NOVEMBER 2025 VOLUME 22 ISSUE 11

THE LOGGER'S BARK

a magazine

Radio Club of Tacoma

In this issue:

Cover:

Tower and Beam at W7UUU from February 2021 Livingroom scene by Bing Images

Tower Photo by Dave W7UUU

About The Cover

Shown are the Mosley TA-33MW and Cushcraft 6m Yagis from the W7UUU shack photo taken on February 13, 2021. This photo (as used in the background on the cover photo) was taken after my massive shack fire of October 25, 2020 and while the shack was being rebuilt. But even then, fixed in its NE aim over the pole to EU DX, it was waiting for its chance to shine in the new shack. Two years later, in May of 2023, the TA-33 was replaced with a SteppIR DB18E which is my main HF antenna now. The 6m beam still remains at the top of the tower, at 75 feet. The rest of the cover photo was created by the Bing Image Generator. I do not allow AI articles, but for images we don't always have a lot of choices.

W7DK 2025 Officers and Committee Leaders

Executive Committee:

President:	Adam Barbera W2NCC
Vice President:	(Acting) Mike Isakson W7XH
Secretary Pro Tem:	Mike Drorbaugh W7MKE
Treasurer:	(Acting) Doug Schafer AB7DG

Board of Directors:

Board:	Mike Drorbaugh W7MKE
Board:	Paul Matney W7PFU
Board:	Doug Schafer AB7DG
Board:	Dan Vacanti KD7SV
Board:	Dave Ashley W7GEL

Key Committee Chairpersons:

Membership:	Mike W7XH
Salmon Run:	Mike W7XH
Infotech/IT:	Randy WB4SPB
HF Operations:	Phil K7PIA
Facilities:	Adam W2NCC
Property Mgmt.	Red WB7EC
Museum:	Dan KD7SV
Planning:	Mike W7XH
POTA:	BJ KO7T
General Meeting:	Dave W7UUU
Bark layout & Editor:	Dave W7UUU
Assistant/Copy Editor:	Anne N7ANN

Contents

QUICK LINKS TO THE BIG STUFF!

But don't stop there! Each issue is 100 or more pages of fun and cool stuff to explore! Scroll on!

***xx**=nothing submitted*

PRESIDENT'S CORNER

Adam Barbera W2NCC

Monthly ruminations from our President

REDISCOVERING 222 MHZ, THE FORGOTTEN BAND

For decades, the 1.25-meter band (222–225 MHz) has been called "the forgotten band." It sits quietly between the 2 meter and 70 centimeter bands, offering clear frequencies and excellent propagation with remarkably low noise. Most hams rarely use this band—but that may be about to change.

In the late 1980s, the FCC reallocated part of the 220 MHz spectrum (220–222 MHz) to commercial users (UPS mostly, who never even developed the radio network to use it), leaving amateurs with only 3 MHz of space. Manufacturers pulled back, equipment options dried up, and the band slowly faded from daily use. For years, only a handful of repeaters and operators remained active on 222 MHz.

Yet 222 MHz is one of the most enjoyable corners of the VHF spectrum. Its signals travel farther than 70cm but are less affected by urban noise than 2m—the best of both worlds. Antennas are compact, easy to build, and with so few users, open frequencies are plentiful for experiments or simplex rag-chews. Some repeater networks rely on the band for control links, and it's an excellent platform for digital work like packet, APRS, or newer modes such as M17.

Another reason the band has stayed under the radar is geography. The 1.25-meter allocation is primarily available only to amateurs in ITU Region 2—the Americas—while most countries in Europe and Asia lack access. Japan, for example, reserves nearby frequencies for other services. With much of the amateur world outside the band, major manufacturers have had little incentive to design gear for it, which explains the long scarcity of dedicated 222-MHz rigs.

Kenwood TM-D750A144/220/430 MHz digital tri-band transceiver
Not yet shipping—list price expected to be around $750 but not formalized.
Click image to view image in full size Image: Kenwood USA

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PRESIDENT'S CORNER

Monthly ruminations from our President

Adam Barbera W2NCC

That's why Kenwood's return to the band in 2025 is turning heads. The TM-D750A Digital Tri-Band Mobile Transceiver covers 144/222/440 MHz and brings modern APRS and digital features with full-power operation on all three bands. It's the first major production radio in years from a top-tier manufacturer to include 222 MHz support—a welcome sign that the industry is paying attention again.

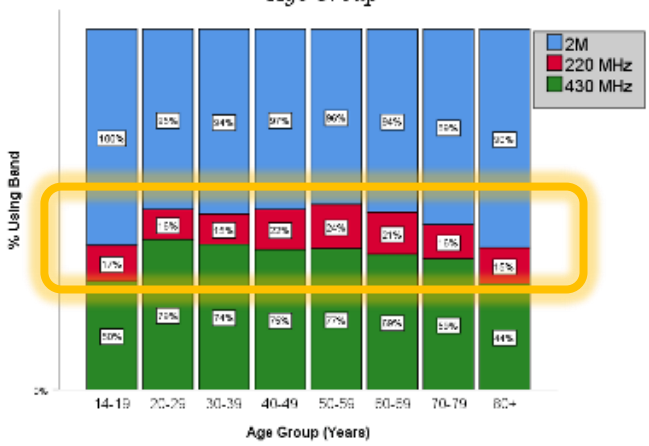
The D750A arrives at just the right time. Many new handhelds and mobile DMR rigs, such as the AnyTone 578UVIII, already include 222 MHz capability. Repeater groups across the country are reactivating systems, breathing new life into a long-neglected band. The beauty of 222 MHz is that it's clean, quiet, and wide open—an ideal VHF sandbox for experimentation.

For years, 222 MHz sat on the shelf—out of sight and out of mind—but with Kenwood's new TM-D750A, it may finally be ready for a comeback. Not everyone may know that club member Rob, W7TJL, maintains a 222 MHz repeater on Peacock Hill in Gig Harbor. The input frequency is 224.200 MHz with a 123.0 Hz tone. So, dust off that old forgotten rig—or better yet, pick up a new one that includes 222 MHz. You might find that the quietest band in ham radio is also one of the most rewarding. If you build it, they will come—and the forgotten band will find its voice again.

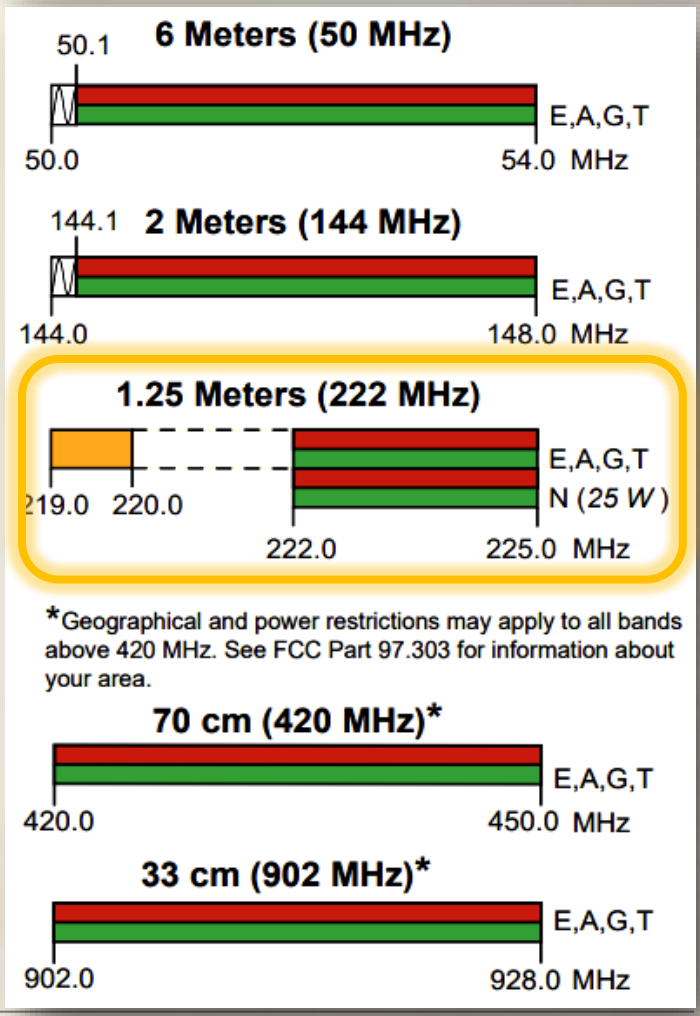
-Adam, W2NCC
President

Photos: Dave W7UUU

Figure 6. Bar Chart of Percent VHF and UHF Band Usage by Age Group



Source: RAC Survey 2021



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FROM THE DESK OF THE VP

Insights from our Vice President

Mike Isakson
W7XH

A recurring theme in my writing has been our club — how it was built, the men who were pioneers in amateur radio, and the explorers who helped shape its early development. This was a club that believed itself to be a cut above the rest, hosting early ARRL conventions and extending guidance to other clubs across the United States. Those who were once the heartbeat of our club are now silent keys — and that generation now represents only about seven percent of our national population.

This article, and the one to follow in the December issue of *The Bark*, are meant for the officers and board members of amateur radio clubs *everywhere* — men and women tasked not merely with keeping their clubs alive, but with confronting real membership challenges in a changing world.

If you hold such a role, you may be asking some of these same questions. *Why aren't more members contributing? Why can't I get people to volunteer? Why do many decide not to renew? Why can't we attract younger members? Our club is a great place — so why don't they join?*

These questions are not unique. Trade unions, churches, civic and service organizations — the Shriners, Lions, Kiwanis, Rotary, Jaycees, Masons, Optimists, Elks, Eagles — all are wrestling with the same issues. In a piece published August 26, 2024, by the Observer-Reporter, the reporter documented shrinking club membership across many civic groups. He specifically cited that Washington's (PA) Kiwanis Club, chartered for more than 100 years, would fold at the end of September because its membership had dwindled to just five retirees.

No one saw this coming? I don't write this because I have all the answers — far from it. I write because, like you, I see shifting demographics, shifting interests, and a society increasingly "free-time-poor". We also often use a style of communication most familiar to people 60 and older — and less relatable to younger generations.

Do we really understand our audience?

Here are generational groupings (U.S. version) and approximate societal percentages:

Generation Name	Birth Years	% of Population
Silent Generation	1928-1945	7%
Baby Boomers	1946-1964	29%
Generation X	1965-1979	26%
Gen Y / Millenials	1980-1995	21%
Generation Z	1996-2012	11%
Generation Alpha	2013-2024	Combined roughly 6%
Generation Beta	2025- ????	

These figures come from the 2024 Membership Marketing Benchmarking Report by Marketing General Inc. The same report notes that 58% of associations described their membership value proposition

FROM THE DESK OF THE VP

Insights from our Vice President

Mike Isakson
W7XH

as "compelling" or "very compelling," up from 51% in 2023, and that those organizations were more likely to report membership growth.

The report also shows signs of renewed optimism: only 21% of responding associations reported membership declines — the lowest in the report's 16-year history — while 47% reported growth during the past year.

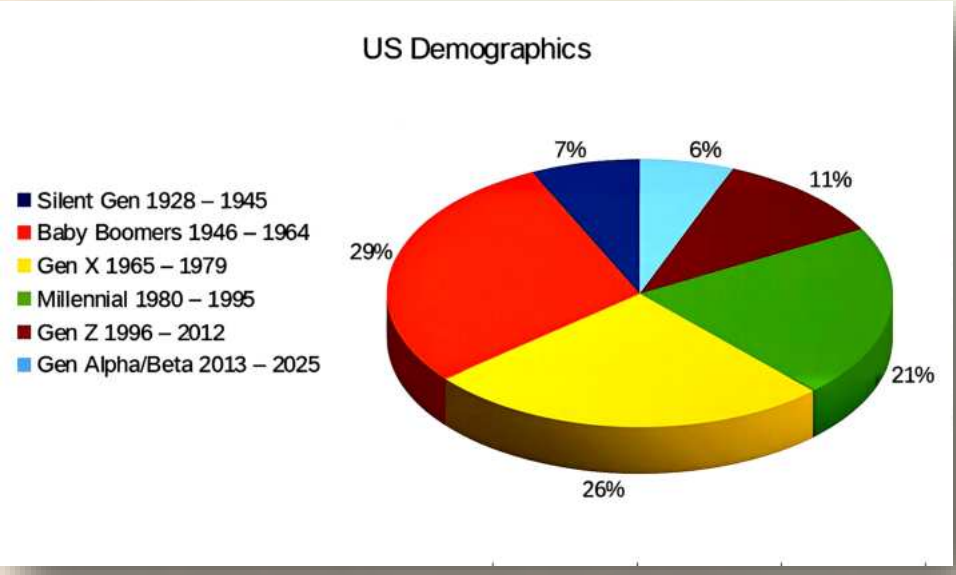
One more sobering number: the report notes that, on average, 71% of association members — including clubs like ours — are over age 40. In our club, that figure is 91%. Pause and let that sink in.

The news isn't all bleak. Many organizations are *thriving by leaning into change*. The 2024 report identifies five key drivers of membership growth: providing compelling value, recruiting new members, embracing continuous innovation, intentionally reaching newer generations, and increasing member engagement.

Some of the fastest gains come from small steps — digital outreach, clearer member benefits, scheduled renewal reminders, flexible participation options, hybrid meetings, and volunteer "micro-tasks" that don't demand huge commitments.

One example: digital ads. More than 40% of associations now use Facebook & other social postings (QRZ), 32% use search engine marketing, and 30% employ retargeting — all up modestly over last year. These tools help reach people where they live — online — rather than hoping they hear about us by word of mouth.

I recently joined a ham club in Texas that seems to be doing many of these things well: fresh messaging, energetic social media, flexible meeting options, clear value for dues. They gave me hope, *because they show it can be done*.



So — until next time: let me leave you with this thought.

***How* we are recruiting will tell you who we are recruiting.**

—Mike W7XH
Acting Vice President
Membership Chair

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SECRETARY'S REPORT

W7DK Secretary Pro Tem—Mike W7MKE

TODAY IS OCTOBER 10TH AND I'M HAPPY TO BE A tad early of deadline writing my November blurb for the BARKie. Our editor is awesome and keeps everyone on their toes. I've been focused on getting my station in order for the upcoming Bigfoot Special Event. My thanks to Al Ferguson N7OMS, Dave Stilwell AC7KP, and Paul Nosal K7OSS for their help in putting up my masts and wire antennas, and to Bob Purdom AD7LJ who assisted in setting up the radio. I currently have a fan dipole for 40 & 20m on one mast. I have a 132-foot end-fed 80m and a new-to-me delta loop on another mast. The masts are 40' and 44', more or less. I 'm ready to operate on every band except 17 meters.

My station is a Flex 6600 as my main radio, and I have an Ameritron AL-811 amplifier to run power when needed. I use a Yaesu FT-2900 for 2m VHF using a GP3 antenna. My station has never been more complete, although there are many more tweaks that could be done—and I'll get to those sometime, perhaps.

This is the hooch where I have my station. As you can see, I'm a typical ham and have lots of extra junk! It's messier than usual because I'm using a lot of equipment to set up the masts and antennas

Bigfoot is a big deal right now, and I'm one of the "Letter Captains." I guess that's as good a name for the position as any. I head the group of operators who will be using the W7B callsign. Most of my team is here in the Tacoma–Olympia area, but I have Amanda

SECRETARY'S REPORT

W7DK Secretary Pro Tem—Mike W7MKE

KC3GFU helping me from her station in Ohio and Lenny WS8O helping me from his station in Florida. Thanks to you both! I hope you have fun in the event.

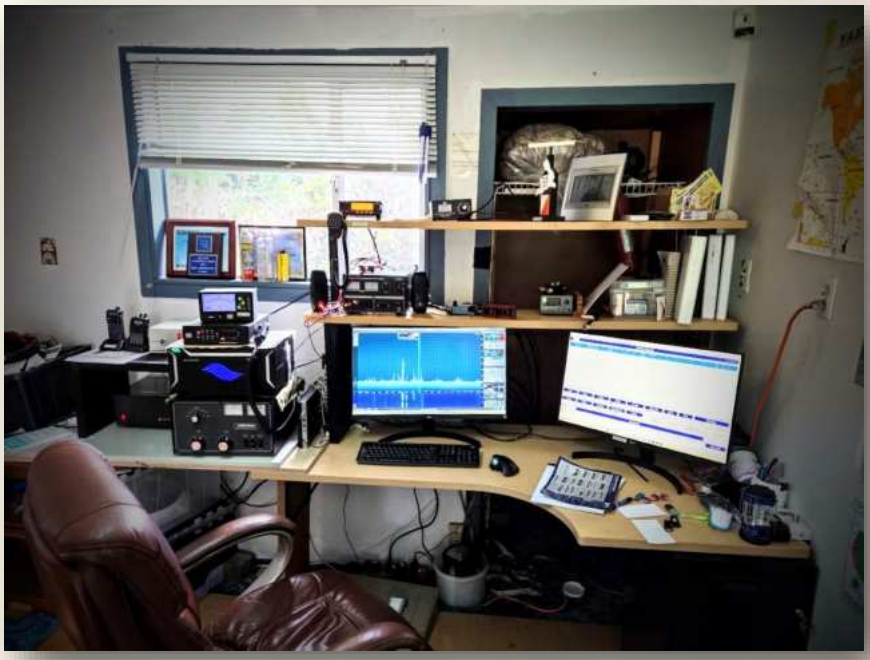
I must inform the team of all the necessary protocols and keep in touch with them throughout the event. I'm very proud of BJ KO7T, who asked the club members to do this last year and organized it for everyone. It is a lot of work to do, and like our *Logger's Bark* Editor, BJ is not going to be able to do this next year, and we will be looking for someone else to step up. It is always a challenge to get volunteers for the bigger jobs like club officers, Committee Chairs, and big events like Field Day and Bigfoot—but perhaps we can if we pull together as a team.

Other than Bigfoot, the secretary (a job I'm filling until December) is somewhat busy as the year ends. Along with normal meeting agendas and minutes, I have the Awards Banquet to get ready for, and I will be assisting our new Secretary to file necessary reports to the State, Federal, and the ARRL in January. It is the joy of having a non-profit organization and of owning an actual property. I'm not complaining about having the corporation or the property, as they make being in the club much fuller with opportunities. But it does add to the paperwork.

Elections are upcoming for Board Members, Vice President, and Secretary, and we have an excellent slate of people running. Things look good in that area for the coming year, and I thank all those people who stepped up to run for offices this time. It is not usual for our club to have multiple people running for the same office. I think that is a healthy sign.

That's all folks!

-Mike W7MKE, Secretary



W7MKE Station: L>R starting under the Handi Talkies: Astron RS-35A power supply for the Flex. Next in the stack is an LDG M-600 SWR/wattmeter connected to an LDG AT-600PRO autotuner, which sits on top of the Flex 6600. Beneath that is the Ameritron AL-811. The little HP EliteDesk computer runs the entire setup, feeding two LG monitors. Up top is the Yaesu FT-2900 2-meter VHF radio with an MFJ-662 SWR/wattmeter beside it, both resting on the MFJ-4035 regulated power supply that powers the Yaesu and other 12-volt DC devices.

It has been a very busy fall. The Salmon Run (aka, Washington State QSO Party) and our biggest fund-raiser of the year kept us hopping. We did pretty well in the Salmon Run, collecting all counties for a "Clean Sweep", all U.S. states, a bunch of DX stations, and the W7DX extra-points multipliers, but we missed a clean sweep of Canadian provinces. However, we are still collecting Salmon Run fundraising pledges. If you have not yet made a pledge, you can still do so. We appreciate the support of our club members for this annual event.

