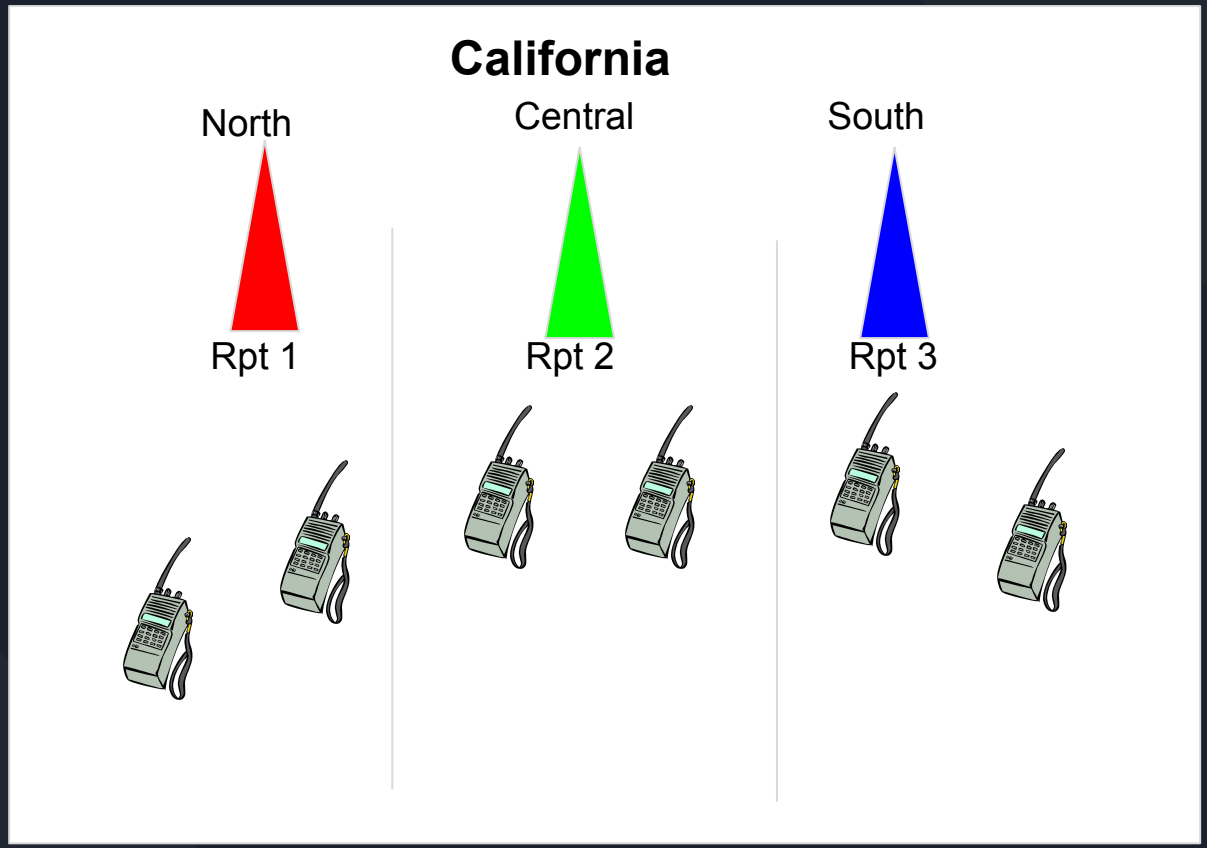
DR-2X IMRS For Dummies

WD6ABC Feb. 2018

Example of 3 DR-2X Repeaters with 5 Groups

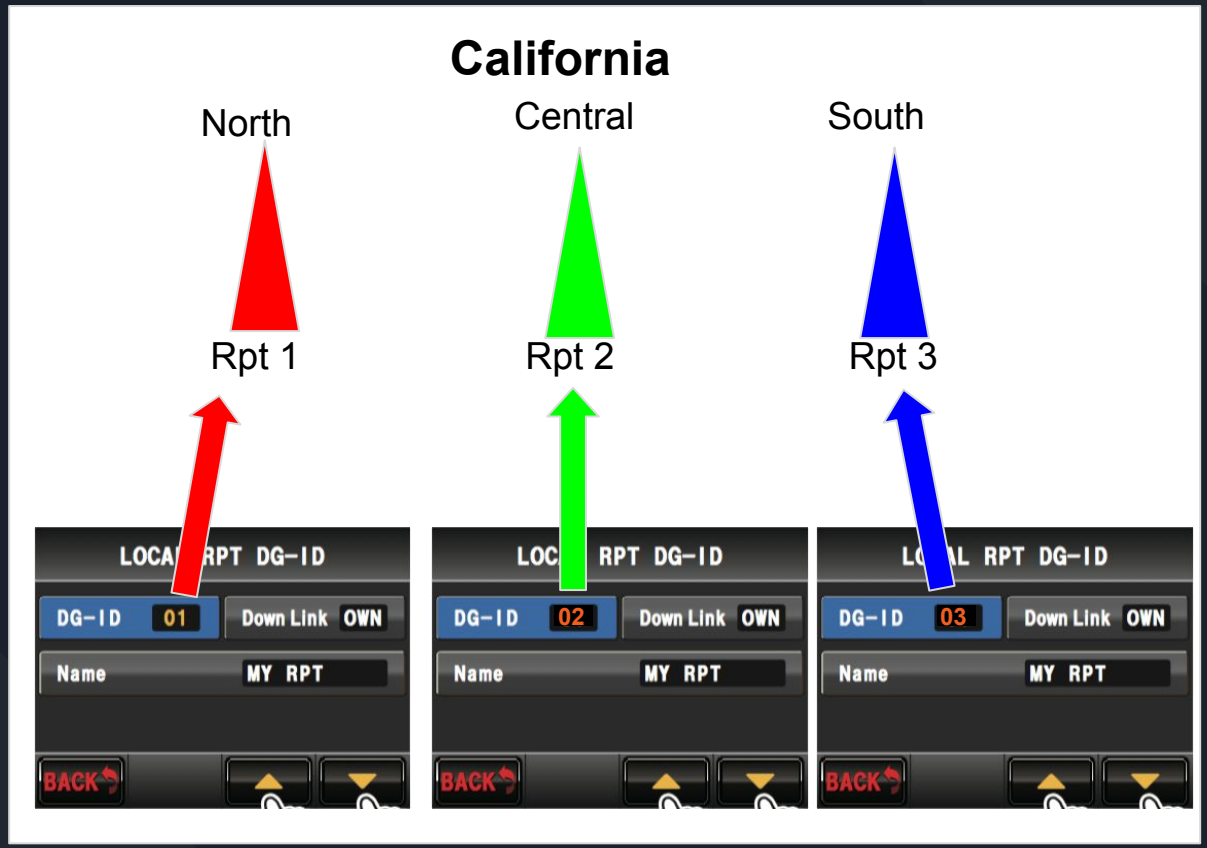
WD6ABC Feb. 2018

3 repeater system



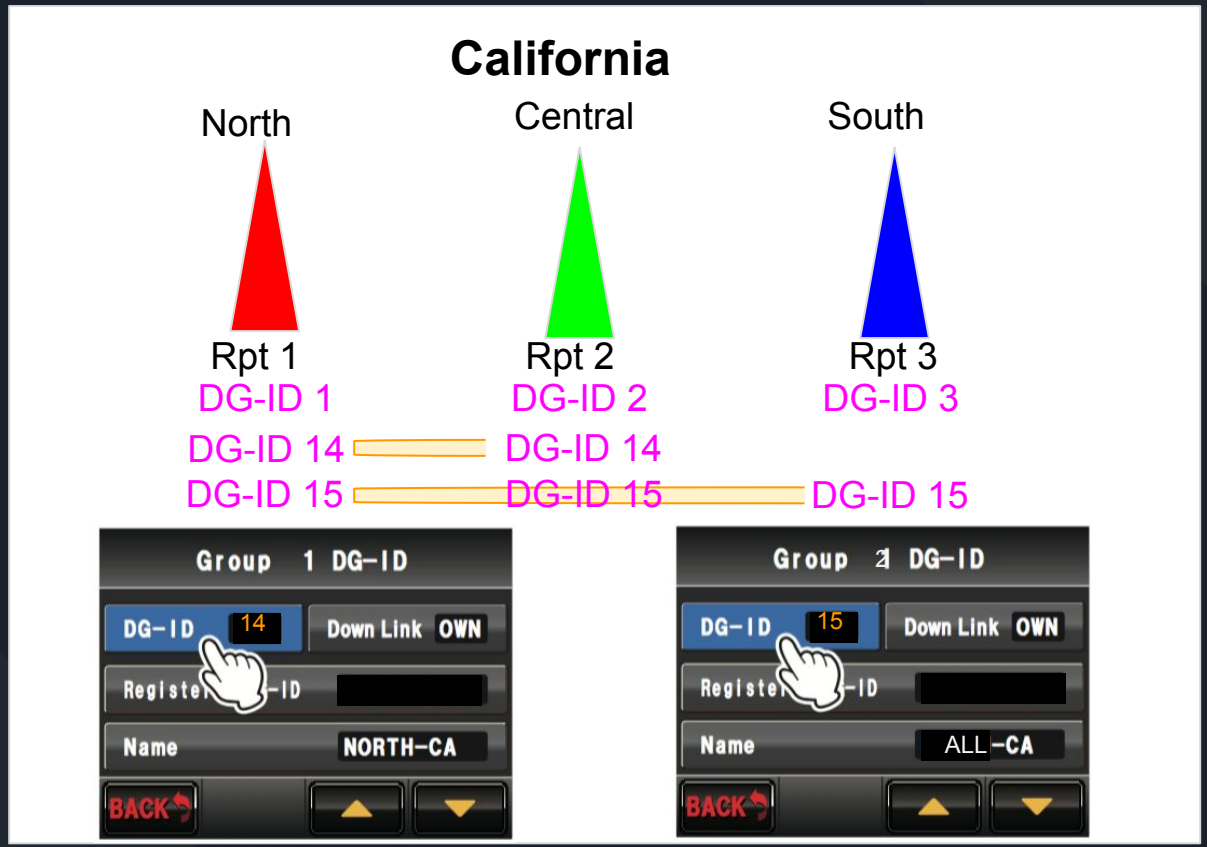
WD6ABC Feb. 2018

Program your repeaters with DG-ID numbers. (Plan with others on what numbers will be used in your group) Do not duplicate.



