



**CLERS**

# **CALIFORNIA LAW ENFORCEMENT RADIO SYSTEM**



**Operations Response Division  
Telecommunications Branch  
3650 Schriever Avenue  
Mather, CA 95655**

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# TABLE OF CONTENTS

TABLE OF CONTENTS .....	1
OVERVIEW .....	2
BACKGROUND .....	2
FUTURE SYSTEM UPGRADES .....	2
SYSTEM MANAGEMENT .....	2
ELIGIBILITY.....	3
AUTHORIZATION PROCEDURES FOR STATE DESIGNATED AND NON-FEDERAL NATIONAL INTEROPERABILITY CHANNELS .....	3
OPERATIONAL STANDARDS .....	6
TECHNICAL STANDARDS AND PROCEDURES .....	9
ESSENTIAL INTEROPERABILITY GUIDELINES CHECKLIST .....	12
APPENDIX A: COMPLAINT PROCEDURE .....	13
APPENDIX B: ACRONYM LIST.....	14
APPENDIX C: CLERS REPEATER FREQUENCIES .....	15
APPENDIX D: CLERS MAP WITH TABLES 1 & 2 .....	16
APPENDIX D: CLERS MAP WITH TABLES 3 & 4 .....	17

## OVERVIEW

The California Law Enforcement Radio System (CLERS) is a microwave interconnected radio repeater system with statewide coverage. It is managed by the California Governor's Office of Emergency Services (Cal OES) and provides a point-to-point (fixed and temporary mobile base) or dispatch-to-dispatch communications and mobile and portable communications for interagency coordination among state and local law enforcement agencies. CLERS also serves as one delivery method of the Emergency Alert System (EAS) for the State and as the alternate alert system for Operational Areas. Although CLERS may appear to be much like the CALAW systems the interoperability linking via microwave sets it apart.

## BACKGROUND

CLERS was created in 1952 as an intercity law network for point-to-point communications between dispatch centers. During the 1970's, the system was microwave interconnected and expanded statewide. Participating agencies were assigned a discrete number based on their National Crime Information Center (NCIC) code and where thus enabled to call any other participating agency anywhere in the State. A modification in 1991 added equipment to simplify dialing other stations and to control the statewide Emergency Broadcast System (EBS), now known as EAS. The repeaters have been replaced with narrow band equipment in the mid-2000.

## FUTURE SYSTEM UPGRADES

P-25 conventional capability is proposed for the future. There is a plan in draft that will allow the microwave system to be more user friendly by eliminating the 16-button DTMF and the NCIC decoder capability. Currently steps are underway to make available mobile and portable units on a secondary basis. The goal is to make this system a truly interoperable system allowing local, regional or statewide operations as required.

## SYSTEM MANAGEMENT

Cal OES provides the CLERS statewide repeater system via the State's microwave and local repeat & direct for use by law enforcement agencies. Cal OES oversees CLERS and advises on the development and supervision of the system to the California Statewide Interoperability Executive Committee (CalSIEC) and its Planning Areas.

Within Cal OES, the responsibility for managing CLERS is shared by two Branches within the Operations Response Division: the Cal OES Law Enforcement Branch and the Telecommunications Branch. The Cal OES Law Enforcement Branch establishes and enforces procedures for participation in, and use of, the system. Cal OES Law Enforcement Coordinators ensure that the system's frequencies are used properly and in a coordinated manner. The Cal OES Telecommunications Branch is responsible for technical standards and procedures and assists and advises on technical matters.

Police Chiefs and Sheriffs are responsible for ensuring that applications, licensing, and operations on CLERS comply with the regulations and policies set forth in this document within their agency. Law Enforcement Mutual Aid Regional Coordinators are responsible for the compliance of system operations within each Mutual Aid Region.

## ELIGIBILITY

Law enforcement entities, as defined by the California Commission on Peace Officer Standards and Training (POST), and agents authorized and designated by such entities are eligible to participate in the CLERS plan.

