

**CYPRESS STAKE
EMERGENCY
COMMUNICATIONS
HANDBOOK
STANDARD OPERATING
GUIDELINES (SOG)**

***“AMATEUR EMERGENCY COMMUNICATIONS
IS A COMMITMENT”***

October 2011

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INTRODUCTION

FORWARD

Many individuals in the Cypress Stake have made personal commitments to providing Amateur communications assistance during an emergency. Our primary function is to serve as a communication network for our local church leaders. Our primary goal is to gather and report to our leaders the condition of the Stake membership, missionaries, Church structures, and the community in general. As directed by our local leaders this communication network may be asked to assist other public service agencies. These include Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES). These personnel provide service to the community, which is coordinated through the Cypress Police and other local authorities.

INTENT

The intent of this handbook and SOG is for it to be used as a guide for those involved in Amateur emergency communications. The following document is **not** meant to be detailed or comprehensive. Nor should it be considered the final word in Amateur emergency communications. Nothing in this manual should ever be permitted to jeopardize the accurate and timely delivery of a message. Each incident is different. Let common sense prevail.

HISTORY

As emergency backup communications in the 1970s and 1980s emerged, Amateur radio became the "tool" of choice. Today Amateur radio plays an important part in county emergency backup communications. As time has passed many new forms of communication have developed. The Church does not discourage any of these other forms of communication. It does, however, use as its backbone for emergency communication amateur radio. It is with this in mind that this handbook is prepared.

AMATEUR EMERGENCY COMMUNICATIONS

INTRODUCTION

During some phase of a countywide emergency, it can be assumed that the existing communications used every day by the public safety agencies may fail or become severely overloaded. Public safety communication systems are designed to handle emergencies but not to continue handling typical daily emergencies and meet the demands of a major disaster. The ARES and RACES provide backup communications in times of disaster to all requesting agencies within our Stake boundaries. In virtually all cases, emergency communications provides support and logistical communications, rather than life and death communications. In our Stake we as members and trained emergency communicators may be asked to provide additional communications during floods, earthquakes, fires, and any other natural or man-made disaster

ORGANIZATION

AMATEUR RADIO EMERGENCY SERVICE (ARES)

ARES is a broad-based public service unit privately controlled. ARES is part of the field organization of the ARRL, which provides organization and national leadership to emergency and public service communications in accordance with Part 97 of the FCC rules and regulations. The ARES service is composed of radio operators who are licensed by the FCC. ARES units generally provide service to non-governmental agencies such as the American Red Cross and hospitals. They also provide communications for the public in general.

RADIO AMATEUR CIVIL EMERGENCY SERVICE (RACES)

Radio Amateur Civil Emergency Service (RACES) is controlled by a sponsoring government agency. RACES, is part of the Amateur Radio service, which provides radio communications during periods of local, regional or national emergencies. RACES operations are not limited to war related activities but could include natural disasters and Search and Rescue (SAR) incidents. RACES can be activated at any time of perceived or actual need by the sponsoring local or state government pursuant to a request of the authorized official of that government. A RACES unit can do most of the activities supported by ARES, if so authorized by its sponsoring government agency. In the event of a

national emergency in which the President of the United States invokes his War Emergency Powers, most radio amateurs would be required to cease operations. Only those RACES radio amateurs providing emergency communications would be allowed to continue operations.

CYPRESS STAKE EMERGENCY COMMUNICATORS

Members can respond with their personal equipment to set up communications most anywhere in the Stake to support our local leaders. When so instructed by our local church leaders we may also support other civil emergency groups, such as, ARES and RACES. The Church encourages its members to first take care of themselves, family and neighbors during an emergency, and then to think about the larger picture. We want to involve communicators who look beyond their hobby as Amateur radio operators and wish to serve their community by committing to serving our leaders when, where, and how they may ask.

