

The

Call Letter

November 2016

Vol 42, #12



**Bill Meloy
100th Birthday**

The Northwest Vintage Radio Society

Post Office Box 82379
Portland, Oregon 97282-0379

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage Radio" and wireless equipment.

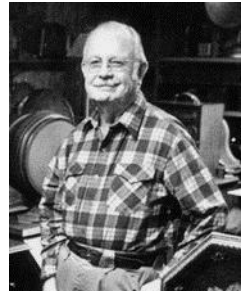
Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$25.00 for domestic membership, due on January 1st of each year (prorated quarterly).

The Call Letter has been a monthly publication since 1974. It was originated with the founder, Bob Bilbie, and our first president, Harley Perkins. Through several editors and with the assistance of numerous society members, the Call Letter has continued to be a publication that informs members of the society's business and that supports the hobby of collecting, preserving, and restoring vintage radios.

Society meetings are held the second Saturday of each month at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 9:30 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all Society meetings and functions (except board meetings).

Other Society functions include guest speakers, auctions, radio shows, and radio sales which are advertised in the Call Letter and are held in and around Portland.

With each issue of the Call Letter, we remember Jim Mason, a charter member of the society who remained active until his death in 1999. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the Call Letter.



Society Officers for 2016:

President	Mike McCrow (503)730-4639	tranny53@frontier.com
Vice-president	Brian Toon (503) 266-5527	
Treasurer	Ed Tompkins (360) 573-3895	edtomp@Q.com
Recording Sec'y	Liles Garcia (503) 649-9288	landn2@frontier.com
Corresponding Sec'y	Pat Kagi (503) 694-6149	kagi.pat@con-way.com
Board member at large	Mark Moore (503) 286-5224	mark@pdxhistory.com
Librarian	Damon Vandehey (503) 459-1777	
Editor	Don Hanson	vanguard4@lycos.com

On the Cover

Bill Meloy -

100th Birthday Party – Photography by Blake Dietze

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Announcements

Our December meeting will be on Dec. 10 and starts at 9:30 AM

December Meeting

Short meeting at 9:30 followed by Our December Christmas party

Editor’s Note

Please have Call Letter Contributions in by **Dec. 30**

We need a volunteer to take notes on monthly feature items

Visit our web site at:

www.nwvrs.com

Find us on Facebook:

www.facebook.com/nwvrs

A Letter from the President

By Mike McCrow

Hi everyone - I hope you all had a pleasant Thanksgiving. Our December Christmas party is coming. Just to remind everyone this is a pot luck. We will have a short meeting at 9:30, however I recommend getting there early enough to have the food ready to serve by 10:00. That's when the fun begins. Dick Karmen will be there with the entertainment, and we will have our usual ticket raffle. This event is always a hit since it gives us a chance to relax and visit with each other. Also very good food. See you there!

Last month we had a chance to all celebrate Bill Meloy's 100th Birthday. We had Birthday cake and celebrated by having a group picture with Bill. Thanks to Yvonne for bringing the cake. We gave bill a gift card, and Liles brought birthday cards for everyone to sign. Happy Birthday Bill! -- Mike

Meeting Minutes -- November 12, 2016

By Liles Garcia

President Mike McCrow called the meeting to order at 9:30 AM. Before the meeting started, members sang "Happy Birthday" to fellow member Bill Meloy. He will be 100 years old in a few days. Everyone had cake with their coffee this morning. Many thanks to Bill for celebrating his birthday with all of us!! Mike asked all veterans to stand up and be recognized. Members pledged allegiance to our flag. Bob McGowan and Warren and Kathy Karmal attended today as guests. Welcome to our guests!! There were 48 people at our meeting today.

Liles will create a list of deceased members and a list of past Society presidents.

The group nominated officers for 2017. Nominees are Pat Kagi for President, Brian Wegener for Vice President, and Mark Moore for Corresponding Secretary. Liles Garcia and Ed Tompkins agreed to continue in their respective offices. We still need someone to be our Archivist and our Librarian.

The Program Topic for January will be "Future Radio Restoration Projects".

The minutes of the October meeting were approved as printed in the November Call Letter. Ed Tompkins gave the Treasurer's report. New Society Rosters are printed and are available.

Ed volunteered to restore a Philco Model 38-89 console radio for the B17 Bomber Display in Salem. The OTAP (Oregon Trail Antique Phonograph Club) group will join our Swap Meet this spring.

