500	458.1500	156.7/162.2
ALL	COMM NORTH/UTAC42	453.7125	458.7125	156.7/162.2
ALL	SHERIFF 1	453.7250	458.7250	131.8
ALL	SHERIFF 2	453.5750	458.5750	141.3
ALL	SHERIFF 3	453.4000	458.4000	103.5
ALL	SHERIFF 4	453.5500	458.5500	127.3
ALL	SHERIFF 5	453.4750	458.4750	192.8
ALL	SO6/TCOMM	453.0250	458.0250	127.3
ALL	SO7/COURTS	460.4250	465.4250	156.7
	SO8/TAC	460.2375	465.2375	127.3
ALL	SO9/SONOMA PD	460.2750	465.2750	127.3
ALL	SO10/LAKE	460.3000	465.3000	192.8
ALL	COUNTYWIDE 2	453.1750	458.1750	192.8

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
ALL	COMM EAST/8TAC91	851.5125	806.5125	156.7/162.2
ALL	COMM WEST/			
8CALL94	853.0125	808.0125	156.7/162.2	
ALL	COMM COAST/ 8TAC93	852.5125	807.5125	156.7/162.2

UHF and VHF frequency Agile repeaters available in the East, West and Coast areas.

Stanislaus County OA

24-Hour Monitoring Facilities

Stanislaus County monitors the channels listed below through **Stanislaus Regional 9-1-1 (SR911)** - a consolidated law enforcement/fire dispatch center and primary PSAP. Where possible, the county has provided primary channels that are constantly monitored. Other channels are monitored as staffing and activity levels allow.

The center (SR911) is known by the following call signs, but recommends communication via cellular telephone when possible:

- **"Modesto"** on 800/P25 Trunking law enforcement

- **"Control"** on 800/P25 Trunking and VHF law enforcement (Channels 1&2 are P25, all others remain VHF)

- **"Stanislaus Fire Command 4"** on VHF fire channels

Emergency Telephone: (209) 558-4357
Non-Emergency Telephone: (209) 552-3911

Emergency Services Coordinator: Wendy Silva
Telephone: (209) 552-3903

Regularly Monitored Channels

VHF High & 800 MHz /P25 Trunking				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Sheriff Channel 2	SO CH 2	158.8650	155.7450	NAC246
Fire Command 4	Command 4	155.0850	156.0900	82.5

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
CALAW 5	MPD CH 4	460.0250	465.0250	173.8

Shared Channel Infrastructure

SR911 has a console-based gateway at its Countywide Coordinated Communications Center. This gateway can patch channels which currently exist on the center's console.

Sutter County OA

24-Hour Monitoring Facilities
Sutter County Dispatch
Sutter County provides 24-hour monitoring of interoperability and mutual aid channels through its **communications center** located at and staffed by the Sutter County Sheriff's Department. This center is the point of contact for all county law enforcement, fire, emergency services, and public works throughout the Sutter County OA.

This center is known by the following call sign: **"Sutter County"**

24/7 Telephone: (530) 822-7307
Fax: (530) 822-7318
OASIS: 3-6201
CLETS Mnemonic: YCS0
NLETS ORI: CA0510000
Mobile Command Post Main Cellular: (530) 218-9093
Mobile Command Post Sat Phone: 1-800-337-5151

Yuba City Dispatch
Yuba City is an incorporated city within the Sutter County OA. Yuba City provides 24-hour monitoring of interoperability and mutual aid channels through its **communications center** located at and staffed by the Yuba City Police Department. This center is the point of contact for all city law enforcement, fire, emergency services, and public works within the incorporated areas of the city.

This center is known by the following call signs: **"Yuba City"** or **"City Dispatch"**

24/7 Telephone: (530) 822-4661
Fax: (530) 822-4799
"Situation Room" Sat Phone: 1-877-884-0957
CLETS Mnemonic: YCM0
NLETS ORI: CA0510200

Emergency Services Coordinator
Scott Bryan
Telephone: (530) 822-4575

Sutter Co Sheriff Communications Manager
Tabatha Lopez
(530) 822-2206
Tlopez@co.sutter.ca.us

Yuba City Police Communications Coordinator
Tawnya Smallwood
(530) 822-4797
Tsmallwo@yubacity.net

Regularly Monitored Channels

Sutter County Dispatch

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	156.7
Fire	VFIRE21[1]	154.2800	154.2800	156.7
Tactical	CALCORD[1]	156.0750	RX ONLY	156.7
Tactical	VCALL10[1]	155.7525	155.7525	156.7
Tactical	VTAC11[1]	151.1375	151.1375	156.7
Tactical	VTAC14[1]	159.4725	159.4725	156.7
[1] This channel is not always enabled. It is included in a multi-frequency radio and must be "selected" to enable the channel.				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CLERS 7 "Law Net"	453.8750	458.8750	110.9
Law	CALAW4 SUTR	460.0250	460.0250	156.7
Law	CALAW4D	460.0250	465.0250	156.7
EMS	MED 9 SUTR	462.9500	467.9500	210.7
Calling	UCALL40 D[1]	453.2125	453.2125	156.7
Tactical	UTAC41[1]	453.4625	458.4625	156.7
Tactical	UTAC41D[1]	453.4625	453.4625	156.7
Tactical	UTAC42D[1]	453.7125	453.7125	156.7
Tactical	UTAC43D[1]	453.8625	453.8625	156.7
[1] These channels are not always enabled. They are included in a multi-frequency radio and must be "selected" to enable the channel.				