OPERATOR DUTIES

CONDITIONS

Emergency communicators operations may include, but are not limited to:

1. Communications may be either voice or digital modes.
2. Communication locations may be in fixed buildings, field sites, or mobile.
3. Working conditions may be in all types of crowded sites, with high noise levels and various external environmental situations.
4. Initially responders may have to provide their own radios, power source, antennas, tools, food, medical supplies, maps, and transportation.
5. Communications may be provided for Church, local government agencies, public service organizations or shelters.
6. Communicators working at a specific site shall be under the supervision of that leadership or designated authority but must be part of an ICS system that provides for their safety, welfare, and accountability.
7. External operations during activation shall be under the supervision of the designated church leader.

COMMUNICATION DUTIES

The primary responsibility of our emergency communication operators will be to process, distribute and transmit/receive voice and data message traffic through amateur and resources.

These duties include, but are not limited to:

1. Sign in and out of EOC.
2. Complete communications log sheets.
3. Complete various message forms.
4. Process message traffic.
5. Use “Tactical” call signs between sites as directed.
6. Current operators will thoroughly brief all incoming operators before going off duty.
7. Perform Net Control duties (NCS) on designated nets at designated locations.
8. Turn in all paperwork to designated leadership or their representative at the end of the radio operator’s respective shift or at the end of the emergency.

COMMUNICATION CAPABILITIES

All Amateurs should have their own handheld and/or mobile VHF, 2-meter radios. A dual band Amateur transceiver would be preferred. Simplex frequencies should be used as needed. The availability of these radio frequencies provides excellent coverage over most of the Stake. This helps to relieve the overloading of the limited number of public safety frequencies.

FREQUENCIES

1. Communicators may work on Amateur Radio frequencies or channel/frequencies assigned by their authorized leader.
2. Designated local Amateur Radio frequencies used include, but are not limited to those found elsewhere in this handbook.
3. Cypress emergency communicators are not authorized to use non-amateur frequencies or channels without prior approval by the Net Control Station.
4. Communications with the Amateur Net Control Station (NCS) and/or the EOC will be held on the approved list of frequencies listed in this handbook.

COMMUNICATOR REQUIREMENTS

PERSONNEL REQUIREMENTS/APPEARANCE AND DEMEANOR

During emergencies, you could be working along side public agency professionals. Some may be in uniform. In most cases, they will look and act very business like. You are expected to do the same. Drive the speed limits. You have no emergency vehicle or law enforcement status. Agency professionals may not understand or know about your special training and communications skills. They may perceive you as just another "Want-a-be" getting in their way. Demonstrate that you are a professional communicator, there to provide a vital service to the community.

CONFIDENTIALITY

Any message given or received by an operator, to include any information concerning the internal operations in that organization during an exercise or emergency, shall not be released to anyone without prior approval of their designated authority. Under no circumstances should the death of individuals be discussed on or relayed by radio, unless so authorized by the designated authority.

SECURITY

All operators should be aware of the lack of security at any site from which they are transmitting. Operators should leave all unnecessary valuables locked out of sight in their vehicles. Operators should not loan out any equipment without prior approval of the designated representative. Operators are not authorized nor permitted to carry any type of firearm or weapon during any exercise or emergency.

TRAINING

At least one Simulated Emergency Test (SET) is conducted each year. ERC members may also be asked to help with various exercises and additional training as designated by the Stake throughout the year.

SAFETY

COMMUNICATIONS SAFETY

The priority of every participant must be personal safety and the safety of others. No activity is so important to justify risking the life of anyone. Each person must remain alert to potential hazards in their area. If a situation appears hazardous, the individual(s) should first leave and then radio NET control or Base when there is an opportunity. Of course, personnel should not engage in hazardous activities or create hazards for others.

It is up to you, the individual, to report any concerns before being sent on an assignment. If at any time it appears that a particular assignment is inappropriate, personnel should immediately request a reassignment.

HAZARDOUS MATERIALS EMERGENCIES

When you find yourself at the scene of such an accident and you are the first to arrive, back away and call 911. WAIT for competent personnel to arrive and identify the materials involved. Stay up-wind, and at least a quarter of a mile away from the site while waiting for first responders. Flammable vapors could ignite by the operation of your equipment. Be PATIENT, do not become a PATIENT.

