

Hello All,

Its been a unique time for us all and I hope you are coping well with the socialization restrictions. During this time PVARC has continued to plan, build, maintain, update and also expand its support to the Amateur Radio Community. I have included some of the projects we have been working on.

May 2020, Duplexers

I received a gracious donation of three VHF duplexers to use for supporting Amateur Radio repeaters in Ventura County. These units are all in excellent mechanical and electrical condition. The units were used in VHF commercial service and can easily be returned for Amateur Radio service as they have a tuning frequency range between 144MHz to 174MHz. Confirming they tuned them to a Amateur Repeater test repeater frequency and they perform as expected.

Average tuning results:

TX Port - <1.1db insertion loss, -71db rejection

RX Port - <1.4db insertion loss- -68db rejection

I did have to make a small repair on one cavities Johanson' tuning capacitors. I could not be happier with the duplexers performance. One of the duplexers was just put into service on a new repeater. See below.



May 2020, Rasnow Peak

I made a visit to Rasnow Peak for a little general site maintenance. While there I reset the audio levels of the Radio Over Internet (ROIP) JPS NXU link interface between the Bozo Repeater and the PVARC network. After this adjustment the interconnect is providing proper audio levels and frequency response between the systems. Occasionally there is a interconnect dropout that is related to the interference on the 5GHz link between Rasnow Peak and the Camarillo Hills.

While on site I did a VSWR check of the standalone PVARC 447.480 standalone repeater. The check was good so and I cleaned up, locked the building, came down the hill and went home. Later that night I tried the repeater and nothing. After some thought...OOPS...I forgot to turn-back-on the repeaters power supply. As soon as I can find some time I will go back to Rasnow Peak to turn on the power supply. I guess I need to add 'Check Power Supply' to my checklist before I leave a hilltop.

June 2020, Chatsworth Peak

Chatsworth Peak

This day saw two tasks completed, the site weed clearing and the acquisition of a VHF 4-Bay antenna. The two teams arrived at 8:00 am and we were off the hilltop by 11:00 pm. The day was foggy and cool, an excellent day for hilltop work

Weed clearing. The crew on the hilltop did a wonderful job of brushing clearing waking the weeds down to the dirt. Prior to the clearing it was difficult to access the hilltop building. Thank you for your time and support in this brush clearing. This days crew was Dean KD6IJJ, Nathan KN6ISM, Neil AF6CD, Frank KI6OQ, and Robert KM6RSS.



Tower/antenna work. There was a second team that removed a VHF 4 bay open dipole antenna from a 40 foot tower. This is a commercial VHF broadband antenna that is operational from 136 to 174 MHz. This antenna is less than 5 years old and is in excellent condition. I look forward to putting this into service at one of the repeater sites. Thank you to the tower team of Rob W6RH and Eric KE6MLF as the tower climbers and Keith W6KME and Roger WD6EVT as ground support. They were able to remove safely remove the antenna. The antenna removal was tried last fall but the winds came up and the project was halted.



The Chatsworth Peak UHF repeater has been experiencing an noisy RF transmitter. As it appeared that the Transmitter was the issue I installed a replacement unit. Well a day later the noise reappeared. More research and discussion with other repeater owners I think I have a corrective action. The radios I use for the repeaters use a Mini-UHF connector. Apparently these can arc and cause a burn mark in the connectors. Having only changed out the transmitters I never thought to look at the Male Mini-UHF connector used on the RG141 coax going to the transmitter. OK this makes sense, apparently I was never curing the problem. Next trip to the hilltop I will replace the jumper/connector going to the transmitter. While there I will inspect all connectors to make sure they have not been compromised. Just when you think you have everything figured out.

June 2020, Sulphur Mth

The UHF repeater transmitter replaced as it was not generating a Reverse Burst with the PL tone. OK what is reverse burst? Just prior to the transmitter turning off the radios PL generator does a phase shift of the sine wave. The user receivers PL decoder will turn off sharply not hear any squelch burst when the repeater drops.

The HF remote station was reinstalled and again failed. I am trying to schedule a return trip to Sulphur see what can be done. Hopefully I can repair it on site.

The site backup batteries were checked and topped off with distilled water.

June 2020, Camarillo Hills

A weed clearing was performed at the entire property of the Camarillo Hills repeater site. While he was clearing the majority of his property he also did a second round of weed clearing around the repeater building. I followed up with a vegetation killer to try to keep the weeds in check.

I am looking to clean and paint the building in the fall. The building is holding up well but does need to be painted.