Yuba City Dispatch

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	LLAW1[1]	39.4600	45.8600	156.7
[1] Channel normally "disabled". Must be "enabled" by request. Activating this channel enables a high-level repeater on the Sutter Buttes. This resource can also be temporarily tied into a fixed gateway cross-connect system.				

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW1	154.9200	154.9200	NONE
Fire	VFIRE21	154.2800	154.2800	NONE
Tactical	VTAC11[1]	151.1375	151.1375	156.7
Tactical	VTAC14[1]	159.4725	159.4725	156.7

[1] *Channel normally "disabled". Must be "enabled" by request. Activating this channel enables a high-level remote base on the Sutter Buttes. This resource can also be temporarily tied into a fixed gateway cross-connect system.*

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CLERS 7	453.8750	458.8750	110.9
Law	CALAW4 SUTR	460.0250	460.0250	156.7
Law	CALAW4D	460.0250	465.0250	156.7
Tactical	UTAC41[1]	453.4625	458.4625	156.7

[1] *Channel normally "disabled". Must be "enabled" by request. Activating this channel enables a high-level repeater on the Sutter Buttes. This resource can also be temporarily tied into a fixed gateway cross-connect system.*

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW8[1]	853.5125	808.5125	156.7
Tactical	8TAC93[1]	852.5125	807.5125	156.7

[1] *This repeater is normally "disabled". Must be "enabled" by request. Activating this channel enables a high-level repeater on the Sutter Buttes. This resource can also be temporarily tied into a fixed gateway cross-connect system.*

Shared Channel Infrastructure
Shared Channels
In addition to local agency shared conventional channel plans, Sutter County OA law enforcement (UHF) and fire (VHF) radios are programmed to include standard statewide and National Interoperability channels and are using common CalSIEC/NPSTC designators as defined in this IFOG. Contact COML for ICS-217A with local frequency information.

Gateway Infrastructure
The Sutter County Sheriff's Office maintains a mobile command vehicle with a Raytheon JPS TRP-1000 gateway. This gateway device can cross-connect multiple VHF high-band, VHF low-band, UHF, and 700/800 MHz radios. These radios contain all local, state, national and federal interoperability channels as well as many surrounding OA local frequencies.

The Sutter County Sheriff's Office and Yuba City Police Department together share a Raytheon JPS ACU-2000 IP gateway device. This fixed gateway is a high-level system co-located with several mutual aid interoperability repeaters and remote base stations. This gateway is configured as a hard-wired, cross-connect controller between the frequencies specified above and can be enabled and disabled from either the SCSO or YCPD Dispatch Centers. It can also be remotely controlled in the field over the air using Dual-Tone Multi-Frequency (DTMF) commands. This gateway is located on top of the Sutter Buttes mountain range and provides wide-area regional communications and interoperability capabilities.

The repeaters and remote base stations interfaced with this device will also operate as stand-alone resources independent of any cross-connect capabilities.

Main Countywide Radio Channels
Contact COML for ICS-217A with countywide primary and tactical channels:
Deputy Bill Corey (530) 822-7307 24/7 / (530) 682-8899 cell

Radio Caches

Caches				
Band	**Cache Name**	**Make/Model**	**QTY**	**Owner Agency**
UHF	Sutter County OEM UHF Cache	Motorola HT1550	12	Sutter County OEM
VHF	Sutter County OEM VHF Cache	Motorola HT1550	12	Sutter County OEM
UHF	Sutter County Sheriff (MCP Cache)	Motorola HT1250	10	Sutter County Sheriff

Gateways

Gateways				
Type/Use	**GW Name**	**Make/Model**	**Ports/ Nets**	**Owner Agency**
Incident/Event	Sutter Buttes Gateway System	Raytheon JPS Communications /ACU-2000IP	24/7	Yuba City Police Department
Incident/Event	Sutter County ACU-M	Raytheon JPS Communications /ACU-M	4/2	Sutter County Sheriff's Office
Incident/Event	Sutter County TRP-1000	Raytheon JPS Communications /TRP-1000	12/7	Sutter County Sheriff's Office

MCUs/MCVs				
Name	**Transport Mode**	**FEMA Type**	**Comms Capabilities**	**Owner Agency**
Sutter MCP	40' Box Truck	II	VHF-LB, VHF-HB, UHF, 800 ACU1000 w/ gateway specialist	Sutter County Sheriff

Communications Unit Leaders

COML				
Name	**Agency**	**Address**	**Phone**	**Email**
Bill Corey	Sutter County Sheriff	1077 Civic Center Blvd, Yuba City, CA	24/7: (530) 822-7307 Cell: (530) 682-8899	wcorey@co. sutter.ca.us

NOTE: The Standard Operating Procedures for the Sutter Buttes Gateway System are available upon request. Please contact the Operational Area COML.