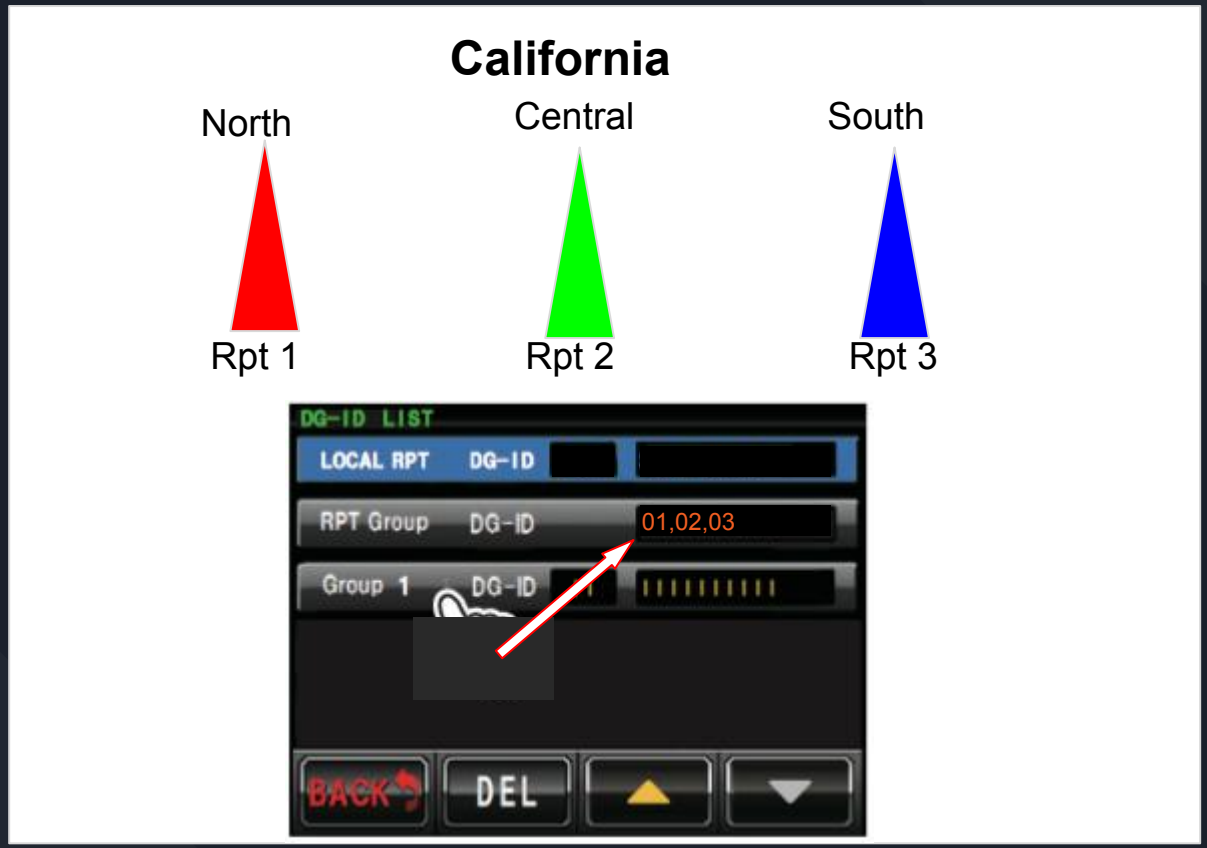
WD6ABC Feb. 2018

Next, Program the DG-IDs Groups (#14,15) for linking repeaters (1,2 or 3)
Presently, you do not need to enter anything into Registered DG-ID, but you DO need to put in a name.
(Repeater 3 didn't program #14)



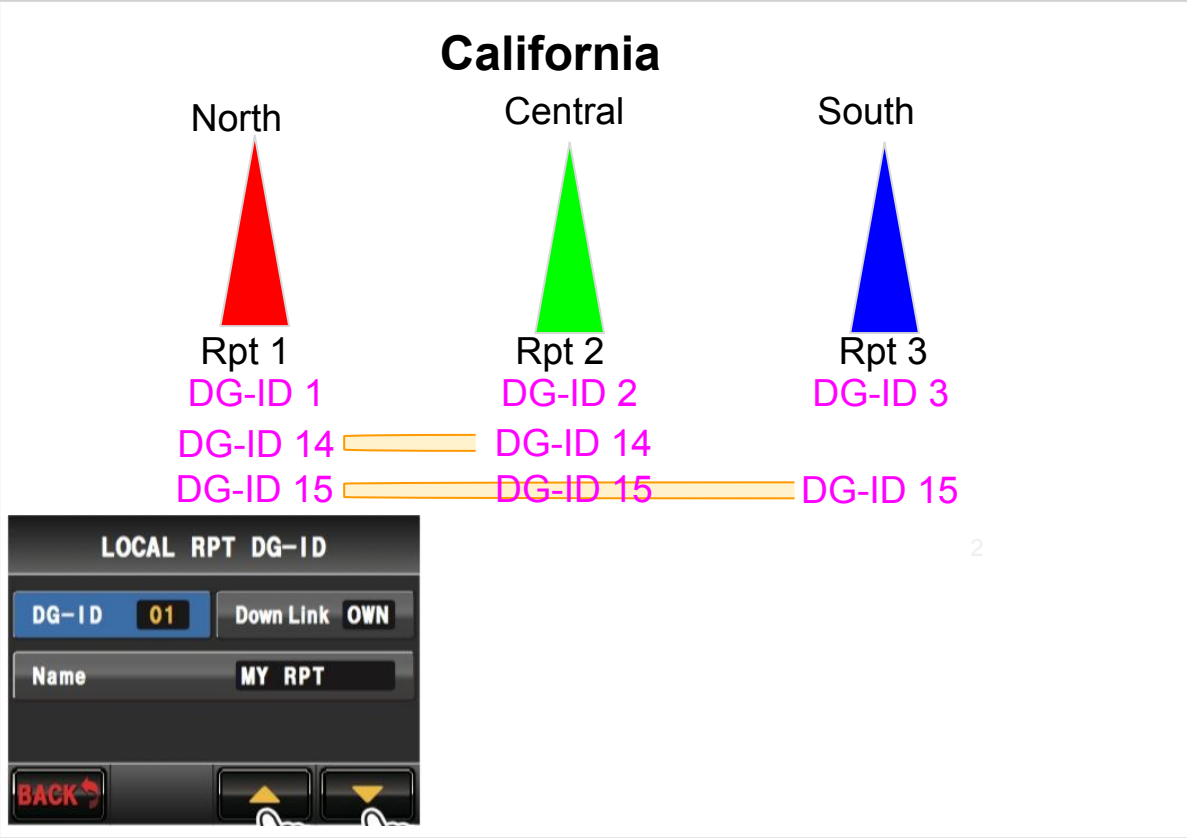
{ The Name does not have to match other repeaters}

WD6ABC Feb. 2018



ALL Repeaters:
Enter into the RPT Group listing, all of the repeater DG-ID numbers.
** Yaesu instructions also have you include your Group DG-ID numbers (14,15), but currently it seems to work without them. **

WD6ABC Feb. 2018

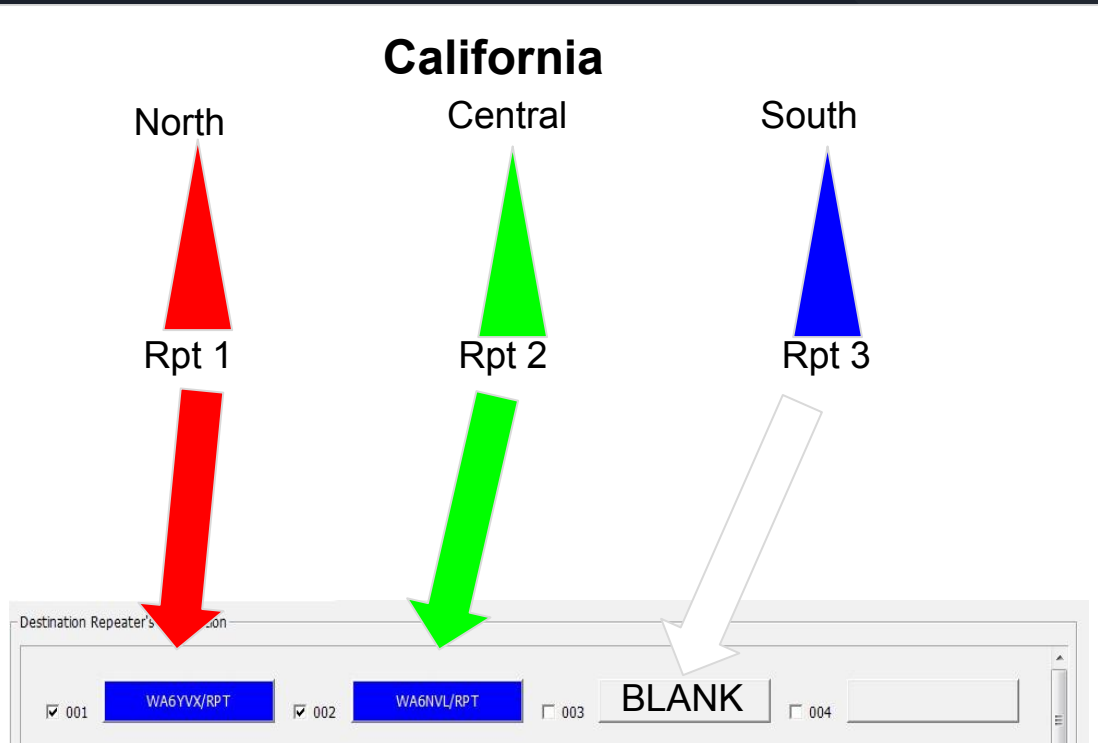


Go back in the MENU to your Local RPT DG-ID and touch the letters DG-ID to the left of your ID number (Here it's 01)
The background color should turn BLUE.

