### Pleasant Valley Amateur Radio Club Update March 20, 2021

Hello All,

This week saw several cleanup projects completed.

### **South Mountain**

On Wednesday March 17 Eric KG6WXC and I traveled to South Mountain to perform a couple of cleanup tasks from the system installation of March 6.

The 420 MHz link to Chatsworth Peak is now operational. After a bit of trouble shooting I discovered that when I reinstalled the equipment in the rack on the hilltop I reversed the RF connections between the duplexer and the link radios. The link transmitter is supposed to connect to the duplexer transmit port. Lesson learned! With this link now performing properly the Chatsworth Peak 145.24 repeater is again linked to the repeater system. The Chatsworth Peak 445.840 is still plagued with noise.

The new 147.060 repeater antenna remains an issue. We tested many on-site antennas but did not find a suitable temporary antenna. A trip will have to be scheduled with Rob W6RH to investigate and correct the antenna issue. I suspect a bad RG-214 jumper from the LDF4-50 feed line to the antenna.

The new 447.48 repeater PL change was successful and is now using a PL tone of 156.7 Hz. The repeater also encodes a 156.7 Hz PL. The repeater is performing very well.

Eric made a short trip up the tower and was able to discover the RJ-45 connector had fallen out of the 5 GHz dish antenna pointed to the Camarillo Hills. When I prepared the CAT 6 cable I neglected to properly prep the antennas RJ-45 connector. The locking tab on many RG-45 connectors will not lock in properly unless you gently pull the lock tab away from the connector body first. Once this locking tab was pulled into position it locked in properly to the tower mounted 5 GHz dish. I am now working to establish a usable RF frequency.

This site has a backup generator. This summer we are looking to install a battery bank to keep the system operational during transfers between Edison and Generator power.

I want to thank Eric KG6WXC for his help today and for driving us to the hilltop.

# Sulphur Mtn

On Friday March 19 Dick K6VGP, Mike K6MJU, Mike's son Theo and I traveled to Sulphur Mountain to finalize the system updates.

When the PVARC system reconfiguration project started I removed the 420 MHz links to Camarillo, Chatsworth Peak and Santa Ynez Peak for reuse with the South Mountain system. With this now abundant space in the equipment rack we set out to physically reorganize the repeaters and South Mountain link. Many hours of work resulted in a new repeater layout.

Mountaintop time being a premium, we achieved the goal of reintegrating the system to the rest of the repeater systems. In the aftermath this reintegration there are a lot of unused cables left in the rack from the removal of the relocated link radio trays and duplexers. On the next site visit I will remove these unused cables and properly route and bundle the remaining cabling.



With the 420 MHz link to the new South Mountain repeater installed and operational, the Sulphur Mountain 145.200 and 445.560 repeaters are again linked to Camarillo Hills, Chatsworth Peak and to the new South Mountain Repeaters.



I am looking forward to Santa Ynez Peak and Rasno Peak becoming fully integrated by summers end.

Thank you to Dick K6VGP Mike K6MJU and Theo for your help today.

Sulphur Mtn being again fully integrated to the system marks the completion of the principal Ventura County Systems upgrades. Thank you to the operators and nets for accommodating the system interruptions during the reconfiguration.

### South Mtn revisit

While the team was at Sulphur Mountain we heard the familiar squeals of a failing transmitter coming from the South Mountain UHF repeater transmitter. So when Sulphur Mountain was completed the team made a trip to the South Mountain repeater site to deal with the transmitter issue. I have had this issue before on the Motorola CDM radios and Mike also with the DARN system. In discussion with Mike I learned that this issue is with the 45 watt radios but not the 30 watt radios. So how do you replace a noisy transmitter at a repeater site when you did not bring a spare unit? My repeaters and Links use the same Motorola CDM radios for transmitters and receivers. We just swapped the 45 watt TX radio with the 30 watt RX radio, reprogrammed the radios and put the system back on the air with a clean transmitter.

This was a very long day and also a very rewarding day for all. Thank you again Mike, Dick and Theo.

# Santa Ynez Peak

Another system rebuild underway is the 145.16 Santa Ynez Peak repeater. Last week Bill W1UUQ delivered the parts to be integrated. The principal system rebuild is to bring operational compatibility with the PVARC repeaters systems. When completed and reinstalled the system package will be a Motorola Quantar VHF repeater, a new repeater controller, new 420 MHz links to PVARC and a future northbound 420 MHz link. The JPS NXU Radio Over IP internet link to PVARC will remain as a backup link



We are looking to having the 145.16 rebuild and headed back to the hilltop sometime in early May.

The Santa Ynez Peak repeater and the PVARC repeaters are two of the three parts of a ARRL Santa Barbara Section linked repeater system. Bill and I have been working towards this tri-county system for many years now and look forward to a future San Luis Obispo County linked system coming online.

I want to thank all who have volunteered their time and to those who have helped financially.

Please contact me if you have any questions or concerns. Thank you all for your time

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