AMATEUR COMMUNICATIONS ACTIVATION

System Activation

The net will be activated when normal communications are not possible. With the loss of power due to weather or other natural or man made disaster. It may be activated to relieve pressure on normal means of communication. Anytime there is sufficient weather or damage to disrupt normal power distribution or communication all emergency communicators will tune to the primary frequency of 144.370 MHz simplex and monitor for further instructions.

ACTIVATION PROCEDURES

The net should be established on the designated simplex frequency 144.370 MHz. NET control will then usually make a short (QST) announcement. The NCO may say something like the following.

"QST, QST, QST this is a Communications Alert. This is not a drill. All stations stand-by (Pause). The Cypress Stake has activated the Cypress Stake Emergency Communications net. All available stations; be prepared to check in for assignment when requested."

The NCO will then give details of the incident. Operators shall not check-in at this time or offer any kind of assistance...JUST MONITOR. NET control and possibly others will initiate a mobilization of personnel needed by the requesting Authorities. A resource net may also be started at this time. A resource net is primarily used to recruit resources. This net may also be used as a check-in point before an assigned operator leaves for assignment. As the incident becomes more involved, a command net may also be necessary. This net allows communication leadership to communicate with each other to resolve communication related problems.

ASSIGNMENTS

Every attempt will be made to make call outs on a rotational basis. However there will always be those who have special equipment and/or training, which may be needed for a certain emergency. Communications assignment personnel will attempt to place each operator in a position where they can most effectively assist in the incident. Factors such as skills, experience, temperament, equipment and physical restrictions may be put into play depending on the requirement. Arrive at your assigned location about 15 minutes ahead of time. This allows for a proper turnover between you and the operator you are relieving. The normal shift or work period is eight (8) hours. A 1/4-hour overlap in shifts will be made to allow the new crew to be briefed by the previous crew. In most cases, two personnel will be assigned to a site or location. The most experienced will usually be in charge. In the first hour or so of an emergency, assignments are made as people become available and are asked to check into NET control.

Communications personnel are expected to "survive" on their own by bringing their own emergency kits, which may include their ID card, radio, antennas, coax, food, water, suitable clothing and shoes, etc. At times, you may be asked to meet at a staging area for carpooling, as access to the disaster site is usually limited. An amateur should monitor NET control before leaving and while in route. Notify the net that you are in route and when you arrive.

COMMUNICATING DURING AN EMERGENCY

Plan all of your transmissions. Know what you are going to say before pressing the mike button. Keep all transmission brief. Transmit **ONLY** facts. If there is a need to make an educated guess or deduction about a situation, then make this very clear. Scanners are everywhere, and we do not want to start rumors. Make accuracy of communication a priority and communicate information you are **TOLD** to communicate. You are not there to make decisions about what to communicate. Do not complain or criticize on the air.

Keep a good sense of humor. There is no such thing as "common spelling." Send all groups of numbers as individual numbers, i.e., "104" would be "one, zero, four" **NOT** "one hundred and four."

"Q" signals are not for voice transmissions. Do not use "10" codes. **SPEAK IN PLAIN LANGUAGE.** When necessary to spell out a word or names, use a standard phonetic alphabet; however, if you were talking to "public agency" listeners, they may prefer that you use the "Law\SAR" phonetic alphabet.

If you need to have the message repeated, use "SAY AGAIN" or "CONFIRM."

Acknowledge receipt of all information or formal traffic by saying, "received." Do **NOT** say "QSL." Keep a log of all incoming and outgoing traffic. Make copies of the log found in the appendix of this handbook or on a blank sheet. Please be neat. You may have to refer back to your logs later or, in a rare instance, the logs may be used in court.

Return all logs to a Communications Coordinator. Do not allow yourself to become the spokesperson for the agency you are assisting. Some news media people might attempt to put you in that position. Refer them to the IC or the Public Information Officer (PIO).

NETS AND TACTICAL CALLS

NETS AND TRAFFIC PROCEDURES

Emergency radio communications nearly always use directed (controlled) nets.