Agencies that have signed the California Master Mutual Aid Agreement support other law enforcement agencies during emergencies, and are capable of rendering mutual aid are also eligible to participate in CLERS.

## AUTHORIZATION PROCEDURES FOR STATE DESIGNATED AND NON-FEDERAL NATIONAL INTEROPERABILITY CHANNELS

The state of California is the designated authorized licensee of all state designate mutual-aid 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 into mobiles & portables must request authorization from the Cal OES Telecommunications Branch to use the statewide mobile/portable license {KV2155}. Agencies that desire to program these channels into "Fixed Sites" must request authorization from the Cal OES Public Safety Communications Branch (PSC) using the same procedure. <sup>1</sup>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 for agencies seeking to operate/modify radio mobile & fixed sites stations.

## STATE FREQUENCY COORDINATION AND LICENSING

The Cal OES Public Safety Communications Branch (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 Planning Areas of CalSIEC.

A license request to operate a fixed radio site using mutual-aid and/or interoperability frequencies must be accompanied with an endorsement from the affected Planning Area of CalSIEC. Once obtained, the state license will be modified to include you as an authorized licensee.

### Application Procedures

Users wishing to operate on this system, either mobile or fixed (base) stations, should complete a Letter Of Intent (LOI) on their agency letterhead and forward it to Cal OES through their local Planning Area of CalSIEC. The applicant contact and telephone number must be included. The LOI will be processed and returned to the applicant. This LOI does not authorize the use of the frequency, but only the use of the Cal OES repeater. Each user is responsible for obtaining their own FCC fixed (base) station license. There may be fees associated with each application.

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

**<http://www.caloes.ca.gov/Cal-OES-Divisions/Public-Safety-Communications>**

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<sup>1</sup> *Safety of Life* provision under FCC rules 90.417(a)

## MOBILES AND PORTABLES

Agencies that desire to program these channels into mobiles & portables must request authorization using a "Letter of Intent" (LOI) to the Cal OES Telecommunications Branch in order to use the statewide mobile/portable license {KV2155}. Jurisdictions are vetted by our Law Enforcement Branch as to their qualification as being POST Certified.

1	<p><b>Draft a "Letter of Intent" (LOI) on your agency letterhead</b></p> <p><i>The letter should contain general information on the requested channels, number of units and area of operations. Specifics should include the following statements. The Jurisdiction will agree to acquire at its own expense, radio communications equipment meeting specifications established by the State of California to operate on the CLERS network. The equipment shall be and remain the property of the Jurisdiction. The Jurisdiction agrees to operate and maintain said equipment in accordance with the Rules and Regulations of the FCC and operating procedures established by the State of California, including performance, without cost to the State, of an annual frequency-deviation check. In the event of any violation by the Jurisdiction of such Rules and Regulations, or of any other law respecting the operation of said equipment, the State of California may terminate this LOI at any time. Pursuant to Section 895.4 of the Government Code, and in recognition of the fact that the Jurisdiction is to have the actual operating control of said equipment, the Jurisdiction agrees to indemnify the State of California and its officers and employees against any and all liability arising out of the performance of this LOI which may be imposed on the State of California by any law, including Section 895.2 of the Government Code.</i></p>
2	<p><b>Send the LOI and completed form(s) via postal mail or email to:</b></p> <p>California Governor's Office of Emergency Services Attn: Telecommunications Branch 3650 Schriever Avenue Mather, CA 95655 Email: <a href="mailto:tdo@caloes.ca.gov">tdo@caloes.ca.gov</a></p>
3	<p><b>Program Radios</b></p> <p>You may program channels into radios but may not transmit until final Cal OES authorization is received.</p>

## FIXED SITES

Agencies that desire to program these channels into their Fixed or Base stations must request authorization using a "Letter of Intent" (LOI) to the Cal OES Telecommunications Branch in addition to applying for their own Fixed license from the FCC. Jurisdictions are vetted by our Law Enforcement Branch as to their qualification as being POST Certified.