{Setting your LOCAL RPT ID as DEFAULT}

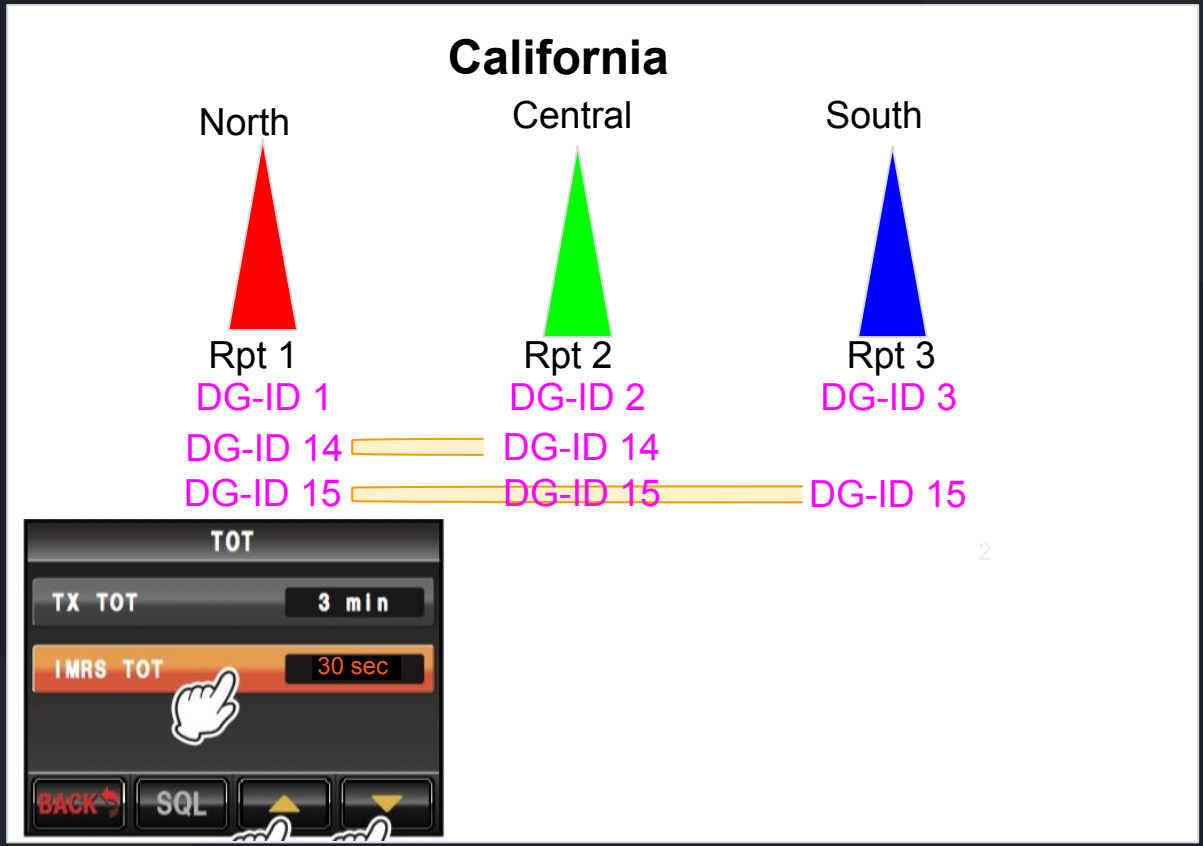
WD6ABC Feb. 2018

Example for owner of Repeater # 3:
He only puts his IP info into the SETTINGS button in the PC software. (not shown)
Click on Buttons 001 and 002 to enter IP addresses of the other 2 repeaters. (He leaves his repeater button 003 BLANK)



Enter other repeaters IP numbers in software.

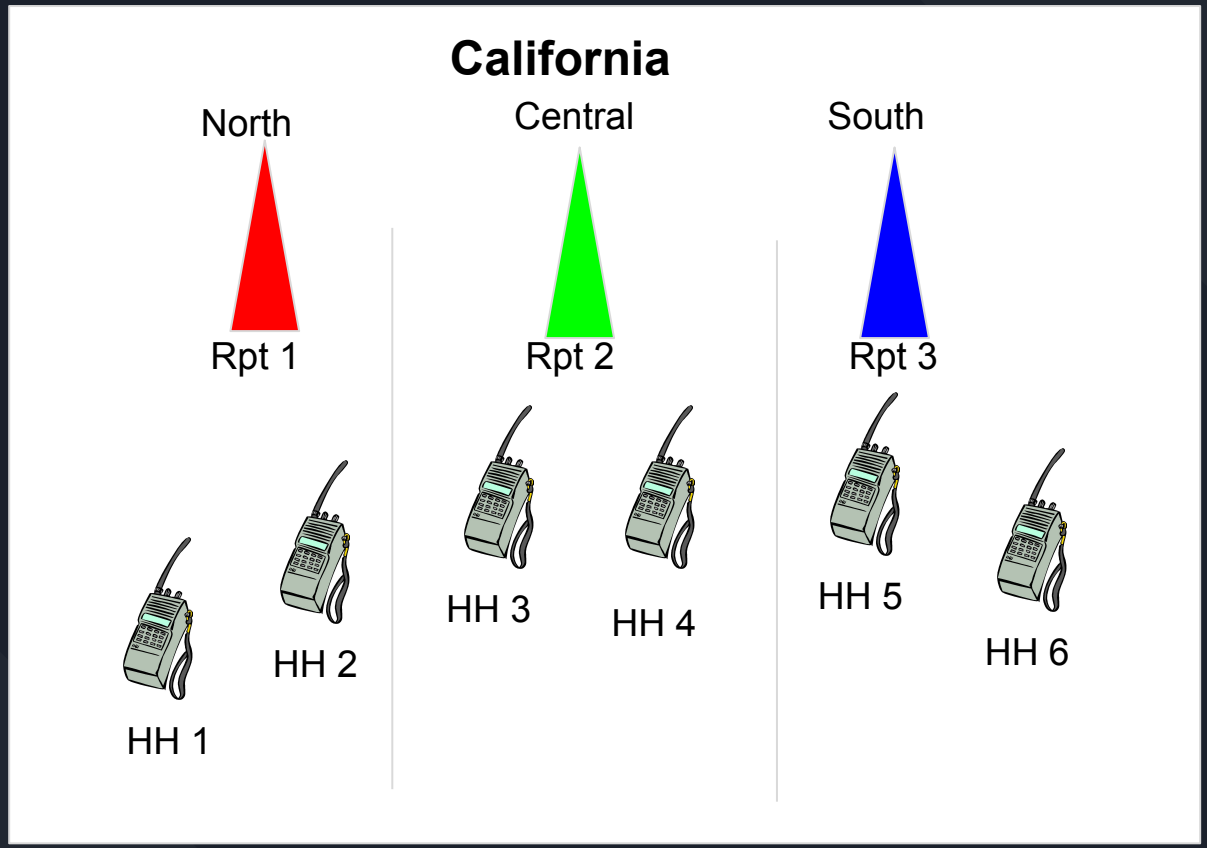
WD6ABC Feb. 2018



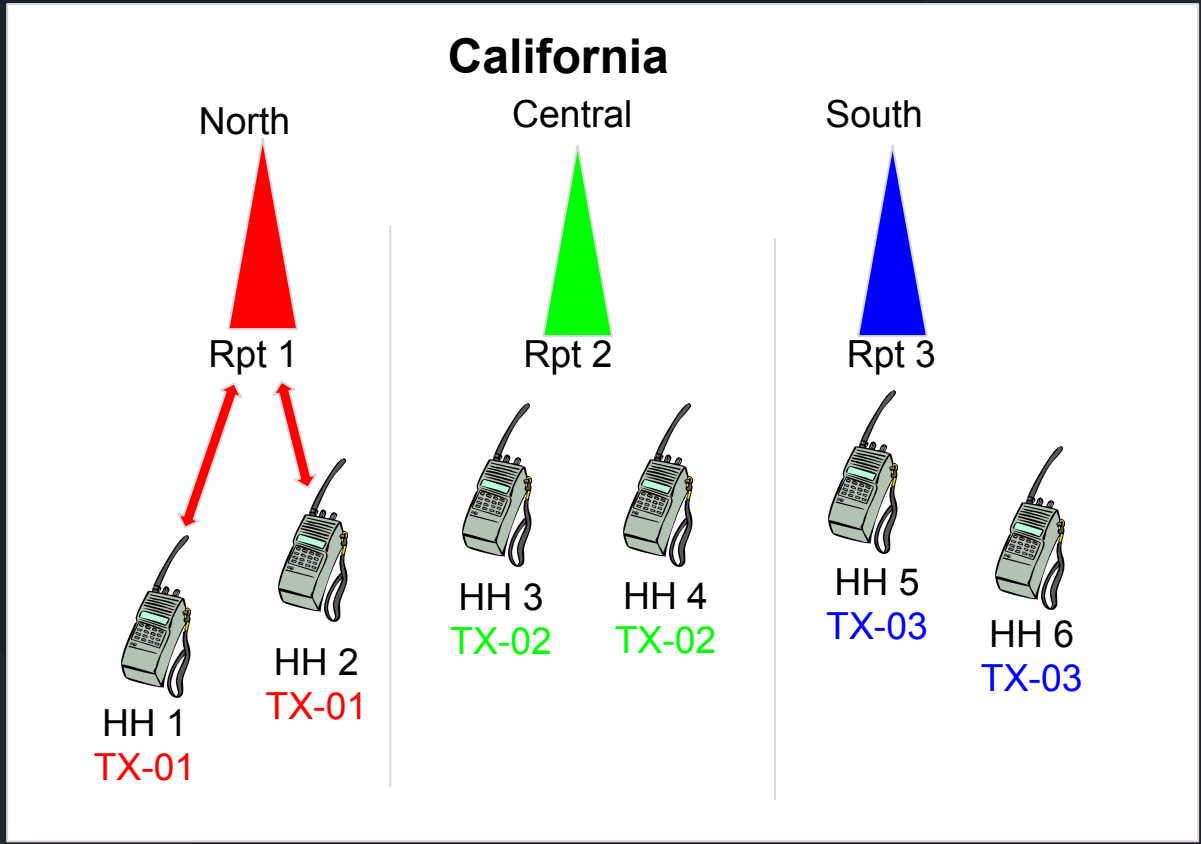
In the REPEATER TIMER menu, go to TOT (Time Out Timer) and select IMRS.
Set to 30 sec or more.

WD6ABC Feb. 2018

Now, how to use it.