The Program Topic for today is "Radios with Ingraham Cabinets". Members showed and discussed the radios that they brought. Damon Vandehey gave a talk on Vacuum Tubes. Members gave Damon a round of applause for his interesting talk. The meeting was adjourned.

Recorded by Liles Garcia, Secretary

Calendar of Events

February 18. Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, OR at the Polk County Fairgrounds. *This is an ARRL sanctioned event.* <http://www.w7sra.com> .

March 11. Mike & Key 35th Electronics Show & Fleamarket. *This is an ARRL sanctioned event.* Puyallup fairgrounds exhibition hall, Puyallup, WA. <http://www.mikeandkey.org/flea.htm> [Flyer in PDF](#). (1MB)

March 18. Microhams Digital Conference, Redmond, WA. *This is an ARRL sanctioned event.* <http://www.microhams.com/mhdc/>

April 8. Richmond Amateur Radio Club Swap Meet. Vancouver, BC. http://rac.eton.ca/events/detail.php?event_ID=1822

April 8. Yakima Hamfest. Yakima, Washington. Selah Civic Center, 216 South 1st Street, Selah, WA. <http://yakimaamateurradioclub.com/yakima-hamfest/>

April 21. Idaho State Convention. Boise, ID. *This is an ARRL sanctioned event.* <http://voiceofidaho.org/> Contact: Larry Bickham, WA7ZZS. (208)453-1666, wa7zzs@arrl.net

April 22 & 23. Communications Academy. South Seattle Community College, Seattle, WA. <http://commacademy.org/>

May 7. Maple Ridge Swap meet. Pitt Meadows, BC. http://rac.eton.ca/events/detail.php?event_ID=1843

May 13. Stanwood Camano Amateur Radio Club Hamfest, Stanwood Middle School, Stanwood, WA. Contact: Fred Laun, w7pig@arrl.net <http://www.scarcwa.org/>

May 15 - 18. Washington State Search and Rescue Conference. Ferry County Fairgrounds, Republic, WA. <http://www.wasarcon.org/>

May 19-21. River Radio Campout 2017. Pateros WA. Free "dry" camping along the Methow River at Pateros. Always the weekend prior to Memorial Day Weekend. Contact Roger W7CH w7ch@arrl.net (509)687-3919. <http://lakechelanradioclub.webs.com/>

Monthly Feature: Radios with Ingraham Cabinets

Photography by Sonny Clutter and Blake Dietze



Ray Holland



Pat Kagi - GE L-113



Brian Wegener - Emerson BI-214



Mike McCrow - Emerson C-J217



Mike McCrow - Emerson CR-262

Alan Shaddock

Emerson AW-30
Drop Front



Sonny Clutter - Emerson CH-256



Ed Tompkins - Emerson Two-Band



Ed Tompkins - Emerson



Ed Tompkins - Emerson CV-295

More Hallock and Watson, 1923

By Art Redman

(Partially reprinted from last issue with picture of a Northwestern SR-25 from Hallock and Watson ad in the December 1923 issue of Radio Magazine, p. 79)

The firm owned by Joseph Hallock and Clifton Watson began as a radio parts outlet. Hallock and Watson became the “exclusive distributors” and “cooperating in design work” for the Northwestern Radio Manufacturing Company advertising in the April issue of *Radio* magazine. Northwestern owned by Charley Austin already advertised in Radio magazine in January thru March 1922 for the models SR-1 and SR-2 but left marketing to *Halowat* in April. The two Northwestern units SR-1 and SR-2 were combined as a non-regenerative set or parts for the assembly of the two combined models becoming the SR-22 giving the impression that they are Halowats instead of three separate Northwestern Models.

Introducing the “SR 25”



WE INVITE YOUR ENQUIRIES

Hallock and Watson Radio Service

192 Park Street “KGG” Portland, Ore.

The Radios that Started and Ended World War II in the Pacific

An examination of the radios used during the attack on Pearl Harbor and the bombing of Hiroshima.

Hiroki Kato, AH6CY

One of the most iconic radio messages transmitted in modern history is “Tora, tora, tora,” sent from a Japanese bomber in the Hawaiian skies to the waiting aircraft carrier in the northern Pacific on the morning of December 7, 1941. It signaled the successful surprise attack on the American Pacific fleet in Pearl Harbor. President Roosevelt declared war against the Empire of Japan the following day.

On the morning of August 6, 1945, the *Enola Gay*, a B-29 bomber, transmitted a message from the skies over Hiroshima to the American base in Tinian in the south Pacific, announcing the successful dropping of the world’s first atomic bomb. Nine days later Japan surrendered, ending World War II.

