

# Radio Service Planning

CARS has a business meeting coming in a couple weeks, Thursday, Nov.14.

I want to have a repeater meeting at 5:30 or so prior to our 6:30 meeting. The CCC meets next in January. Please read through my letter and give me your comments, suggestions, ideas either by email or at the meeting.

73, Ken Sanders – AE6LA

President, Calaveras Amateur Radio Society

Fowler Peak Repeater Group – 145.170, Angels Camp

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Oct 31, 2013

Amateur Two-Way Radio Service Planning for Calaveras County

Many of you know I am a member of the Calaveras Citizen Corps. It is an

over-riding, grant writing, funding non-profit group for CERT and Red Cross

groups in our county (similar to CARS, Inc. 501.c3 standing) with that in

mind and a charge from them to make recommendations I send this letter to

stimulate discussion, plans and action for better emergency communications

here.

Desires:

- Cover county by voice repeater
- Cover county by voice repeater with auto patch
- Cover an incident with a portable repeater
- Cover an incident by simplex with HAMS and non-HAMS
- Provide HTs for CERT/RC personnel
- Provide digital network to mirror above as possible
- Provide ongoing training (Classes and VE Sessions)

Unwritten MOU on equipment ownership and control

CARS, Inc. maintains repeater equipment open to all properly

licensed

operators assuming ongoing acceptable behavior. The equipment is not all owned by CARS. For example, Barry, K3UG has furnished 2 meter transceivers for the APRS digi at both Fowler and Reba. If we stop that APRS service, the transceivers go back to Barry. I expect we will see further mixed ownership of community assets. So I expect anything furnished for a project would be returned if and when it completes. Also, if an owner wants return he provides a reasonable time to find replacement, maybe 180 days would be good.

#### Existing Operational Resources

##### Fowler Peak

- 145.170/144.570 pl 100 N6FRG voice repeater newly updated and working great. It includes a remote base and auto patch. The RB allows linking to other VHF/UHV repeater systems. The AP allows access to the switched phone system from any 2 meter transceiver. (CARS members only) The RC-210 controller here could allow adding additional features such as internet linking or an additional radio link.

- 144.390 N6FRG APRS digipeater
- 144.310 K6XCA Packet digipeater "FROG" with PBBS (XCABBS)

##### BearTop at Mt. Reba Ski Area

- 441.0375/446.0375 pl 151.4 N6FRG voice repeater
- 144.390 N6FRG APRS digipeater

##### WestPoint

- 440.100/445.100 pl 100, WS6P voice repeater at WP

## Fire#2

- 144.390 WS6P APRS IGate

## Arnold

- 144.310 AE6LA-10 WL2K Packet Radio Message Server available through "FROG"

- 144.390 AE6LA APRS IGate

## Stockton

- 144.310 K6EMS-10 WL2K Packet Radio Message Server available through "FROG"

## Deficiencies

- Many areas lack repeater and auto patch coverage
- No portable repeaters available
- HTs / mobiles needed for existing and new RC/CERT personnel
- Digital network not yet developed
- Books & resources for training

## Other Resources that could be of use

- 440 Mastr II Mobile for portable repeater & antenna (CARS)
- NHRC 4/M2 controller for above and a duplexer (AE6LA)
- RC-210 Controller with auto patch (AE6LA)
- 3 – BK UHF mobiles EMV4990A 403-470 (CCC)
- 1 – BK VHF Mobile EMH5990A 136-174 (CCC)
- 1 – BK VHF Mobile GMH5992 136-174 (CCC)
- 2 – BK VHF HTs GPH5102S 148-174 (CCC)
- Removed MastrII mobile conversion repeater (CARS)
- MastrII Deskmate intended as replacement for above (CARS)
- 2 – 6' tall 19" rolling racks (AE6LA)
- 2 – M2 900 MHz station repeaters unknown condition (AE6LA)
- 3 – M2 station power supplies unknown (AE6LA)
- 1 – M2 VHF Mobile unknown (AE6LA)
- Mike, WA6ZTY may have UHF repeater equipment

available & ready

to go

Ken's thoughts to make improvements

- CCC buy RC-210 with patch for WS6P UHF repeater at WP Fire;

use one of the BK VHF mobiles for RB allowing linking to VHF repeaters

(145.17 or others)

- CCC buy KG-UV6X HT for RC/CERT personnel not enabling them for frequencies the operator does have license or authorization for.

- CCC buy DB-750X dual band mobiles for critical mobile or base operation.

- CARS buy TKR-750 identical to the new Fowler repeater. Marry this to AE6LA's RC-210 Controller/auto patch for spare and portable VHF repeater.

- Complete installation of NHRC-4/M2 into 440 MastrII for portable UHF repeater

- See if we can add an auto patch to the BearTop NHRC-4/M2 controller. Maybe from Connect Systems and check for phone line permission from Bear Valley Ski Area.

- Pursue adding UHF repeater with RB in Arnold & Valley Springs.

I have a possible site in Arnold. There has also been discussions in VS.

Any of this needs serious commitment before moving forward.

- Let's not forget lots of cabling, antennas and power supplies

have to work into any of this. I have some of it here.

- Not forgetting digital, let's encourage NBEMS usage

both simplex  
and on our repeater. Fldigi works very nicely on my laptop  
with my TH-F6  
or UV6. VOX on the HT makes it very slick.