1	<p><b>Draft a "Letter of Intent" (LOI) on your agency letterhead</b></p> <p><i>The letter should contain general information on the requested channels, number of units and area of operations. Specifics should include the following statements. The Jurisdiction will agree to acquire at its own expense, radio communications equipment meeting specifications established by the State of California to operate on the CLERS network. The equipment shall be and remain the property of the Jurisdiction. The Jurisdiction agrees to operate and maintain said equipment in accordance with the Rules and Regulations of the FCC and operating procedures established by the State of California, including performance, without cost to the State, of an annual frequency-deviation check. In the event of any violation by the Jurisdiction of such Rules and Regulations, or of any other law respecting the operation of said equipment, the State of California may terminate this LOI at any time. Pursuant to Section 895.4 of the Government Code, and in recognition of the fact that the Jurisdiction is to have the actual operating control of said equipment, the Jurisdiction agrees to indemnify the State of California and its officers and employees against any and all liability arising out of the performance of this LOI which may be imposed on the State of California by any law, including Section 895.2 of the Government Code.</i></p>
2	<p><b>Send the LOI and completed form(s) via postal mail or email to:</b></p> <p>California Governor's Office of Emergency Services Attn: Telecommunications Branch 3650 Schriever Avenue Mather, CA 95655 Email: <a href="mailto:tdo@caloes.ca.gov">tdo@caloes.ca.gov</a></p>
3	<p><b>Program Radios/Equipment</b></p> <p>1. Requestors may program channels into radios but may not transmit until final FCC and Cal OES authorization is received.</p>

Due to the legacy complexity of CLERS established PSAP's may still operate using the original equipment. However, those Agencies that do have the legacy capability should recognize that most Jurisdictions have abandoned that legacy system in lieu of newer technologies any may only have a local repeater capability. Cal OES is committed to updating this vital Interoperability Law Enforcement system, but until funding becomes available the system will operate as it has for several years. Jurisdictions are encouraged to utilize their local repeater as a primary dispatch to dispatch radio circuit among multiple Agencies.

## OPERATIONAL STANDARDS

### PERMISSIBLE COMMUNICATIONS

CLERS frequencies are for official law enforcement use only.

All communications on the CLERS system are in accordance with Part 90, Subpart B of FCC Regulations (Public Safety Radio Pool). CLERS participants transmit communications essential to official law enforcement activities of the licensee. Unofficial communications on CLERS are prohibited and may result in revocation of licensee authorization. CLERS is authorized for EAS transmissions from authorized Government stations.

CLERS primary use is for point-to-point (fixed and temporary mobile base stations) or dispatch-to-dispatch communications only. However, mobiles and portables are now included in a statewide license for use as a secondary Interoperability channel. Under no circumstances are CLERS repeater or simplex (direct) channels to be used for routine agency communications as an extension of an agencies own system channels. CLERS use for pursuits, mutual-aid notifications, BOLO's, etc between PSAP's is what CLERS is designed for. Long term operations needing CLERS repeater coverage are to be coordinated with the Cal OES LDO (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)).

### CHANNEL IDENTIFIERS

Only the Standard California Channel Identifiers programmed into radios are used for CLERS. For short display characters the CLERS identifier is by Site number. i.e.: "CLERS9" For longer display the name of the site or abbreviation is acceptable. i.e.: "CLERS LIKELY" It is strictly prohibited to assign a local identifier to a CLERS channel.

### MONITORING

Base stations are encouraged to monitor their local CLERS channel at all times. At a minimum, personnel must monitor CLERS channels prior to transmitting to minimize the possibility of interference with communications in-progress.

### IDENTIFICATION

Base stations identify themselves by using their agency name along with any other usual identifier. Ex: "**Chico PD Control-1.**" Base stations must use the FCC call sign shown on their CLERS license at least once every 30 minutes or at the end of a contact. For example: "**California KVZ 29.**" Mobile & portable units should prefix their agency-assigned unit ID with the plain language agency name. Ex: "**Fresno PD 1-ADAM-12**".