I was born in Hiroshima a month after the Pearl Harbor attack. I was three and half years old and lived with my family 20 miles from ground zero on that day in 1945. Twelve years later I entered high school. The school building, located less than 2 miles from where the bomb was dropped, had been rebuilt. I got my first ham license in the same year, and moved to the US after college in 1966. For all these years, I have wondered about the radios used in those two historic missions.

American Military Surplus

I began my search for those radios in earnest in 2000, when I retired. Finding information on wartime American radio equipment and acquiring radios of the same models that were aboard the *Enola Gay* turned out to be relatively easy. Information on US military radios manufac-

tured during World War II has long been declassified, including schematics, manuals, and repair instructions. The *Enola Gay* itself was fully restored, including the original radios, and is on permanent display in the Smithsonian National Air and Space Museum’s Steven F. Udvar-Hazy Center in Virginia (see Figure 1).¹

Moreover, most of the military radios that were used in battlefields and in the air and then repatriated to US soil after the war’s end (as well as those still stored in warehouses) were sold in the postwar open market as military surplus. Many American hams from the late 1940s through the

1960s got their start by acquiring inexpensive surplus gear and converting it for use on the ham bands. The advent of the online market in the 1990s also made it easy to acquire radios from that era. Even today, over 70 years after the war ended, there is still an active market for World War II surplus American military radios.

Rare Japanese Radios

Researching and searching for Japanese military radios of the same era turned out to be a much more trying proposition. General Douglas MacArthur’s Allied Forces occupation in Japan, as well as the Japanese government, were slow and reluctant in declassifying the wartime information. Also, under MacArthur’s orders, all Japanese war materials — including any communication equipment and their associated manuals and schematics — were destroyed in the postwar occupation period, with the exception of a small number of radios permitted for use by police and government agencies to augment the landline telephone system, which had been heavily damaged by US bombings during the war. Thus, the Japanese military radios that survived and that can be seen today are those small exceptions — those captured in the battleground and studied by the American military, or brought back by American GIs as souvenirs. There was a US government program that encouraged GIs to rip off and bring home or mail in the labels or plates attached to any captured radios, for intelligence-gathering purposes. The plates often listed model names, serial numbers, manufacturers, and



Figure 1 — The author and the *Enola Gay*.

locations and years of manufacture.

There are only two sizable World War II Japanese military radio collections in Japan that I am aware of, both of which are in private museums and their collections are not very extensive, by usual museum standards.² Quite unexpectedly, in 2012, I found and was able to acquire a transmitter that was the same as that on board the command aircraft (a three-seater bomber) that attacked Pearl Harbor and transmitted the "Tora, tora, tora" message. I was not able to find out how exactly this particular transmitter ended up in someone's garage in California. The only thing the owner — who sold it to me over the phone — knew was that it was a Japanese military radio, and he had acquired it from a Silent Key many years before. I learned about the model name, manufacturing year, and so on only after I brought it home.

The "Tora, Tora, Tora" Transmitter

The transmitter on board the three-seater Japanese bomber was Model 96 "Ku" Mark 3 Version 2 (see Figure 2) and was manufactured by Nippon Denki Co. The specs are as follows:

Range: 1300 km (800 miles)

Frequencies: 300 – 500 kHz;

5000 – 10,000 kHz

Mode: CW only

Power: 150 W

Frequency Control: Crystal and VFO

Final Power Tube: UV816D

The transmitter-receiver pair on board was designed for air-to-air, air-to-ground, and air-to-ship application. There is no record that these radios were ever used on the ground. The transmitter was powered by a dynamotor to supply high plate voltage from the aircraft's 12 V dc supply, the standard voltage for Japanese military aircrafts at the time. This particular model, manufactured in 1941, is a revised model of the transmitter originally produced in 1936 (see Figure 3). The original model did not have the LF band.

The Enola Gay Transmitter

In general, the radios used in the American



Figure 2 — A front view of the Model 96 "Ku".

military were superior in performance and features to those used by the Japanese military in World War II. In fact, some of the radios manufactured for the Japanese military were copies of American radios, such as National receivers.

The transmitter on board the *Enola Gay*, model ART-13 (see Figure 4), was designed in 1940, manufactured by Collins, and had the following specs:

Range: 1500 miles

Frequencies: 2000 kHz – 18,100 kHz (LF band module option)

Modes: CW, Modulated CW, AM

Power: 100 W

Frequency Control: VFO (Crystal control unit option)

Final Power Tube: 813

The ART-13 was paired with the BC-348 receiver and was powered by a dynamotor to supply the high plate voltage from the aircraft's 28 V dc source, the typical voltage used in American aircraft. The transmitter has 10 frequency pre-programmable VFOs, which are extremely stable. No other transmitters of the era had this feature.