Tehama County OA

24-Hour Monitoring Facilities
Tehama County Sheriff's Office

Tehama County Sheriff's Office is the initial POC for all County law enforcement, fire, medical, and OES services
Telephone: (530) 529-7900 (Ext 1 for dispatch)

CAL FIRE-Tehama-Glenn ECC

This center is known by the following call sign: **"Red Bluff"**
24/7 Telephone: (530) 527-2241

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	156.7
Law	TCSO CH 1	154.7400	155.7300	74.4
Law	TCSO CH 2	154.0250	155.8650	100.0
Law	Red Bluff Police	155.6850	158.9100	141.3
Law	CORNING PD	155.1900	159.2100	100.0
Law	LE NET	172.5125	164.3625	146.2
Law	LASSEN NP (TURNER)	172.4375	166.3375	110.9

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
PW	County Public Works	151.0100	156.1200	114.8

Shared Channel Infrastructure

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CHP	42.400	42.280	107.2

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Fire Dispatch	151.3700	159.2850	110.9

Shared Channels

In addition to local agency shared conventional channel plans, Tehama County Operational Area law enforcement (VHF) and fire (VHF) radios are programed to include standard statewide and National Interoperability channels and are using common CalSIEC/NPSTC designators as defined in this IFOG.

Gateway Infrastructure

The Tehama County Sheriff's Office maintains a mobile Command Van with a JS 23412 gateway. This gateway device can cross-connect multiple VHF high-band, VHF low-band, UHF, and 800 MHz radios. These radios contain all local, state, national and federal interoperability channels as well as many surrounding OA local frequencies.

Trinity County OA

24-Hour Facilities
CAL FIRE-Shasta-Trinity ECC
This center is known by the following call sign: **"REDDING"**
24/7 Telephone: (530) 225-2411
Emergency Line: (530) 243-1434

Emergency Services Coordinator/OES Director
Letty Garza
Office Telephone: (530) 623-1265
Direct Telephone: (530) 623-8233
OES Manager
Ed Prestley
Office Telephone: (530) 623-1116

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	TCSO	154.8600	159.2100	127.3
Fire	FireNet	154.7850	158.7600	114.8

Shared Channel Infrastructure
The Shared Channel Infrastructure for Trinity County has no
information available to provide as the Trinity County Sheriff's
Office does not currently share with any other agencies.

Tulare County OA

24-Hour Monitoring Facilities

Tulare County operates on four (4) local 24-hour emergency dispatch radio channels. The Sheriff's and Fire dispatch centers are located in the city of Visalia and operate voice radio countywide on all local channels.

Tulare County Sheriff's Dispatch (TCSO)
This center is known by the following call sign: **"Visalia"**

Telephone: (559) 733-6218

Tulare County Fire ECC- Op Area Coordinator

This center is known by the following call sign: **"FIRECOMM"**

24/7 telephone: (559) 733-6544

CAL FIRE-Tulare (TUU) ECC

This center is known by the following call sign: **"Visalia"**

24/7 Telephone: (559) 636-4172

Emergency Services Coordinator

Tulare County Office of Emergency Services
Business Hours: (559) 624-7495
24-Hour Duty Officer: (559) 624-7499

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	TLC 1- Dispatch	154.0100	155.8950	131.8
Fire	TLC 2- Command	153.9050	158.9250	131.8
Fire	VFIRE21	154.2800	154.2800	156.7
Note: State VFIRE21 is only monitored by "Firecomm" on an as needed basis; i.e., with prior phone or radio coordination.				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW	460.0250	465.0250	131.8
Law	CALAW 5 DIRECT	460.0250	460.0250	None
Note: CALAW is only monitored by sheriff dispatch ("Visalia") on an as needed basis, i.e., with prior phone or radio coordination.				

Shared Channel Infrastructure

Tulare County operates under MOUs authorizing county public safety agencies to operate on all other agency's radio frequencies, including individual city agencies within the county. The county's 24-hour dispatch centers, "FIRECOMM" and "Visalia", maintain dispatch consoles to interface with an assortment of local radio channels/frequencies.

For contingency purposes, the county has the Unified Command Bus, a 'gateway switch' that can provide radio patching, and cell phone patching into radio networks.

CALAW

Eligibility: All law enforcement agencies, including certain special districts, public educational institutions, federal law enforcement agencies, and other public entities.

The California Law Enforcement Mutual Aid Radio System (CALAW) is designed for necessary day-to-day operations, provided such use does not interfere with a higher priority need in the area. The National Law Enforcement Mutual Aid Radio System (VLAW31 formerly called NALEMARS) is one of the channels included within the CALAW pool of frequencies, allowing for communication with similarly equipped units from agencies in other parts of the United States.

Law Enforcement agencies must inform other area (line-of-sight) user agencies when they are involved in high priority usage of CALAW channels. Such notification should be via several of these four forms:

- A broadcast should be made on CALAW.
- A CLETS message to adjoining CALAW users. Agencies may wish to utilize the California Law Enforcement Telecommunications System (CLETS) "User Group Notification" feature.
- California Law Enforcement Radio System (CLERS) notification (via point-to-point radio system).
- Telephone calls to area frequent users.

CALAW9 and 9D: Due to special license restrictions, this channel is available only to Law Enforcement agencies located north of (and including) the counties of Monterey, Kings, Tulare, and Inyo.

CALAW5D: Due to special license restrictions, this simplex channel is available only to Law Enforcement agencies with base stations located within 50 miles of Los Angeles City Hall (mobiles and portables within 80 miles).