## CHANNEL USE PRIORITIES

Extended CLERS use is governed by a system of priorities 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 immediately.<sup>2</sup>

- **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:** Agency to agency or unit to agency secondary communications

### Notification of Priority Traffic (Priority 1, 2, 3, 4)

- Plain language must be used when clearing a CLERS channel for use in high priority situations.
- Agencies inform other area user agencies when they are involved in high priority usage of CLERS channels by phone, email, or California Law Enforcement Telecommunications System (CLETS).
- Notify the Cal OES Law Duty Officer (LDO) of high priority usage via phone (916-845-8911), email ([warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)), or CLETS.
- If two or more agencies in close proximity request a similar priority level clearance for simultaneous operations, contact the Cal OES LDO or TDO (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)) for guidance.

### Secondary Communications (Priority 5)

In the absence of Priority 1, 2, 3, and 4 situations, CLERS channels may be used *temporarily* for day-to-day communications as an agency to agency or unit to agency secondary channel. There are specific limitations relative to such use:

- Before using the channel for secondary communications, agencies first monitor the channel to ensure that no higher-priority communications are being conducted on CLERS.
- Use conforms to the operational standards outlined in this plan (identification, call signs, plain language, etc.)
- The channel is immediately vacated if it needs to be used for a Priority 1, 2, 3, or 4 situations.

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<sup>2</sup> Please note that in the 2010 update of the CLERS plan changed the original numbering of the Priorities from 1, 2, 3, 3A, 4 to Priorities 1 through 5.

## 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.

## PLAIN LANGUAGE

*Plain Language, according to NIMS, is the use of common terms and definitions that can be understood by individuals from all responder disciplines.*

All communications on CLERS are in plain language when being used with two or more different agencies. Radio codes, acronyms, and abbreviations can cause confusion between agencies and disciplines and jeopardize officer safety. Again, it is highly recommended that agency's use their agency plain language name as a prefix to agency-assigned unit ID's. Ex: "**Cal OES 5170**".

## VOICE PRIVACY

The use of CLERS channels for transmission of encoded, encrypted, digital, or scrambled message is prohibited. However, under special circumstances, a temporary one-time waiver may be granted to allow for encryption. All inquiries and requests for waivers should be addressed to the Cal OES LDO (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)).

## INTEROPERABILITY OPERATION

In the event of a public safety Priority 1 or 2 emergencies and in keeping with appropriate FCC Rules, a CLERS channel may be *temporarily* cross-banded through automatic or manual equipment with another channel. A cross-band or use of a gateway switch must be discontinued when the operation requiring its use is finished. Refer to Cal OES's Statewide Gateway Units Standard Operating Procedure for more information on gateway procedures.

## SUPERVISORY RESPONSIBILITY

Each agency manager and supervisor bears the responsibility for the compliance of operations on CLERS to the CLERS Plan. Violations are reported to Cal OES who works with each agency's executives to correct reported problems. See Appendix A for the complaint procedure.

## TECHNICAL STANDARDS AND PROCEDURES

### CLERS MICROWAVE INTERTIE COMMUNICATIONS

1. CLERS is authorized for fixed base as a primary and mobile/portable units as secondary.
2. {Refer to Appendix D, Table 3} Currently, in order to use the microwave link, stations and units are required to use a 16-button Dual-tone multi-frequency signaling (DTMF) encoder. In order to hear a microwave originated transmission at a dispatch center a decoder programmed with your agency NCIC number must be installed. NOTE: Most PSAP's no longer have this capability due to newer technologies.
3. Should the dispatch wish to hide behind a decoder the following equipment is needed. At PSAP base stations, the decoder segment of the DTMF is "strapped" or "wired" to a 4-digit NCIC agency code. When properly strapped and interconnected to your transmitter-receiver, the dispatcher will not be bothered by transmissions on the network destined for other agencies in your prefix area. If another agency has need to communicate with your department and transmits your assigned code, the speaker on your CLERS receiver will automatically open and you would hear the calling unit.
4. {Refer to Appendix C & D} Should the dispatch center (and mobiles) not have Options #2 & 3 (above), all of the repeaters have RX & TX CTCSS installed so PSAP's may wish to operate in this mode to monitor the local channel. This would be recommended for most applications at this time.