Our October general meeting received the final additions to the list of candidates for 2026 board and officer positions. Ballots were printed on Sunday and deposited in the USPS on Monday, October 13th. They were mailed out with membership renewal notices, so you should already have them in hand! If you believe you should have received a ballot and did not, contact membership@w7dk immediately. If you did not receive this mailing, have you moved

Bob Cowan	KI7QI	Bob Brock	K9OSC
Rick Hoanshelt	WA6RDH	Todd Samuel	KK7YIJ
Edward Harris	K7EZN	Sean Kelley	KS4BAR
Sean Smith	AJ7FM	Tauelangi Tuifua	KO6FIG
Kathryn Smith	AF7CJ	Frederick Lorenz	KG7GTM
Alan Olsen	KM7CIJ	Terry Taylor	N6MON
Michael Gomez Jr	KK7VKS	Yass Shiiya	JA8AWH
Pattie Birdsall	Unlicensed	Terry Oi	JL8VJC
Carson Seibak	KJ5MEW	Donald Chittenden Jr	N2USM
Jeff Hite	N7FCC	Adam Kerner	K7ST
Don Miller	NOTUT	Kevin Sargent	KM7CIN
Samuel Moran	KK7USO	Tom Hall	K1RPB
Douglas Flint	K7WYR	Vivian Dutner	KM7CIM
David Bellarts	WA7XX	Donald Scott	W7DON
Robert Davet	W8RID	Fred Barrett	KF7MQW
Scott Slater	AG7KO	Robert Messemer	KM7CIK
Andrew Berets	K7FTD	**	**

Please welcome our newest members!

and not updated your address? If so, send an email to that same address.

Please be a part of the process—vote for your board members and send in your ballots right away. But we please ask: do not send renewals and ballots in the same return envelope provided. They are handled by different folks and we don't want to miss anyone!

With the holiday season already upon us, I ask that you complete your membership renewals as soon as possible. It is important that you return the renewal form with any corrections written on it, such as changes to license class, call sign, affiliations (ARRL, ARES, or CERT), phone number, or email address.

I would like to welcome our newest members (see table, previous page). Drop in and see us, grab a beverage, and get on the radio.

Our current membership stands at *435!* Thanks for being part of the Radio Club of Tacoma. If you are looking for a place to serve, there are many opportunities. If you'd prefer to lay low, watch, and learn for a while, that's fine too. If you have ideas, I'm here to listen. Grandma always told me, "Many hands make light work." (It sure seemed like lots of Christmas dishes and only a few cleaning!)

I'll stay busy over the next two months processing membership renewals. I'll also be at the clubhouse most Saturdays through the end of the year. Renewals and ballots can be dropped off at the clubhouse or sent via mail, and payments can be made by cash, check, or PayPal. Forms and PayPal options are available on the front page of the W7DK.org website.

Until next month, 73 to all!

-Mike W7XH
Membership Chair

Ballots and Membership forms in the mail!

AS I WRITE THIS ANNE N7ANN AND I ARE BEING tossed about a bit in rough seas aboard the Sapphire Princess cruise ship in pouring rain, hoping to dock in Mazatlán, Mexico today. But the passing Hurricane Priscilla might have other plans in store for us.

Being 87 degrees and 81% humidity, it's hard to be in the "Fall frame of mind" we usually think of for mid-October. Back home the leaves are turning, and we already have our Halloween decorations out as autumn settles in.

Bark editor station aboard Sapphire Princess enroute to the Mexican Riviera, working on November & December issues

Of course, this also means it's now election time for the Radio Club of Tacoma, and this year we seem to have one of the most vibrant ballots we've seen in quite some time! I can't think of the last time we had six candidates running for three At-Large Board of Directors positions! That's wonderful, and speaks volumes about the level of energy and involvement present in the club today. I am one of those BOD candidates and would appreciate your vote!

But we still need more folks to step up to volunteer for positions that will go unfilled without someone coming forward. Two such positions have been held by yours truly for some time—General Meeting Program Manager being one, and Logger's Bark Editor being another. I first took over programs in May of 2014 and will vacate the position after this month's program ("HOA and Limited Space Antennas" which will be in person, with hands-on examples at the November General Meeting). And of course, the Logger's Bark Editor position is very much in need of a volunteer. The term is for two years, and anyone wishing to give it a whirl pretty much has free rein in how they present their vision of The Bark. It can be as simple or as elaborate as you wish it to be. For myself, I chose to make it be a full-on 100+ page magazine every month. But it absolutely needn't be so. In fact, the Bylaws simply require the publishing of the meeting minutes. So if you've ever felt the desire to put words on pages, now is your chance.

And being the season for giving thanks, I want to thank all those who have contributed time, material, or treasure to help make the Radio Club of Tacoma be what it is today.

See you at the General Meeting, and Happy Thanksgiving.

-Dave W7UUU

HAM RADIO WORLD NEWS

HAMFEST India 2025—A Great Success!

Web

THE PRESTIGIOUS HAMFEST INDIA 2025, THE 35TH national convention of amateur radio enthusiasts, concluded successfully in Goa on Sunday October 12, marking another milestone in India's ham radio movement. The two-day event, organized by the Goa Radio Amateur Society (GRAS) in association with the Goa College of Engineering (GEC), witnessed active participation from more than 700 delegates across India and abroad, including representatives from Tripura HAM Radio Club, proudly representing the state's growing amateur radio community.

This year's edition celebrated 35 years of India's HAMFEST legacy, which began with the first-ever convention held at Kuttikkanam, Kerala, in December 1991. The inaugural ceremony was attended by several eminent dignitaries, including Rohan Khaunte, Minister for Tourism, Information Technology, Electronics & Communication, and Printing & Stationery, Government of Goa, as the Chief Guest. The event also featured Nitin V. Raiker, Director of Fire & Emergency Services, as Guest of Honour, and Group Captain and Astronaut Shubhanshu Shukla (VU2TNI) as the Special Guest of Honour.

Dr. M. S. Krupashankara, Principal of GEC, and Shri Sandesh Bhat (VU22DX), Convenor of HAMFEST India 2025, presided over the grand inaugural session that set the tone for two days of technical learning, collaboration, and innovation.

Enthusiastic participation was recorded from almost all states, including the North Eastern region, notably Assam and Tripura—with Karnataka leading in numbers with 165 delegates. Adding a truly international dimension, hams from the Royal Omani Amateur Radio Society, AMSAT India, and the Upagrah Amateur Radio Club of ISRO attended the event.

The convention hosted over 40 technical sessions and 8 live demonstrations across four venues within GEC, covering topics like antenna design, satellite communication, software-defined radio, and emergency operations. Moreover, 37 exhibitors showcased cutting-edge amateur radio, antennas, and communication equipment, drawing immense interest from both professionals and students.

A key highlight this year was the first-ever HAM ASOC Examination conducted during HAMFEST India, with around 40 participants, including delegates, students, and faculty members of GEC's Electronics and Telecommunication departments, appearing for certification.

During an interactive session, Group Captain Shubhanshu Shukla (VU2TNI) shared his remarkable experiences aboard the International Space Station (ISS) with students of the GEC Astronomy Club, detailing communication in

HAM RADIO WORLD NEWS

HAMFEST India 2025—A Great Success!

Web

microgravity and the challenges of space-based amateur radio operations.

In his address, Nitin V. Raiker emphasized the crucial role of ham radio in disaster management and emergency response, urging collaboration between ham operators and Goa's emergency services. Chief Guest Rohan Khaunte praised GRAS for promoting amateur radio culture and assured full government support to strengthen HAM activities in Goa.

The two-day event concluded with a grand award ceremony, recognizing senior hams, mentors (Elmers), lifetime achievers, and Belgum Net controllers for their outstanding contributions to amateur radio in India.

The Tripura Ham Radio Club's representation at HAMFEST India 2025 underscored the state's emerging prominence in India's amateur radio landscape and reflected Tripura's commitment to advancing technical communication skills and emergency preparedness through ham radio.

-Tripura Ham Radio Club © 2025

Member of the Goa Radio Amateur Society (GRAS) - closely associated with the Goa College of Engineering (GEC)

Goa Engineering College (GEC) was the site of HAMFEST 2025, a 2-day event this year celebrating its 35th year. It was a prestigious event, attended by many eminent dignitaries, including Rohan Khaunte, Minister for Tourism, Goa. Goa is located on the southwestern coat of India in the Konkan region, about 250 miles south of Mumbai.

ED HARE, W1RFI
LONG TIME ARRL LAB ENGINEER, PASSES AWAY

10/14/2025

Edward F. "Ed" Hare, Jr., W1RFI, who spent decades as an employee of ARRL The National Association for Amateur Radio®, has become a Silent Key. He died on October 10, 2025, at the age of 75 after an illness.

Hare first earned his Amateur Radio Service license as a teenager as WN1CYF (later WA1CYF and KA1CV) and was active in ham radio throughout his life. He was an avid QRP (low power) operator, earning his Worked All States certificate with 250 milliwatts on CW. In his professional life, he was an accomplished product test engineer and a leading expert on radio frequency interference (RFI). After an industry career in product testing, he came to work for ARRL in 1986.

Ed Hare, W1RFI(SK) 1950-2025

During his tenure, Hare led the technical aspects of many important advocacy efforts taken on by the ARRL Lab, including the successful fight against Broadband over Power Line (BPL). Hare's extensive technical studies and solid factual data effectively supported ARRL's Court of Appeals submissions against the Federal Communications Commission (FCC), thus contributing substantially to ARRL's victory in causing the FCC's flawed BPL rules to be remanded to the FCC.

Hare developed a waiver process in cooperation with the United States military to allow amateur radio access to the 70-centimeter band near several high-power radar sites. He also started the ARRL RFI Program, which helps members resolve interference to their station. He was also instrumental in ARRL's 2023 defense against the high-speed stock traders' petition that would risk significant interference to amateur HF bands.

Hare was a prolific author about RFI, from articles for QST and The ARRL Handbook to articles about the practical aspects of Electromagnetic Compatibility (EMC) that appeared in professional trade journals. He was also one of the editors and authors of The ARRL RFI Book, and the author of ARRL's book on RF exposure, RF Exposure and You.

Hare held a seat for amateur radio on many industry committees, including several of the Institute of Electrical and Electronics Engineers (IEEE) and on the American National Standards Committee C63, which develops standards for testing and measuring EMC.

Many radio clubs may recall Hare's popular "Stump the Speaker" feature that he held after giving presentations. Hare would allow the audience to try to stump him with radio questions and trivia. It was rarely successful.

He retired from ARRL as Laboratory Manager in 2023 but continued to serve in the Lab as a volunteer until the time of his passing.

He frequently mentored members of the ARRL staff on improving their operating skills and encouraged them to grow as radio amateurs. He was especially fond of creating new CW operators.

Hare was a member of the ARRL Diamond Club and the A1 Operators Club. The ARRL Board of Directors bestowed the ARRL Technical Merit Award on Hare in 2008 for his work on BPL, an honor that, before Hare, was last awarded in 1976 and has not been given since.

Services for Ed Hare will be held:

Sunday, November 9, 2025 at 2:00 PM Unity of Greater Hartford,
919 Ellington Rd, South Windsor, CT 06074

The family has asked that "Anyone attending needs to bring a drum or instrument so we can wish Ed a great sendoff."

-ARRL, Inc.

FCC ANNOUNCES INTENT TO DELETE MINOR PART 97 PROVISIONS

10/17/2025

As part of a much larger overhaul focused on deleting almost 400 obsolete wireless regulations, the Federal Communications Commission (FCC) has announced plans to delete or modify four minor provisions of Part 97.

ARRL's Washington Counsel has reviewed the proposal and agrees that the deletions are to obsolete rules and will have no impact on today's modern Amateur Radio Service. One of the deletions was suggested by ARRL as part of an earlier FCC request for public input on rules ripe for deletion.

The proposed regulatory changes are to:

1. Delete § 97.27. This provision relates to the FCC's right to modify station licenses. The Commission rationale for deletion is that it duplicates Section 316 of the Communications Act. Its deletion will result in no substantive change to the right of the FCC to modify a station license.

2. Delete § 97.29. This provision specified the procedure to replace paper licenses. The FCC stopped producing paper licenses at the end of 2020, having implemented a system that allows any licensee to download license originals using the password-protected area of the FCC's ULS computer database system that is web-accessible. The ARRL proposed deleting this section in comments filed earlier this year.

3. Delete § 97.315 (b)(2). This provision grandfathered HF amplifiers purchased before April 28, 1978 by an amateur radio operator for use at that operator's station and also grandfathered those manufactured before April 28, 1978 for which a marketing waiver was issued. The applicability of this rule has long passed.

4. Delete § 97.521(b) and Appendix 2. This rule and appendix relate to VEC regions, which were based on the traditional amateur call sign areas. The FCC no longer limits VECs to regions and there is no reason for doing so given the nature of remote exams.

"Direct Final Rule" proceedings such as this are limited to rules that are no longer applicable because they have sunset by operation of law; govern an expired event; regulate an obsolete technology; regulate virtually a null set of FCC licensees; regulate an outdated market structure; or otherwise are no longer used in practice or otherwise in the public interest. The deletions will become effective 60 days after publication in the Federal Register unless the Commission finds that adverse comments filed within 20 days of publication raise significant issues that merit additional consideration.

ARRL will continue to engage with the FCC in the regulatory and rulemaking process as part of our mission to promote and protect the art, science, and enjoyment of amateur radio, and to develop the next generation of radio amateurs.

-ARRL, Inc.

THE MAILBAG

LETTERS To The Editor

W7UUU

Dick Illman AH6EZ proudly displays his Logger's Certificate. Thanks Dick for sending in your ADI file. Your shack looks great! 73-Dave W7UUU

From QRZ,

Thanks Dave for assembling this magazine every month. Obviously a LOT of work goes into it by yourself. It's photo rich which is wonderful..... "A picture tells a thousand words".

I see the December issue will be your last as editor. I can't imagine anyone picking up the reins and continuing to do the fantastic job you have done. Big shoes to fill to say the least. Call me very pessimistic regarding the magazine's future but I'm glad to have been able to enjoy the magazine while you were at the helm.

-Tom KHØ/KCØW
Saipan, Northern Mariana Islands

Dear Tom,

Thanks for the kind words. I have very much enjoyed my 2-year term as Bark editor. I have every hope the future Editor will bring forward a great vision of his or her own, no matter what that means.

-73—Dave W7UUU

From QRZ,

I liked your article on Sputnik. I saw Sputnik when I was ten years old. It was in Upper Wenas near Yakima, Washington on a good clear night. Help from the newspaper was the guide [in spotting it]. Of my family, I spotted it first. This was several years before getting my Novice ticket.

-Bob K7MXE
Eatonville, WA

Dear Bob,

And that's back when nothing in the night sky moved unless it was a bird, a plane, or Superman! What a great memory of a monumental event.

-73 Dave W7UUU

From QRZ,

This magazine is outstanding. Absolutely superb. QST ain't got nothing on The Logger's Bark and that's a fact.

Evan KC5CR
Oklahoma City, OK

From QRZ,

Another great issue from the desk of W7UUU. Not sure how long these will continue, but simply the best club magazine I've ever seen.

-Robert KA2CQU
Smithville, NJ

THE MAILBAG

LETTERS To The Editor

W7UUU

Dear Evan & Bob,

Thanks so much for the kind words. Alas, the December 2025 issue will be my last as my 2-year commitment as Editor comes to a close. It's been a lot of fun. But no one yet knows what cool things the next Editor in Chief might bring.

-73 Dave W7UUU

From QRZ,

Thank you Dave, I especially enjoyed the Sputnik info regarding the frequencies being used. I had always assumed it was VHF and was surprised to learn different. BTW, I was 5 years old when it orbited and observed the distinctive glint reflection of its spherical body first-hand early in the evening hours of 1957. The adults in the family were discussing the implications of this event. I couldn't hear exactly what they were saying, but I knew they were uneasy about it. Being a little boy, I was fascinated [by Sputnik] and it bolstered my curiosity with no fear. I didn't know I was a radio nerd in the making!

Tim WA6Q
Paradise, CA

Delvin Bunton NS7U proudly displays his Logger's Certificate. Delvin is one of the coordinators of the Sea-Pac annual convention in Seaside, Oregon. Thanks for reading The Bark, Delvin, and for sending in your log! 73-Dave W7UUU

Dear Editor,

Thank you so much for sending the Logger's Certificate! I'm truly happy and honored to be the holder of Certificate No. 703.

Best regards,

Marcos Antonio Pacheco
PP5AMP
Florianópolis, Brazil

Dear Marcos,

We are delighted to have another of our Logger's Certificates make its way to Brazil!

-73 Dave W7UUU

W7DK LOGGER'S CERTIFICATE

Classic "first award" for Members

HAVE YOU APPLIED for your own W7DK Logger's Certificate?! It's FREE and it's EASY! All you have to do is work at least 10 members of the Radio Club of Tacoma, then send in your list of call signs worked, and BAM! We'll print out your certificate and get it to you toot sweet by US Mail.

There are no confirmations required, no logs to submit, and really no rules other than the call signs you submit must be members of the club. You may work them on HF, 2m FM, on FT8 or SSB or any other mode! In fact, one of the best ways to get your 10 contacts is to check into the weekly Tuesday Night Net on the 147.28 club repeater… every Tuesday at 7:30 PM.

This venerable award was first launched in 1957, using certificate paper printed by club member Dick Ryan, W7RGD using a donated printing setup.

As of the date of this publication, there have been almost 700 certificates issued, including a few reissues over the years to replace lost certificates.

The original certificates were hand-lettered by long-time RCT member Barbara Osborne, W7UYL (SK 2022), and all of the records were kept in a series of recipe boxes still held by the club.

We still have a huge stash of this beautiful OFFICIAL logger's Certificate paper…. So if you do not already have yours, just shoot us an email with your list of call signs worked, and put "Logger's Certificate" in the subject line… ■ *-editor*

Wanna get yours? Send in those contacts!

Barbara Osborne W7UYL in 1955 an RCT USO event

Two recent "firsts"! Our first Ohio (Bob W8RID) and Brazil (Marcos PP5AMP)!

W7DK LOGGER'S CERTIFICATE

SEARCH YOUR LOGS!!! GET *YOUR* CERTIFICATE!

THE W7DK RADIO CLUB OF TACOMA LOGGER'S CERTIFICATE is available to *anyone anywhere who has worked at least 10 members of the club*. It's a long-held club tradition to issue these certificates, with just shy of 700 having been produced since the start of the program in 1957.

Are you active on the HF bands? If you are, it's entirely possible you already have all the contacts you need to get your own Logger's Certificate! And it's really easy to search this.

Almost all modern computer logging systems have a way to search for the county of stations you have worked. For example, in the popular N3FJP Amateur Contact Log (ACL), to find stations that could possibly be W7DK members, just go to the "County" field in the ACL interface, then click "Search". If you have at least 10 results come back, send me the list and I will check to see how many are members!

For those who use QRZ's powerful logbook software, just open your main logbook, click the pulldown menu for "Filter" and select "New". In the "Filter Name" box you could call it "Logger's Certificate" (and then "save" if you want to use this rule in the future) - then in "Select Field" select "Their County", then for "State" pick WA for Washington, and lastly "Compare Value" set to "Pierce County, WA". Lastly, click "Add Rule". Once you do this, you will now see only those logged QSOs that the other station reported Pierce County. Since the Radio Club of Tacoma is in that county, your likelihood of pulling up club members is very high.

Regardless of the logging software you use, most should have a means for searching out county information.