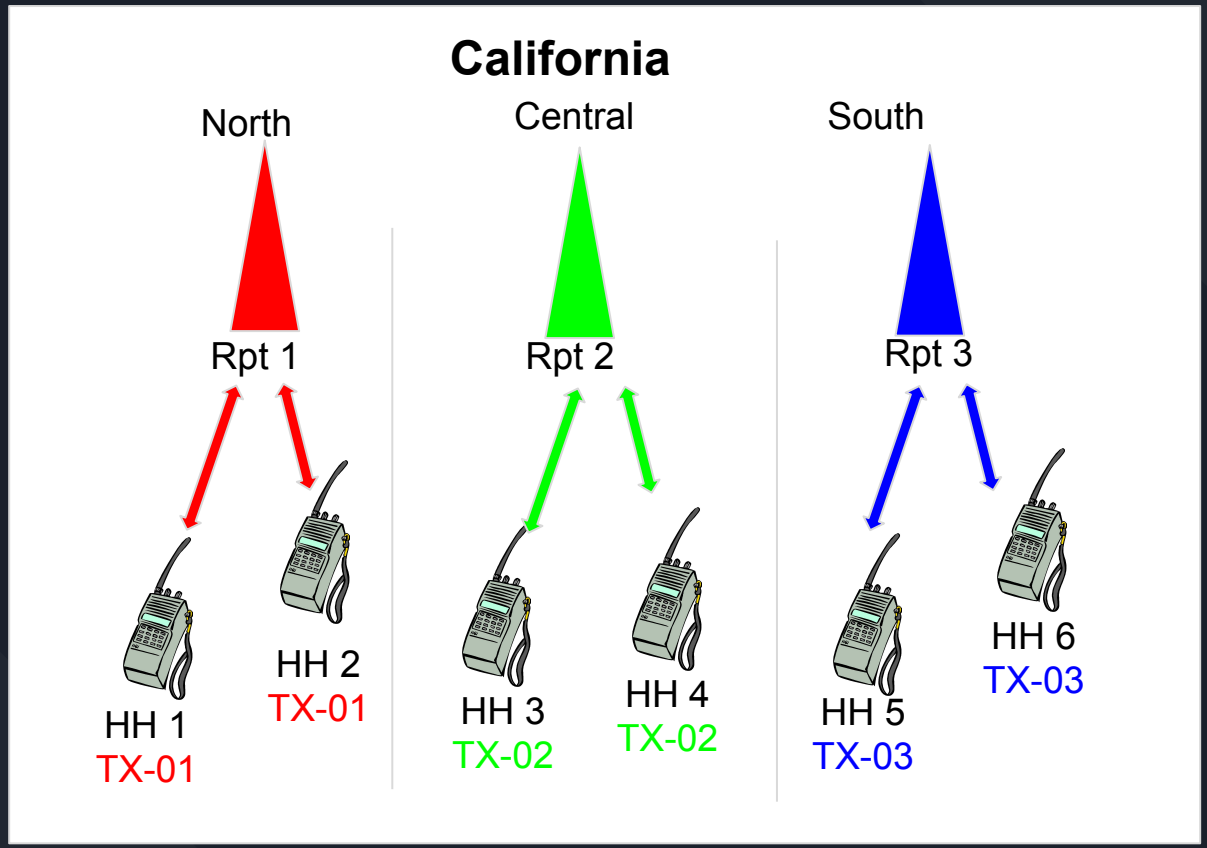


HH 1 and HH 2 select DGID TX-01 in their radios. When they transmit, Rpt 1 works like a normal repeater.



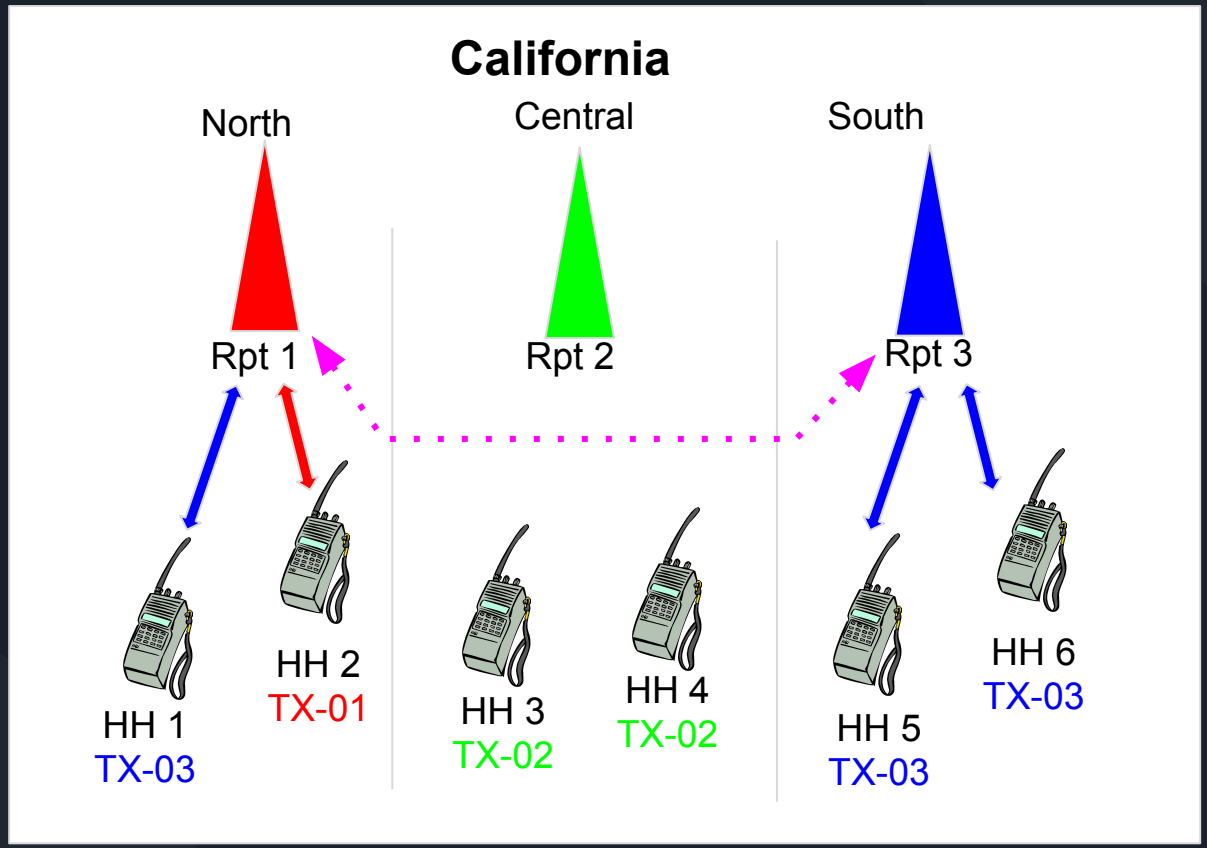
WD6ABC Feb. 2018

HH 3 and HH 4 select DGID TX-02 in their radios. When they transmit, Rpt 2 works like a normal repeater. HH 5 and HH 6 use TX-03 and talk to each other on Rpt 3.



{ When you set your radio to your Local Repeater number, TOT doesn't start }

WD6ABC Feb. 2018

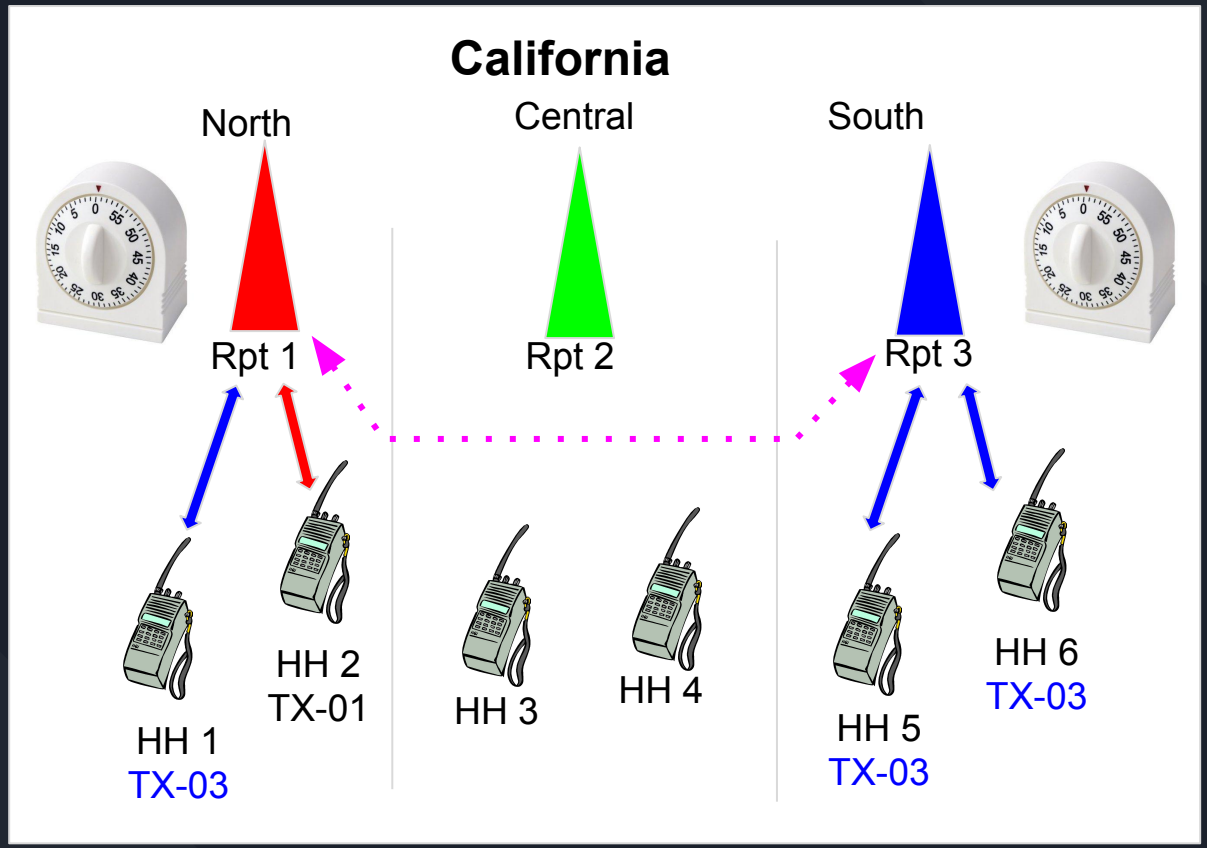


If HH 1 selects DG-ID TX-03 and transmits, Rpt 1 will still repeat, but also goes over the network to key up Rpt 3.
As long as HH 5 & 6 have DG-ID set to RX-OO, they can hear HH 1.

