Communications Center Report, CHRS December 2022

By Bart Lee, K6VK, Manager

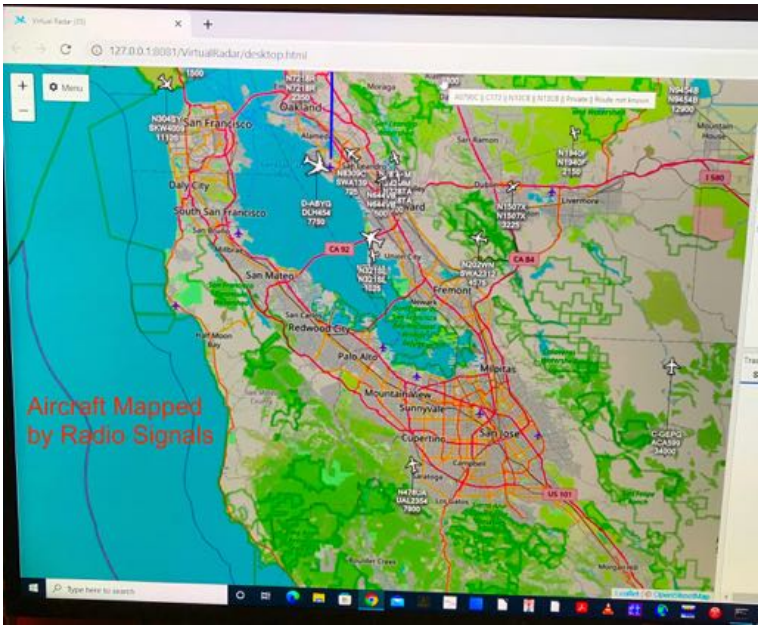
THE JON WINCHELL COMMUNICATIONS CENTER at Radio Central, Alameda, is shaping up, thanks to efforts of several volunteers. Across the hall sits an ***original*** 1942 US Navy WAVES recruiting poster by John Falter, showing an intense young woman operating a radio-telegraph key. CHRS volunteer **David Dea** framed this big poster for us – thank you David!

In the Center, we now have aggregated quite a collection of vintage radios used for communications and not broadcasting. The main groups are Marine, Aviation, Military and Civilian Utility (*e.g.*, Citizens' Band). A large Danish marine radio transceiver ("Sailor" *circa* 1968, ex-Greenpeace) fronts the left side and a large Army Air Corps World War Two aviation liaison transmitter (BC-375) fronts the right side, like pillars to a temple… Many radios of the World War One era sit against the wall opposite the conference table.

Jon Winchell, long a CHRS radio enthusiast, has largely funded the Communications Center by generous annual donations. The Board of Directors has named it: The Jon Winchell Communications Center.

Jon and Certificate

At this stage, the Star of the Show is the display of Software Defined Radios (SDR) on a big monitor. This permits visitors to see communications radio traffic as well as hear it. And now map it as well, thanks to **Raj** aka "V S Rajesh (Raj)." Raj, our software Guru, can now display maps of aircraft, marine vessels, and decode the mobile amateur radio Automatic Packet Radio System.



Capturing the signals of today's working radio services, whether fed to SDRs or vintage or modern radios, requires at least an antenna. Steve Garaventa set up a discone up on the roof.

Although the discone is primarily a VHF + omni-directional antenna, it also served to bring in at least two VLF stations in the 20 KHz range – as a capacity probe. A new loop antenna in the back is in process, and perhaps others as well. But for the time being, the discone performs very well.