Tuolumne County OA

24-Hour Facilities
Emergency Coordinator
Telephone: (209) 533-5815
CAL FIRE-Tuolumne-Calaveras ECC
This center is known by the following call sign: **"San Andreas"**
24/7 Telephone: (209) 754-1187

Regularly Monitored Channels
Channels Monitored 24/7 at the Public Safety Answering Point
(PSAP)

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Mutual Aid Tri County of Tuolumne		45.54	45.54	192.8

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law (Mutual Aid)	CALAW 1	154.9200	154.9200	CSQ
Law	Ch 1 West Sonora Peak	152.7200	157.9800	162.2/103.5
Law	Ch 1 Duckwall Mountain	152.7200	157.9800	162.2/179.9
Law	Ch 1 Moccasin Peak	152.7200	157.9800	162.2/203.5
Law	Ch 1 Strawberry Peak	152.7200	157.9800	162.2/173.3
Law	Ch 1 Double Dome	152.7200	157.9800	162.2/146.2
Law	Ch2 West Sonora Peak	152.6300	157.8900	162.2/103.5
Law	Ch 2 Duckwall Mountain	152.6300	157.8900	162.2/179.9
Law	Ch 2 Moccasin Peak	152.6300	157.8900	162.2/203.5

Shared Channel Infrastructure
No data currently available

Ventura County OA

24-Hour Monitoring Facilities
Law Enforcement (Sheriff)
24/7 Telephone: (805) 654-9511

County Fire/EMS
24/7 Telephone: (805) 388-4279

Regularly Monitored Channels
Fire/EMS regularly monitors the following channels:

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	VFIRE21	154.2800	154.2800	156.7
Cal Dept. of Forestry	CAL FIRE Command-1	151.3550	159.3000	103.5/MPL

Law enforcement does not regularly monitor statewide channels.

Shared Channel Infrastructure
All County-owned radios with more than 16 channel capability are required by policy to be programmed with the County-Wide SEMS Frequency Plan. This plan requires that 11 County-licensed frequencies for use in a catastrophic disaster, and one State frequency (CALCORD) be programmed into every radio. All County jurisdictions have been invited to participate in this program.

County of Ventura Standardized Emergency Management System (SEMS) Program					
Channel	**Alias**	**Rx**	**Rx CTCSS**	**Tx**	**Tx CTCSS**
SEMS 1	SEMS 1	151.1300	151.4	158.7900	151.4
SEMS 2	SEMS 2	156.1500	123.0	153.9950	123.0
SEMS 3	SEMS 3	155.0550	82.5	155.0550	82.5
SEMS 4	SEMS 4	158.7300	100.0	158.7300	100.0
SEMS 5	SEMS 5	155.5350	107.2	155.7600	107.2
SEMS 6	SEMS 6	154.3250	79.7	155.8350	79.7

County of Ventura Standardized Emergency Management System (SEMS) Program					
Channel	**Alias**	**Rx**	**Rx CTCSS**	**Tx**	**Tx CTCSS**
SEMS 7	SEMS 7	155.2050	103.5	155.2050	103.5
SEMS 8	SEMS 8	155.1600	CSQ	155.1600	100.0
SEMS 9	SEMS 9	156.0150	100.0	156.0150	100.0
SEMS10	SEMS 10	153.8450	CSQ	158.9400	118.8
SEMS11	SEMS 11	151.0250	141.3	156.2400	141.3
SEMS12	SEMS 12	156.0750	CSQ	156.0750	CSQ

The Ventura County Sheriff's Department and Ventura County Fire Department both maintain a console-based gateway at each individual Communications Center. This gateway can patch any of the County's working channels to any other shared channels on an as needed basis.

Yolo County OA

24-Hour Monitoring Facilities
Emergency Operations Center
Telephone: (530) 406-4977
24/7 Telephone: (530) 666-8920

Yolo County has three PSAPs. Yolo Emergency Communications Agency (YECA) has both VHF conventional and 800 MHz trunked radio frequencies, and Davis and the University of California at Davis (UCD) use 800 MHz frequencies.

This plan applies to YECA only.

Emergency Services Coordinator
Dana Carey, Office of Emergency Services
Phone Number: (530) 406-4930

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	Green Fire	154.4450	159.5250	141.3
Fire	Gold Fire	160.0650	159.4950	141.3
Fire	YSO Primary	154.8000	155.8500	141.3
Fire	WDP Primary	155.0550	154.7700	141.3

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	WSP (SRRCS)	Trunked 800		
Fire	WSF DSP (SRRCS)	Trunked 800		
Fire	UCD Dispatch	Trunked 800		

Shared Channel Infrastructure

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Multi	YOL8	859.9375	814.9375	156.7

Yuba County OA

24-Hour Facilities
Office of Emergency Services
Business hours: (530) 749-7520
Telephone: (530) 749-7777

Fire Coordinator
Business hours: (530) 743-1553
After hours: (530) 749-7777

Sheriff
Telephone: (530) 749-7777

Grass Valley Interagency Command Center
This center is known by the following call sign: **"Grass Valley"**

Regularly Monitored Channels
Yuba County Dispatch Center

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	PSAP NET	46.1600	46.4600	Multi
This resource is used as a dispatch-to-dispatch channel between specified fire dispatch centers and surrounding agency ECCs in the event of a phone line failure.				