Just note that if you find "Special Event" call signs such as W7F, W7B, etc., those don't count as multiple operators share those call signs during the club's Bigfoot event every October. Only actual FCC-assigned call signs count for the Logger's Certificate. The club call of W7DK or the museum call of W7OS are considered acceptable to use.

Also consider filtering for Kitsap County (where I live) as we have a number of members there. You could also include King County, but I warn you: it's the largest county in the state, and has a lot of hams—most of whom will not be W7DK members. Searching there will result in a huge list without many "hits".

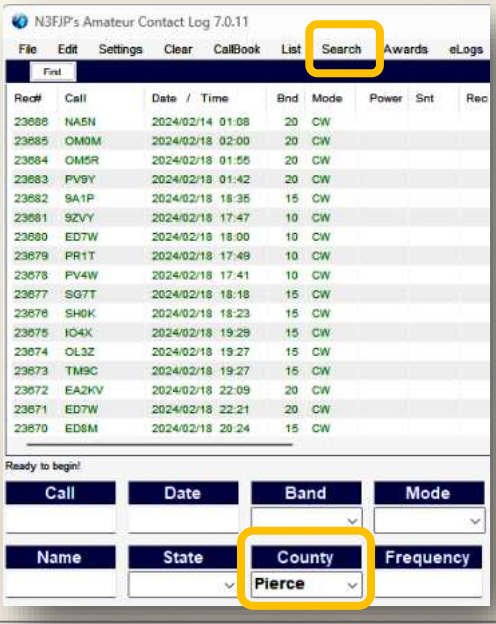
Wanna get yours? Send in those contacts!

Then just email me the list of calls—you don't need to include anything else: it's the Honor System. I won't be confirming anything other than if the call sign is (or ever was) a member of the club.

So start SEARCHING! I will send you your own beautiful Logger's Certificate free of charge—mailed to your listed QRZ mailing address. In return, just send me a photo of you holding your certificate and I will run that in a future issue of The Logger's Bark!

-Dave W7UUU

Above: *Custom Filter dialog for QRZ Logbook—just search for State=WA, and Value=Pierce (or Kitsap) County*



Left: *Using N3FJP Amateur Contact Log, simply enter Pierce (or Kitsap) for the County field, then click "Search" to see a list of calls from these counties*

RETURN TO HOME PAGE

email loggersbark@gmail.com

MEMBER SPOTLIGHT

Ronnie NZ4X

"I have always been fascinated with radios and what makes them work. I was given a Midland CB walkie-talkie at the age of eight and never looked back. By the time I was twelve, I was studying for my Novice license. At that age, the Morse code requirement was a breeze. For my thirteenth birthday, my parents asked me what I wanted as a gift. Without hesitation, I said, 'A Hammarlund HQ-170 receiver and a Johnson Viking II transmitter!' Today this reminds me of the scene from A Christmas Story when Santa asks Ralphie what he wants for Christmas. Without hesitation, Ralphie says, 'Red Ryder Carbine-Action 200-Shot Air Rifle!' A week before my birthday, I had been at an Army-Navy surplus store with my father, and sitting on a shelf in the dusty back room were the HQ-170 and Viking II transmitter. It turned out to be the best and most memorable birthday gift I ever received. I have been continuously licensed for almost fifty years. This hobby has taught me many valuable lessons and brought me wonderful friends. I wouldn't trade it for anything. *-Ronnie NZ4X*

THIS MONTH'S CALENDAR

	October		November, 2025			December	
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
44	October	October	October	October	October	October	1 10:00am Open House
45	2	3 07:00pm General Class	4 07:30pm 2 Meter Net 147 ...	5 07:00pm Board meeting	6 06:00pm HF Night at the ...	7	8 08:00am Technician Clas ... 10:00am Open House
46	9 08:00am Technician Clas ...	10 07:00pm General Class	11 07:00pm VE License Exam ... 07:30pm 2 Meter Net 147 ...	12	13 06:00pm HF Night at the ...	14	15 01:00pm General meeting ... 10:00am Open House
47	16	17 07:00pm General Class	18 07:30pm 2 Meter Net 147 ...	19	20 06:00pm HF Night at the ...	21	22 10:00am Open House
48	23	24	25 07:30pm 2 Meter Net 147 ...	26	27 06:00pm HF Night at the ...	28	29 10:00am Open House
49	30	December	December	December	December	December	December

Recurring | Special | Contests | All Categories ...

Click calendar to view on W7DK.org with current active links!

Did You Know??

November sits oddly in the calendar. The name comes from *novem*, Latin for nine, because in the old Roman calendar it really was the ninth month. Then Julius and Augustus barged in with their namesake months, shoving November into the eleventh slot but leaving the old name intact. What I find interesting is that November never got the glory treatment—no emperor or goddess wanted it. It just stayed "nine," even when it wasn't. Cool!

WHAT THE ARRL SWEEPSTAKES IS ALL ABOUT

THIS MONTH IS ONE OF THE BIGGEST, MOST POPULAR, AND OLDEST OF ALL HAM RADIO CONTESTS:

The ARRL Sweepstakes, which takes place *twice*—once on CW, then on SSB, every year in November.

Here's the odd truth about Sweepstakes: it's both one of the *oldest* contests we've got and one of the most *modern-feeling* on the air at the same time. ARRL's November Sweepstakes dates back to 1930, then it took a WWII wartime pause, and came roaring back into the annual rhythm so reliably that plenty of hams can set their calendars by the first and third full weekends of November. CW always leads off on the first full weekend, SSB follows on the third, and both run from 21:00 UTC Saturday straight through 02:59 UTC Monday. You're allowed to operate 24 of those 30 hours, with off-times of at least thirty minutes, which keeps things (sort of) humane while still rewarding *intense* operating effort.

The premise hasn't changed: work as many stations as you can across as many ARRL and RAC sections as you can. Today there are 85 sections, and nailing every one of them is the classic "Clean Sweep."

That bit of folklore survives for a reason. There's a real sense of completion when the rarer sections finally roll into the log, and the tradition is reinforced with the now-familiar ARRL prize "Clean Sweep" mug and pin to commemorate it.

What sets Sweepstakes apart is the exchange. I will grant it's not as easy as most contests, especially on CW. On both CW and SSB it's exactly the same, and at first blush it just looks a little fussy: a serial number, your "precedence," your call sign, a "check," and your section. But the format wasn't invented to be cute or to slow anyone down. It's a deliberate echo of the ARRL radiogram header—an homage to traffic-handling roots *that makes SS a copy-skills contest at heart.* The serial number proves you're keeping accurate running order. The precedence is a single letter that encodes your category: Q for QRP, A for low power, B for high power, U for single-op unlimited ("assisted"), M for multi-op, and S for school club. The "check" is simply the last two digits of the year you were first licensed. Finish with the two or three letter abbreviation for your ARRL or RAC section (e.g., WWA for my section, Western Washington) and you're done. Once you've worked a number of stations, it will all click into place and start making more sense to you.

Why make it that complicated when many contests ask for only a report and a state or zone? Because

WHAT THE ARRL SWEEPSTAKES IS ALL ABOUT

Sweepstakes was designed to exercise the same discipline that makes traffic handling work: precise copying, confirmation, and logging of a compact, information-dense header. The five-part exchange forces both operators to slow down just enough to avoid assumptions. It eliminates the "599 TU" autopilot that can creep into simpler events. And since you can only work each station *once*—period—no band-by-band cherry picking—the emphasis shifts from network-assisted multiplier shopping to careful listening, clean operating, and rate management.

Scoring keeps the math clean. Every QSO is worth two points, and you multiply by the number of unique sections you log. That's it. The simplicity of the score sheet hides the strategic tension you feel in the chair. Do you keep the run going on a productive band, or do you slip away to hunt for that one missing section that has a habit of popping up exactly when you abandon your frequency? Good SS operators learn to read the clock, ride the band changes, and time their off-periods so they're back in the saddle when the rate swells.

The coveted ARRL "I Worked a Clean Sweep Mug" and pins prize!
Photo © ARRL, Inc.

Is Sweepstakes popular? Absolutely, and stubbornly so. Even in a soft year, SSB drew 1,457 submitted SSB logs in 2024 (1166 CW)—still a wall of stations. This just speaks to the popularity of The Sweeps. On the CW side that same year, the single-operator low-power category alone had over *four hundred* entrants, which tells you that CW is very much still a thing. Sweepstakes remains a club contest as much as a solo one, with scores rolling up to big regional bragging rights and school clubs discovering just how much excitement you can squeeze out of a weekend with a modest station and a few motivated operators.

In the end, Sweepstakes endures because it *feels* like amateur radio. There's history baked into the exchange, skill baked into the copy, and just enough structure to reward planning without smothering the fun. If you're new to contesting, spend a long time listening before calling to make sure you have the somewhat complex exchange down before diving in. And of course, this event is only for ARRL and RAC stations—it's not a global contest. I hope to see you there.

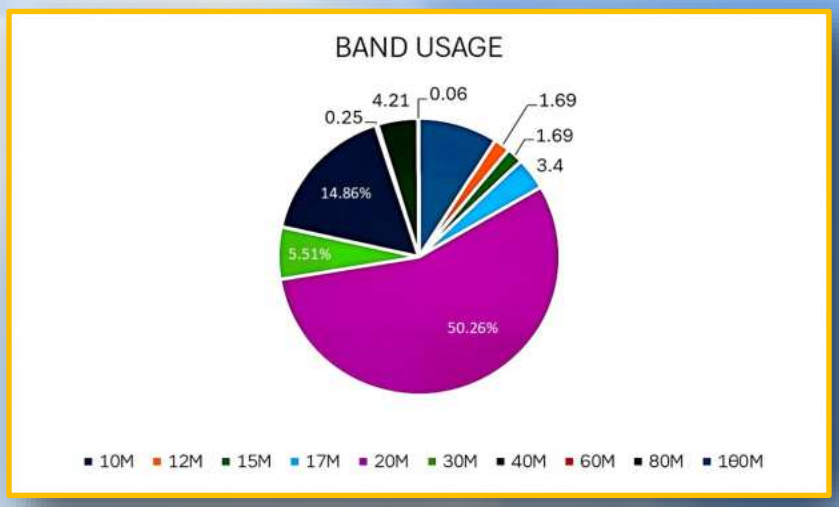
- *Dave W7UUU*

THIS YEAR'S SECOND-ANNUAL SASQUATCH AWARENESS DAY Special Event was another resounding success! The goal is for participants to work all of the 1x1 call signs to spell out the word "BIGFOOT" … W7B, W7I, W7G, W7F, W7O, and W7T. To qualify for the coveted "Full Stomp" (working all required letters) you need to work the letter O twice—on different bands, different modes, or different UTC dates. And to add to the fun, the club added the "Skunk Ape"—Florida's version of Sasquatch, as special event station W4S. This was brought to the Bigfoot team by Ronnie NZ4X, and everyone loved the idea! Ronnie and his W4S team worked over 1800 contacts —quite an impressive three-man operation.

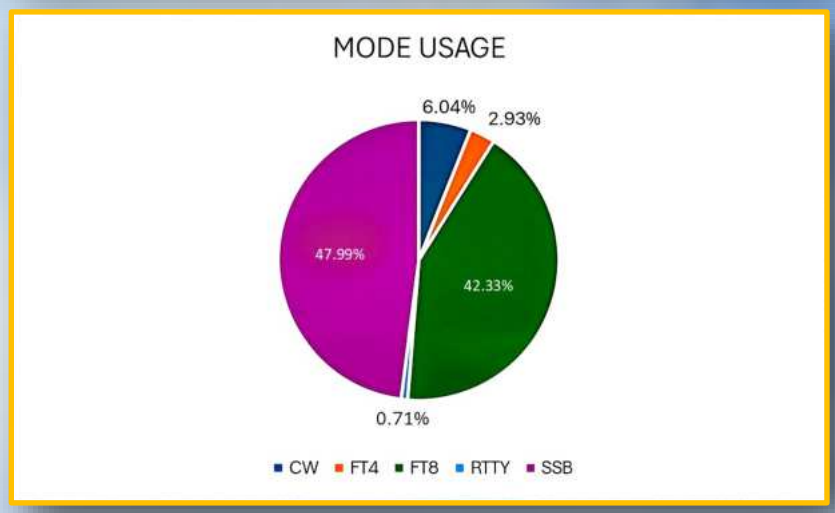
Photos this page are from the Mighty DK club station, W7DK.

-Dave W7UUU

BAND	% USE
10M	8.21
12M	1.69
15M	1.69
17M	3.40
20M	50.26
30M	5.51
40M	14.86
60M	0.25
80M	4.21
160M	0.06



MODE	% USE
CW	6.04
FT4	2.93
FT8	42.33
RTTY	0.71
SSB	47.99



Total QSOs	17,490
Unique Call Signs	8022
States	50
Unique US Counties	1499
DX Entities	94

Note: Preliminary statistics subject to change

What a phenomenal result from this year's event! Last year the club achieved 14,500 QSOs so this year we hit just shy of 3000 more than we did before. Outstanding! Huge thanks to all the Letter Captains, to all the Letter Operators, and most of all to all the Bigfoot Hunters out there who were clamoring to get in the log for each of the letters. **Remember:** you can apply for the certificate even if you didn't get the "Full Stomp" of working all the letters spelling BIGFOOT (with two "O" stations). It's suitable for framing. To apply just complete the Bigfoot QSO Sheet at THIS LINK. Thanks again to all involved—what a fun event!

-Dave W7UUU (one of the W7O operators)

This year features a *totally new* certificate design as well as QSL card design. As with last year, every letter worked will receive a "bigfoot stamp" and if you get all 7 letters, you get the coveted "Full Stomp" stamp. And those lucky enough to have worked the elusive W4S Skunk Ape will receive the rarefied Skunk Ape Bonus stamp as well! To apply simply follow the instructions on THIS FORM.

-Dave W7UUU

[Certificate & QSL designs by W7UUU]

Ronnie NZ4X was a HUGE player in this year's event, operating as one of the W4S "Skunk Ape" cryptids—a role he created and brought to the club! He and his team of 2 other operators (KB4SWP and AA4BW) did an amazing job racking up over 1800 QSOs!. He even installed a KIO Hex Beam on a 35 foot mast *just for this event*—he uses a souped up camping trailer as his state-of-the-art shack. Great job, Ronnie!!

Bruce Britt KB4SWP took his W4S Skunk Ape operations to
a new level with amazing photos of the elusive cryptid watching him operate!

More operators from Bigfoot 2025

More operators from Bigfoot 2025

More operators from Bigfoot 2025

AROUND THE CLUBHOUSE

But first…. A little *about* the Clubhouse

THE RADIO CLUB OF TACOMA IS UNIQUE not only in its age (continuously operating since October 1916) but also in its ownership of an actual clubhouse and adjacent parking lot. The current clubhouse was purchased by members in 1957 (the previous clubhouse was purchased in 1927!) and has been maintained on this site ever since. But it takes time, talent, and treasure to keep this dream a reality. Club membership is one of the solid ongoing means with which the club maintains not only members to help with the upkeep, but to also raise the capital that's required to keep our clubhouse in tip-top shape.

If you are not yet a member, please consider joining—even if you're not local! If you enjoy reading The Logger's Bark from afar, you can be a part of our club just as if you were here. And if you are a local, please consider contributing your own skills and effort to keep this club the wonderful thing it is. Ask any officer how you can help. Thanks to all our loyal members! *-Dave W7UUU*

Photos on left from RCT Archives—photos on Right by Dave W7UUU

AROUND THE CLUBHOUSE

All About the Saturday Clubhouse Hosts

IF YOU HAVE EVER ATTENDED AN OPEN HOUSE SATURDAY at the Radio Club of Tacoma, you were probably greeted at one time or another by that week's Duty Officer and Clubhouse Host. This is an official volunteer position at the club, and one that pretty much any local member can fulfill and have a great time doing it! There are five host positions: 1st Saturday through 4th Saturday, plus Last Saturday (when the club serves up a by-donation lunch for anyone who wants one).

If you would like to be a Clubhouse Duty Officer and Host, just ask any officer. The job is pretty easy—open up the building around 9:00 AM, kill the alarm, turn on the lights and heat (if needed) and start the coffee. At the end of the day around 2:00 just reverse the process. There's a bit more to it than that of course, but that's the general ideal. It's a great way to get to know your fellow club members better! Just let an officer know and we can get you on the docket to be a new host!

-Dave W7UUU

The Club's Current Staff of Duty Officer Hosts

**In months with a 5th Saturday*

Open House Reminder!

THIS IS JUST A WELCOMING & REMINDER that the W7DK Radio Club of Tacoma Clubhouse holds an open house on most Saturdays of the year (click HERE for exclusions) from 10:00 AM to 2:00 PM. There's always a nice group of members but ALL visitors interested in amateur radio are welcome to stop by! You do not have to be a member or even a ham to visit us. Please be sure to sign the Visitor's Logbook in the kitchen, say hello to your Clubhouse Host, have a cup of coffee and a donut (always a nice assortment on hand). You may wander the building—visiting the classroom, the downstairs "shack parlor" we call The Lou Room, and of course upstairs to see the main HF room and the W7OS Doc Spike Memorial museum—a living collection of vintage gear that regularly gets on the air.

The last Saturday of every month, we hold a mini flea market where members can sell their ham gear. But even non-members are eligible to dicker for deals and take home gear. And starting around 11:30, our club Chef Paul W7PFU serves up free chilidogs, or sometimes burgers or spaghetti at the chef's whim. We hope to see you stop by soon!
■ *-editor*

Mini-Swap Meet Monthly

DO YOU HAVE EXCESS GEAR TO SELL? Members of The Radio Club of Tacoma have a little perk every month with our own mini Swapmeet held in the clubhouse on the last Saturday of each month. No charge for a table—just bring your wares and set up shop! Non-members and visitors are free to stop by and see if they can pick up bargains. The club also has gear donated regularly that is made available to visitors and members alike, available for purchase via donation. And of course, as mentioned in the Open House reminder, the club chef Paul W7PFU cooks up chilidogs or spaghetti (whatever suits his mood!) at no charge for guests. ■ *-editor*

How To Lock The Doors

AS WAS REPORTED in last month's Bark by our club Secretary, Gary WG7X, in recent months there have been reports of the clubhouse being found unattended and the doors not even locked! Obviously, this is not acceptable. It's the responsibility of the Club Hosts on Open House Day (Saturday) or those who have door and alarm codes on other days to make certain the building is secure when leaving.

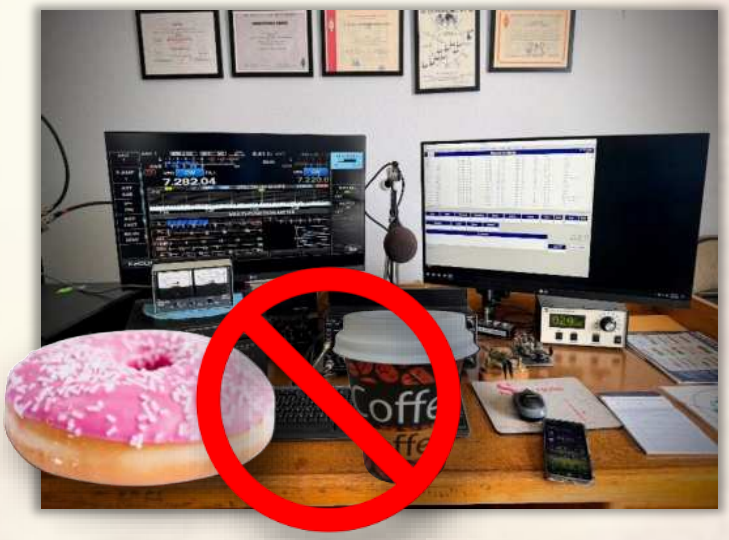
But should you be in the position of being the "last one out", you can still LOCK THE DOOR even if you don't have the code or a key. Simply pull the door closed and push the "lock symbol". The battery-powered mechanism will then lock the door (you won't be able to get back in without the code!). This applies to both the front door and the back door. See photo below—note the "lock" button.