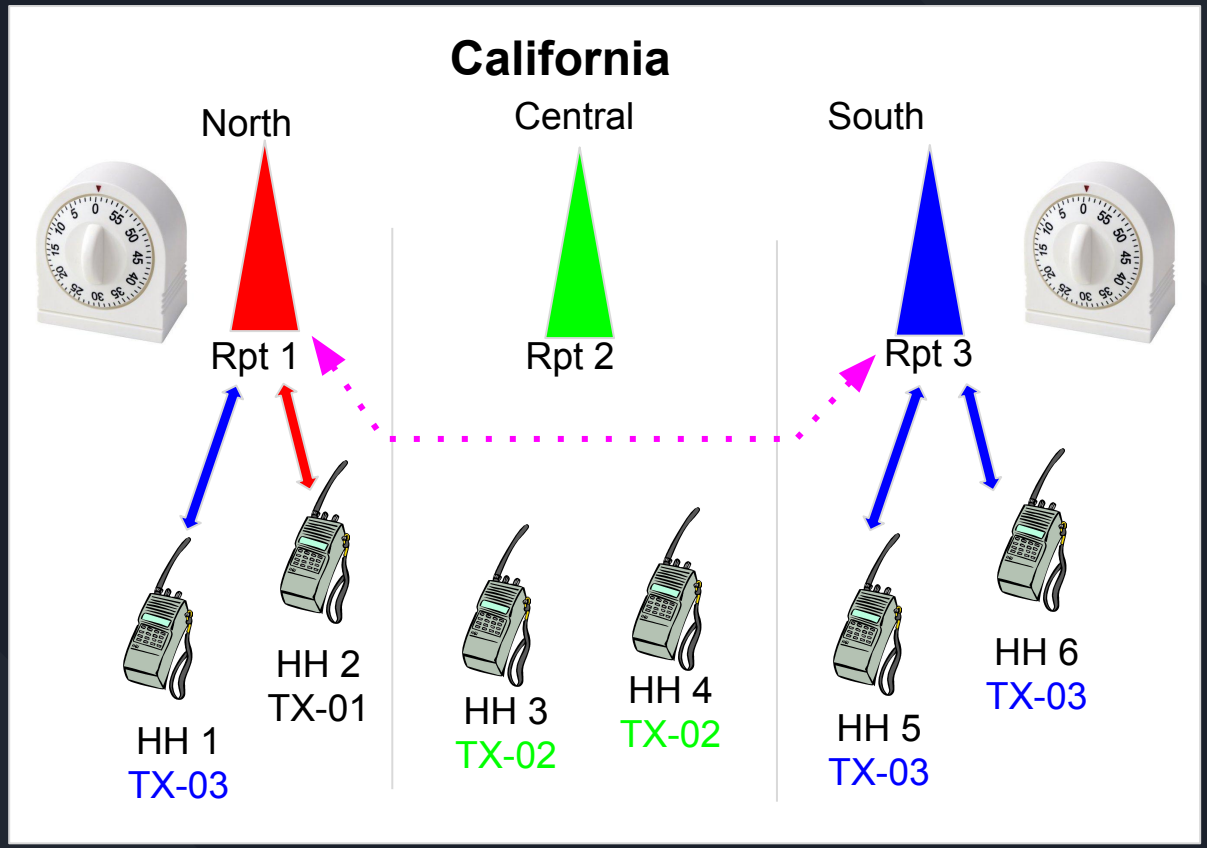
{ RX-00 is like Squelch operated receiver (i.e. no PL decode) }

WD6ABC Feb. 2018

Because Rpt 1 was set as a Default, and HH 1 selected something different, the TOT will start. The repeater will transmit a Single Beep (TOT started)



{ DG-ID's that are set to the Default # do not start the TOT. }

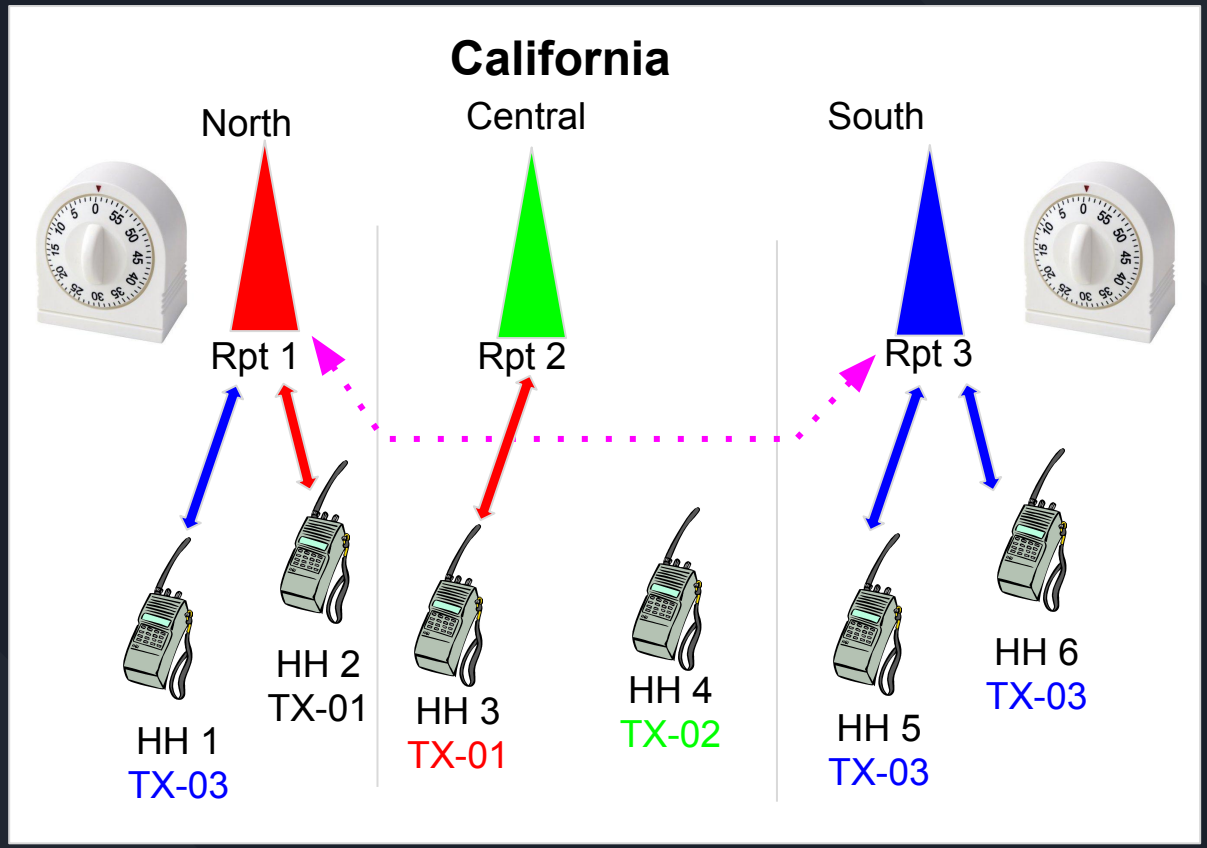


Now that the TOT has started on Rpt 1 and Rpt 3, ANY HH, no matter what their TX DG-ID is set for, will pass thru the system !! HH 2 can join in without changing his DG-ID TX setting.

{ Note: HH 3 & 4 are free to talk to each other. They don't hear anything from Rpt 1 or 3 }

WD6ABC Feb. 2018

If HH 3 decides he wants to talk to Rpt 1 while their timers are still running, he'll get a Triple Beep. (Not available)

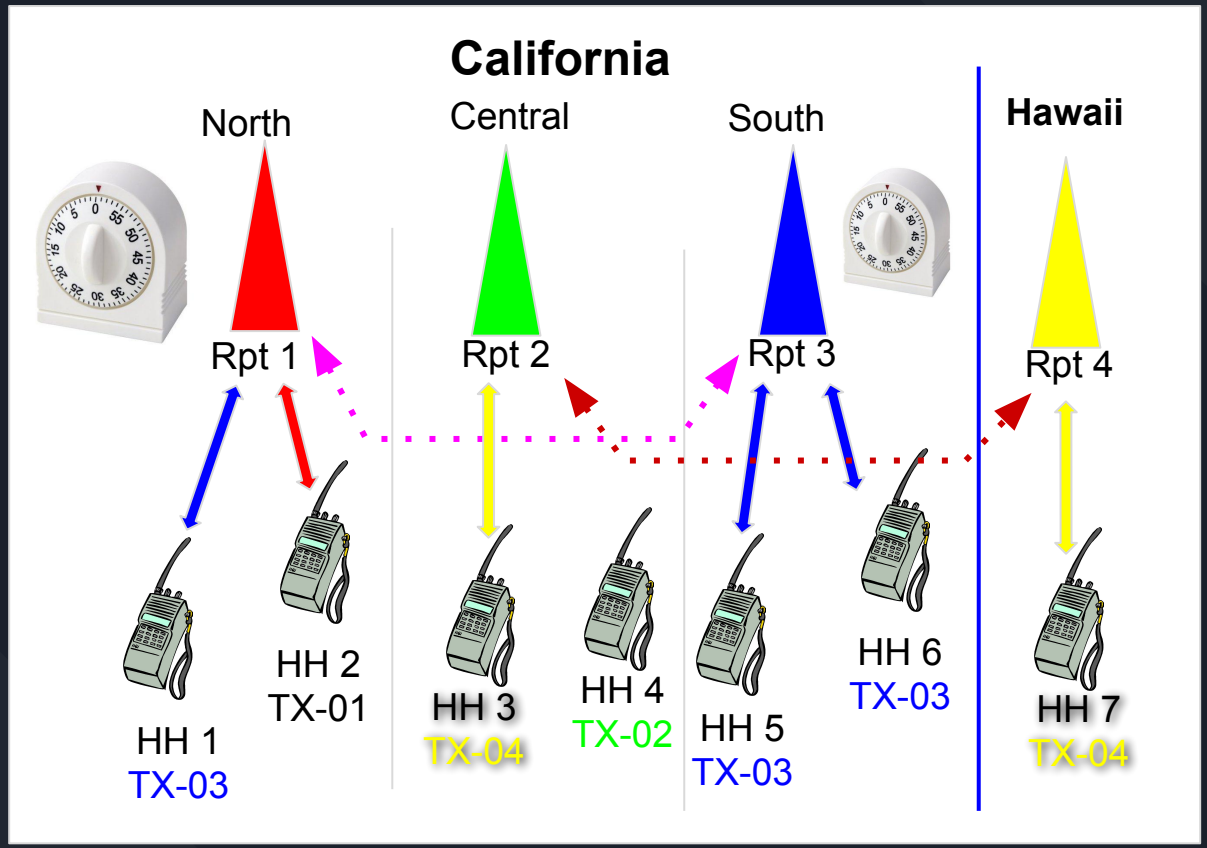


{ Once a Repeater to Repeater link is made and timers are running, other repeaters are locked out }

WD6ABC Feb. 2018

If there were 4 repeaters in the system

If HH 3 decides he wants to talk to Rpt 4 while Rpt's 1 & 3 are tied up, he can call his buddy in Hawaii on Rpt #4 by selecting DG-ID TX-04.