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9100	154.9100	CSQ
Fire	VFIRE 1[1]	154.2800	154.2800	CSQ
[1] *This channel is not always enabled. It is included in a multi-frequency radio and must be "selected" to enable the channel.*				

UHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CLERS 7	453.8750	458.8750	110.9
Law	CALAW 4	460.0250	460.0250	None
Law	CALAW 5[1]	460.0250	465.0250	179.9 Tx / 156.7 Rx
EMS	MED 9[1]	462.9500	467.9500	210.7
Calling	UCALL40 D[1]	453.2125	453.2125	156.7
Tactical	UTAC41[1]	453.4625	458.4625	156.7
Tactical	UTAC41D[1]	453.4625	453.4625	156.7

[1] These channels are not always enabled. They are included in a multi-frequency radio and must be "selected" to enable the channel.

City of Marysville Dispatch Center

VHF Low				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	PSAP NET	46.1600	46.4600	Multi

This resource is used as a dispatch-to-dispatch channel between specified fire dispatch centers and surrounding agency ECC's in the event of a phone line failure.

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	CALAW 1	154.9200	154.9200	None
Fire	VFIRE 1[1]	154.2800	154.2800	None

[1] This channel is not always enabled. It is included in a multi-frequency radio and must be "selected" to enable the channel.

UHF				
Type	Name	Rx (Output)	Tx (Input)	CTCSS
Law	CLERS 7	453.8750	458.8750	110.9
Law	CALAW 4	460.0250	460.0250	None
Law	CALAW 5	460.0250	460.0250	173.8

Shared Channel Infrastructure

Yuba County first responder radios include surrounding agencies' conventional frequencies for interoperability between local agencies, and also include statewide interoperability frequencies.

Yuba County maintains a Raytheon ACU-M and ACU-2000 portable gateway solutions, available for deployment within the OA and regionally. These portable gateways include portable antennas and various interface cables for most Motorola, Kenwood, and Bendix King common model portable radios. The ACU-2000 is rack mounted in an extreme duty Hardigg military type case for ease of mobility, with an uninterrupted power supply and a 2000-watt Honda generator for power supply in remote locations or during periods of unavailable continuous power.

Appx E - Neighboring States

Arizona Interagency Radio System (AIRS) State Plan

AIRS is a suite of full-time, cross-banded (i.e., VHF, UHF, and 800 MHz) mutual aid channels designated specifically for multi-agency use across the State of Arizona. Agencies and organizations wishing to operate on AIRS must sign a Memorandum of Understanding (MOU) with the Arizona Department of Public Safety (DPS) which holds the licenses for AIRS frequencies.

AIRS Channel Assignments
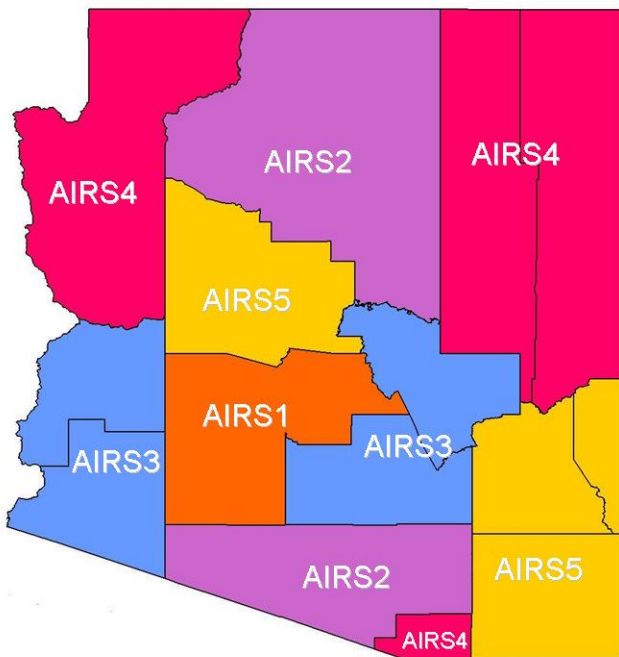
Arizona OA

24-Hour Monitoring Facilities
Eligible users must contact the Department of Public Safety (DPS) Wireless Systems Bureau (WSB) Administrative Secretary at:

(602) 223-2247 to request access to AIRS.

Regularly Monitored Channels

VHF AIRS Channels					
NAME	**BW**	**Rx (Output)**	**CTCSS**	**Tx (Input)**	**CTCSS**
VAIRS1	12.5 kHz	155.4750	CSQ	155.1900	141.3
VAIRS2	12.5 kHz	155.4750	CSQ	155.1900	131.8
VAIRS3	12.5 kHz	155.4750	CSQ	155.1900	101.9
VAIRS4	12.5 kHz	155.4750	CSQ	155.1900	123.0
VAIRS5	12.5 kHz	155.4750	CSQ	155.1900	167.9
SAR NFM	12.5 kHz	155.1600	CSQ	155.1600	127.3
VFIRE21	12.5 kHz	154.2800	CSQ	154.2800	CSQ
VMED28	12.5 kHz	155.3400	CSQ	155.3400	CSQ
VLAW31	12.5 kHz	155.4750	CSQ	155.4750	CSQ
VCALL10	12.5 kHz	155.7525	CSQ	155.7525	156.7
VTAC11	12.5 kHz	151.1375	CSQ	151.1375	156.7
VTAC12	12.5 kHz	154.4525	CSQ	154.4525	156.7
VTAC13	12.5 kHz	158.7375	CSQ	158.7375	156.7
VTAC14	12.5 kHz	159.4725	CSQ	159.4725	156.7
VTAC36	12.5 kHz	151.1375	CSQ	159.4725	136.5
VTAC37	12.5 kHz	154.4525	CSQ	158.7375	136.5