-Dave W7UUU

Help Keep The Clubhouse Clean

THIS IS JUST A GENTLE REMINDER that the W7DK Clubhouse is for all members to use and enjoy, and is a place to put our best foot forward as a club for visitors we welcome in almost every Saturday of the year.

Please be mindful of leaving trash, empty cans or bottles, food wrappers, McDonalds bags, and whatever else. Same holds for coffee cups… we frequently see cups left on classroom tables, the kitchen counters, at the Lou Room table, and wherever else. Please just make sure to "pick up after yourself". Also, remember that liquids and radios don't mix. Please don't take cans or cups of beverages into the HF room or the Museum—just water bottles with lids or closures of some sort. And no "sticky foods" like donuts! No one wants to reach for the tuning knob only to find your sticky donut residue on it!



AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

W7DK

Warren NG7G stops by the clubhouse on a recent Saturday Open House day

RCT is very proud to have Bob AD7LJ, ARRL Western Washington Section Manager as one of ours

Chef Paul W7PFU firing up the kitchen for a recent "Last Saturday" chilidog day. Thanks for all your hard work, Paul! It's appreciated.

Phil K7PIA arrives at the clubhouse sporting his Seattle Mariners colors! GO MARINERS!

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Paul K7OSS (left) works out club business with club Secretary Mike W7MKE

Always with a smile (and most often a donut) is Nolan K7GBM on a recent Saturday

"The gang's all here" in the Lou Room

Rik N7RIK helping sort through PMT donations

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Dan K7MM brings boxes of donations to the PMT group for sale or use by the club

L>R: Mike W7XH visits with Kathryn K7USR and Cathi W6PSY in the backyard of the club

Sebastian (left, no call sign) and his father Harry Page W7/G7LMJ visiting from Hayling Island, England on a recent sunny Saturday morning

Walt WA7SDY selling his wares on a recent Last Saturday mini-swapmeet

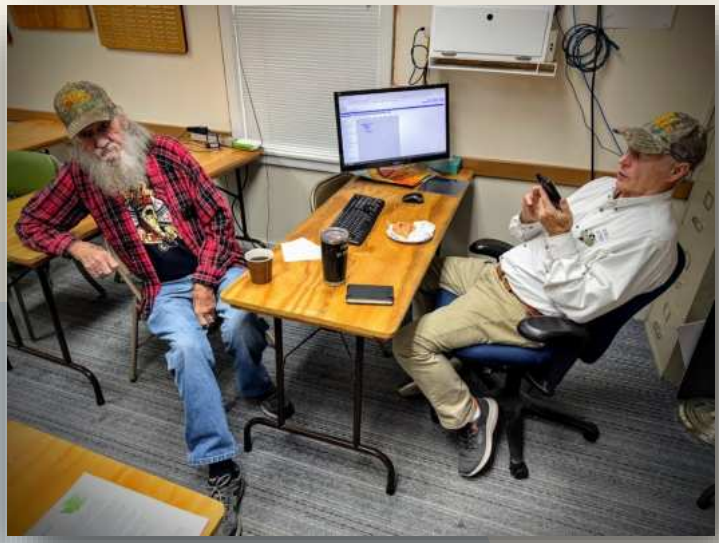
All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

W7DK

Walt WA7SDY hanging out with Sam N9MII in the classroom



David AC7KP chatting it up with Mike W7MKE

David AC7KP with Warren NG7G

Whenever a large donation comes in, a crowd is sure to follow shortly!

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

L>R: Dave N7HT, Stephen AD7AB, and Phil KC7PS visiting in the Lou Room

Gary WG7X mugs for the camera

BJ KO7T hard at work planning the Bigfoot Special Event for 2025 the week before it starts

Mike W7XTZ shows off his impressive knife collection

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Anne N7ANN chats it up with Bob K7MXE

Walt WA7SDY waves while waiting to check in to the 40m Noon Time SSB Net

Joe KF7PXB looks for cool stuff on the "Free Table"

Stephen AD7AB and President Adam W2NCC hard at work setting up radio programming

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Jeff W8NGS hanging out with Anne N7ANN

"The Gang's all Here" in the Classroom on a recent Saturday Open House day

Tim KF4EDG signs the ARRL HOA antenna petition with President Adam W2NCC

The CW Classic Exchange contest is coming up soon so the W7OS Museum Station is gearing up—this year there's a "Globe transmitter" bonus!

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Paul K7OSS helps put up a fan dipole antenna

Saturday October 11th Tech Training session

General Meeting—Saturday October 12th

Hanging out in the Lou Room

All photos this page provided by Mike W7MKE

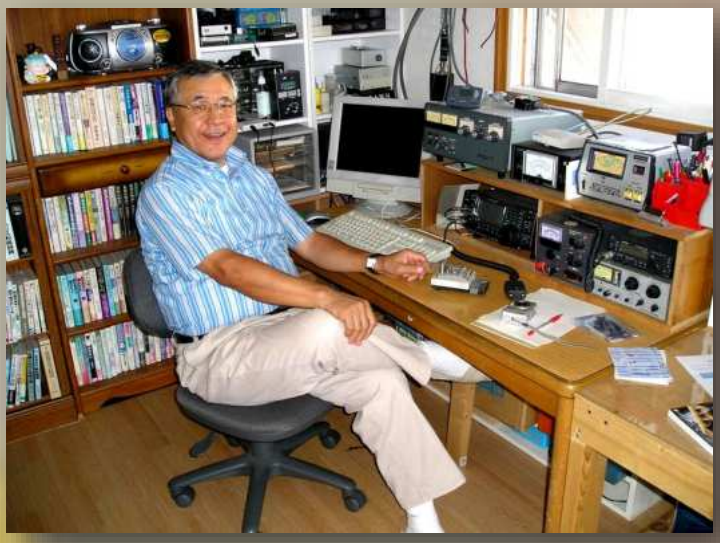
AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

W7DK

November Birthdays!!

Call Sign	Name
KB7QAG	Jeff Smythe
KK7RFI	Chris Chowen
K7JF	Jeff Freedman
KG7KM	Patrick Moore
AC7KP	David Stilwell
KC7TCX	Vikki Carter
WB7TVS	Bruce Perrussel
W7ETT	Sean Kelly
AE7PC	Charles Moorhead
KG7JVY	Amy Constantineau
NG7G	Warren Angus
N7TES	John Sherrill
KG7QVP	Andy Leneweaver
W6PSY	Cathi Korth
AA7KL	Chris Porter
KD7JAG	Deborah McCollum
KK7AIQ	Bruce Rollwagen
N6CHU	Bob Huntsman
KK7NYW	Dave Hansen
N6YU	John Carter
W8ESM	Eric Messelt
KK7QKP	Andrew Olson
KK7VHH	Jessica Frost
KJ7IOG	Robert Miles
AA7DS	Dave Steere
AE4GW	Greg Wilde
W9BUS	Tristan Beache
NA7H	Brian Hanna
KE7RGI	Chris Kendrick
KK7ZTB	Joe Kasperski
K3ENV	Ed Doyle
KG7VJW	Steven Miller
K7WYR	Douglas Flint
W8RID	Robert Davet
JA8AWH	Yass Shiiya
K7ST	Adam Kerner



Happy Birthday Yass Shiiya, JA8AWH!

椎屋さん、お誕生日おめでとうございます

photo from Yass's QRZ page

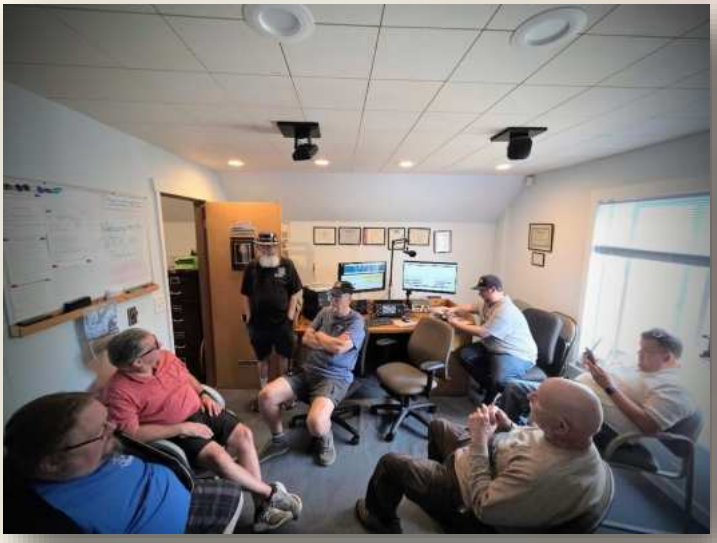
Happy Birthday Jeff KB7QAG!

photo by Dave W7UUU

RETURN TO HOME PAGE

MOST EVERY THURSDAY EVENING from 6PM until 9PM, the Radio Club of Tacoma opens the HF room for one-on-one training time. Saturdays are a great time to come see the clubhouse and socialize, but often it's tough to get "quality time" with the radios. This weekly event is open to all—members and non-members alike. There is always at least one Extra Class operator on hand with a solid knowledge of the Icom and Flex radios in use, as well as the antenna patch bay, amplifiers, and tuners. Even non-licensed "hams to be" can take a hand operating under the tutelage and watchful eye of an experienced "Elmer" on hand to show the ropes. Other nights, the club takes on build-it projects in the classroom—Come on by any Thursday!

■ *-editor*



L>R: Sam N9MII, John K2CCT, Stephan AD7AB, Al N7OMS, Phil K7PIA, Bob AD7LG, & Javier KM7AQN at a recent Thursday Evening session
Photo by Mike W7MKE

Becky KG7FZH and David AC7KP wait their turns on on of the two main HF operating positions
Photo by Mike W7MKE

Gary WG7X (black hat) helps Dave *W7GEL* (out of frame) on the Icom IC-7610. John *K7CCT* looks on as Julie *W7JUL* makes contacts on the Flex 6600.

Photos by Mike W7MKE

CLUB ACTIVITIES

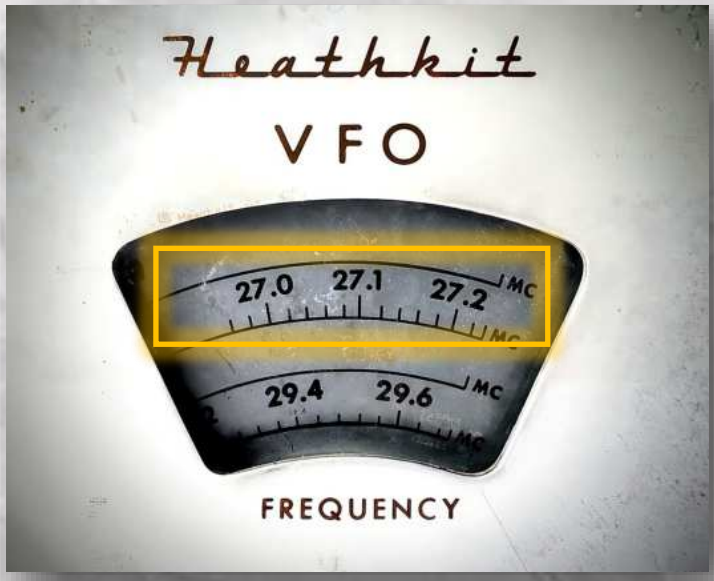
RCT 4th Wednesday Workshop

The Radio Club of Tacoma's 4th Wednesday Activity Night is a fairly regular event, allowing members to have "hands on" experience building practical ham radio projects—kits, antennas, baluns, you name it. It's a great time for newer hams especially to join in a fun social and learning time at the RCT clubhouse. There are always skilled mentors ("Elmers") on hand and usually the cost for attendees is minimal. Keep an eye on the Radio Club of Tacoma website for announcements of upcoming 4th Wednesday workshops at www.W7DK.org of just ask around the clubhouse on any Saturday Open House day. Photos on this page are from a recent such event where attendees learned how to assemble a roll-up J-Pole antenna for 2m and 70 cm under the guidance of member and ARRL Western Washington Section Manager Bob AD7LJ (yellow shirt) and Paul K7OSS behind him in a blue shirt. ■ *-editor*

Photos provided by Doug AB7DG

Hams and the 11-Meter Band

I REMEMBER BEING TAUGHT BY MY ELMER/MENTOR Hank Perozzo W7UD (SK), as a 13-year-old Novice (WN7AWK) in Spring of 1974, that the radio spectrum is as much a product of politics and commerce as it is of physics or fun. The story of the 11-meter band — how hams first came to use it and how we ultimately lost it to what became the Citizens Band — is a textbook example. This subject came up a lot in ham discussions in the mid to late 1970s as the "CB craze" swept the country.



Closeup of the dial of a mid-1950s Heathkit VF-1 VFO clearly showing the 27 MHz 11-meter ham band (with 10-meters below, the section these days used for FM). The popular Heathkit DX-100 used the same VFO and for many years was sought by CBers as a quick path to 100 watts AM. Photo by Dave W7UUU

"Hank–what do you mean hams used to have the 11-meter band?", I asked my Elmer one day.

Over a number of conversations I remember well, Hank explained it's a tale of post-WWII frequency rearrangements at international conferences, of the FCC trying to make radio useful to ordinary citizens and industries, experimenters proving higher frequencies had useful purposes, and of amateur radio operators getting more spectrum for ham use.

After World War II the international community met in Atlantic City, New Jersey, to sort out who would use what on the airwaves. The Atlantic City conference began on July 1 of 1947 and ran to the beginning of October—during this event, they redrew HF

3.500– 4.000	—	A1
3.850– 4.000	—	A3, Class A only
3.850– 3.900	—	NFM, Class A only
7.000– 7.300	—	A1
14.000–14.400	—	A1
14.200–14.300	—	A3, Class A only
14.200–14.250	—	NFM, Class A only
26.960–27.230	—	AØ, A1, A2, A3, A4, FM
28.000–29.700	—	A1
28.500–29.700	—	A3
28.500–29.000	—	NFM
29.000–29.700	—	FM
50.0 –54.0	—	A1, A2, A3, A4
51.0 –52.5	—	NFM
52.5 –54.0	—	FM
144 –148	—	AØ, A1, A2, A3, A4, FM
220 –225	—	AØ, A1, A2, A3, A4, FM
420* –450*	—	AØ, A1, A2, A3, A4, A5, FM
1,215 – 1,300	—	AØ, A1, A2, A3, A4, A5, FM
2,300 – 2,450		AØ, A1, A2, A3, A4, A5, FM, Pulse
3,300 – 3,500		
5,650 – 5,925		
10,000 –10,500		
21,000 –22,000		
All above 30,000		

* Peak antenna power must not exceed 50 watts.

U.S Frequency allocations from the 1950 ARRL Handbook. Image courtesy Randy WB4SPB & © ARRL, Inc. Note the emission types allowed—almost the same as for 2m and up—11 meters was clearly an experimental band, in that all possible emission types available at the time were allowed. AØ is unmodulated carrier (pure carrier for remote control), A1 is CW, A2 is Modulated CW, A3 is AM Voice, A4 is images via facsimile (radio FAX), and of course FM is Frequency Modulation. All allowed anywhere on the band!

Hams and the 11-Meter Band

Bandswitch closeup of the Heathkit DX-40 transmitter, showing the combined 10-11 meter band position. All of the Heathkit DX-series transmitters had an 11-meter option, with the DX-100 being the 100-watt pinnacle of the Heathkit 11 meter ham rigs. Photo by Dave W7UUU

and VHF allocations to reflect wartime lessons and the new peacetime radio services. Part of that reallocation shifted around some established amateur privileges and, to partially compensate U.S. amateurs for frequencies they lost elsewhere, the band from 26.96–27.23 MHz — 11 meters — was made available for amateur use on a *shared basis* with industrial, scientific and medical applications (today's buzzword acronym for that is "ISM services").

That "shared" part mattered: some of the frequencies near 27 MHz were attractive for non-communications devices — diathermy machines (RF-based therapy to produce deep heat in body tissues) and other early ISM gear — and much of that created harsh interference that discouraged sustained, wide-scale amateur activity on 11 meters in the late 1940s and early 1950s. The band was something of a "Wild West" of radio frequency

[Docket No. 11994]

PART 19—CITIZENS RADIO SERVICE

MISCELLANEOUS AMENDMENTS

In the matter of complete revision of Part 19, rules governing the Citizens Radio Service, and reallocation of frequencies in the range 26.96–27.23 Mc from the Amateur Radio Service (Part 12) to the Citizens Radio Service.

Part 19—Citizens Radio Service, of the Commission's Second Report and Order in Docket No. 11994 of August 4, 1958 (Mimeo 60912, FCC 58–798), in the above-entitled matter is corrected as follows:

1. Correct the last frequency 27.255 Mc in the table of frequencies shown in § 19.31 (d) to read 27.225 Mc.
2. Correct the date September 1, 1958, in § 19.42 (b) to read September 11, 1958.
3. Correct the reference to § 19.52 in § 19.72 (c) (2) to read § 19.62.

Released: September 4, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-7318; Filed, Sept. 9, 1958; 8:50 a. m.]

Actual FCC docket text documenting the end of the 11-meter ham band and turning it over to the Citizens Radio Service.

experimentation by many—commercial interests as well as hams. There were scant rules about noise.

In the U.S at the time, the idea of a "citizen's radio service had been kicking around for a while. Immediately after the war there were experiments and several classes of what the FCC called "Citizens' Radio" in

Hams and the 11-Meter Band

the 460–470 MHz UHF region. Those early services — Class A and B, by the FCC's labels of the time — never caught on in a big way, in part because UHF equipment was bulky, unreliable, and expensive in the late 1940s and early 1950s.

Regulators and industry alike looked for a lower-frequency home that would provide modest range with inexpensive equipment for "normal folks" to use. That search, combined with pressure from radio-control model hobbyists and other users, set the stage for *the big shift* in the late 1950s.

In the spring of 1957 the Commission circulated a notice of proposed rule-making that, among other things, considered sweeping changes to Part 15 of the rules and the relocation of various citizens-radio services. By mid-1958 the Commission had adopted orders that reshaped the domestic landscape for short-distance voice radio.

Closeup of the bandswitch of a Heathkit VF-1 VFO—same as the VFO in the DX-100 showing the 11-meter band. Photo by Dave W7UUU

The official document of record is FCC 58-798 / Docket 11994 (document page 7004, PDF page 34) which was pretty much the "final word" ordering the 11-meter band to be removed from Amateur Service and moved to the new Citizens Radio Service (CB) on September 11, 1958.

The practical result was that, by the autumn of 1958, the frequencies from 26.96–27.23 MHz that hams had used in a limited, often experimental way were carved into fixed channels and assigned to a new, regulated CB service.

Class D Citizens Radio Service on 27 MHz, the service most people think of when they say "CB," was created that year and initially offered 23 channels for voice use, with the first 22 channels drawn directly from the former 11-meter amateur allocation and a 23rd channel shared for radio-control devices—at 27.255 MHz. The noisy 11-meter diathermy machines were banned in subsequent FCC rulings.

The Commission defined the service as intended for short-range, using low-power, and oriented toward personal and business communications "around town" rather than hobbyist DXing. It limited transmitter power accordingly, to 5 watts. "Shooting skip" and all that CB became was still 20 years in the future.