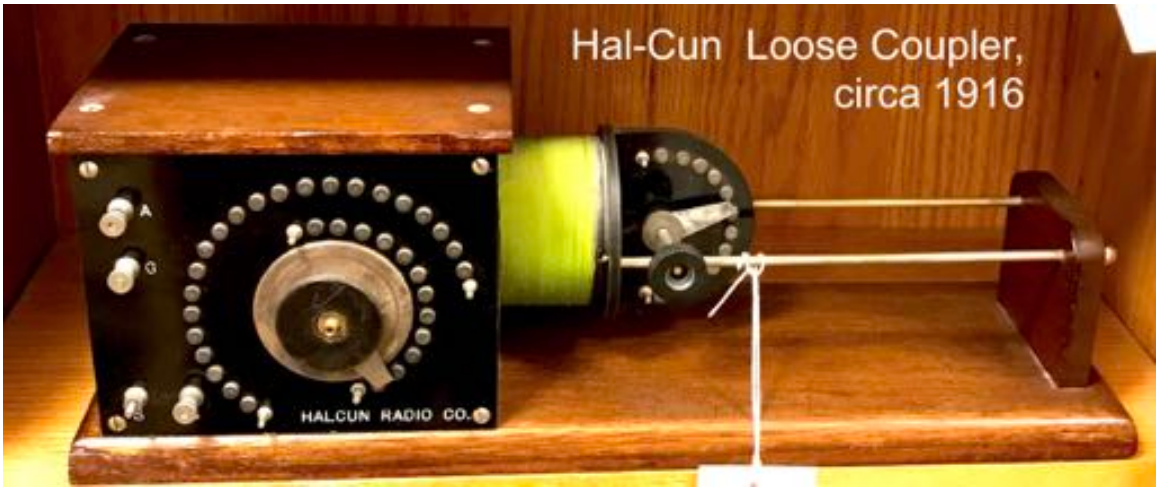
John Staples and **Steve Garaventa** mastered the early challenges of getting the Center operational.

So now we have Internet as well as radio signals. The SDRs play on a small computer (and a duplicate) connected to the large monitor. But we had to have working desks first, and **Steve Kushman** solved that problem.

Steve Kushman at work.

The hardware on display ranges from before World War One (spark systems) to the present era (cellular radio-telephones).

(Donated by **Craig Pitcher**, W6ADV)



(This apparatus comes from the San Francisco Haller-Cunningham Company, before World War One. They advertised primarily to marine customers. Elmer Cunningham founded Remler and later joined RCA.)

World War One era equipment includes the famous IP-501 receiver and the Army Air Services transceiver, CW-536A.

IP-501 and Regenerative Adjunct. WW-I

After World War One, both marine and aviation radio came to the fore. We have, for example, a Dollar Steam Ship Line (San Francisco) receiver made by noted (and local) radio engineers Heintz & Kaufman.

One of the classic marine radios is the Marconi (of Canada) regenerative low frequency receiver, a gift from the Quebec museum via **Gilles Vrignaud**.

From **Hal Layer,** CHRS, we inherited a considerable amount of Kaar radio equipment. John Kaar started out at Remler as a young man, and then built a significant radio business in Palo Alto.

In the 1930s, commercial aviation began in earnest. RCA made radios for aircraft. We acquired this 1930s set (with vibrator power supply) at Pacificon a couple of years ago.

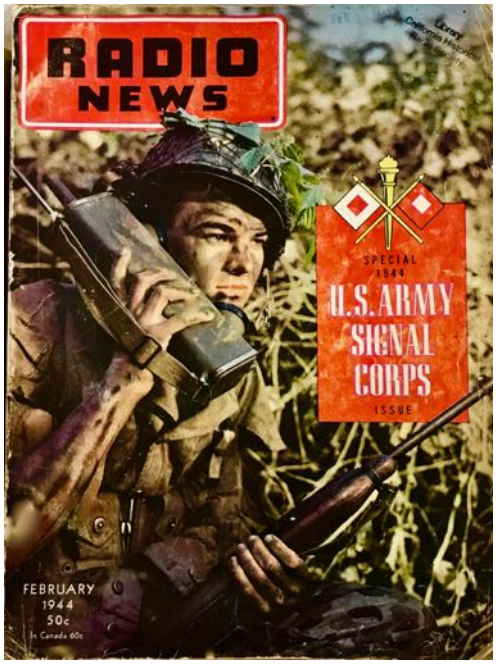
We also have had donated the primary elements of Amelia Earhart's radio direction finding system.

(She used the predecessors of this wartime Bendix system.)

Many of the iconic radios of the past date from World War Two. We have aircraft ARC-5 Command sets and Liaison sets, and more.

This Navy RBT-2 RADAR surveillance receiver derived from the National 1-10 receiver of 1936 – with the then new acorn tubes. That's ten meters, 30 MHz up to one meter, 300 MHz.