June 2020, Santa Paula

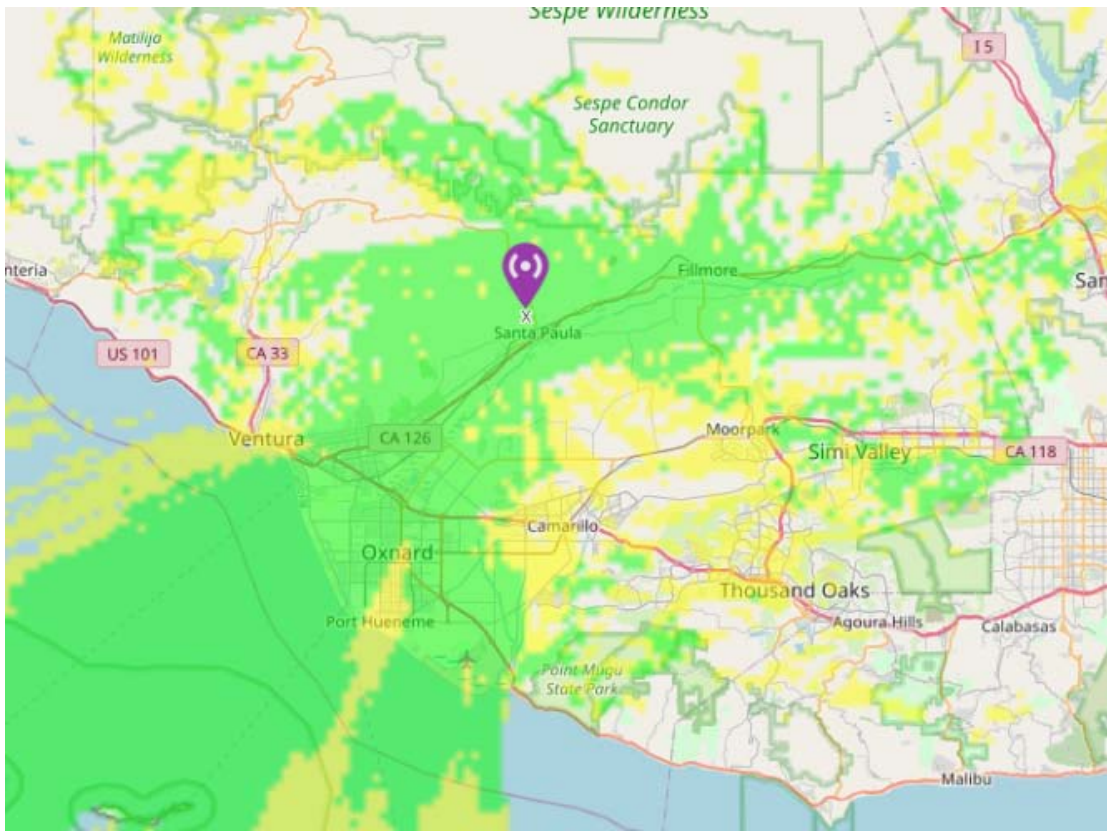
On Friday June 26, 2020 a new repeater was installed in Santa Paula.

WD6EBY SP CW ID
145.420MHz PL 127.3Hz Repeater Output
144.820MHz PL 127.3Hz Repeater Input

Due to controller availability, this is a temporary RF package and the repeater is currently operating as a standalone system. In time the system will be linked to the PVARC network and will have the ability to be un-linked as required. Shortly a Site UPS will be installed with a Generator coming on line in the fall.

After lunch I did a bit of coverage testing, within the Santa Paula area I could not find any area that my portable could not work the repeater. Next I did some driving coverage checks. My setup for this test is a 5watt commercial hand held radio connected to a mag-mount dual band antenna on the roof of my vehicle. Coverage East on HWY126 was great along the road into and through Fillmore. Into and through Piru and still providing good coverage. I passed the LA County line on the 126 and coverage was still good. After a couple of miles into LA County I turned around, not because the coverage ran out but I did not want to go to Interstate 5. Now heading West I had good coverage through Saticoy, across the Santa Clara River Bridge, past Rio Mesa High School, and into the Costco gas station. Back on the 101 heading home coverage was great until just past Central Avenue where the repeater went away. I was really impressed with the coverage I was seeing using a 5watt portable with a mag-mount antenna. As always, your performance may vary.

I want to thank Rich W7KI and Grant KG6SFW for their help today. Their work made for an easy installation.
Thank You.



May/June 2020, Antenna's

PVARC received a donation of two additional antennas. These are VHF 2 bay open dipole antennas. Just as the VHF antenna from Chatsworth Peak these are 136 to 174 MHz antennas and are in excellent condition and will provide excellent performance in the 2Mtr Amateur band.



Network News

All network nodes owned and managed by the Pleasant Valley ARC in Ventura County and the San Fernando Valley have been renamed to use the K6PVR club callsign.

We continue to have equipment failures impacting the network. Most of them have been failures of Ubiquiti EdgeSwitch network switches. In contrast, the Netonix switches we've deployed in Ventura County have been quite reliable. Another Netonix switch has been purchased and will replace a recently failed network switch on Verdugo Peak. That repair is tentatively scheduled for July 10th, and when completed will re-link Ventura and L.A. counties.

Another EdgeSwitch has failed on Mt. Wilson further dividing the network, but we don't manage that so it's not known how that repair will be effected.

Just prior to the Verdugo Peak switch going down, a VOIP PBX was placed at that site to provide service to phones in ham shacks in the San Fernando Valley. When the link is repaired, roll-out of phone services in the Valley will resume. At some point in the future the Sulphur Mountain PBX and the Valley PBX will be trunked together.

We're working on a possibility of improving network coverage in the Conejo Valley, and also possibly improving the microwave link from SimiEast (AKA Chatsworth Peak) to South Mountain (the "weakest link" :-). As part of that last project network coverage will be enhanced in the northwest corner of Simi Valley

We also hope to extend the 'forced route' mesh network configuration east to Verdugo Peak, and perhaps north to Magic Mountain and farther east to Mount Wilson.

Thank you all for your time. If you have any questions do not hesitate to ask.

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