You can imagine how, in fall of 1958, that decision landed with the ham community. To many amateurs it felt like a theft of spectrum they had only just be-

Hams and the 11-Meter Band

gun to experiment with after the war.

But the reality was more involved than just that. The 11-meter allocation had *never* been a robust, heavily used amateur band in the United States in the first place; propagation at those frequencies is highly variable (as we all know from 10 meters which has nearly identical propagation) and the band was subject to nasty industrial interference and noise.

The Commission and some industry interests argued that the public would derive more day-to-day value from a regulated, low-power voice service that ordinary citizens and small businesses could afford, rather than leaving that chunk of spectrum to a relatively small community of experimenters who often found the band marginal. Hams—for the first time it seems—demonstrated the "if you don't use it you will lose it" dynamic.

Still, among operators who had invested in 11-meter gear and antennas, the reassignment was *deeply* unpopular. The debate over who "deserved" which slice of spectrum was also a lesson about how scarce radio real estate is parceled out: technical merit mattered, but so did perceived public benefit and political pressure.

Once the FCC had established the Class D band at 27 MHz, the market and radio culture followed. Manufacturers began producing low-cost AM transceivers tailored to the newly created CB channels, and by the 1960s and especially the 1970s, the service had become a mass phenomenon, far beyond what anyone in the late-1950s rulemaking probably anticipated. Any hams "of a certain age" will well remember the crazy days of the CB explosion of the 1970s.

The EICO 720 transmitter came out just at the moment the 11-meter band turned into CB in 1958. Yet EICO kept selling it, 11-meters and all, well into 1964. One of the strangest anomalies of the whole 11-meter topic. Photos by Dave W7UUU

For hams, the loss of the 11-meter slice was certainly painful for a while, but the long

Hams and the 11-Meter Band

-term story of amateur radio is resilience if nothing else. Hams just moved on—most who had been fond of the 11-meter band simply moved to 10-meters since propagation-wise, it's about the same thing.

So if you ask when hams "got" the 11-meter band, the short answer is that post-war allocations in 1947 gave them a shared slice spanning upper 26 MHz into 27 MHz that was usable for short periods and experimental radio. If you ask when they "lost" it, the decisive action was the FCC's reallocation through FCC 98-798 / Docket 11994 and the establishment of Class D CB on the 27 MHz band in 1958, which repurposed most of that spectrum for a regulated public voice service. The technical facts about frequencies and the legal facts about rulemaking are really dry; the human facts are messy and full of argument, disappointment, and essentially two groups who were (still are?) very much at odds, with very different cultures: CBers and hams. But I really think by now, in 2025, most of those divisions are really in the past. Most hams who actively used 11-meters are simply no longer with us, and most of hard-core CB fans from the "CB craze" years of the 1970s as well are now gone.

Photo from Clickamerica.com

Spectrum history isn't just nostalgia. It teaches a living lesson about how societies value different kinds of communications, and why amateur radio operators — who built so much of the really early culture and technique of wireless — have to stay politically engaged as well as technically skilled. Even today—see the World News section in the October 2025 *Bark*—FCC Space Bureau Docket No. 25-201 that is granting shared commercial use (with very limited provisions) to the 70cm ham band to a commercial satellite operation.

Hams need to be mindful of using the bands we are privileged to have—"use it or lose it" was a big part of hams losing 11-meters. I think we all know that with "selling price of spectrum" these days that my Elmer Hank W7UD really was spot on when he told me all those years ago, "radio spectrum allocation is a product of politics and commerce ".

The 11-meter ham experience is one of those episodes you tell younger hams so they understand that the airwaves are governed by rules, but also that smart, organized amateur effort can shape those rules over time.

[Full disclosure: I was never into CB. I had a Radio Shack TRC 3-channel CB I used to talk to neighborhood kids in 1975—but when I realized that kids I went to school with in Fircrest, Washington suddenly had "Southern CB radio accents" I quickly lost interest and never used the band again. I thought it was really weird how kids I grew up with suddenly sounded like they were from Georgia!]

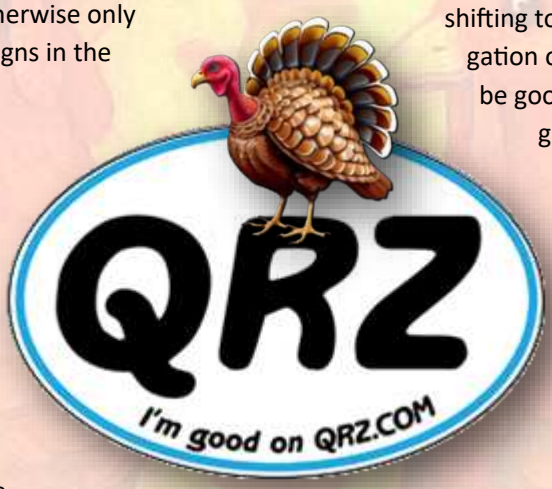
I hope you liked this article—it's really aimed at the *newer* hams in our midst—who may not even know how it came to be that hams once had allocations in what is now the 11-meter Citizens Band.

-Dave W7UUU

13TH ANNUAL QRZ.COM TURKEY DAY NET!

EVERY THANKSGIVING, WHEN MOST FOLKS ARE CARVING turkeys and settling in with family, a different kind of gathering takes place across the bands. The QRZ.com Turkey Day Net has grown into a holiday tradition among QRZ forums hams who spend much of the year chatting on QRZ but also enjoy the chance to meet on the air. It's not a contest, it's not formal, net control stations come and go all day long, QRZ the business is not a sponsor, and there is no prize. Instead, it is simply a friendly SSB and CW net where hams can check in, pass along holiday wishes, and connect by voice or CW with people they may otherwise only know by their screen names and call signs in the QRZ discussion forums.

The event goes back a long time. A QRZ forum thread from 2012 first brought the idea to life, and it caught on quickly with operators who wanted to mark the holiday with a bit of on-air fellowship. By 2022 it was already being called the eleventh annual net (the first reference I could find to "annual event"), which shows how firmly it has settled into the calendar. What started as a casual experiment has become a recurring event, eagerly anticipated by those who enjoy the combination of ham radio camaraderie and the connection to QRZ forums on a relaxing holiday.



The format is deliberately simple. Operators typically begin gathering around 15:00 UTC, which falls late morning or early afternoon in the United States depending on the time zone. The net has no official control station, so anyone can take the initiative to call CQ and invite others to join. Over the years the 20-meter band has been the most common meeting place, with 14.242 MHz or thereabouts being the "unofficial official SSB frequency", though in practice of course, the frequency may shift as conditions require. Because it's not tied to a rigid set of rules or procedures, the event has an easygoing tone that fits the holiday mood.

Check-ins follow the usual ham radio pattern. Whoever the net control is at the moment calls for stations, who chime in with their call and location. There's always a casual chat about what they are cooking for Thanksgiving or who they are with for the holiday. Some describe their rigs and antennas, while others simply wish everyone a happy Thanksgiving and pass it along to the next person. For most, it is less about technical details and more about being present on the air as part of a community. In some years the net has stretched across multiple bands, with hams shifting to 40 meters or elsewhere when propagation on 20 meters fades. This year should be good, especially on 20 while we still have good propagation in this cycle 25.

Techs of course can work 28.400 or thereabouts—one of the net controls usually puts out a call there as well to bring them in.

Newcomers feel just as welcome as seasoned operators. And you DON'T have to be a QRZ Forums user to check in. The tone is friendly, spontaneous, and often humorous. Over time, it has even taken on a sense of ritual. Hams talk about it as something they look forward to each year, and some have even noted their participation in personal profiles or obituaries. The simple act of keying up and saying hello on Thanksgiving morning and afternoon has become a way of marking time in the hobby.

In the days leading up to Turkey Day, check QRZ forums—specifically, Ham Radio Discussions, for the official announcement—usually started by Tom K9ASE who is a regular attendee. I will be there as well on Thanksgiving Day (so far as I know at the time of this writing) and would be happy to chat with anyone who stops in. Happy Thanksgiving all, and maybe we'll chat on the 2025 QRZ.com TDN!

-Dave W7UUU

THE FRUGAL HAM

$35 Communications Receiver

I AM TRULY AMAZED AT THE LEVEL OF PERFORMANCE that can be achieved these days in inexpensive electronic devices. For many categories of gizmo, incredible technology can now be had for peanuts. Case in point: the ATS-20+ SDR receiver seen in this article. Talk about "frugal ham" - how about a pretty amazing AM BCB to 30 MHz AM/LSB/USB/CW/FM receiver that performs really well for about $35.00?

ANYSECU ATS-20+ front panel—note the very small OLED display. Amazing receiver for only $35
Photo by Dave W7UUU

I bought this on a whim recently with this very column in mind… just what sort of receiver can you possibly get for under $40 including tax and shipping? Well, in the case of the ATS-20+ you get a pretty darn amazing one! I am honestly astonished at how well this tiny receiver works.

Needless to say, it's not made in Chicago or New York City. It comes of course from China, under several different brand names (which appear nowhere on the radio itself). The one I purchased (new for $35.60 with free shipping from an eBay seller) is branded ANYSECU but I have also seen them from another seller called Goozeeboo (!) and a couple other Chinese firms.

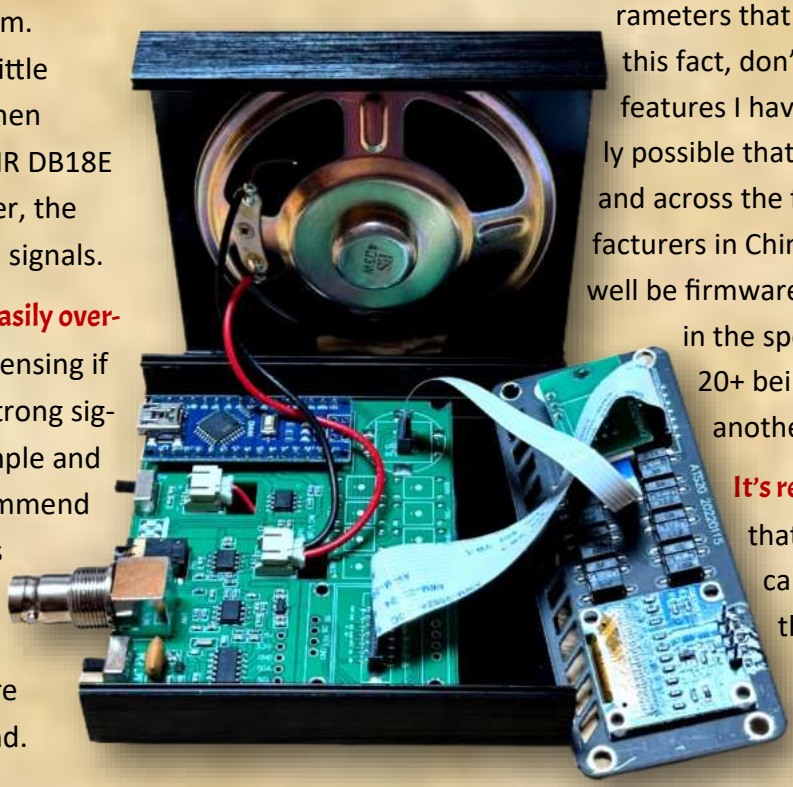
On boot-up, the OLED screen displays the call sign PU2CLR who is Ricardo Caratti—a Brazilian ham who develops and maintains open-source Arduino libraries and firmware for the Silicon Labs SI473x DSP receiver chips at the heart of the ATS-20+. It's Ricardo's firmware that makes the receiver tick.

The specific DSP receiver chip in the ATS-20+ is the SI4732 that provides all the actual radio functions, with an Arduino Pro Mini (ATmega328P) microcontroller that handles control and interface logic, and drives the OLED display. What is surprising is there are no "RF looking" components under the hood. See the photo on the next page—when I opened it up I was expecting to see toroids and capacitors but instead I saw only half a dozen SMD chips and other such components. Intellectually I know that a typical SDR doesn't have such analog components but it's still a surprise to see.

The blue PC board of course is the Arduino Pro Mini which handles all of the receiver control, push buttons, tuning encoder and OLED display. On the underside of the green PC board is the built-in Li-Ion battery, which recharges via the USB-C port (earlier versions used a micro-USB port). The antenna connection is a PCB-mounted BNC connector (earlier versions used an SMA type connector). The receiver comes with a small telescoping BNC antenna that's

fine for just listening to local AM or FM broadcast. Although, in my testing, I found that outdoors, I could easily pick up WWV on 10, 15, and 20 MHz just using the small whip.

So how does it perform? Amazingly well, I have to say. I honestly wasn't expecting much out of a $35 all-band receiver. On my aging G5RV up 35 feet, I was easily able to pull in signals on all the ham bands and the handful of shortwave stations that are still on the air with no problem. Weaker stations were a little tougher it seems. But when I attached it to my SteppIR DB18E up at 70 feet on the tower, the bands just exploded with signals.



However, the front end is easily overloaded and subject to desensing if there are nearby really strong signals. The AGC is very simple and is either on or off (I recommend leaving it on). The BFO is oddly nonlinear, in that it seems to vary differently depending on where you are tuning in the band.

Battery life is great—I am easily able to get 10+ hours of use out of a charge. I have read a few posts that warn not to let the battery go flat because that could stress the Arduino—but I haven't experienced any issues—or if I have, I certainly wasn't aware of it happening.

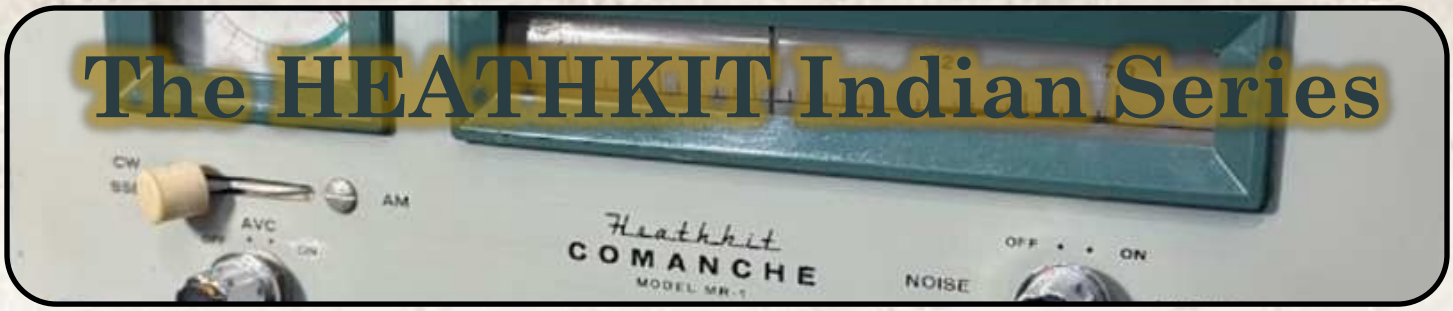
But overall the audio is excellent, the tuning is very stable (with variable step rates), and it's very easy at the slowest step rate (10 Hz). It's really simple to tune in CW even when using a tight filter. Speaking of filters, there are six presets ranging from 500 Hz up to 4 KHz for AM reception.

The receiver, being based on Arduino, is fully open-source on the SDR side. If you are a "radio tweaker" and know your way around the Arduino, you can change just about any and all of the operating parameters that you like. Because of this fact, don't quote me on all of the features I have reported—it's entirely possible that from batch to batch and across the field of several manufacturers in China, there could very well be firmware variations that result in the specifications of one ATS-20+ being quite dissimilar to another.

It's really amazing to think that for a mere $35 you can today buy a receiver that on balance, would be up to the challenge of being an actual ham radio station receiver to be paired with a transmitter. An enterprising tinkerer could replace the tiny screen with a larger one, and a larger encoding dial and knob, and end up with a pseudo-professional SDR station receiver. For the price, this is about the best receiver out there.

-Dave W7UUU

The HEATHKIT Indian Series



***Disclaimer**: Between 1958 and 1961, The Heath Company sold 10 very popular transmitter and receiver kits. They were designed under the leadership of Chief Engineer Roger Nace W6RW. Roger's wife was Native American and suggested a series of models that came to be called "the Indian series". We obviously live in a time when this would be frowned upon. However, it's a part of history and many hams may never have heard of these great old radios. This is their story as it took place.*

The HEATHKIT Indian Series

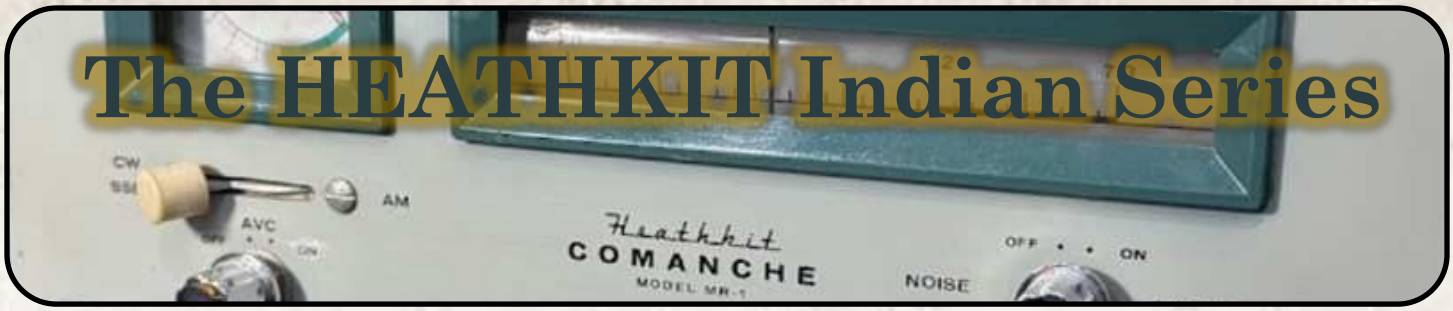
In the mid-1950s, the Heath Company of Benton Harbor, Michigan, was already well known for its kits ranging from test equipment to hi-fi amplifiers. In 1954 under Heath Company owner Howard E. Anthony, the Heathkit brand tiptoed into ham radio gear with the AT-1 and DX-100 transmitters, among other products. The untimely death in a plane crash of Mr. Anthony in July 1954 put the company on hold, until Anthony's widow Helen sold the company to Daystrom, Inc. of Worcester, Massachusetts. Daystrom was a very large company, and pledged to back a massive development phase into many markets, including amateur radio. So in 1956 the company made a deliberate and significant push into the amateur radio sector with an entirely new line of receivers and transmitters. Daystrom President Thomas Roy Jones pretty much handed a blank check to chief engineer Roger Mace. Mace had joined Heath in 1951 and quickly risen to the role of Chief Engineer. As a licensed amateur (later call sign W6RW—I could not find his call for the 1950s period), he became the driving force behind what collectors now call Heathkit's "Indian-named" equipment. This series is arguably one of the most stunning lineup of classic ham gear that Heath Co. or any other company ever envisioned. Heavy "seafoam green" cabinets, elegant and eye-pleasing panel layouts, and the knobs… those glorious shiny chrome knobs that completely fit in that era of automotive tail fins and chrome everywhere just like on a 1958 Buick Limited or Olds 98.

Stunning Heathkit Mohican GC-1A as restored by Steve KW4H. It was a complete top down 100% rebuild. Photo by Steve KW4H.

The idea for giving the products Native American names came from Mace and was influenced in large part by his wife, who was of Native American heritage. It was a marketing strategy that fit the era. In mid-century America, imagery of tribes and warriors was used widely in commercial branding to suggest strength, independence, and tradition. The names—Apache, Mohawk, Cheyenne, Comanche, and others—were never presented as a unified series, but the common theme and matching two-tone green styling tied them together unmistakably and whether intentional or not, the "series" name stuck.