Controlled nets are a means of ensuring orderly use of limited frequency resources. This organization makes for efficient operations and helps ensure that urgent matters are handled first. The NCO is the net's traffic cop. If it is a directed net, the NCO will exercise strict control, requiring every station to receive permission before using the net. If operations are slow, the net control may declare the net free or open, and you then may call anyone you wish. Be prepared, however, for the NCO to change back to a directed net without any notice.

In any event, the net control is responsible for the operation of the net, and you are responsible for following instructions. Traffic on the net is handled in order of the requests, depending on the priority of the message. **NET CONTROL DOES NOT PRIORITIZE MESSAGES.** The "official" or his designee at the specific location determines the priority of the message. The priorities are as follows:

1. **EMERGENCY** - Traffic with life and death urgency.
2. **PRIORITY** - Traffic used for official messages with a specific time limit.
3. **ROUTINE** - Traffic used for official and personal messages with no time limit.

If you come into a net late, listen for the procedures being used and then follow them.

Keep the frequency available for interruptions. Keep your transmissions short. Stop transmitting if you stop talking. If on the repeater, **WAIT** for the courtesy tone and then just a bit longer to allow another operator with higher priority information to break in.

Another reason for keeping transmissions short is that less time is lost if the transmission was only partly readable. Brief transmissions also allow other stations to interrupt if they have urgent traffic. Use the shortest message to get the point across. Do not transmit needlessly; do not take an extra turn just to say that you are "clear." If no one answers a call you are making, saying "nothing heard," (your call sign) "clear" wastes times and accomplishes nothing. If no one answers, simply identify yourself with your call sign (FCC) and leave the air. It is not improper to interrupt a net for emergency traffic, i.e., to transmit when Net Control has not given you permission. If you interrupt, key very briefly, only enough to say your, ID. If others are observing proper transmission breaks, they will usually hear you and relinquish it to you for your emergency traffic. If the traffic load is very light, then net control might announce that stations no longer need to ask for permission to contact other stations. In this case, simply call the other station. If traffic picks up again, the net control will step back in and start controlling the flow of traffic.

TACTICAL CALL SIGNS

In an emergency, location TACTICAL CALL SIGNS will normally be used. The use of tactical call signs greatly reduces the confusion when various operators use the same station. Their use promotes efficiency and coordination with all individuals or agencies that are monitoring the net.

These are short, easily remembered names, which either identify a location, agency or function. Examples are "Cypress Main Unit," "OAB," "CAB," " EOC," Team 1, or Relay 1. When operators change shifts or locations, the set of tactical calls remains the same. Always keep your volume turned up but not at the expense of others nearby. Use your earphones. If you must leave the net frequency or your location, inform net control. When you return, check back in.

TACTICAL AND NET IDENTIFICATION

During an emergency, the use of station identification should be kept to an absolute minimum as it consumes valuable airtime. Do NOT use the typical HF Ham exchange of both "parties" call sign after every transmission. Whatever type of NET you are using, you are not required to check-in every ten minutes for the duration of the incident.

The NET is a series of individual contacts, coordinated by a net control station. Only those in active contact must ID. The ID rule applies to each individual contact. Stations need to ID only because of their own actual transmission; at the end of each contact, or each ten minutes of continuous contact. As an example, at the end of a contact using tactical calls with the Amateur call, you might say...."EOC, this is OAB, KR6BA out". Now, let us say you have a longer formal message to be passed on. Contact with the EOC is made at 2003 hours and you finish at 2025 hours. In this example, you would have needed to have ID'd three times - at 2013 and 2023, under the ten minute rules, and 2025 under the end-of-contact rule. Those listening do not ID at all nor does the Net control ID on their behalf.

COMMUNICATING WITH A 911 EMERGENCY OPERATOR

It is preferable to speak directly to the operator rather than relaying through a third person. DO NOT precede the description of the problem with your call sign or the fact that you are an Amateur radio operator. Always use good judgment. Keep calm, speak clearly, provide accurate information and be courteous. Give essential details. Answer all questions as the 911 operator asks them. Keep in mind that you are talking to a trained dispatcher who deals daily with providing the correct response and has the necessary knowledge of available resources.