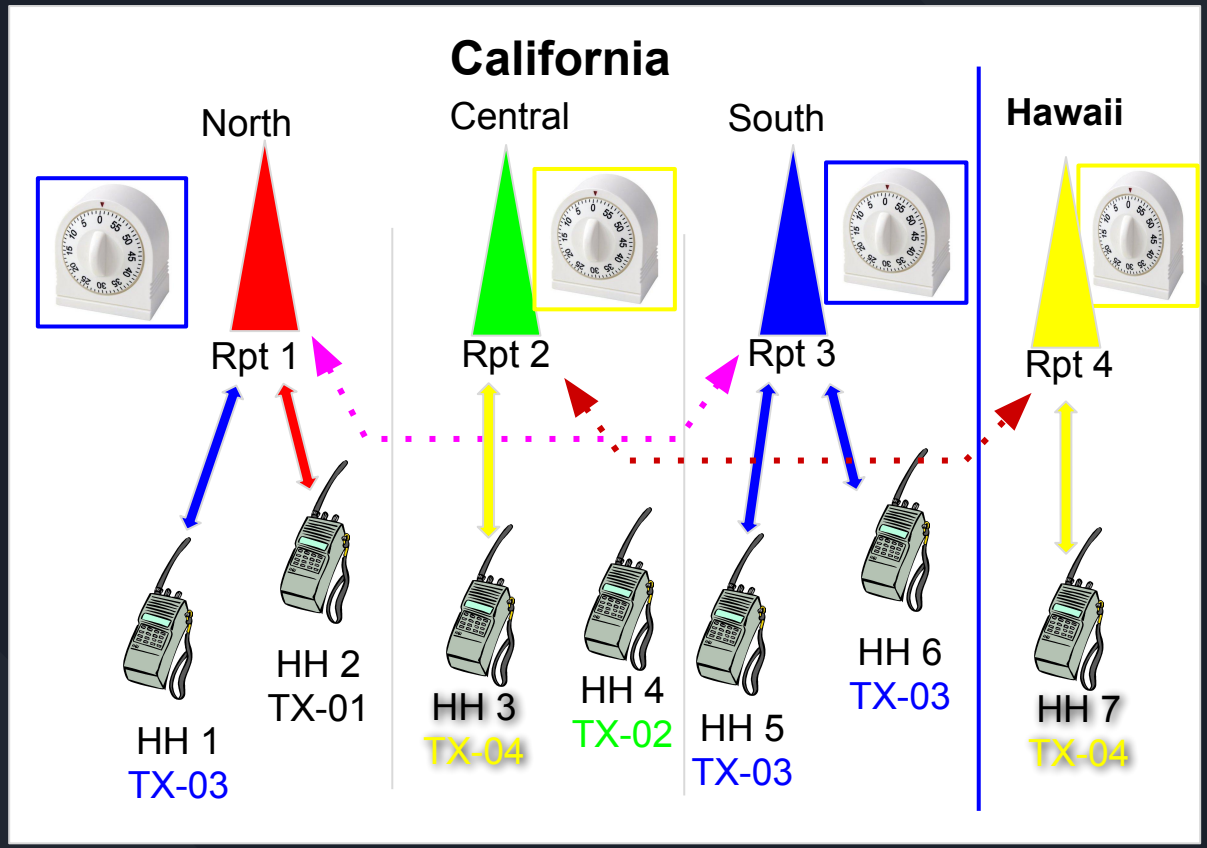


{ As long as your repeaters timer is not running, you can select another repeater by changing the DG-ID number in your radio.}

WD6ABC Feb. 2018

If there were 4 repeaters in the system

Now the timers for repeaters 2 & 4 have started. This is now showing how 2 sets of repeaters are independently operating.