The first of the group was the Mohawk, the RX-1 communications receiver introduced in 1956. It was Heathkit's boldest step yet in receivers: a triple-conversion design with a large dial and colorful front panel. A year later came the Apache transmitter, and soon the company rolled out other models across both HF and VHF. The Cheyenne and Comanche offered a smaller matched transmitter and receiver pair; the Pawnee was a straightforward mobile 2m transceiver; the Shawnee a similar 6m transceiver; the Chippe-

The HEATHKIT Indian Series



wa was an overly complex and expensive linear amplifier—every few were ever sold; it was followed by the Warrior which was Heath's first successful and affordable kilowatt-class linear amplifier; the Mohican extended the line into a portable solid-state receiver; and the Seneca gave operators a transmitter for 6 and 2 meters.

These rigs were not only technically ambitious but also visually striking. For the first time, Heath customers could assemble an entire matched station that looked as if it had been designed as a single unit. Many amateurs of the era remember the Mohawk-Apache combination as their first exposure to a "big time" amateur station, even if its sheer size and weight made it impractical for a lot of ham homes.

The naming convention lasted only as long as Mace's tenure. In 1960, he left Heath for health reasons, and with his departure the era of tribal names came to a close. The Mohican, designed during his time but introduced in 1961, was the last of the line. By the mid-1960s Heath had moved decisively toward a modern identity with the SB-series equipment, adopting model designations that emphasized technical sophistication rather than cultural themes. After Mace, any models still sporting Indian names were simply silk-screened with the model number rather than the original name.

From today's perspective, the use of Native American names in consumer products is viewed differently than it was in the 1950s. What was once seen as honoring tradition is now understood as commercial appropriation, and Heath's practice would not be repeated in later decades. It certainly wouldn't fly today. But within their historical moment, these radios struck the right note with amateur operators who were eager for both performance and a sense of belonging to something larger.

Collectors still prize these old rigs—granted, not at the rate they did 20-30 years ago as the ham population and interest in the old gear wanes among the younger hams. But even today the Apache TX-1, Mohawk RX-1, and Chippewa KL-1 (more likely the far more common Warrior HA-10) still get restored and put into service as attested by Jon W8SA's beautiful shack seen on this page. Their heavy two-tone green cabinets, the stunning chrome knobs, and iconic names capture a period when amateur radio was booming. Heathkit was at its stylistic creative peak, and one engineer and his wife's imagination gave the hobby a line of equipment that would be remembered for generations.

-Dave W7UUU

Amazing Indian Series station of Jon W8SA
L>R bottom: SB-10 SSB converter, Apache TX-1 transmitter, Mohawk RX-1 receiver, and the very rare Chippewa KL-1 KW amplifier
Photo by John W8SA used with permission

Name	Model	1st Year	Notes
Mohawk	RX-1	1958	High-end triple-conversion receiver
Apache	TX-1	1958	Matching transmitter to Mohawk
Seneca	VHF-1	1958	Dual-band 6/2 meter transmitter
Cheyenne	MT-1	1959	Compact mobile transmitter
Comanche	MR-1	1959	Companion receiver to Cheyenne
Chippewa	KL-1	1959	Kilowatt-class linear - very rare
Warrior	HA-10	1959	Kilowatt-class linear
Mohican	GC-1A	1960	Portable general coverage receiver
Pawnee	HW-20	1960	Two meter transceiver
Shawnee	HW-10	1961	Six Meter transceiver

Heathkit Indian Series model names and numbers with introduction years. Source: Chuck Penson WA7ZZE's book, "Heathkit—A Guide to the Amateur Radio Products, 3rd Edition"

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email loggersbark@gmail.com

SHERLOCK INVESTIGATES:

LITHIUM-ION BATTERY CHARGER FAILURE

SHERLOCK

INVESTIGATES: LITHIUM-ION BATTERY CHARGER FAILURE

By Dave W7UUU

SHERLOCK INVESTIGATES: THE CASE OF THE FAILING LI-ION CHARGER

It was a most curious affair. The little black case sat upon my workbench, as mute and motionless as a corpse upon the mortuary slab. For ten years it had faithfully rendered service—charging countless cells without complaint—until one day it simply expired. No spark of life, no warming glow from its crimson eye. The indicator blinked once, faintly, and then darkness reigned.

The mains were most assuredly present, for I tested the line and found it lively. Yet no voltage issued from the output leads. “My dear Watson,” I said (for he had entered the room with an expression of mild curiosity), “we are dealing with a silent failure—most likely mechanical in nature.”

The enclosure, like so many of its kind, was sealed against inquiry by a manufacturer’s hand. A lesser man might have surrendered the field; but to me, a sealed case is merely an unopened mystery. I took up hammer and chisel—crude instruments perhaps, but effective—and split the shell with the same delicacy one might employ in cracking a boiled egg. Within lay the circuitry: a modest arrangement of coils, capacitors, and silicon devices, slumbering in dust and resin.

I connected a Li-Ion cell and applied power. At first, nothing. Then, as I gently prodded the components—particularly the inductors and electrolytics—a faint crackle reached my ear. “Aha!” I exclaimed. “A sign of life!” The tiniest movement of one capacitor coaxed the dormant light to awaken, and soon the small red lamp shone steadily. The deduction was elementary: a fractured solder joint, likely from years of thermal cycling. A simple matter, yet one concealed beneath layers of glue and molded plastic.

Ordinarily, one would turn the board over to inspect the solder side. But the manufacturer had glued the assembly directly to the lower half of the case—an

SHERLOCK

INVESTIGATES: LITHIUM-ION BATTERY CHARGER FAILURE

By Dave W7UUU

impediment to reason and repair. Rather than risk further destruction, I elected a more refined method. From the tool chest I withdrew a drill motor fitted with a 1-inch hole saw, a device more often found in a carpenter's kit than a detective's. With steady hand and keen judgment, I bored into the underside of the charger until the inner green landscape of the circuit board appeared through the circular aperture. The scent of warm plastic rose like evidence from a crime scene.

There, revealed by the bright ring of the cut, lay the culprit: one capacitor leg cleanly lifted from its solder pool. A touch of the iron, a small bead of fresh solder, and the connection was whole again. The charger revived at once, the red lamp glowing as proudly as on its first day of service.

"Observe, Watson," I remarked, "how a single symptom, properly interpreted, leads one directly to the truth. Shotgunning repairs, on the other hand, leads only into the abyss."

And with that, another mystery was laid to rest—one small victory for logic, observation, and the art of deduction.

"The world is full of obvious things which nobody by chance ever observes"—S.H.
The Hound of the Baskervilles

■ *-Finis—S.H.*

The Sherlock series of articles is written by a real person—a long-time Extra-Class ham and are not AI generated. The author prefers to remain anonymous. All photos by the author.

Meeting gearing up for the Presentation

BJ KO7T presents a great program on POTA and what it's all about

Jiro KW6A holds up his drawing prize—an SWR/wattmeter!

Congratulations Jiro!

Rik N7RIK holds up his prize as the second drawing winner

Congratulations Rik!

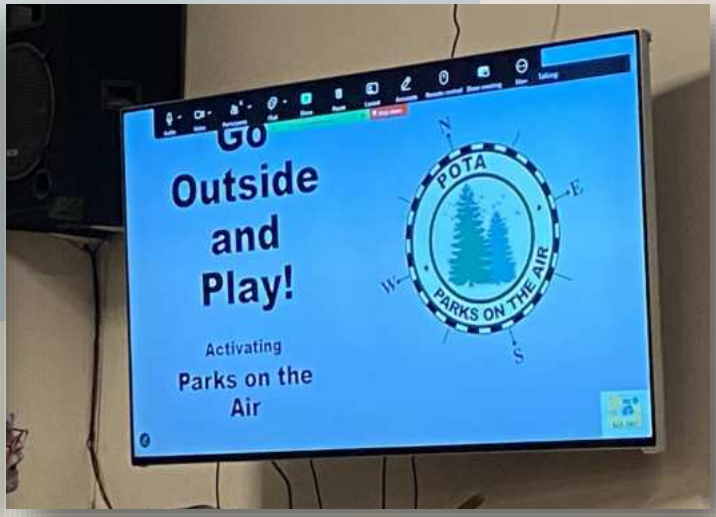
All photos this page provided by Julie W7JUL

Decent in-person turnout for the October 11 General Meeting

BJ KO7T giving his presentation on all things POTA

Photo by Phil KC7PS

Bark Editor Dave W7UUU was able to log into the October General Meeting from his stateroom aboard the Sapphire Princess cruise ship near Mazatlán, Mexico Photo by Phil KC7PS from the TV in the Eagles meeting space



Getting the KO7T "Parks on the Air" presentation set up on the Eagles Club meeting space TV

All photos this page provided by Bob K7MXE except as noted

STRAY TOPICS OF INTEREST:

Telegrapher's Liniment

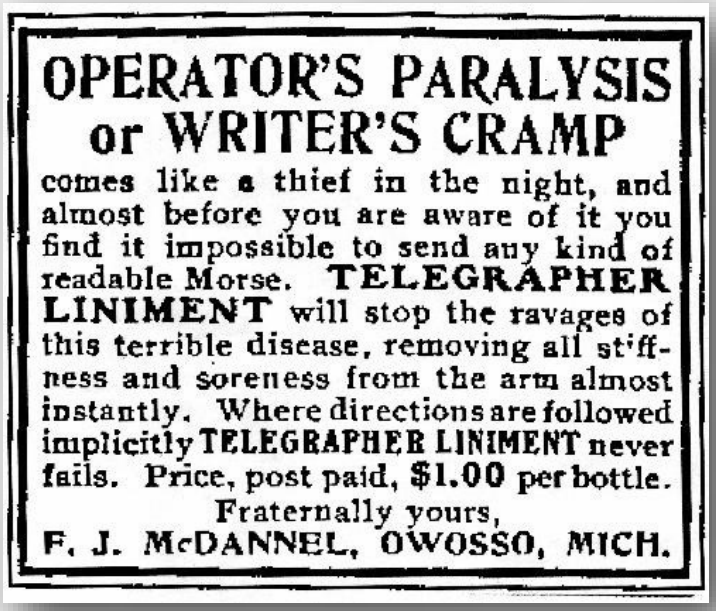
TELEGRAPHER'S LINIMENT IS ONE OF THOSE GOOFY curious relics from the "patent medicine" era, aimed at a very particular audience around 1900. Advertised to cure "Operator's Paralysis" or "Writer's Cramp," it was sold for a dollar a bottle (about $35 today!), postpaid, and it targeted the sore hands and arms of men and women who spent their working days at a telegraph key, typewriter or pen. The product was put out by Frank J. McDannel, a name that shows up in Owosso and Corunna, Michigan during the early 1900s.

McDannel's background is interesting in itself. He had worked as a train dispatcher for the Ann Arbor Railroad (and almost assuredly had Morse skills, since telegraph was the only communication system for dispatchers at that time) and also dabbled in real estate in Owosso during the 1890s. By 1928 he and his wife Maude were living at 584 West Corunna Avenue in Corunna, Michigan, where the city directory still listed him as a train dispatcher. He lived until 1941, and from my research, today he and Maude rest in Oak Hill Cemetery in Owosso.

As for the liniment, no recipe survives that I could find, but its likely contents can be guessed from the era's patent remedies. Most liniments of the period relied on counter-irritants—things like camphor, menthol, oil of wintergreen, alcohol, and turpentine—to create a warming sensation that seemed to ease stiffness and soreness. Some contained capsaicin or other strong stimulants to increase circulation.

Telegrapher's Liniment may not have truly cured "operator's paralysis," but it still stands as a fascinating example of how a niche occupation and a booming patent medicine trade intersected in small-town Michigan a century ago.

-Dave W7UUU

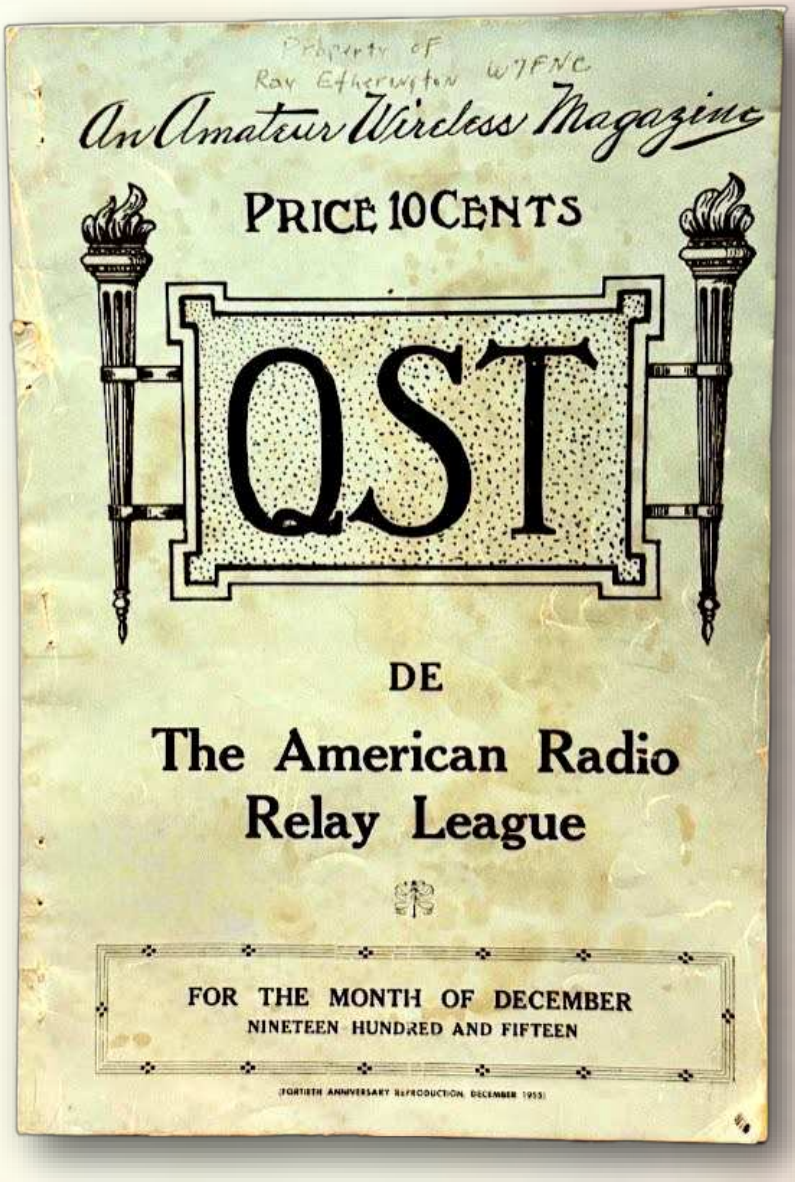


Ca. 1905 ad for McDannel's Telegrapher Liniment

Frank's final resting place in Oak Hill Cemetery
Owosso, Michigan
Photos: Findagrave.com

100 YEARS AGO THIS MONTH: THE FIRST ISSUE OF QST MAGAZINE

THE RADIO CLUB OF TACOMA IS FORTUNATE to have in its Oakman Library a truly rare item: ARRL QST Magazine, Volume 1 Issue 1. This was donated many years ago by Ray Etherington W7FNC (SK). The December 1915 (110 years ago this month) issue of QST marked the beginning of what would become the printed voice of amateur radio. Published jointly by ARRL co-founders Hiram Percy Maxim and Clarence D. Tuska, it represented the first organized attempt to connect wireless operators across the United States under the banner of the newly formed American Radio Relay League. Maxim, the League's president, brought the national vision and financial backing, while Tuska, just twenty years old, provided the editorial skill, technical expertise, and hands-on enthusiasm. Although the inaugural issue listed both as publishers, Tuska was the one who legally owned QST during its early years. He edited, produced, and distributed the magazine until after World War I, when the ARRL purchased it outright from him in 1919.



QST Volume 1, Issue 1—Photo by Dave W7UUU

The first issue was only 28 pages, and includes messages to League members, radio message relay bulletins, station reports, and technical pieces such as "Pictured Electromagnetic Waves," Tuska's early exploration of radio theory. It also carries the practical spirit that would define QST for generations—reports from amateurs, advice on equipment, and calls for cooperation in relaying messages. The first issue of QST was modest in size but ambitious in purpose.

This rare issue is not on display in the regular library stacks but viewing can be arranged by appointment through the RCT Library Manager or club Historian. Just contact any officer to arrange to see it in person. Donor Ray Etherington W7FNC wrote his name at the top of the cover.

Thanks to Doug Oakman AD7AV for allowing me to schedule time to work with this amazing piece off club history.

-Dave W7UUU

100 YEARS AGO THIS MONTH: THE FIRST ISSUE OF QST MAGAZINE

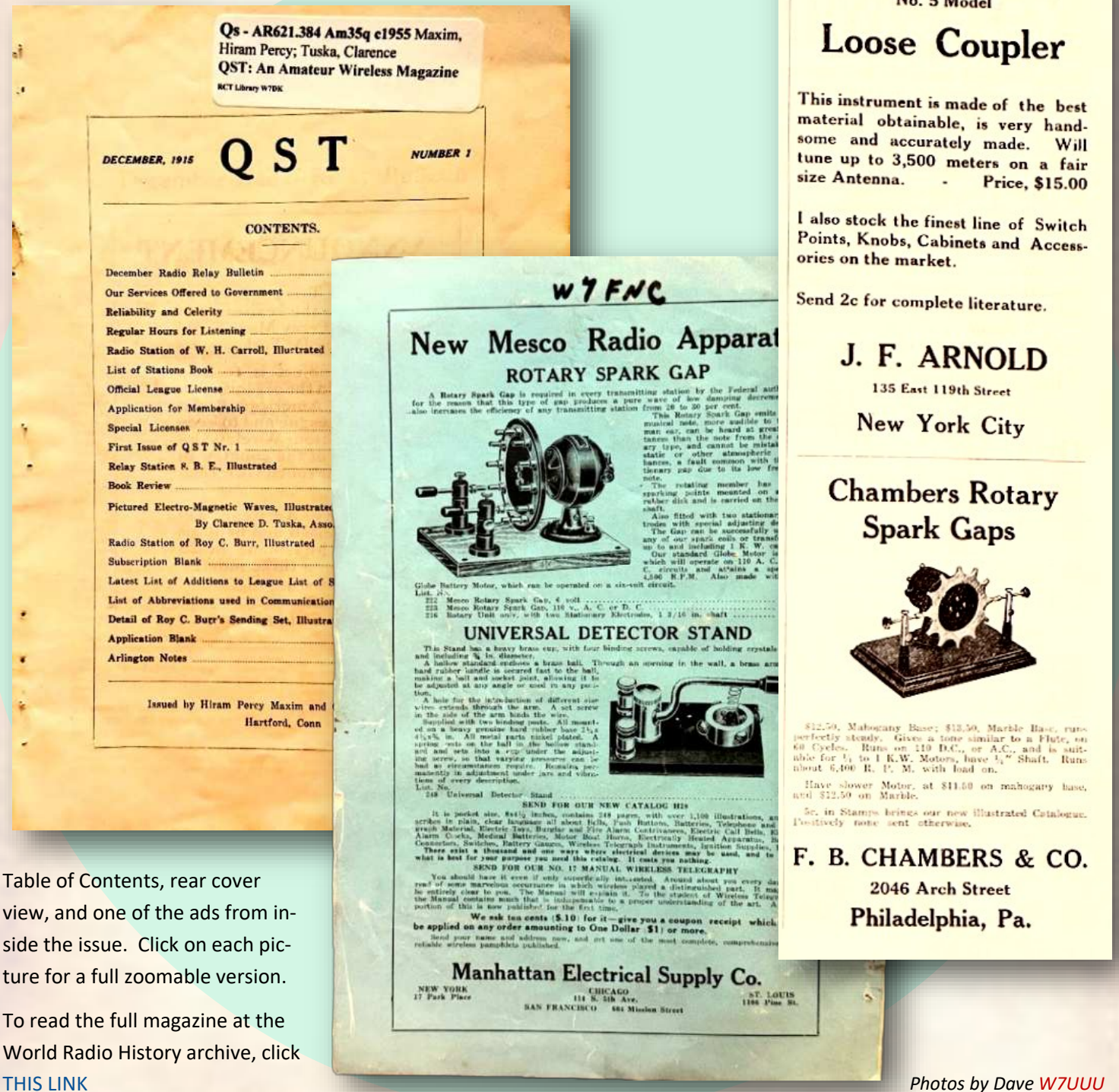


Table of Contents, rear cover view, and one of the ads from inside the issue. Click on each picture for a full zoomable version.