OPERATIONAL GUIDELINES

OPERATIONAL DOs and DON'Ts

Do's

1. Listen for your tactical call sign. Answer promptly.
2. Log all calls, incoming and outgoing, if possible.
3. Keep the frequency available for others.
4. Keep transmissions short.
5. Use simplex frequencies for personal uses if feasible. Stay off Repeaters if possible.
6. Use short, simple phrases. Try for five words per line, maximum of five lines (25 words).
7. Establish contact before sending messages which are longer than just a few words.
8. Answer questions directly. Do not explain unless asked for a clarification.
9. Don't have items repeated unless you just did not get them the first time. Nor repeat items unless you are asked.
10. Ask for whom the message is intended if not obvious.
11. Allow third parties to speak over your radio.
12. Shield your microphone from the wind.
13. Consider using an earphone unless someone else has to hear.
14. Bring spare batteries.
15. Bring a high gain antenna for your HT (mag mount).
16. Should the repeater be down know how to use its output frequency in simplex
17. Use special handling for sensitive messages.

Don'ts

18. Use VOX or a locking PTT switch.
19. Try to wear an HT on your belt and try to transmit.
20. Leave a net without permission and checking out.
21. Make unnecessary transmissions.
22. Do not use CW or CB shorthand jargon. Instead say, "I copy" or "yes."
23. Talk louder in a noisy environment.
24. Under, no conditions panic!

PREPARING FOR AN EMERGENCY

In the event of a disaster, your first responsibility is to attend to the safety of yourself, family and neighbors and/or plan for your absence. Next, get an assessment of the incident. Then turn on your radio and LISTEN for further instructions and information.

Listen to the various emergency nets and your local emergency broadcast station KXRO (1320 kHz) and NOAA Weather.

FAMILY COMMUNICATION

Serious concerns will arise when family members are separated from home, at school or at work. You must do some advance planning. Develop plans for family rendezvous points and communication. Remember that this may not be possible for hours and perhaps days after the event. Establish a friend or relative outside the area as a check-in location for all members of the family. Everyone should then carry the phone number of that check-in. Make certain small children know how to make a long distance telephone call even if they do not have money. You will be of no use to emergency services if your mind is on the safety of your family.

Cypress ERC Net Preamble

QST, QST, QST, This is (your call sign and name) speaking for the Cypress Stake ERC net, comprised of emergency communicators from Anaheim, Buena Park, Cypress, and La Palma. The purpose of this net pass emergency traffic, routine traffic and familiarize amateur radio operators with net operating procedures. This is a directed net. Please do not transmit unless directed to do so. Any station with priority traffic or emergency traffic, please break with call sign at any time. Stations checking in are to remain on frequency until all traffic is listed.

This is (call sign and name) net control pausing for and priority or emergency traffic.

Hearing none we will proceed with roll call.

That concludes normal roll call. Are there any late or missed member check-ins? Please come now.

Are there any visitors to the net? Please come now.

At this time are there any announcements, comments, or inquiries before we close the net? Please come now.

I would like to thank all those who have participated in the net and for other stations keeping the frequency clear during the net. This net is scheduled each Sunday at 8:15pm on frequency 144.370 simplex.

This is (call sign and name) net control closing our net at (state local time). 73s to all and have a pleasant evening. We return this frequency to its normal use.