All technical inquiries about the CLERS Intertie should be directed to the Cal OES Telecommunications Branch Communications Coordinators.

### POWER LIMITATIONS

CLERS VHF transmit power may not exceed 180 watts [ERP]. CLERS UHF transmit power may not exceed 100 watts [ERP].

### VOICE PRIVACY

Speech scrambling, digital voice privacy [DVP], digital and analog encryption [DES/AES], inversion, and other forms of scrambling are prohibited on all CLERS channels. Under special circumstances, a one-time waiver may be granted to allow for voice privacy. All inquiries and requests for waivers should be addressed to the Cal OES LDO or TDO (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)).

### CODED SQUELCH

Continuous Tone-Coded Squelch System (CTCSS) is a system incorporated in radios to reduce or eliminate nuisance type interference from co-channel users. Coded squelch will not prevent destructive interference where the signal strength of the interfering signal exceeds that of the desired signal. The CLERS repeater system uses several CTCSS tones on each VHF & UHF input & output.

Due to the established repeater system, coded squelch is used for all priority situations. No locally designated CTCSS is authorized. Direct mobile to mobile or portable communications is authorized but it is recommended that the receive CTCSS be disabled for better coordination. These safeguards ensure that the channels can be used for communications with units from other agencies using carrier-squelch only or with the assigned area repeater tone.

## PAGING OR SIGNALING

Tone (DTMF) or digital signaling and alerting is authorized on all CLERS channels. Simple alert tones [attention beeps] prior to broadcasts and automatic station identification are permitted for use in activating the Emergency Alert System (EAS). Paging transmissions are not authorized on any CLERS channels.

## DATA TRANSMISSION

Transmission of data is prohibited on CLERS channels except as provided for EAS Alert & Warnings.

## FCC CALL SIGN ANNOUNCEMENTS

All stations must identify in accordance with FCC Rules and Regulations, Part 90.425. CLERS repeaters have automatic morse code identification. Each base station or system must be identified by transmission of its FCC call sign:

- During each transmission, or exchange of transmissions, or
- Once each 30 minutes during periods of continuous operation

The call sign is the FCC-assigned set of letters and numbers found on the license authorization. Mobiles and Portables must identify with their agency assigned unit or officer number. Violations may result in revocation of the offending agency's operating authority.

## TEMPORARY MOBILE/PORTABLE REPEATERS

Mobile or portable repeaters on CLERS are authorized for and controlled by Cal OES only. Cal OES maintains portable equipment for mutual-aid use. Temporary CLERS repeaters may be requested by agencies for an incident or event in areas where the established local repeater fails to cover. To request authorization for planned events, an email specifying the dates, equipment, frequencies, and situation is sent to the Cal OES LDO or TDO ([warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)). The LDO or TDO will notify the requestor, the Cal OES Regional Communications Coordinator, and the Regional Law Enforcement Coordinator upon approval of the request. Emergency requests are handled via the Mission Tasking procedures found in other documents.

## INTEROPERABILITY OPERATION

In the event of a public safety Priority 1 or 2 emergency, and in keeping with appropriate FCC Rules, other systems may be *temporarily* cross-banded into a CLERS channel through automatic or manual equipment. A cross band or use of a gateway switch must be discontinued when the operation requiring its use is finished. The same rules apply to cross banding between various CLERS channels. Operation and control of any CLERS channel manipulation is under the direct control of Cal OES Telecommunications Branch.

Please refer to Cal OES's Statewide Gateway Units Standard Operating Procedure for more information on gateway procedures.

## AIRBORNE OPERATION

Aircraft Operations are ***NOT PERMITTED*** on CLERS repeater or simplex (direct) channels except as permitted only by Cal OES Telecommunications Branch under special permission.