UHF AIRS Channels					
NAME	**BW**	**Rx (Output)**	**CTCSS**	**Tx (Input)**	**CTCSS**
UAIRS1	12.5 kHz	460.3750	CSQ	465.3750	141.3
UAIRS2	12.5 kHz	460.3750	CSQ	465.3750	131.8
UAIRS3	12.5 kHz	460.3750	CSQ	465.3750	110.9
UAIRS4	12.5 kHz	460.3750	CSQ	465.3750	123.0
UAIRS5	12.5 kHz	460.3750	CSQ	465.3750	167.9
UAIRS_D	12.5 kHz	460.3750	CSQ	460.3750	100.0
UCALL40	12.5 kHz	453.2125	CSQ	458.2125	156.7
UCALL40D	12.5 kHz	453.2125	CSQ	453.2125	156.7
UTAC41	12.5 kHz	453.4625	CSQ	458.4625	156.7
UTAC41D	12.5 kHz	453.4625	CSQ	453.4625	156.7
UTAC42	12.5 kHz	453.7125	CSQ	458.7125	156.7
UTAC42D	12.5 kHz	453.7125	CSQ	453.7125	156.7
UTAC43	12.5 kHz	453.8625	CSQ	458.8625	156.7
UTAC43D	12.5 kHz	453.8625	CSQ	453.8625	156.7
MED-5D	12.5 kHz	463.1000	CSQ	463.1000	136.5

800 MHz AIRS Channels					
AZ-SIEC Name	**BW**	**Rx (Output)**	**CTCSS**	**Tx (Output)**	**CTCSS**
8AIRSAZ	20 kHz	866.0125	CSQ	821.0125	156.7
8AIRS1	20 kHz	866.0125	CSQ	821.0125	141.3
8AIRS2	20 kHz	866.0125	CSQ	821.0125	131.8
8AIRS3	20 kHz	866.0125	CSQ	821.0125	110.9
8AIRS4	20 kHz	866.0125	CSQ	821.0125	123.0
8AIRS5	20 kHz	866.0125	CSQ	821.0125	167.9
8AIRS_D	20 kHz	866.0125	CSQ	866.0125	156.7
8AZTAC5	20 kHz	821.0375	CSQ	866.0375	156.7
8AZTAC5D	20 kHz	866.0375	CSQ	866.0375	156.7

VHF Channels					
AZ-SIEC Name	**BW**	**Rx (Output)**	**CTCSS**	**Tx (Output)**	**CTCSS**
AIRS1	25 KHZ	155.475	CSQ	155.190	141.3
AIRS2	25 KHZ	155.475	CSQ	155.190	131.8
AIRS3	25 KHZ	155.475	CSQ	155.190	110.9
AIRS4	25 KHZ	155.475	CSQ	155.190	123.0
AIRS5	25 KHZ	155.475	CSQ	155.190	167.9
VAIRS_D	25 KHZ	155.475	CSQ	155.475	156.7
VCALL	12.5 KHZ	155.7525	CSQ	155.7525	156.7
VTAC1	12.5 KHZ	151.1375	CSQ	151.1375	156.7
VTAC2	12.5 KHZ	154.4525	CSQ	154.4525	156.7
VTAC3	12.5 KHZ	158.7375	CSQ	158.7375	156.7
VTAC4	12.5 KHZ	159.4725	CSQ	159.4725	156.7

UHF Channels					
AZ-SIEC Name	**BW**	**Rx (Output)**	**CTCSS**	**Tx (Output)**	**CTCSS**
AIRS1	25 KHZ	460.375	CSQ	465.375	141.3
AIRS2	25 KHZ	460.375	CSQ	465.375	131.8
AIRS3	25 KHZ	460.375	CSQ	465.375	110.9
AIRS4	25 KHZ	460.375	CSQ	465.375	123.0
AIRS5	25 KHZ	460.375	CSQ	465.375	167.9
UAIRS_D	25 KHZ	460.375	CSQ	460.375	100.0
UCALL	12.5 KHZ	453.2125	CSQ	458.2125	156.7
UCALL_D	12.5 KHZ	453.2125	CSQ	453.2125	156.7
UTAC1	12.5 KHZ	453.4625	CSQ	458.4625	156.7
UTAC1_D	12.5 KHZ	453.4625	CSQ	453.4625	156.7
UTAC2	12.5 KHZ	453.7125	CSQ	458.7125	156.7
UTAC2_D	12.5 KHZ	453.7125	CSQ	453.7125	156.7
UTAC3	12.5 KHZ	453.8625	CSQ	458.8625	156.7
UTAC3_D	12.5 KHZ	453.8625	CSQ	453.8625	156.7

800 MHz Channels					
AZ-SIEC Name	BW	Rx (Output)	CTCSS	Tx (Output)	CTCSS
AIRSAZ	20 KHZ	866.0125	CSQ	821.0125	156.7
AIRS1	20 KHZ	866.0125	CSQ	821.0125	141.3
AIRS2	20 KHZ	866.0125	CSQ	821.0125	131.8
AIRS3	20 KHZ	866.0125	CSQ	821.0125	110.9
AIRS4	20 KHZ	866.0125	CSQ	821.0125	123.0
AIRS5	20 KHZ	866.0125	CSQ	821.0125	167.9
8AIRS_D	20 KHZ	866.0125	CSQ	866.0125	156.7