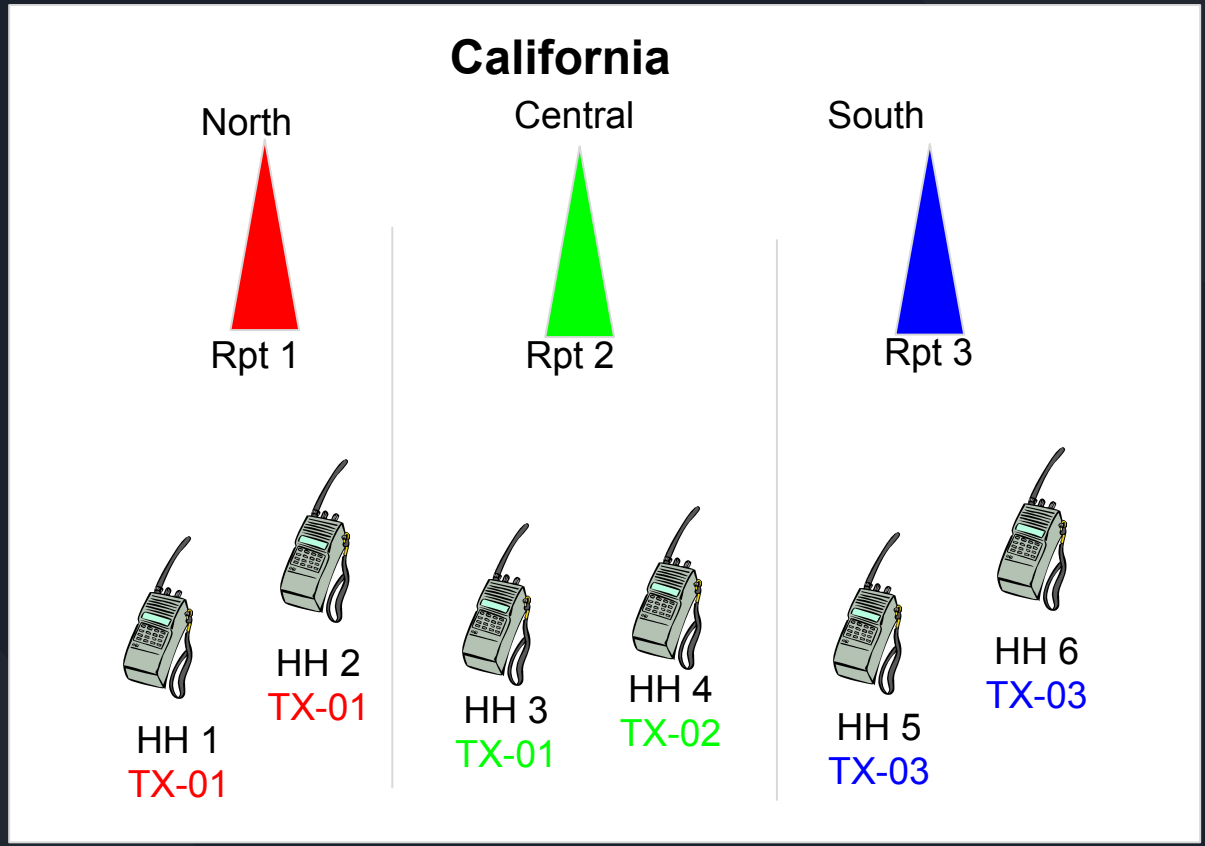


{ HH 1 & 2 are in QSO with HH 5 & 6 while HH 3 & 4 chat with HH 7}

WD6ABC Feb. 2018

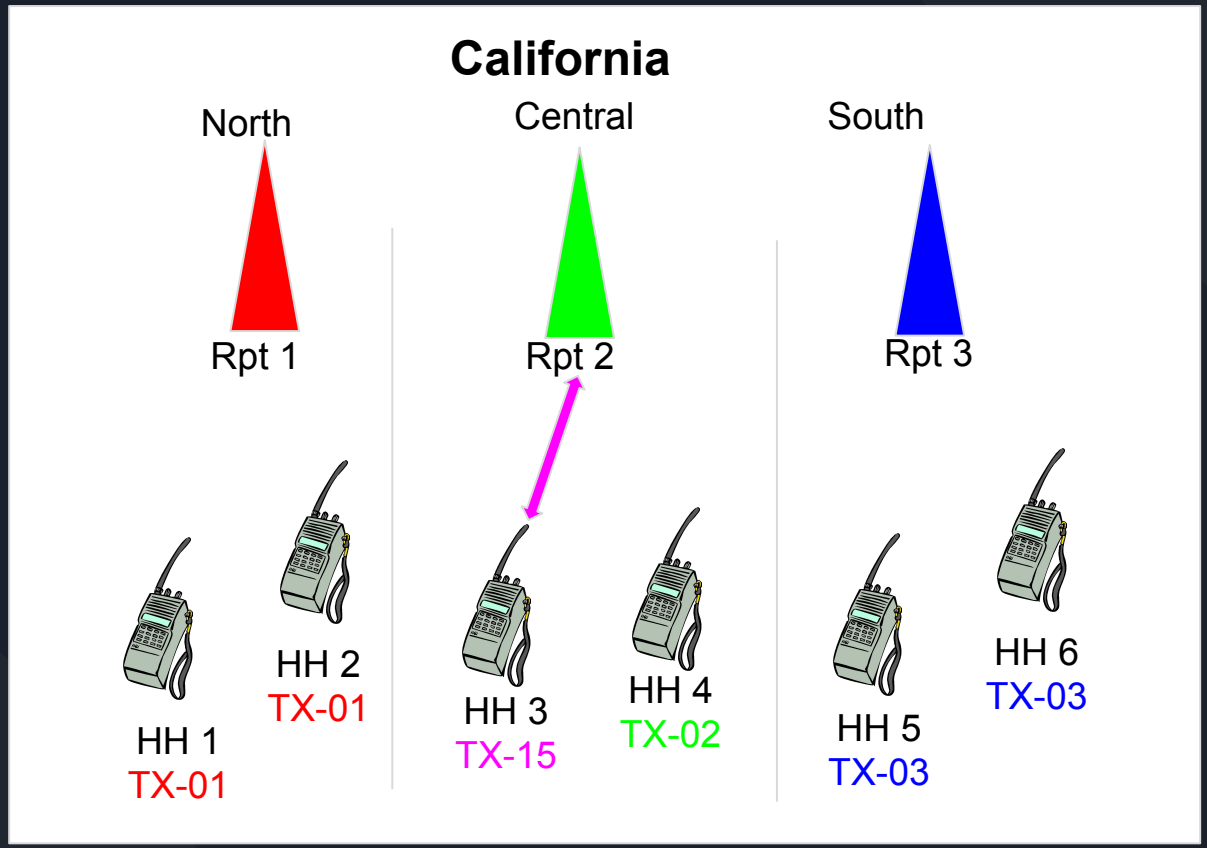
Back to our original 3 repeaters

Now in this example, no one talks for 30 seconds on Rpt 1 2 or 3, so all Repeaters send out a Double Beep notifying the operators that the Time Out Timer (TOT) has Cleared!



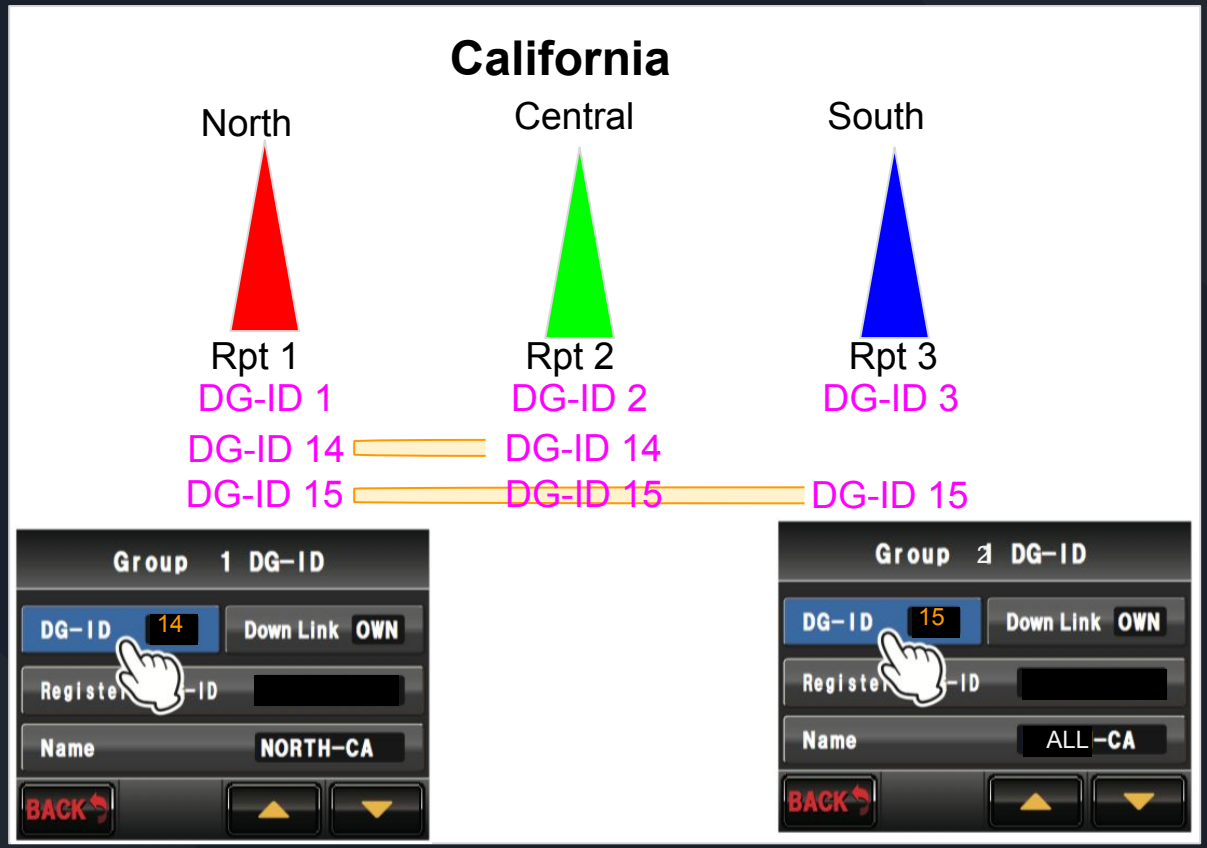
{Once Timed out, you can change your DG-ID number to route to somewhere else! }

WD6ABC Feb. 2018

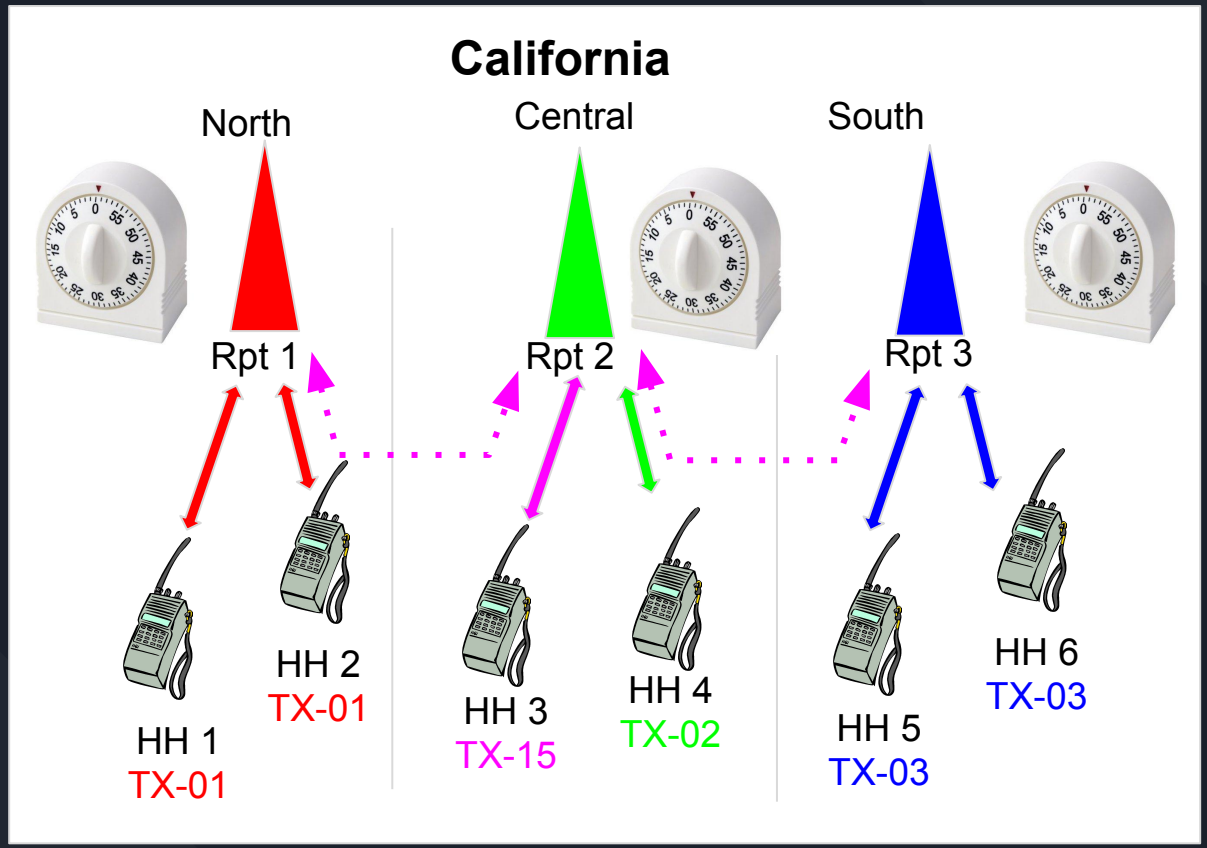


HH 3 decides he wants to talk to all of the repeaters. He would select DG-ID TX-15 since all the repeaters have DG-ID 15 programmed into them.

Remember when we programmed the repeaters. All 3 did 15, only 2 of them did 14.



