Steve Garaventa, Hero of the Hall of Communications*

Making Progress in Communications

Volunteer Steve Garaventa has effected a VHF/UHF discone antenna placement atop the Radio Central building.

This took a lot of hard work and subtle configuration. Two existing television antennas had to be taken into account.† Moreover, all three antennas needed a bigger,

* Along with John Staples, Raj, Denny and Jon Winchell!

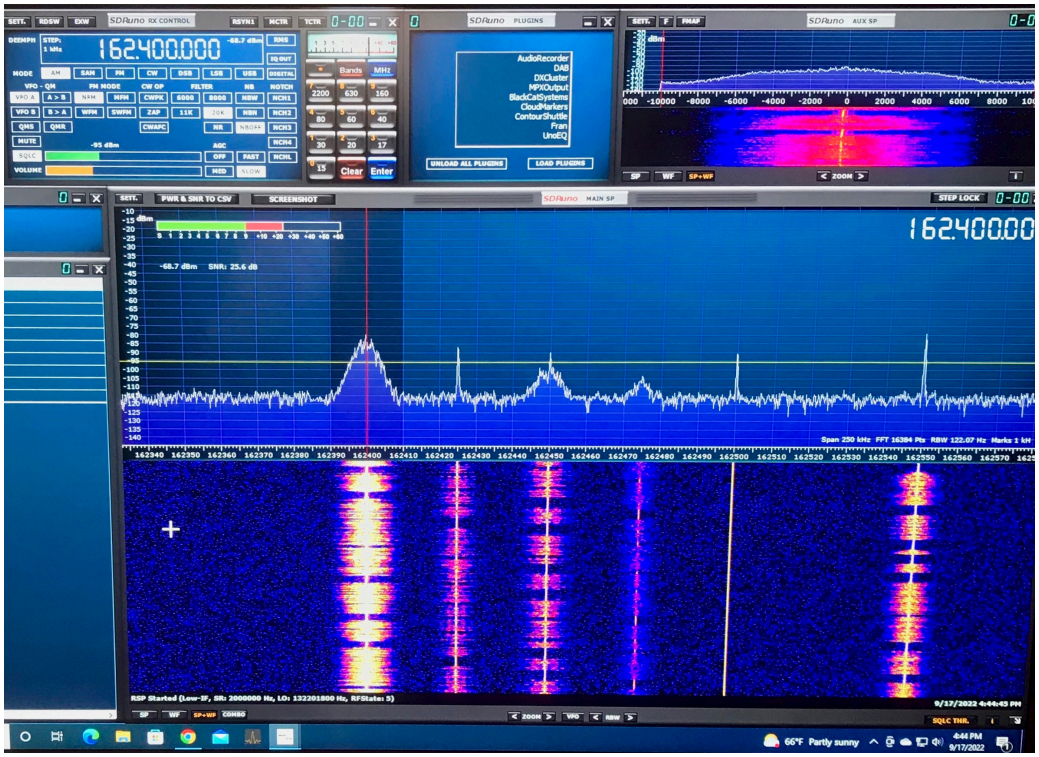
† They both still work fine for TV, according to Gilles.

stronger pole (it can get windy up there). And then he ran the ~LMR ~400 coax cable down. He faced a challenge because that coax is so stiff (but very low loss).

A discone antenna offers wideband receive capability. And although designed for VHF and UHF (up to several gigahertz), it works well even as a VLF antenna. John Staples, W6BM, managed to get the US Navy Jim Creek transmitter on 24.8 KHz. At that frequency, the antenna is a capacity probe, but it works.

The Hall of Communications is now going to known henceforth as the CHRS Communications Central.‡ Steve Kushman figured that out – it ain't about broadcasting so what is it about? Marine, Aviation, Public Service (Police and Fire), Military and Naval, and public communications such as Citizens Band, GMRS, etc. — so "Communications Central"! Thank you, Steve Kushman!