AIRS Regional Channels Monitoring Dispatch Center Assignments

AIRS Ch	Co Served	Monitoring Dispatch CTR	Suite Location(s)
AIRS1	Maricopa	Mesa PD (480) 644-2211	Towers Mtn/Voted to Mesa Thompson Peak/Voted to Mesa, South Mtn/Voted to Mesa, White Tank Mtn/Voted to Mesa, Oatman Mtn/Voted to Mesa
AIRS2	Pima	Pima Co SO (520) 351-4900	Mt. Lemmon/Pima Co, Keystone Peak/Pima Co, Childs Mountain/Ajo SO
AIRS2	Coconino	Coconino Co SO (928) 774-1414 (928) 774-4523	Navajo/Mtn Page PD, Mt. Elden, Bill Williams Mtn, Schnebly Hill, Jacob Lake
AIRS3	Gila/Pinal	Gila Co SO/Payson (928) 474-2828	Signal Peak/Pinal Co and Casa Grande PD
		Globe (928) 402-1872	Mt. Ord/SO in Payson
AIRS3	La Paz	La Paz Co SO (928) 669-2281	Black Metal
AIRS3	Yuma	Yuma Co SO (928) 539-7840	Telegraph Pass
AIRS4	Santa Cruz	Santa Cruz Co SO (520) 761-7869	Nogales Hill
AIRS4	Navajo/ Apache	Navajo Co SO (928) 524-4050	Piney Hill, Roberts Ranch, Greens Peak, Antelope

AIRS Ch	Co Served	Monitoring Dispatch CTR	Suite Location(s)
			Mesa, Holbrook, Brookbank Point
AIRS4	Mohave	Mohave Co SO (928) 753-0753	Willow Beach, Christmas Tree Pass, Hualapai Mountain, Black Rock, Not Monitored, Black Metal, Havasu PD
AIRS5	Greenlee/ Graham/ Cochise	Not Monitored	Heliograph Peak/Voted to DPS Tucson, Mule Mountain/Voted to DPS Tucson, Bernardino Peak/ Voted to DPS Tucson Guthrie Peak/Voted to DPS Tucson
AIRS5	Yavapai	Yarapai County Sherriff's Office, (928) 771-3260	Black Canyon City, Juniper Mountain, Mingus Mtn, Squaw Peak

Nevada OA

Douglas County, Nevada

24-Hour Facilities
911-Dispatch Center for Douglas County and Alpine County
Telephone: (775) 782-5126

Shared Tactical Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Law	NLEMA	155.6550	155.6550	CSQ
Law	FLEMA	155.4750	155.4750	CSQ
Law	CALAW 1	154.9200	154.9200	CSQ
Fire	VFIRE FIRE #1	154.2800	154.2800	CSQ
Fire	VFIRE 22	154.2650	154.2650	CSQ
Fire	VFIRE 23	154.2950	154.2950	CSQ
Fire	VFIRE FIRE #4	155.1450	155.1450	CSQ
Tac	CALCORD	156.0750	156.0750	CSQ

Washoe County, Nevada

24-Hour Monitoring Facilities

The **Washoe County Sheriff's Office** provides 24-hour monitoring of Sheriff's Office-only channels through the Incline Village Substation. The Incline Village Dispatch Center is one of three designated 9-1-1 Public Safety Answering Point (PSAP).
Telephone: (775) 832-4110 or (775) 831-0587

The **City of Reno ECOM Dispatch Center** provides 24-hour monitoring of Reno Police as well as Washoe County Sheriff's Office Traffic north of Interstate 80. They also dispatch and monitor City of Reno Fire and Sierra Fire Protection District traffic.
Telephone: (775) 334-2399

The **City of Sparks Dispatch Center** provides 24-hour monitoring of Sparks Police and Fire traffic.
Telephone: (775) 353-2231

Regularly Monitored Channels

VHF High				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
Fire	TM SLIDE	158.7450	159.3900	107.2
Fire	TM PEAV	158.7450	159.3900	118.8
Fire	TM VP	158.7450	159.3900	136.5
Fire	TM GER	158.7450	159.3900	127.3
Fire	INC MAIN	154.2350	154.2350	None
Fire	VFIRE 1	154.2800	154.2800	None
Law	VFIRE	155.9850	155.9850	107.2

Shared Channel Infrastructure

800 MHz				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
PS	8CALL90	806.0125 NPS	851.0125 NPS	156.7
PS	8TAC91	806.5125 NPS	851.5125 NPS	156.7
PS	8TAC92	807.0125 NPS	852.0125 NPS	156.7
PS	8TAC93	807.5125 NPS	852.5125 NPS	156.7
PS	8TAC94	808.0125 NPS	853.0125 NPS	156.7
Law	NA LAW	808.7375 NPS	853.7375 NPS	156.7
Fire	NA FIRE	808.9875 NPS	853.9875 NPS	156.7
Note: These channels are not normally monitored but are available to all Dispatch Centers as requested.				