WD6ABC Feb. 2018

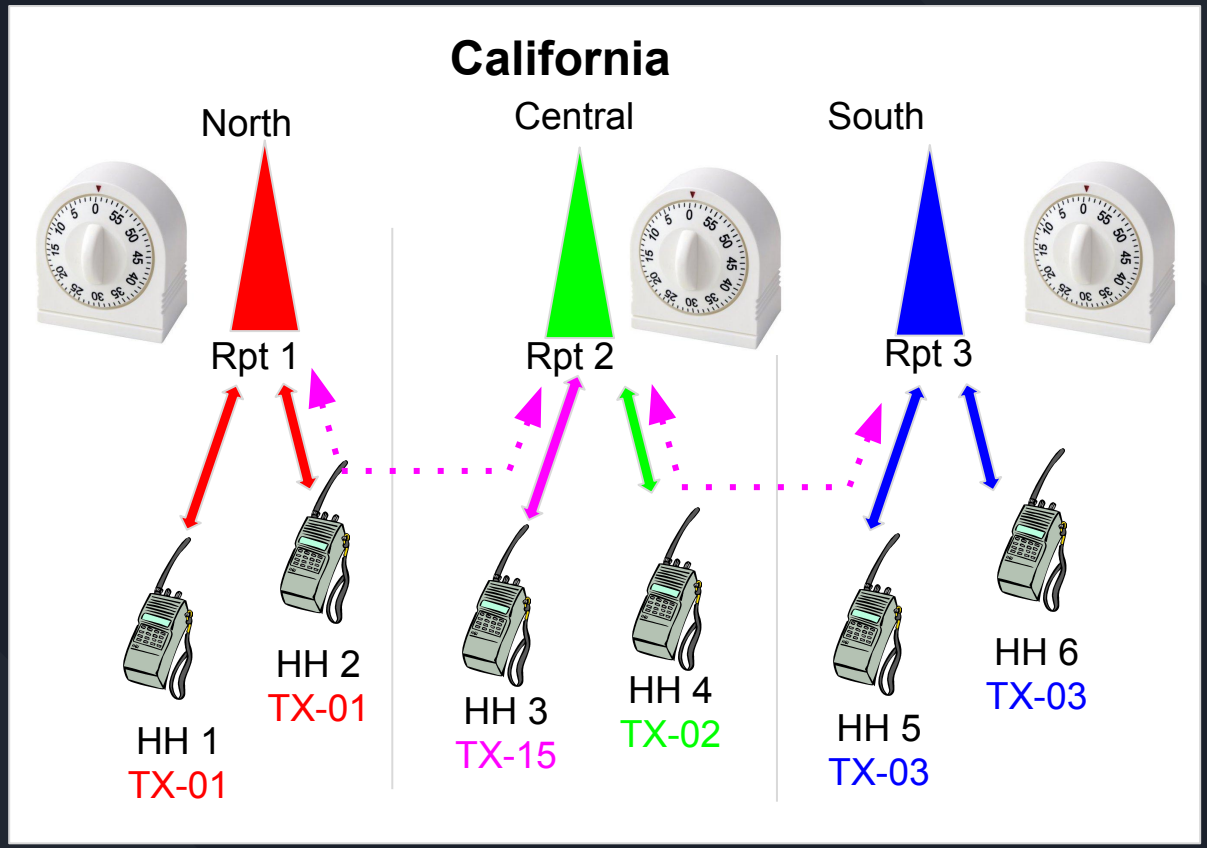


Once HH 3 keys up (and no repeaters had an active TOT,) all the repeater TOT will start, and ALL repeaters will be transmitting. (HH 3 will hear a Single Beep indicating the TOT started.)

{ All Handhelds have their radios DG-ID RX set to 00 (RX-00) }

WD6ABC Feb. 2018

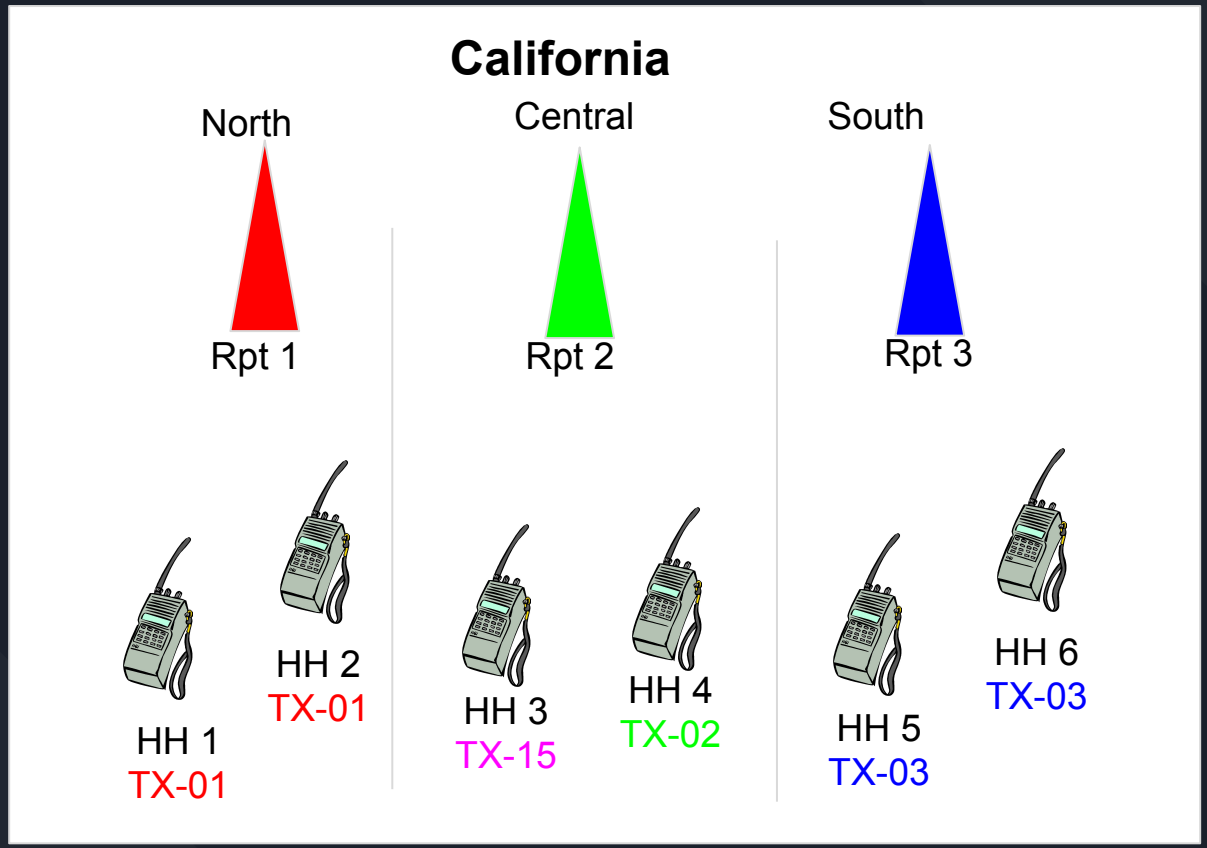
Since ALL the Repeater TOT are activated, any HH, no matter what their DG-ID TX is set for, will be able to reply. (Until the TOT clears)



{ All Handhelds have their radios DG-ID RX set to 00 (RX-00) }

WD6ABC Feb. 2018

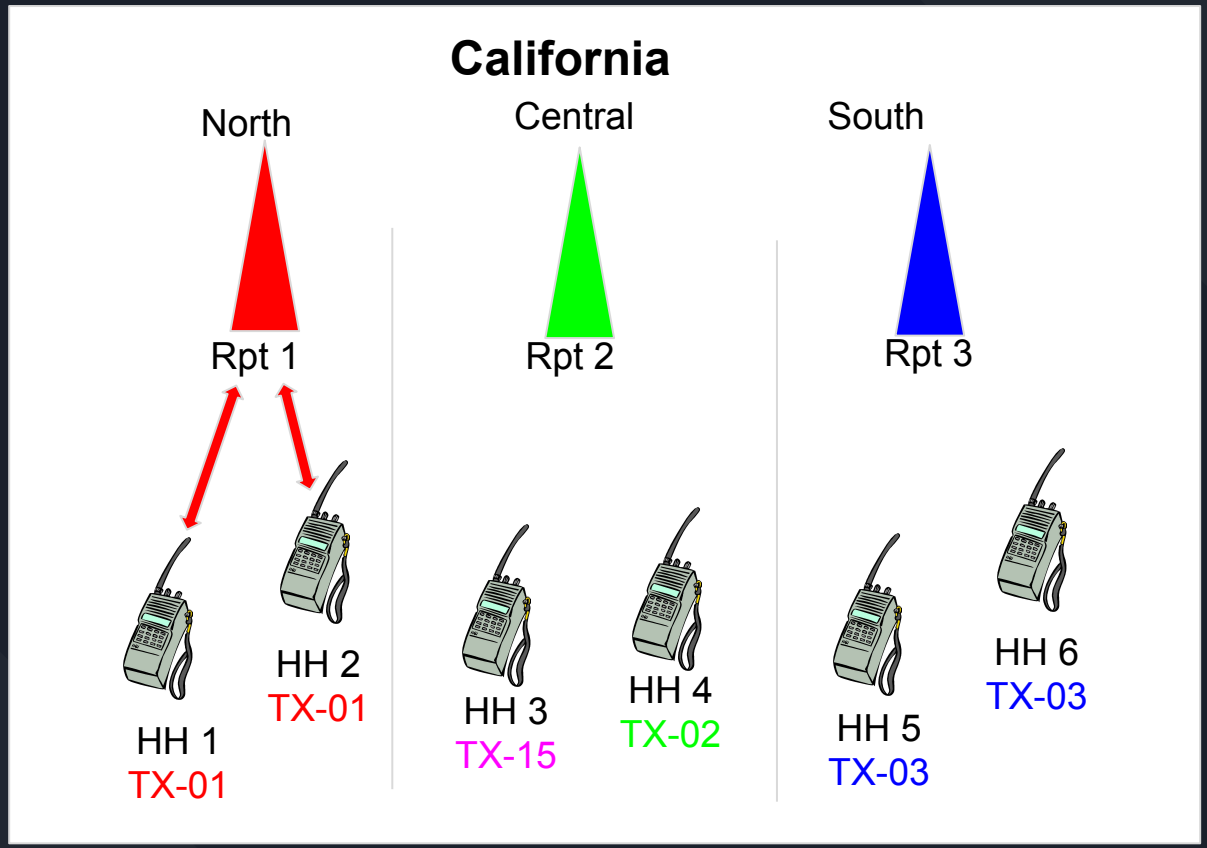
Once there is silence for 30 seconds, all 3 repeaters will transmit a Double Beep, and the Links will be broken.



{ All Handhelds have their radios DG-ID RX set to 00 (RX-00) }

WD6ABC Feb. 2018

If the Operator of HH 1 left to get coffee just before the QSO's ended and the TOT Double Beeped, he will only be talking thru Repeater 1 if he keys up to say "Where is everyone?"



{ Remember, when no TOT is running, your radio selects the route via your DG-ID TX number in your HH when you key up. }

WD6ABC Feb. 2018

Hopefully this brought light as to how the IMRS System works (as far as what we have found in testing.)
We still haven't touched on integrating the WiresX node into the mix.

Much thanks to the hams in this group that started the research and made it possible for me to get enough info from them to make this Presentation.

WA6YVX- Ed, AI5AI- DON, KG5AWL-Felix, KH6TA- Tommy
WA6NVL- Ray, AB8DT- Ron

73's
WD6ABC (WB6AJE)- John
WD6ABC@gmail.com
www.socalham.com

WD6ABC Feb. 2018