## FREQUENCY PROTECTION

Adjacent channel interference can occur between frequencies when used in close proximity. This is especially true with use of temporary repeaters in and around established mountain-top CLERS repeaters. Temporary repeaters will be using a different CTCSS on all channels. Mitigation strategies, such as limiting the use of one of the adjacent channels during mutual aid activities, can help minimize or eliminate interference problems.

Contact the Cal OES Telecommunications Branch Communications Coordinators for additional information on limiting channel interference.

## EXCEPTIONS

The technical standards incorporated into the CLERS Plan preserve the integrity and reliability of the system while encouraging maximum use of the available channels. While applicants are expected to meet these requirements, it is understood that, under extraordinary circumstances, deviations from these regulations may be necessary. All such circumstances should be brought to the attention of the Cal OES LDO or TDO (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)) at the time authorization is requested. A detailed description of the situation should be included in writing, as well as a justification for the action requested. Cal OES, with the counsel of the CalSIEC Planning Areas, will serve as the final decision point in such cases. Officer safety and the integrity of the system are always the main considerations.

## ESSENTIAL INTEROPERABILITY GUIDELINES CHECKLIST

- ✓ **OBEY PRIORITIES:** When a higher priority use is required, all lower priority traffic yields the frequency immediately.
- ✓ **USE PLAIN LANGUAGE AT ALL TIMES.**
- ✓ **IDENTIFY WITH FULL AGENCY UNIT DESIGNATOR AND FCC CALL-SIGNS (BASE STATIONS AND MOBILES).**
- ✓ **MONITOR THE CHANNEL PRIOR TO TRANSMITTING.**
- ✓ **USE THE CHANNEL'S STANDARD ID:**  
Program the standard California channel ID into your radio's display.
- ✓ **DO NOT SCRAMBLE OR ENCRYPT MESSAGES.**
- ✓ **DO NOT PERMINENTLY OR SEMI-PERMANENTALLY LINK MUTUAL AID CHANNELS TO EACH OTHER OR TO LOCAL AGENCY CHANNELS.**

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**Respect the policies and procedures set forth in each interoperability system's plan to ensure the interoperability channels are available for use in emergency situations.**

## APPENDIX A: COMPLAINT PROCEDURE

Report all operations on CLERS channels that are detrimental to first responder safety or to the management of an incident, that fails to follow the procedures outlined in this CLERS plan, which causes interference to other users, or that violates FCC Regulations 90.20 and 90.405.

To report flagrant violations that endanger first responder safety, immediately contact the Cal OES LDO or TDO via the California State Warning Center (CSWC) (Telephone: 916-845-8911).

To report interference issues from outside sources and other misuses of mutual aid channels:

1. Attempt to identify the offending station.
2. Contact the chief executive of that department.
3. If the problem persists, contact the Cal OES TDO via the CSWC (916-845-8911 or [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov)) and relay:
  - The date and time of the problem
  - The circumstances regarding the interference or misuse
  - Information detailing how the misuse interfered with operations or safety
  - Information (identification, call signs, etc.) that would help locate the offending agency.
4. Keep audio logging tapes, tape cassettes, or digital files recording the misuse to send to Cal OES. [If requested, Cal OES will return the tape after its investigation.] On receipt of a complaint, Cal OES will conduct an investigation.

## APPENDIX B: ACRONYM LIST

**AES:** Advanced Encryption Standard

**ANSI:** American National Standards Institute

**Cal-IFOG:** California Interoperability Field Operations Guide

**Cal OES:** California Governor's Office of Emergency Services

**CalSIEC:** California Statewide Interoperability Executive Committee

**CALAW:** California Law Enforcement Mutual Aid Radio Systems {LLAW1, LLAW1D, VLAW31, VLAW32, CALAW1, CALAW2, CALAW4, CALAW4D, CALAW5D, CALAW8, CALAW8D, CALAW9, CALAW9D}