Oregon Interoperability Regions
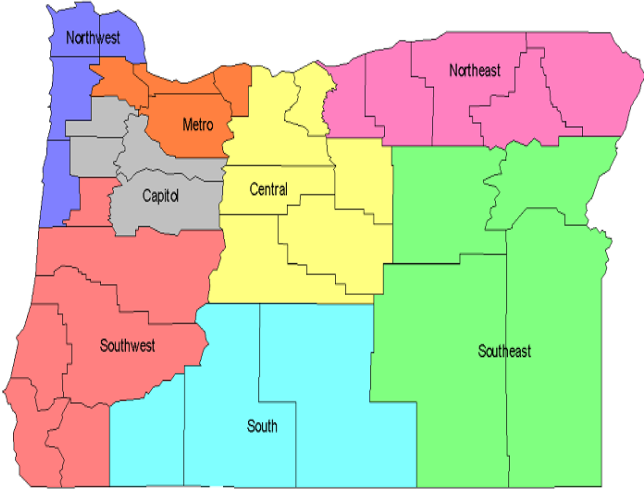
Oregon OA

24-Hour Monitoring Facilities

Oregon Emergency Response System (OERS) Communication Center, P.O. Box 14370, Salem, OR 97309-5062, 24-hour Telephone: 1-800-452-0311

Shared Channel Infrastructure

VHF				
Type	**Name**	**Rx (Output)**	**Tx (Input)**	**CTCSS**
	VCALL10	155.7525	155.7525	CSQ/156.7
	VTAC11	151.1375	151.1375	CSQ/156.7
	VTAC12	154.4525	154.4525	CSQ/156.7
	VTAC13	158.7375	158.7375	CSQ/156.7
	VTAC14	159.4725	159.4725	CSQ/156.7
N Cascade	ODF Direct	151.2050	151.2050	179.9
Forest Grove	ODF Direct	151.1450	151.1450	146.2
	ODF Red	151.3400	151.3400	156.7/156.7
	ODF TAC 2	151.2500	151.2500	156.7
	ODF TAC 3	151.3550	151.3550	156.7
	ODF TAC 4	151.3850	151.3850	156.7
	ODF TAC 5	151.4150	151.4150	156.7
	OSAR	155.8050	155.8050	None
	OPEN	155.4750	155.4750	None
	Oregon State Fire	154.2800	154.2800	
	CH 16	156.8000	156.8000	
	CH 22A	157.1000	157.1000	

Active Tactical Channel by Region

Region	Calling Channel	Active Tactical Channel	Primary Standby Tactical Channel
Northwest	VCALL	VTAC 1	VTAC 2
Metro	VCALL	VTAC 2	VTAC 1
Capitol	VCALL	VTAC 3	VTAC 4
Southwest	VCALL	VTAC 4	VTAC 3
Central	VCALL	VTAC 4	VTAC 3
South	VCALL	VTAC 1	VTAC 2
Northeast	VCALL	VTAC 1	VTAC 2
Southeast	VCALL	VTAC 3	VTAC 4

Regional Monitoring of the Calling Channels

The Oregon use of the VCALL and VTAC channels differs from the National Standard through the use of NTIA frequencies. This allows Oregon to have mobile relay operation on the VHF nationwide interoperability channels. In order to be able to interoperate with non-Oregon subscribers in Oregon, it is necessary for the VHF interoperability stations to operate both as a mobile relay and as a simplex base station. Each VHF station will, therefore, also require a second receiver on the mobile relay output frequency. Dispatchers may then operate either in the Repeated or in the Direct mode on the VCALL and VTAC channels.

Transmit Frequency National Interop (MHz)	Receive Frequency NTIA Federal (MHz)
151.1375	166.5000
154.4525	166.8125
155.7525	167.8875
158.7375	168.2625
159.4725	169.1875

Statewide Monitoring of Calling Channels

Statewide monitoring is required for all Calling Channels at the Anderson Readiness Center (ARC) in Salem.

Law Enforcement Radio Network

In addition to the Nationwide Interoperability Channels, the Interoperability system layer will include a new Law Enforcement Radio Network (LERN). This network, dedicated to federal, state, local, and tribal law enforcement interoperability, will have two VHF repeater channels available in over 100 radio sites around the state.

To learn more about Oregon Interoperability contact:

William Chapman
Statewide Interoperability Coordinator (SWIC)
Enterprise Information Services
Shared Services
503-373-7251 / 503-934-1275

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Interoperable Communications Watch Out Situations

1. Incident is using radio frequencies in more than one spectrum band (VHF, UHF, and/or 700/800 MHz).
2. Incident using different radio spectrum via console or gateway patches.
3. Unable to communicate critical information due to radio congestion.
4. Unfamiliar with radio system(s) or assigned radio functionality.
5. Instructions and assignments not clear.
6. Have no or inadequate communication with your crew members or supervisor.
7. Dispatch to Dispatch channel patching.
8. Inadequate number of tactical channels available or assigned.
9. Multiple conversations on the same talkgroup or channel.
10. Unsure that the radios systems that you are using for interoperability completely support the incident with good radio coverage.
11. High level of background noise (i.e. Wind, Generators, Power tools, Fire Pumps).
12. Emergency button activation – Who is receiving the notification?
13. Multiple agencies performing radio programming at the incident.
14. Organizations in the system do not use the same vocabulary.
15. Mobile gateway devices being used in a strategic (wide-area) rather than tactical (local) environment.
16. Multiple mobile gateways available at the incident.
17. Responding agencies have not identified a single Communications Unit Leader for the incident.
18. Working in the deep interior of a building, parking garage, or underground.

Cal IFOG