Radio Communication Changes For 2011

Telecommunications program is well into phase two of completing reprogramming all of our frequencies and radios as described in the memo dated September 14, 2010, titled: Narrowband Conversion 2010/2011. CALFIRE has been coordinating these projects with the FIRESCOPE committee and with every cooperating fire agency in the State. Many fire agencies are coordinating and timing their reprogramming to narrowband in conjunction with CALFIRE’s plan.

Phase I included converting CALFIRE Local and Command Nets from wide to narrow band, as well as any local government channels that were ready to implement. Continuous Tone Coded Squelch System (CTCSS) tone protection has also been added to the local and command nets in mobile and portable radios.

- Example of tone protection: A radio with tone protection on the receive (RX) frequency will not hear or open the speaker without both the proper frequency and the proper CTCSS tone being transmitted by another radio.

- The reason for implementing tone protection is to separate the CALFIRE nets from interference from our own operations. We utilize the same frequency for many different functions, example 151.250 = HUU local, LMU local, BDU 3 local, BEU local, CMD 6, and CDF T4. Each of these nets now has a different receive tone eliminating the bleed over between the nets.

Phase two includes the update of statewide group 3 to the 2011 frequency load plan and catching up any additional local government, federal, or state changes. CAL FIRE tactical nets CDF Tac 1-23 are currently narrow band and CTCSS tone protected. The project will be fully completed by the end of June 2011.

Now that our tactical nets are tone protected extra effort needs to be given to understanding what this means and how to work with the changes. Additional steps need to be taken during the remainder of the implementation of phase 2 for CAL FIRE and should be a consideration through the calendar year 2011 when communicating with cooperators.

For CAL FIRE during the transition period through the calendar year 2011:

- CALFIRE personnel have been instructed to operate in the carrier squelch “monitor” mode whenever communicating with cooperators or with other CAL FIRE resources that have not been converted. This assures all users will hear and be heard. See below.
• Mobile radios: To disable the tone protection on the radio press the monitor button, “Monitor” will be displayed on the screen. This feature will need to be activated each time the radio is turned on.

• Handie Talkies: Turn the squelch knob (clockwise) and activate the squelch feature to turn the tone protection feature off.

• Tone protection is only activated on the HT when you turn the squelch knob (counter clockwise) to the off position (pass the detent so the squelch is off). This enables the tone protection feature.

Utilizing the CALFIRE repeater system by selecting the proper tones ensures that your transmission will be heard because every repeater generates the proper receive tone so that all mobile radios will hear the call.

In addition our helicopter fleet is in the process of replacing all of the Technisonic TFM 138B and Wulfsburg radios with Technisonic TDFM 136, P-25 compliant radios. These aircraft radio changes will be completed by June 17, 2011. All of the OV-10’s and the airtankers already have narrow band capable radios. The correct frequencies will be programmed prior to deployment to their assigned bases.

Working with Cooperators:

When working with your cooperators (includes other agencies, hired equipment vendors, etc.) you will need to be aware of whether or not they have the appropriate frequencies and the appropriate tones programmed into their radios or they may not have the capability to communicate with CALFIRE or other incident personnel. Use the above work around to communicate effectively with them.

If you are unable to hear your cooperator on the local or command nets in direct mode, instruct them to utilize the CALFIRE repeater system by selecting the proper tone for a repeater site.

To communicate with a cooperator on a CAL FIRE tactical channel their radio must be programmed with the correct tone or they must manually select CTCSS tone 192.8 (Tone 16), or you must use the above work arounds on your radios.

CALFIRE Command nets 1 & 2 are not tone protected at this time.
CALFIRE Command nets 3 – 10 use RX CTCSS tone 103.5 (Tone 8)
CALFIRE Local net uses a distinct RX CTCSS tone. (See frequency list)
CALFIRE Tactical nets all use RX/TX CTCSS tone 192.8 (Tone 16)
CALFIRE Air Tactical nets are NOT tone protected currently.

• Attachment 1- CALFIRE frequency 2011.xls -Frequencies and tones for each CALFIRE net.
• Attachment 2 - RCP pages 6 -12.pdf – CALFIRE Tone Protection, and Aviation frequency net info. link to RCP - ftp://rcp@ftp.fire.ca.gov/
• Attachment 3 - CALEMA Operations Bulletin #28 (White Fire)