**CLERS:** California Law Enforcement Radio System

**CLETS:** California Law Enforcement Telecommunications System

**CSWC:** California State Warning Center

**CTCSS:** Continuous Tone-Coded Squelch System

**DCS:** Digital Coded Squelch

**DES:** Data Encryption Standard

**DTMF:** Dual Tone Multi-Frequency

**DVP:** Digital Voice Privacy

**EAS:** Emergency Alert System

**FCC:** Federal Communications Commission

**LDO:** Law Enforcement Duty Officer

**LE:** Law Enforcement

**LEB:** Law Enforcement Branch

**MAR:** Mutual-Aid Region

**NAC:** Network Access Code

**NIFOG:** National Interoperability Field Operations Guide

**NPSTC:** National Public Safety Telecommunications Council

**PSC:** Public Safety Communications Division of Cal OES

**POST:** California Commission on Peace Officer Standards and Training

**TCOMM:** Telecommunications Branch

**TDO:** Telecommunications Duty Officer

**APPENDIX C: CLERS REPEATER FREQUENCIES**

Channel Number	Transmitter		Receiver		Location
	Freq	CTCSS	Freq	CTCSS	Common Radio Site Name
1	158.790	(3) 131.8	155.430	(3) 131.8	CACTUS CITY
1	158.790	(1) 110.9	155.430	(1) 110.9	SANTIAGO PK.
2	155.070	(1) 110.9	159.030	(1) 110.9	BLUE RIDGE
2	155.070	(1) 110.9	159.030	(1) 110.9	WOLF MTN
3	154.710	(2) 123.0	155.670	(2) 123.0	MT. DIABLO
3	154.710	(1) 110.9	155.670	(1) 110.9	BROCKWAY SUM.
3	154.710	(3) 131.8	155.670	(3) 131.8	JOAQUIN RIDGE
4	155.910	(3) 131.8	158.730	(3) 131.8	GOVERNMENT PK.
5	155.700	(2) 123.0	154.815	(2) 123.0	HAMAKER
5	155.700	(3) 131.8	154.815	(3) 131.8	ANTELOPE PK.
5	155.700	(1) 110.9	154.815	(1) 110.9	HORSE MTN
5	155.700	(5) 146.2	154.815	(5) 146.2	HOADLEY
5	155.700	(4) 136.5	154.815	(4) 136.5	LIKELY MTN
5	155.700	(1) 110.9	154.815	(1) 110.9	SHAFFER
6	453.675	(2) 123.0	458.675	(2) 123.0	MT. LOWE
6	453.675	(3) 131.8	458.675	(3) 131.8	RED MTN (Ventura)
6	453.675	(1) 110.9	458.675	(1) 110.9	CUYAMACA PK.
6	453.675	(4) 136.5	458.675	(4) 136.5	MT BULLION
7	453.875	(1) 110.9	458.875	(1) 110.9	BLOOMER
7	453.875	(4) 136.5	458.875	(4) 136.5	TELEGRAPH PK.
7	453.875	(2) 123.0	458.875	(2) 123.0	FREMONT PK.
7	453.875	(3) 131.8	458.875	(3) 131.8	MT TAMALPAIS
7	453.825	(3) 131.8	458.825	(3) 131.8	LAUGHLIN RIDGE

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

- 1: 110.9
- 2: 123.0
- 3: 131.8
- 4: 136.5
- 5: 146.2

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 (650 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	453.8750
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

● Switching Center

● Control Point with M/W Drop

**Microwave Interconnected Mountaintop**

① Microwave Interconnected Mountaintop (Tone #)

▲ Independent Mountain Top

**CLERS Route**

— Microwave Channel

— Common Trunk Circuits



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**TABLE 3. DIALING INSTRUCTIONS**  
MOBILE TO MOBILE

LOCAL REPEATER

- SELECT RADIO CHANNEL WITH CORRECT FREQUENCY AND CTCSS TONE FOR LOCAL REPEATER YOU WANT TO USE.
- HOLD PTT AND MAKE CONTACT WITH LOCAL REPEATER.