Radio Messages from Pearl Harbor

Hundreds of popular Hollywood movies, books, and articles about Pearl Harbor depict a scene where Commander Michio Fuchida broke radio silence by yelling "Tora, tora, tora" into his microphone to commence the attack. This narrative, however, is not historically accurate. Hams

would immediately know from the specs above that the radio was not capable of transmitting voice messages using the AM or SSB mode, but only codes in CW. What really happened, radio-wise, is this: at 7:49 AM on December 7, 1941, Fuchida ordered his radioman, Norinobu Mizuki, to send in the Japanese Morse code, "To, to, to" (pronounced "toh, toh, toh") — the signal to begin the attack. Four minutes later, at 7:53 AM, he ordered Mizuki to send "Tora, tora, tora," the coded message indicating to the waiting flagship *Akagi* 320 miles away that the surprise attack was successful.

The Japanese Morse code is not an alphabetic code system in the sense that each code represents a vowel or consonant sound as in English, but is, technically speaking, a syllabogram system. Thus, "to" (written in a single Japanese kana symbol と) represents one syllable and has its own code ".....", and "tora, tora, tora" (とら, とら, とら) is sent in six Japanese CW codes: ".....".

Code Sent from Hiroshima

Like the Pearl Harbor attack, the Hiroshima bombing has been the subject of hundreds of movies, books, and articles, often repeating the same inaccuracies for the sake of dramatization. One common image is that of the *Enola Gay* sending a message immediately after the bombing: "Mission successful, we are coming home." It is widely believed that this message was sent to the waiting team in Washington, and then relayed to President Truman in Potsdam, Germany, where he had been meeting with Stalin and Churchill to discuss postwar arrangements.

What really happened was considerably more complex and nuanced. The B-29 bomber was normally equipped with one ART-13 long-distance "liaison" transmitter, designed to communicate up to 1500 miles. But the *Enola Gay* was outfitted with two ART-13s for this particular mission. One was used to transmit a steady Modulated CW tone when the final bomb run began. When the tone ceased, it meant that the bomb was released. That occurred at 8:15 AM, August 6, 1945 Japan time — 45 seconds after the bomb run had begun.

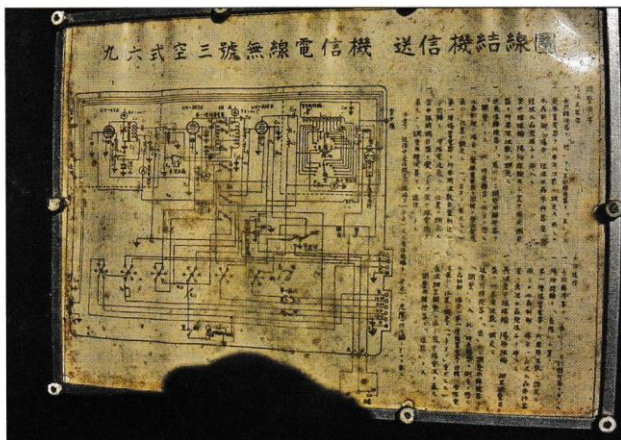


Figure 3 — The Model 96 schematic.



Figure 4 — Top view of the ART-13.

The first message — after the successful bombing was ascertained by the crew on board — was transmitted 14 minutes later to the Tinian base in CW, by the radioman, Richard Nelson, by order of Captain William S. Parsons, the atomic bomb expert specially assigned to this mission

by the Manhattan Project. The only crew members on board the *Enola Gay* who had known the true and entire nature of the mission all along were Parsons and Captain Paul Tibbets. The transmitted message was directed to Brigadier General Thomas F. Farrell, waiting in Tinian. Farrell was a

personal representative of General Leslie R. Groves, the Director of the Manhattan Project, who was waiting in Washington.

The actual CW codes sent were “A1269” — decoded, it read “Clearcut, successful in all respects; visible effects greater than Trinity; Hiroshima primary target; conditions normal in airplane following delivery, proceeding to regular base.” “Trinity” was the codename of the first successful test explosion of an atomic bomb in Alamogordo, New Mexico, in July 1945. The coded message table had been devised only 2 days before the Hiroshima mission, strictly between Farrell and Parsons. No one else, including the radioman Nelson and Captain Tibbets, knew what each letter or number represented. President Truman was already crossing the Atlantic on his way back from Potsdam by the time he actually received the detailed message from Washington 16 hours later, but the announcement of the successful bombing had already been made to the world, due to a previous arrangement.