To read the full magazine at the World Radio History archive, click THIS LINK

Photos by Dave W7UUU

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email loggersbark@gmail.com

The 1970s & 80s 2-Meter Repeater Explosion

AN OFT-HEARD COMMENT THESE DAYS, BOTH AT CLUBS and in the internet forums, is "repeaters are dead". New Tech-class hams buy their Baofeng UV5R or their QRZ-1 Explorer, program them up for all the repeaters in their local area, and then… hear nothing. Ever. They put the radio in scan mode, thinking maybe they've missed something. Crickets.

It's very true that many 2m (and 70cm etc.) repeaters today sit unused. And even those you can access (or "hit" as is often said), you can put out your call and very often no one comes back.

But it wasn't always so. I came of age as a new ham in 1974 and '75. I was a Novice so didn't have 2m repeater access, but I had a Radio Shack Weather cube radio that I modified (tweaked the tuning inductor) to pick up the local 146.64 repeater (we called it the "04-64 machine") that was *hugely* active at the time, and would just listen to local hams chatting at all hours, day or night.

So let's reel it back to the beginning….

When the Federal Communications Commission first began to permit amateurs to build and operate VHF repeaters in the 1960s, it opened the door to what would become one of the biggest transitions in how hams used the VHF and UHF bands. Prior to that, FM on the amateur bands was little more than an oddity. Most hams were still devoted to CW, AM or SSB on HF, and VHF activity was often confined to weak-signal experimenters using CW or sideband. FM existed, but equipment was scarce, and most often was accomplished using converted commercial GE and Motorola two-way rigs or surplus taxi radios.

1977 Sears & Roebuck ad—one of the earliest mass-market ads for 2m amateur FM radios. "Ready to go beyond CB?" The radio was manufactured by Yaesu and branded for Sears

The new FCC repeater allowance meant that hams could set up repeaters legally and permanently, providing wide-area coverage that would make low-power mobile or handheld communication suddenly practical. That simple regulatory shift set the stage for the explosion of 2-meter FM repeater activity that swept across the United States in the late 1970s and surged into the 1980s.

The 1970s & 80s 2-Meter Repeater Explosion

At first the growth was gradual, driven by clubs and small groups of technically skilled hams who cobbled together repeaters from surplus gear and set up their own private repeaters. Here in the Puget sound, repeaters were literally built from old Motorola public safety and land mobile radios stacked together with hand-wired controllers—rigs like the GE MASTR-II series of repeaters.

By the mid-1970s, however, the commercial ham radio industry had taken notice of this growing amateur market. Japanese manufacturers such as Icom, Kenwood, and Yaesu began producing purpose-built VHF FM rigs, no longer requiring hams to scavenge and modify used business radios. The ease of entry brought *thousands* of newcomers to the 2-meter FM band. By the end of the decade, it was not uncommon to find a dozen or more repeaters in the same metropolitan area, each serving different groups of hams with their own personalities, nets, and quirks.

1978 Heathkit ad for the HW-2036 2m FM transceiver, complete with a built-in PL tone encoder and DTMF mic for autopatch use

The atmosphere was really electric—I remember it well. During morning and evening drive times, repeaters filled with ragchew traffic, informal nets, and impromptu "round tables" that sometimes lasted hours. I read where the San Bernardino (California) Microwave Society once recalled how their local 2-meter repeater in Southern California became so crowded in 1978 that they had to establish a formal *scheduling system* for nightly nets to prevent chaos. It was *that popular*! You had to book time to talk.

In other cities, club newsletters of the era that I read while researching this describe evenings when multiple repeaters would be simultaneously saturated with conversations, forcing latecomers to scan up and down the band in search of an open machine.

It was not unlike the HF bands on a big contest weekend—only now it was happening on VHF FM, with car antennas and handheld radios, making it vastly more accessible—and mobile. And at all hours of the day—morning commute, lunch break time, evening commute, and of course all day on Saturday and Sunday.

One of the really defining features of this era was a device called the autopatch. A repeater equipped with an analog "Ma Bell" phone line and DTMF encoder/decoder allowed hams to place telephone calls directly from their mobile rigs, using DTMF "touchtone" buttons on their microphones… literally dialing a phone number over their radio.

The 1970s & 80s 2-Meter Repeater Explosion

In north Tacoma, just east of Pearl Street and about a mile south of Point Defiance park sits the 682-foot KBTW broadcast tower, which serves a number of local TV and radio transmissions. High atop in the upper "white section" of the tower is the RCT "Bates Repeater" on 145.210 MHz with a PL tone of 141.3. Inset is the W7DK 2m Antenna at about 600 feet.

In many places, this was the first taste of mobile telephony that ordinary people had ever been exposed to (it certainly was for me! I vividly recall riding in cars with older hams, and thought that was just like having a telephone in the car).

One reference I found, preserved by the Dallas Amateur Radio Club, was one of their members famously demonstrated the autopatch in 1979 by ordering a pizza from his parked car in downtown Dallas, much to the amazement of onlookers. The "ordering a pizza" thing spread like wildfire. As a new RCT member in the summer of 1975, I was witness to a lot of anger over such practices. I very much recall from Saturday open house days the older hams calling it out as a travesty (which by law it pretty much was).

Autopatches were regulated by both the FCC and club policy—they were generally limited to *brief* calls, and commercial use was prohibited—hence the no-no of ordering a pizza—but the novelty of being able to call home, report a roadside breakdown or summon assistance to a car accident—or in fact ordering a pizza—from a moving vehicle left a deep impression on the public who heard of it "being a thing" and on the hams themselves who were doing it (or railing against it, as was the case at the Radio Club of Tacoma).

Out of necessity, repeaters of the period began to incorporate subtle technical improvements. CTCSS tones—commonly known as "PL tones" from Motorola's Private Line branding—were quickly adopted to prevent accidental interference. You now had to plan on using a repeater—you needed to know the PL done and set switches in your radio to match the correct sub-audible tone to open the squelch and hear the repeater come back to you.

The 1970s & 80s 2-Meter Repeater Explosion

As the number of repeaters grew, it was common for two to share the same pair of frequencies in geographically separated areas. Without PL tones, atmospheric conditions could cause "doubling" or unwanted key-ups when signals from one coverage area leaked into another. By assigning a unique tone, clubs could ensure their machine would only respond to their members.

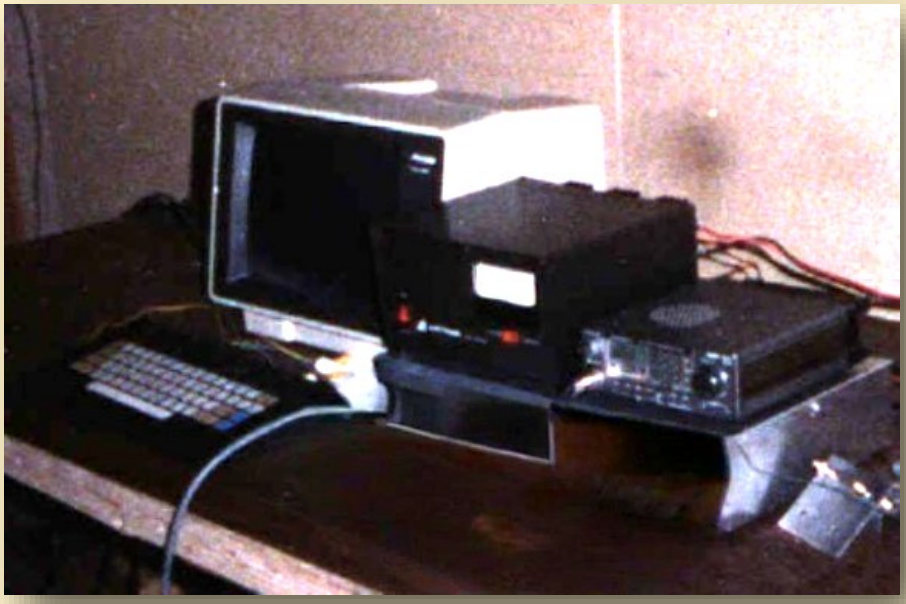
By the late 1980s, some repeaters began experimenting with DCS, or digital coded squelch, which (when enabled) replaced the single sub-audible tone with a digital bitstream. This offered even more code combinations but also introduced technical challenges, such as slower decode times (resulting in chopped off first syllables while the slower digital technology of that era decoded the DCS data) and poor sensitivity to weak signals.

Still, the adoption of tones gave repeater operators the ability to manage crowded bands with a degree of finesse that would have been impossible in the early 1970s or before. So if you've ever wondered why you have to set the PL tone when setting up a repeater, that's why—it was just so crowded that using tones was a practical necessity.

Packet radio emerged at the very start of the 1980s, inspired by Canadian work in 1978 and quickly adapted in the United States. In December 1980, the Pacific Packet Radio Society (still around!) placed one of the first digipeaters into service in the San Francisco Bay Area, allowing stations to pass digital messages through a shared network node.

According to early reports from TAPR (Tucson Amateur Packet Radio), this concept spread pretty rapidly, with clubs across the country establishing packet nodes by 1982. By the mid-1980s, many local club newsletters published packet "node maps" right next to repeater directories, treating both as essential infrastructure.

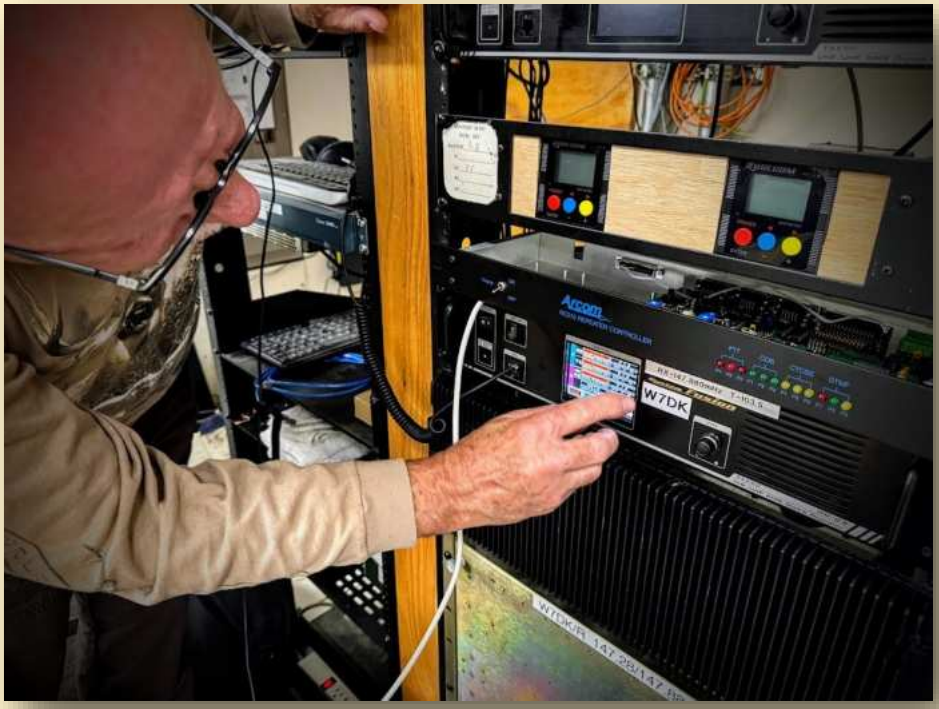
Stories from the time reveal just how woven into daily life these repeaters had become. The San Diego Repeater Association in an article I read, noted that in 1981, local hams used their autopatch system to coordinate volunteer fire spotters during a particularly severe wildfire season, long before the days of universal cell phones. The Chicago FM Club recounted how during a blizzard in 1979, stranded motorists relied on 2-



1985 K3LZ-1 packet digipeater owned by KA2DEW and K3LZ. RCA dumb RS-232 terminal with black and white display. Radio is a Kenwood TM-7950 running 45 watts on 2-meters. The TNC (terminal network controller) is here somewhere that makes it all work, but not easy to see in this photo. Photo from TARPN.net

The 1970s & 80s 2-Meter Repeater Explosion

meter repeaters and autopatch calls to report their conditions and request help. These anecdotes were very frequently reported in CQ, 73, and QST—and underscore how much utility hams found in their repeater networks—not just for chatter, but for real service to their communities.



ARRL Western Washington Section Manager Bob AD7LJ working out settings on the club's brand new Yaesu DR-2X System Fusion repeater

But like many golden ages, the momentum began to wane. By the early 1990s, cell phones—first expensive and bulky, but quickly becoming smaller and cheaper—began to erode the appeal of the autopatch. By the end of that decade, very few hams were still dialing phone calls through repeaters.

Packet, too, was undercut by the rapid spread of commercial internet access, which made amateur digital networks—still fun in a geeky kind of way— feel limited and redundant. Repeaters themselves remained physically in place, but their role shifted. According to a 2002 survey I found, published by the Northern California Repeater Association, more than half of their machines saw "minimal" daily activity, a stark contrast to the constant chatter of two decades earlier. Today, many 2-meter repeaters across the country sit largely idle (as we all know well), springing to life only during scheduled nets, public service events, or regional emergencies. All the many newer digital voice protocols—D-STAR, Fusion, DMR, P25, C4FM—have fragmented repeater activity now based on modes, further diluting the once-unified analog FM repeater culture. Narrowband will soon be required, which eventually will obsolete all the old legacy wideband repeaters and transceivers.

That decline has left many to wonder whether 2-meter FM repeaters can ever reclaim their former glory. A lot of hams believe the era was a product of its time, made possible by a rare alignment of new technology, regulatory change, and just sheer novelty. Others see hope in all the many linking technologies like AllStar and Echolink, which

The 1970s & 80s 2-Meter Repeater Explosion

allow local repeaters to connect globally, creating an illusion of worldwide HF DX but through a VHF handheld— except the internet does all the heavy lifting. Or bringing in the GMRS folks (who also use repeaters) to breathe new life into 2m repeaters after they get their ham license. Clubs that actively promote their repeaters hold conversational nets, and engage younger hams, and do various other creative means to keep machines lively. W7DK makes a solid effort in this department, with a Tuesday night club net and a Thursday noontime net (see W7DK website for details). Still, the sheer cultural centrality of repeaters in the late 1970s and early 1980s remains unmatched. Like a lot of things in ham radio, "it's just not the same as it once was" and that's not likely to change any time soon.

What is certain is that the 2-meter FM repeater craze fundamentally reshaped and expanded the definition of what hams could do with their amateur radio gear. It brought many *thousands* of new operators into the hobby (many from the ranks of CB) and created a sense of community linked by radio that spilled across clubs, cities, and suburbs. If you are local to the Radio Club of Tacoma, you can have a chance every week to join in our local 2m FM net each Tuesday at 7:30 PM, 147.280 MHz, with a PL Tone of 103.5. Our turnout once saw 30-50 check-ins but these days we're down to 10-20. It would be great to hear some new voices join us. And it's a great way for locals to work ten members to earn their Logger's Certificate!

All it takes is the will of the amateur community to breathe new life into the 2m and 70cm repeater realm—make something old be new again.

-Dave W7UUU

The Radio Club of Tacoma Repeater Committee at the base of the Bates repeater shared tower—one of the tallest broadcast antennas in Tacoma, at 692 feet with the W7DK antenna at about the 600 foot level. L>R: Dan KD7SV, Mike W7MKE (back to us) and Nick K7MO (SK March '25) Photo by Al N7OMS

RCT Bulletin Board

Posted notes and other important stuff

Here's a **useful tip** when reading the Bark: if you want to view a link, "right click" > "Open link in new window"… that way you won't lose your place in the Bark!

Just a reminder: The Logger's Bark does NOT accept AI written articles. AI images are sometimes used when public domain or custom photos are otherwise not available.

Last month's Hidden Object—6146 tube:

On page 108, top of the stone pillar on the right

Last Month's Hidden Word:

6146

It was hidden lower right of page 113

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WA7BNM CONTEST CALENDAR

Contest events for the coming month

HUGE THANKS TO Mr. Bruce Horn, WA7BNM for publishing his "Contest Calendar" for all these many years… a truly wonderful resource for finding virtually every ham radio contest on Earth that might be happening, in most any mode and most any region in the world. Follow the link to take you to the site, then sort through the various options to find the specifics of every upcoming event. For now, here's the WA7BNM Contest Calendar for the this month. Click the calendar below to visit Bruce's site directly.

November 2025	
YBDXPI FT8 Contest	0000Z, Nov 1 to 2359Z, Nov 2
ARRL Sweepstakes Contest, CW	2100Z, Nov 1 to 0300Z, Nov 3
High Speed Club CW Contest	1400Z-1700Z, Nov 2
ARS Spartan Sprint	0100Z-0300Z, Nov 4
PODXS 070 Club Triple Play Low Band Sprint	0000Z, Nov 8 to 2359Z, Nov 10
WAE DX Contest, RTTY	0000Z, Nov 8 to 2359Z, Nov 9
10-10 Int. Fall Contest, Digital	0001Z, Nov 8 to 2359Z, Nov 9
JIDX Phone Contest	0700Z, Nov 8 to 1300Z, Nov 9
SKCC Weekend Sprintathon	1200Z, Nov 8 to 2359Z, Nov 9
OK/OM DX Contest, CW	1200Z, Nov 8 to 1200Z, Nov 9
CQ-WE Contest	1900Z, Nov 8 to 0500Z, Nov 10
4 States QRP Group Second Sunday Sprint	0100Z-0300Z, Nov 10
All Austrian 160-Meter Contest	1600Z-2359Z, Nov 15
REF 160-Meter Contest	1700Z-2359Z, Nov 15
South American Integration Contest CW	1800Z, Nov 15 to 2100Z, Nov 16
ARRL Sweepstakes Contest, SSB	2100Z, Nov 15 to 0300Z, Nov 17
Homebrew and Oldtime Equipment Party	1300Z-1700Z, Nov 16
Run for the Bacon QRP Contest	2300Z, Nov 16 to 0100Z, Nov 17
NTC QSO Party	1900Z-2000Z, Nov 20
LZ DX Contest	1200Z, Nov 22 to 1200Z, Nov 23
SKCC Sprint	0000Z-0200Z, Nov 26
CQ Worldwide DX Contest, CW	0000Z, Nov 29 to 2359Z, Nov 30

Click Calendar to visit online

***WA7BNM** Contest Calendar data used with permission*

Background Image Source LINK

THE W7DK ELMER BOARD

Do you have a skill or tool to help new hams?