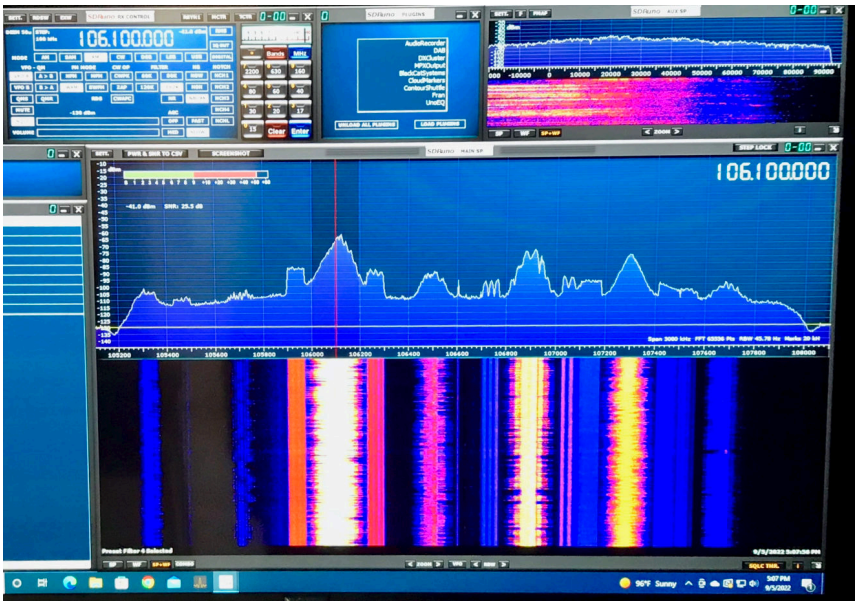
The SDR now has the discone antenna to feed it. This is the SDR visual of the local NOAA weather stations around 162.4 MHz.



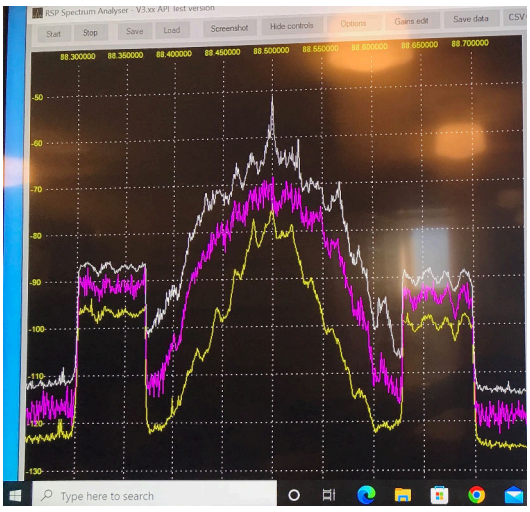
The combination also receives and displays Coast Guard signals around 156+ MHz, aviation transmissions, and also amateur communications on two meters (144+

‡ Generously funded principally by CHRS member Jon Winchell.

MHz) and 70 centimeters (442+ MHz). Needless to say, it works great on the high power local FM and AM stations. This image is KCBS-FM at 106.1 KHz – note the digital sidebands:



The SDR also provides powerful analytic tools. Here is an image from its Spectrum Analyzer. It shows peak, average and lowest levels of the signal, in this case KQED-FM on 88.5 MHz.



The Software Defined Radio (SDR) comes from the SDRplay company. Specifically, this one has two receivers:

The discone antenna is known as the Harvest D-130-N. It is available from Walmart, E-bay and Amazon.

The new antenna and the SDR will now enable Communications Central to provide visuals and spectrum displays for all of the (we hope) operational vintage receivers, going back to The Marconi Company. It will also provide tuning targets for these receivers, including shortwave broadcast stations.

(An operational note for Communications Central by Bart Lee, K6VK, Manager thereof, 21 IX 22 — de K6VK) ##