Notes

¹In 2011, I met Mike Hanz, KC4TOS, who helped restore the *Enola Gay* radios. From him I learned of the authenticity of the restored radios, down to the use of original wires of World War II vintage. An article on my own *Enola Gay* radio restoration project appeared in the August 2011 issue of *Electric Radio*.

²These collections can be found at the Yokohama World War II Japanese Military Radio Museum (www.yokohamaradiomuseum.com/index.html) and the Hiroshima Wartime Communications Technology Museum (<http://minouta17.web.fc2.com/>).

All photos are courtesy of the author.

Hiroki Kato, AH6CY, was born in Hiroshima, and was first licensed as JA4AAQ when he was in high school. After college, he came to the US to pursue graduate studies. Dr Kato taught political science and linguistics at several universities, including the University of Hawaii, Harvard, and Northwestern. He got his current call sign when he lived in Honolulu. He later worked for early Silicon Valley startups, retiring in 2000. He enjoys QRP portable and QRO remote operations, having been on the air from many states and countries. When at home in California, he collects and restores boatanchor radios, focusing on World War II-era radios. He can be reached via ah6cy@arri.net.



1937 Emerson Slant Front Model 170 Ingraham pics
By Phil Bausch

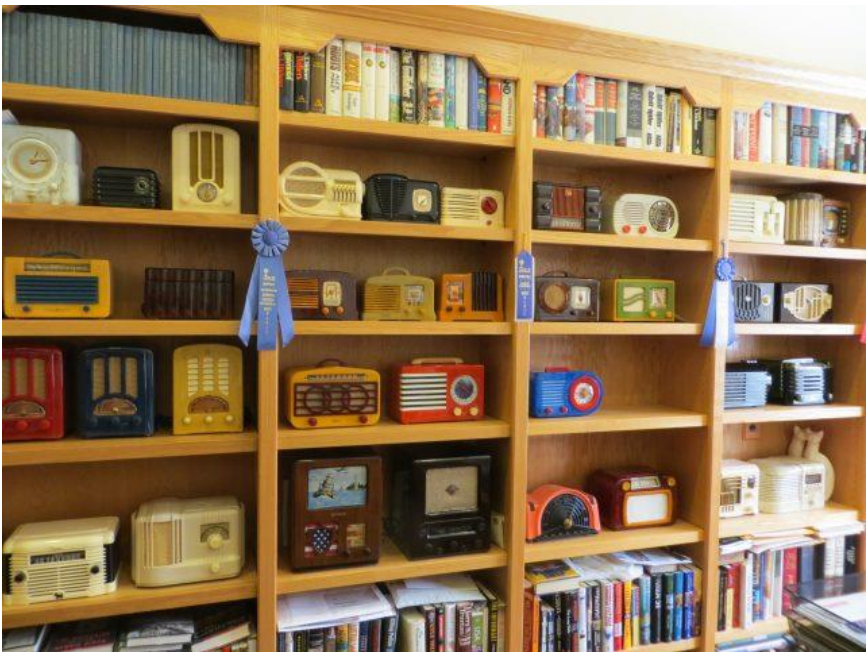


The Dick Bosch Collection