Cypress Stake Roster

Cypress Stake Emergency Communication Roster

Ward	Call Sign	Name						
BP	KJ6IOV	Wane	Kent-Johnsoton					
BP	KD6DKZ	Brent	Brodowski					
BP	KJ6AOQ	Mark	Noell					
BP	KJ6JHU	Mark	Stokes					
BP	KJ6JHS	Vickie	Wagstaff					
BP	KJ6JHT	David	Wagstaff					
CP	KF6OKI	Lance	Olson					
C1	WD6EQN	Roger	Tomlinson					
C1	KD6RTB	Carl	Carlson					
C1	KD6RSY	Lynn	Hiner					
C1	KE6EKV	Susan	Hiner					
C1	KG6TQC	Peter	Bystrom					
C1	KJ6EAX	Tim	VanLandingham					
C1	KJ6JBX	Lauretta	VanLandingham					
C2	KD6RSV	Anna	Nuttal					
C2	WA6LZE	Ray	Nuttal					
C2	KR6BA	Rich	Olson					
C2	KF6KSL	Joyce	Olson					
C2	KB6ROL	Steve	Legrone					
C2	KF6QNG	Laura	Rasmussen					
C2	KF6RNM	Ron	Morris					
C2	KF6OCT	John	Evans					
C2	KJ6IRL	Ron	Farley					
C2	KJ6LCN	Terry	Egan					
C2	KJ6PQR	Pamela	Zepeda					
C4	WD6FSF	Ernest	Scott					
C4	KF6YHB	Matt	Sutton					
C4	KJ6GEG	Kory	Mikesell					
C4	KI6NFF	Robert	Shaw					
C4	KJ6JFI	Nancy	Shaw					
C4	KJ6LCH	Paul	Kotter					
C4	KJ6LCL	Steve	Jankovich					
C5	KJ6LCJ	Susan	Mickelson					
C5	KJ6LCO	Robert	Shumway					

Cypress Races 144.410
Cypress LDS ERC Group

Multi-Regional Stake Frequencies

Red	Blue	Yellow	Green	Purple	Gray - Alternates
1) 144.310	1) 144.325*	1) 144.340*	1) 144.355	1) 144.370	1) 145.600
2) 144.405	2) 144.420	2) 144.435	2) 144.450	2) 144.465	2) 146.580
3) 144.480	3) 145.510	3) 145.525	3) 145.540	3) 145.555	3) 144.490 Narrow
4) 145.570	4) 145.585	4) 146.445	4) 145.615	4) 146.535	
5) 146.550	5) 146.595	5) 147.510	5) 147.480	5) 147.525	
Camarillo	Lake Havasu City	Bakersfield	Anaheim East	Bakersfield South	
Canoga Park	El Cajon	Chula Vista	Apple Valley	Barstow	
Del Mar	San Diego North	Downey	Cerritos	Carlsbad	
El Centro Imperial Valley	Escondido	Escondido South	Garden Grove	Corona	
Hemet	San Clemente	Fullerton	Glendale	Cypress	
Huntington Beach North	Moreno Valley	Glendora	Hacienda Heights	Granada Hills	
Inglewood	Irvine	Lancaster	La Verne	Hesperia	
Jurupa	Anaheim	Long Beach East	Laguna Niguel	Huntington Beach	
La Crescenta	Chino	Menifee	Penasquitos	Mission Viejo	
Lancaster East	Fontana	Newport Beach	Rialto	Monterey	
Morgan Hill	Long Beach	North Hollywood	Ridgecrest	Palmdale	
Murrieta	Los Angeles	Ontario	Riverside West	Pasadena	
Orange	Arcadia	Palm Desert	San Diego Sweetwater	Placentia	
Rancho Cucamonga	Victorville	Palos Verdes	San Louis Obispo	Poway	
Redlands	Newbury Park	San Bernardino	Santa Monica	Riverside	
San Diego East	Santa Clarita	Santa Barbara	Torrance	Sab Diego	
Santa Margarita	Ventura	Santee	Valencia	Temecula	
Santa Maria	Bakersfield East	Simi Valley	Vista	Thousand Oaks	
Whittier		Yuma Arizona	Yucca Valley	Torrance North	
				Upland	
				Walnut	
				Yucaipa	

Rows 1 and 2 should be used as the main Unit (Stake) Frequency.
 They may be slid up or down 5-10 KC's as these rows follow TASMA's simplex frequencies from 144.310 – 144.375 for row 1. and 144.405-144.490 for row 2. See TASMA band plan below.
 Rows 3 through 5 should remain on frequency and be used by Individual Units (Wards) within the Stake.
 Gray column are alternate frequencies to be used in difficult areas .
 Please use MINIMUM power required as you will be interfering with another area at FULL Power.

Notes