MOBILE TO END USER

REMOTE REPEATER INSTRUCTIONS

- SELECT RADIO CHANNEL WITH CORRECT AND CTCSS TONE FOR LOCAL REPEAT TO USE.
- HOLD PTT AND ENTER B\_...(DTMF ACCESS/I) & RELEASE PTT.
- HOLD PTT AND ENTER DISTANT END USER DXXXX CODE (SEE NOTE 1). RELEASE PTT.
- PAUSE TO LISTEN FOR A PULSED 6 SECOND TONE INDICATING THE DISTANT END IS CONNECTED.
- HOLD PTT AND START COMMUNICATIONS. PATH WILL BE OPEN FOR SIX (6) MINUTES.
- TO SHUT DOWN THE SYSTEM DIAL \*88.

EXAMPLE: CALL THRU MT DIABLO TO SAN DIEGO CHP

- SELECT RADIO CHANNEL WITH CORRECT FREQUENCY AND TONE 2 FOR MT DIABLO.
- HOLD PTT AND ENTER B15 MT DIABLO ACCESS CODE, AND RELEASE PTT.
- HOLD PTT AND ENTER D3799 TO CONNECT TO SAN DIEGO CHP. RELEASE PTT.
- HOLD PTT AND LISTEN FOR THE 6 SEC TONE. THE DIABLO USER IS CONNECTED TO SAN DIEGO CHP.
- TO DISCONNECT ENTER \*88.

**TABLE 4. CLERS REPEATER LOCATIONS AND ACTIVATION CODES**

SITE NAME TOTAL SITES: 32	TX/RX		CLERS CHANNEL NAME	TX/RX CTCSS		DTWF ACCESS #	TRUNK ACCESS # (NOTE 4)	FCC CALLSIGN
	TX (MHz)	RX (MHz)		#	FREQ. (Hz)			
ANTELOPE PK.	155.700	154.815	CLERS 5	①	110.9	B73	814	KCW711
BLOOMER MTN	453.875	458.875	CLERS 7	①	110.9	B11	833	KY0966
BLUE RIDGE	155.070	159.030	CLERS 2	①	110.9	B19	827	WNNF220
BROCKWAY	154.710	155.670	CLERS 1	①	110.9	B13	831	KY0955
BULLION, MT	453.675	458.675	CLERS 6	④	136.5	B18	829	KY0962
CACTUS CITY	158.790	155.430	CLERS 1	③	131.8	B24	876	KY0954
CUYAMACA PK	453.675	458.675	CLERS 6	①	110.9	B25	872	KY0964
DIABLO, MT	154.710	155.670	CLERS 1	②	123.0	B15	823	KYE982
FREMONT PK	453.875	458.875	CLERS 7	②	123.0	B16	822	KY0961
GOVERNMENT PK.	155.910	158.730	CLERS 4	③	131.8	B51	874	WNDC546
HAMAKER	155.700	154.815	CLERS 5	②	123.0	B76	813	WGY334
HOADLEY	155.700	154.815	CLERS 5	⑤	146.2	B74	811	KWE696
HORSE MTN	155.700	154.815	CLERS 5	①	110.9	B75	816	KY0957
JOAQUIN RIDGE	154.710	155.670	CLERS 1	③	131.8	B27	825	WN JP926
LAUGHLIN RIDGE #	453.825	458.825	CLERS 8	③	131.8			WQCT676
LIKELY MT	155.700	154.815	CLERS 5	④	136.5	B71	812	KWE698
LOWE, MT	453.675	458.675	CLERS 6	②	123.0	B21	870	KY0967
RED MTN (VEN)	453.675	458.675	CLERS 6	③	131.8	B22	871	KIB530
SANTIAGO PK	158.790	155.430	CLERS 1	①	110.9	B23	877	KYE982
SHAFFER MTN	155.700	154.815	CLERS 5	①	110.9	B72	815	KWE697
TAMALPAIS, MT	453.875	458.875	CLERS 7	③	131.8	B14	821	KY0965
TELEGRAPH HILL	453.875	458.875	CLERS 7	④	136.5	B17	828	KYD963
WOLF MTN	155.070	159.030	CLERS 2	①	110.9	B12	832	KMH624