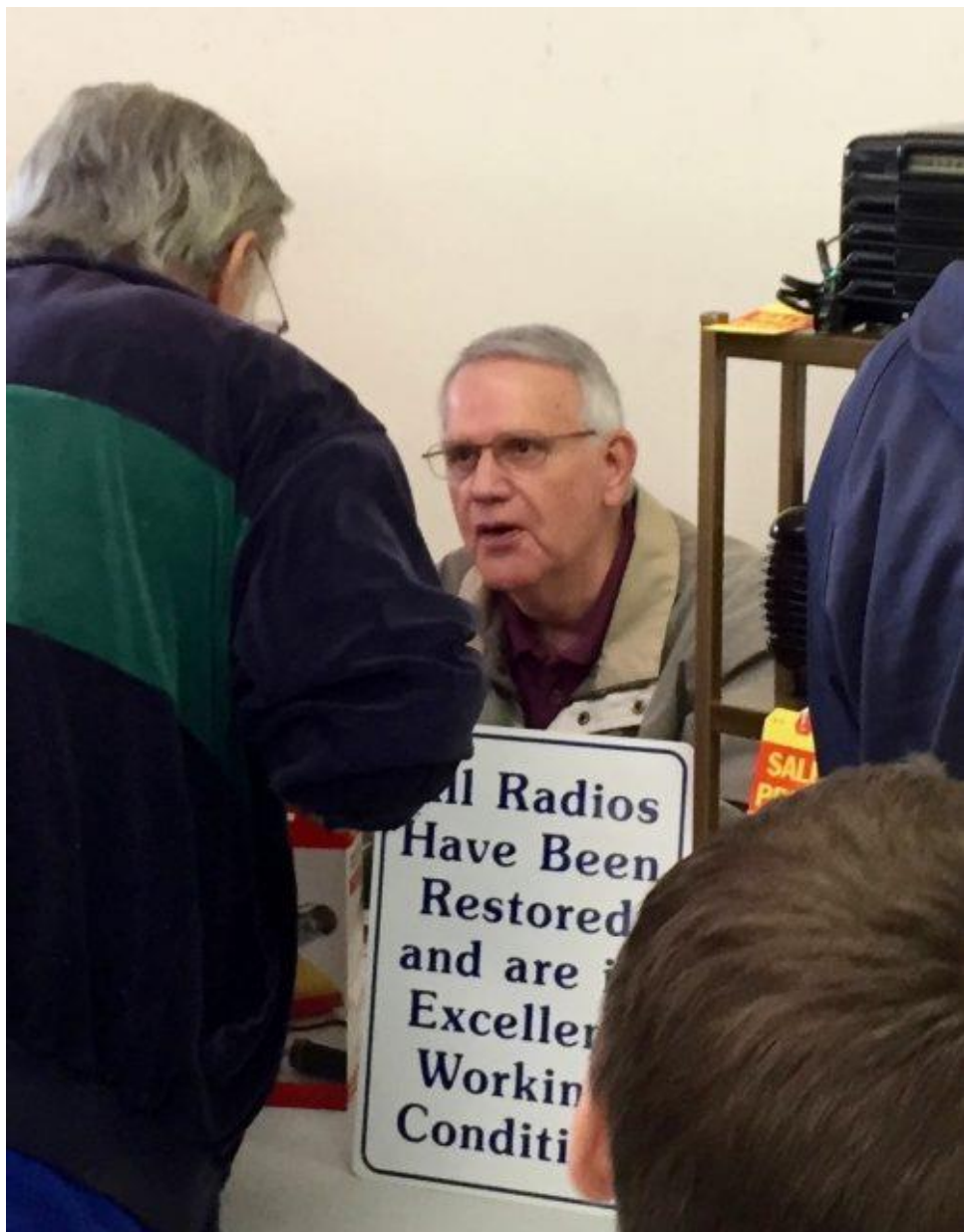
By Phil Bausch

<http://radiospast.com/2016/11/the-dick-bosch-collection/>

Most of the members of the Northwest Vintage Radio Society know Dick Bosch. He's a NWVRS member, a collector, a repairer, and a seller of radios. Recently, he's been actively selling his personal collection. If you weren't lucky enough to see it in person, here are some photos. The main display is in a neat set of bookshelves along his office wall. Here's a general shot, and the individual sections follow, so you can see the radios better. In fact, clicking on the photos will not only make them larger, but clearer too.



Definitely a lot of great radios! The one blank spot on the shelves was normally occupied by a Beetle Plastic Addison A2, but that day, Dick was working on the electronics in his shop. Dick and his wife Shirley, who live in Vancouver, Washington, collected many more radios over the years, and have sold over 400 of them that Dick restored. A couple of fun facts. As a Marine in the early 1960's, Dick worked at the top secret Area 51. While visiting nearby Las Vegas at that time, he got to see Frank Sinatra and the rest of the "Rat Pack" perform.



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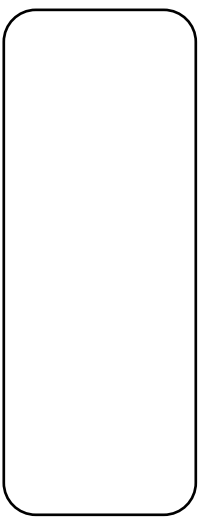
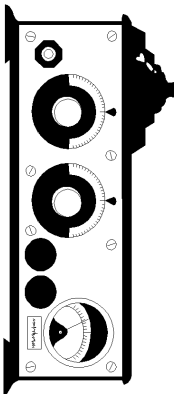
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