The military and naval collection ranges up through the Vietnam War. It includes the iconic BC-611 "Handy-Talkie"

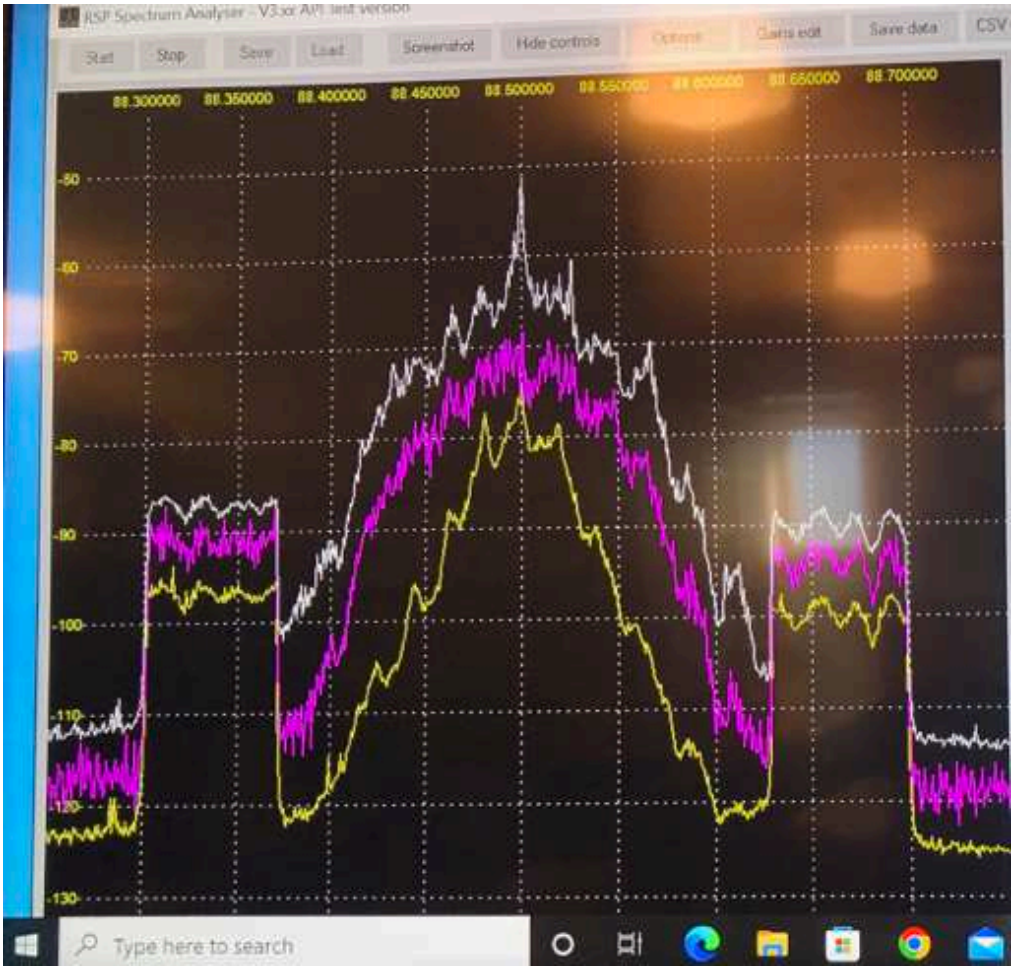


After World War Two came prosperity and innovation. The FCC decided that Americans should be able to use radio communications, widely, for personal and business purposes. As early as 1936, Five-meter (50 MHz) business portable radios, by Frank Jones, had been used in the construction of the San Francisco Bay Bridge. Hams were not making much of their Eleven-meter band (26 MHz). Hams favored of Ten meters, an international allocation. So the FCC created Class D Citizens Band Radio at 26 MHz and 27 Mhz. "CB" became almost as big a fad as broadcast radio in the 1920s. At first the FCC tried to manage it, but soon gave up: to many radio anarchists to police.

We have an extensive collection of CB radios, most of them working.

These have been some of the highlights of the radios of the Jon Winchell Communications Center. The goal is to display and use working vintage *and* modern communications radios, from VLF to SHF. Signage and interpretive materials are in the works. We are using colored labels for the various sections, *e.g.*, red for military, green for marine and blue for aviation. **Scott Robinson** has donated a first-class audio system.

Our large screen monitor can display, not only the SDRs, but also any radio-related video, as well as technical analyses.



A FM signal (KQED) with digital sidebands

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