YOU! YES *YOU!* Do YOU have a skill you could pass on to new amateur radio operators? Do you possess a skill or piece of gear that you're willing to share with others to fix antenna problems, diagnose noise issues, drive a ground rod, teach Morse, help teach technical topics? If the answer is YES you too could be a W7DK Elmer!! Let any officer know what your skills are or how you could help new hams get a leg up on the hobby. And if you're one of those already on the list, are there any changes we should be aware of? If so please hit the email address (found bottom of page on the right) and let us know so we can update the W7DK Radio Club of Tacoma "Elmer Board".

NEW HAMS OR MEMBERS: If you are looking for help, and NEED AN ELMER to help guide your way, use this table! Find the skill you need on the left, then look for an Elmer Provider of that skill on the right and reach out to them. ALL of these Elmer's have committed to helping so please don't hesitate.

ELMER ("MENTOR") BOARD

Do you need help with some area of ham radio?

List of members' areas of interest:

1. Technical questions, Classes
2. Help with Morse Code
3. License Examinations
4. Antenna and Station Planning
5. Antenna and Tower Erection
6. Buying Equipment (new or used)
7. Equipment Repair
8. Understanding and Using Your Gear
9. DXing and Contests
10. Club and ARRL Activities
11. Using Test Equipment
12. IRLP, Digital, SDR, APRS, WinLink, etc.
13. Basics of Electronics—how things work

Current as of January 2025

Name/Call Sign/Phone Number/Topic:

Adam W2NCC 360-870-7894 (4, 5, 6, 7, 11)
Dave N7HT 253-363-1692 (1, 2, 4, 6, 8)
Dave W7UUU (253-820-0890 (2, 4, 6, 9)
Al N7OMS 253-495-9068 (10, 12)
Mike W7XTZ 253-405-8095 (6, 8, 10)
Stephen AD7AB 253-212-9437 (1, 3, 4, 12)
Randy WB4SPB 253-761-9391 (2)
Phil K7PIA 253-307-4781 (9, 10, 12)

Are you an RCT member with skills to offer?

Please let any officer know and we can add you!

Note: *Providers or users of the Elmer Board must be local to the Radio Club of Tacoma. This is a local club service for our local members only. Thank you!*

STRAY TOPICS OF INTEREST:

Try out a PRC319 "Manpack Transceiver" for free*

Contributed by Paul WØRW

TRY OUT A PRC319—FREE* BACKPACK RADIO LOANER NOW AVAILABLE!

Ever wanted to get your hands on a PRC319? Now you can. One of these legendary backpack HF rigs is available on free loan to any licensed ham in the lower 48.

Whether you want to test it in the field, show it off at a club meeting, or just finally see what all the fuss is about—this is your chance.

Not familiar with the 319? It's a rugged, fixed-frequency, channelized HF radio originally built for military use. It's channelized—no VFO—just punch in a channel and go. It runs CW, USB voice, or data at either 5 watts or a full 50 watts. You can watch a great overview video at THIS YOUTUBE LINK.

You can read more about the PRC319 HERE.

The loaner comes as a complete kit: PRC319 radio, antenna tuner, handset, battery/AC supply, and satchel. Due to the battery, it ships *UPS only*.

Here's how this program works:

If you want to borrow it, drop me a line and I'll send you the loan agreement. When your turn comes up, I'll let you know. You'll send upfront $100 to cover shipping out, and you'll be responsible for return shipping too—figure around $200 total. You get to keep it for up to 90 days.

Sorry—CONUS *only*. No shipments to Alaska, Hawaii, or Puerto Rico. You'll need a General class or higher license and must appear in the FCC database.

This is the actual PRC319 "Manpack transceiver" that is available to borrow for up to 90 days (continental U.S. only).

This unit was donated by Clare Owens Jr. N2RJB, of Apex, NC. Accessories came from Al G8LIT. Thanks to both for helping make this possible.

Interested? Reach out to Casey Efaw KD2YMM KD2YMM@gmail.com

Information provided via WØRW

*Just pay shipping both ways. Disclaimer: Neither W7DK nor Editor W7UUU have any direct involvement in this offer. All details of the transaction and transfers of the radio are solely between the borrower & WØRW & Casey

IN LAST MONTH'S *LOGGER'S BARK*, MY ARTICLE

about the Spark Museum in Bellingham, Washington was starting to run long. I held back one display and story that seemed to shine on its own as a good stand-alone article. It's a beautiful and rather large apparatus (see photo below) that is an early attempt at wireless telephony. Despite the same name, the "Collins Wireless Telephone", this story *has nothing to do with the Arthur Collins radio Co. founded much later in the 20th century.*

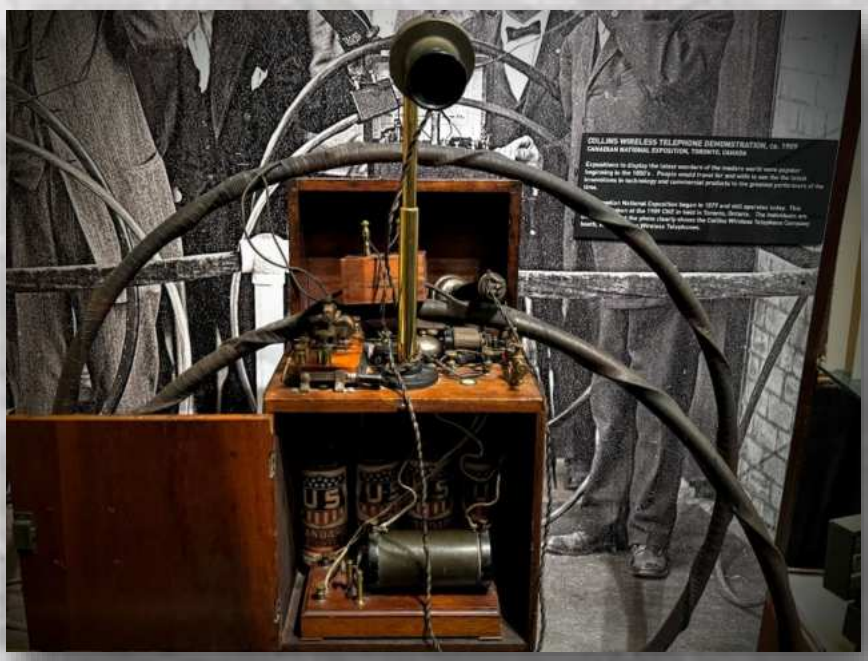
Archie Frederick Collins is one of a few inventors in the early days of radio history that was like a once-shining brass horn—brilliant at first sight, but don't look too close or you'll see all the dents and tarnish.

Born in 1869, by 1900 he became active as an experimenter, pitchman, and prolific writer. Collins staked a career on the idea that wireless speech — not just dots and dashes — could be made practical for long-distance communications. For a time he was widely celebrated and considered a technical visionary. Some of his public demonstrations of his wireless telephone impressed many far-more-successful contemporaries including Guglielmo Marconi, who in fact credited Collins for his significant contributions to wireless telephony. He was an amazing presenter, very personable by all accounts I've read, and a great salesman.

Technically, Collins used several approaches for wireless voice: terrestrial conduction (sending current through the earth), induction (short-range magnetic loop coupling), and eventually radiotelephony using continuous oscillations produced by arc transmitters (sort of a "modulated spark transmitter").

He was awarded U.S. patent 814,942 in March 1906 for an improvement in arc-transmitter apparatus intended to protect the carbon microphone from arc currents — a small but useful tweak in a field full of helpful tweaks.

The apparatus he described used rotating electrodes, high current microphones and resonant circuits that, he claimed, allowed audible speech to "ride on steady oscillations" rather than the damped spark waves familiar from telegraphy.



1909 Archie Collins inductive wireless telephone demo system
This is the only surviving example, and is on display at the SPARK Museum of Electrical Invention, Bellingham, Washington
Display photo by Dave W7UUU

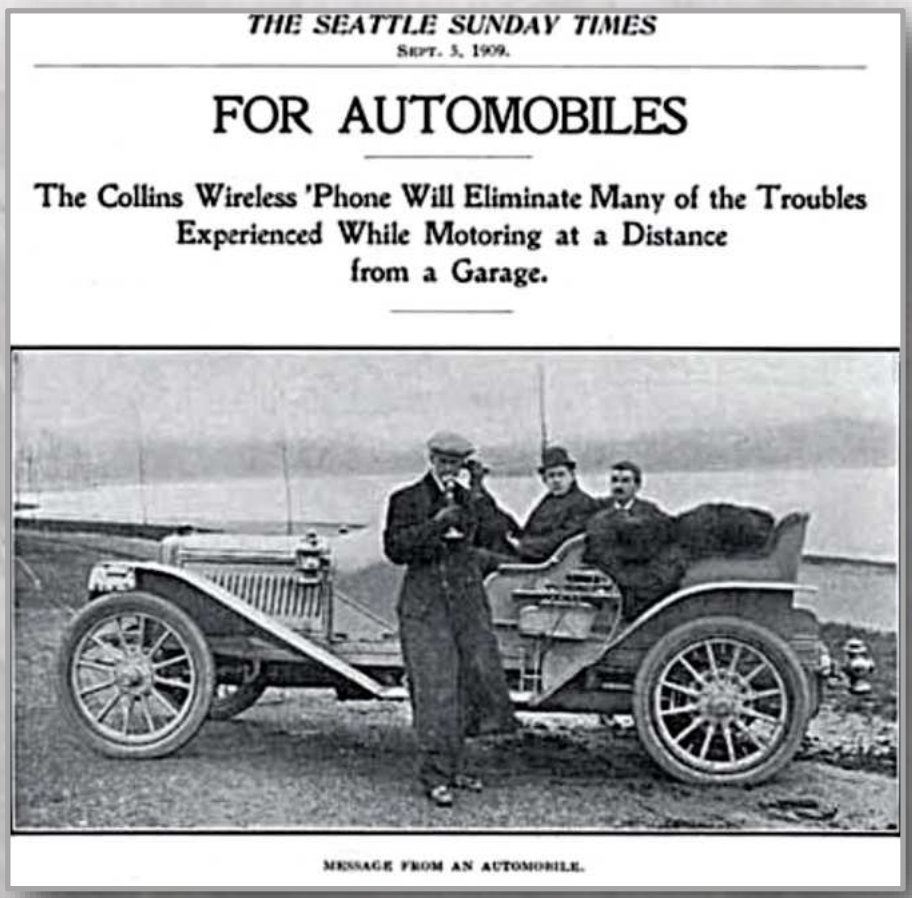
Those technical claims did have real engineering grounding, even if the arc technology itself proved impractical compared with later vacuum-tube systems.

Collins, now calling his company the Continental Wireless Tel. & Tel. Co., was really polished at public performance. He staged flashy demonstrations that attracted press attention and celebrity witnesses, and he published readable, hands-on articles that taught amateurs how to build and experiment with the technologies he was advancing. Contemporary writeups describe wireless voice tests from Newark, New Jersey to the Singer Building in New York and further into Pennsylvania, and even attribute praise from observers who saw — or thought they saw — speech carried over many miles.

That publicity helped burnish his image as a pioneer of wireless telephony, and it helped sell stock in his emerging company. But the demonstrations were largely not what they seemed. In fact, many were outright fraud! He would regularly set up in a hotel room with press and investors with him, then claim to talk to people by voice miles away or even in other states when in fact his induction coil was beside the wall of his hotel room, and the "far end" coil was in the very next room over, on the other side of the wall. Accomplices would then falsely claim to be many miles away despite only being feet.

He even roped in U.S. President William Howard Taft and William Jennings Bryan to view his bogus demonstrations and outlandish claims. All of this helped Collins and his co-conspirators to rake in cash selling stock in their nascent company.

Probably the most audacious claim was an ad run in newspapers around the country, showing an early automobile with Collins "on the phone", with text



THE SEATTLE SUNDAY TIMES
SEPT. 5, 1909.

FOR AUTOMOBILES

The Collins Wireless 'Phone Will Eliminate Many of the Troubles Experienced While Motoring at a Distance from a Garage.

MESSAGE FROM AN AUTOMOBILE.

September 5, 1909 ad from The Seattle Sunday Times" showing Archie Collins purportedly making a "phone call" from his car. The ad was for a product line of what amounted to mobile phones as we would think of today… except that the photo was just staged. No such equipment was ever built much less installed in a car and used for public demonstrations. Photo: The Seattle Times

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email loggersbark@gmail.com

stating: "The Collins Wireless 'Phone Will Eliminate Many of the Troubles Experienced While Motoring at a Distance from a Garage." The only problem is Collins and his associates never actually built a mobile phone device of any kind, much less mounted it in a car for demonstrations. The photo (preceding page) ran in papers around the U.S. but was a complete fraud.

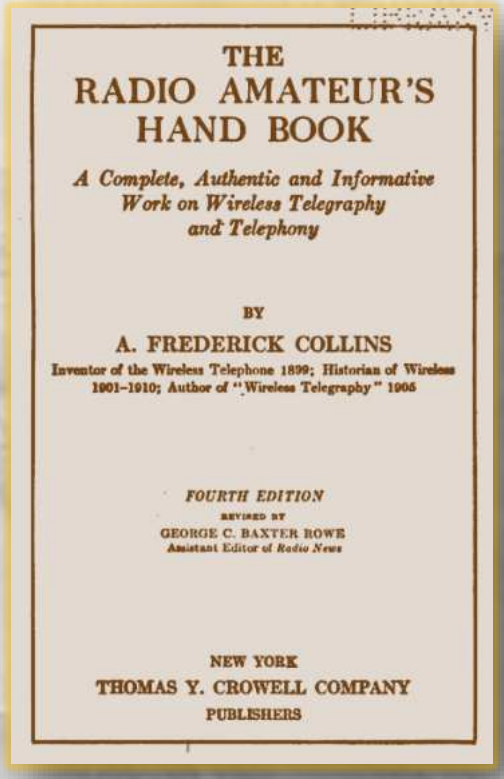
Those two halves of Collins — the tinkering inventor and the shark-like salesman of wild ideas — came into fatal collision—greed took over and Archie and his team began to run their schemes to fool prospective investors and the public to rake in cash.

Collins' "Collins Wireless Telephone Company" and later the Continental Wireless Telephone and Telegraph Company became vehicles not just for technical demonstration but for selling shares and prospects to the public based purely on lies.

Advertisements and prospectuses emphasized wide patent breadth and imminent amazing commercial services, and promotional stunts featured prominent figures photographed with the misleading Collins equipment.

Critics and competitors began to complain that the company's public claims—ever more outlandish—began to outstrip reality. Inspectors from the United States Postal Department and other authorities began to crack down on what they saw as possible scams via these stock schemes and the vast mail-fraud it took to perpetrate them.

Soon, Collins and his close associates found themselves under federal indictment for assorted charges of mail and stock fraud. Museums and modern historians who have catalogued the period are blunt: Collins was certainly *sincere about his work*, but he partnered with promoters whose appetite for fast returns drove exaggerated claims. I'm sure that in his heart of hearts, he truly believed his technology would very soon work the way he pretended it worked, but the pressure of friends and associates to make a killing just took hold and that was the end. But he couldn't stop doing it—when he could have just ended the fraud before it went way too far and turned criminal.


THE
RADIO AMATEUR'S
HAND BOOK

A Complete, Authentic and Informative Work on Wireless Telegraphy and Telephony

BY

A. FREDERICK COLLINS

Inventor of the Wireless Telephone 1899; Historian of Wireless 1901–1910; Author of "Wireless Telegraphy" 1905

FOURTH EDITION

REVISED BY

GEORGE C. BAXTER ROWE

Assistant Editor of *Radio News*

NEW YORK

THOMAS Y. CROWELL COMPANY

PUBLISHERS

Archie Collins The Radio Amateurs Hand Book—click image to read at World Radio History

The legal fallout was severe. Collins and co-defendants were arrested in December 1911 and tried on charges relating to using the mails to defraud investors by overstating what their patents covered and how ready their systems were for commercial deployment. The trial, which concluded in early 1913, resulted in convictions of Archie and three of his close associates. As for Collins

himself, he was sentenced to three years in prison and ultimately served roughly one year before his release. This was effectively the end of the Continental Wireless Tel. & Tel. Co.

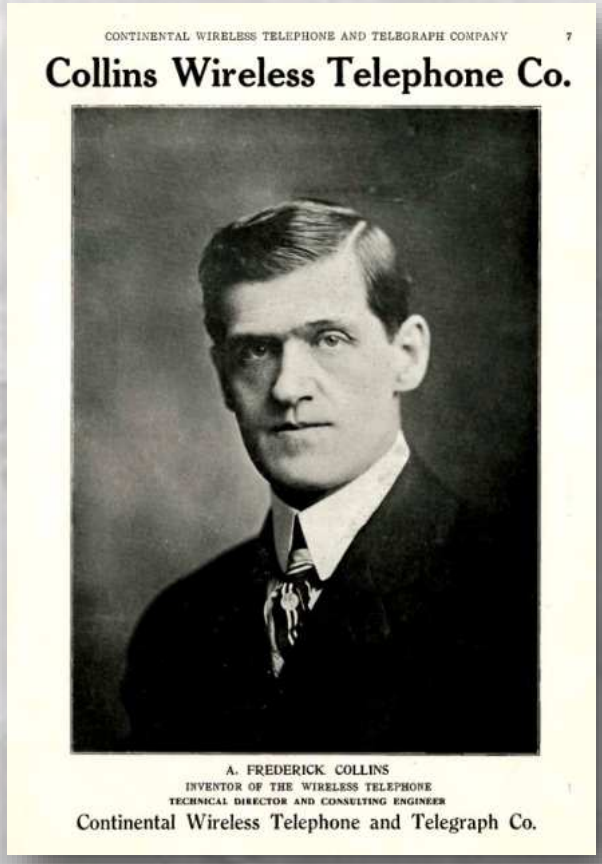
This whole episode also ended his role as an active electrical engineer in industry, though it did not end his life in print or his influence over amateur radio education.

After prison, Collins turned almost entirely to authorship and popular technical writing. He produced a long list of how-to books, youth publications, and handbooks, and in 1922 he launched The Radio Amateur's Hand Book, (obviously not to be confused with the ARRL book series by the same name) which would be revised and reprinted for decades and help introduce generations of hobbyists to wireless practice.

These days, Collins is all but forgotten. The surviving artifacts of his work are rare; the SPARK Museum in Bellingham, Washington, preserves what is believed to be the only surviving Collins Wireless Telephone, as shown in a photo on the first page of this article.

What to take away from the Collins story now? It's an object lesson about the environment that breeds both invention and hucksterism. At the turn of the 20th century, there were copious amounts of both.

Wild-eyed inventors clamored to give clever demonstrations, and investment capital was eager to fund it, as "next big thing." It's sad that on one hand Collins really did innovate technology and advance the art. But along the way, as is so often the case, greed stepped in and fraud ensued. In the modern era, think of Elizabeth Holmes and her company Theranos, that milked billions from investors for medical blood testing machines that could not possibly work. The wrongs that Archie Collins perpetrated, sadly, very much still happen to this day.


CONTINENTAL WIRELESS TELEPHONE AND TELEGRAPH COMPANY 7

Collins Wireless Telephone Co.

A. FREDERICK COLLINS
INVENTOR OF THE WIRELESS TELEPHONE
TECHNICAL DIRECTOR AND CONSULTING ENGINEER
Continental Wireless Telephone and Telegraph Co.

Archie Frederick Collins ca. 1910—investment prospectus
Photo: WorldRadioHistory.com

If you're ever in the Bellingham, Washington area (two hours north of Seattle), I strongly urge you to stop by the SPARK Museum of Electrical Invention where you can see this one surviving relic of the Collins Wireless Telephone, among countless other artifacts of the earliest days of radio and electricity.

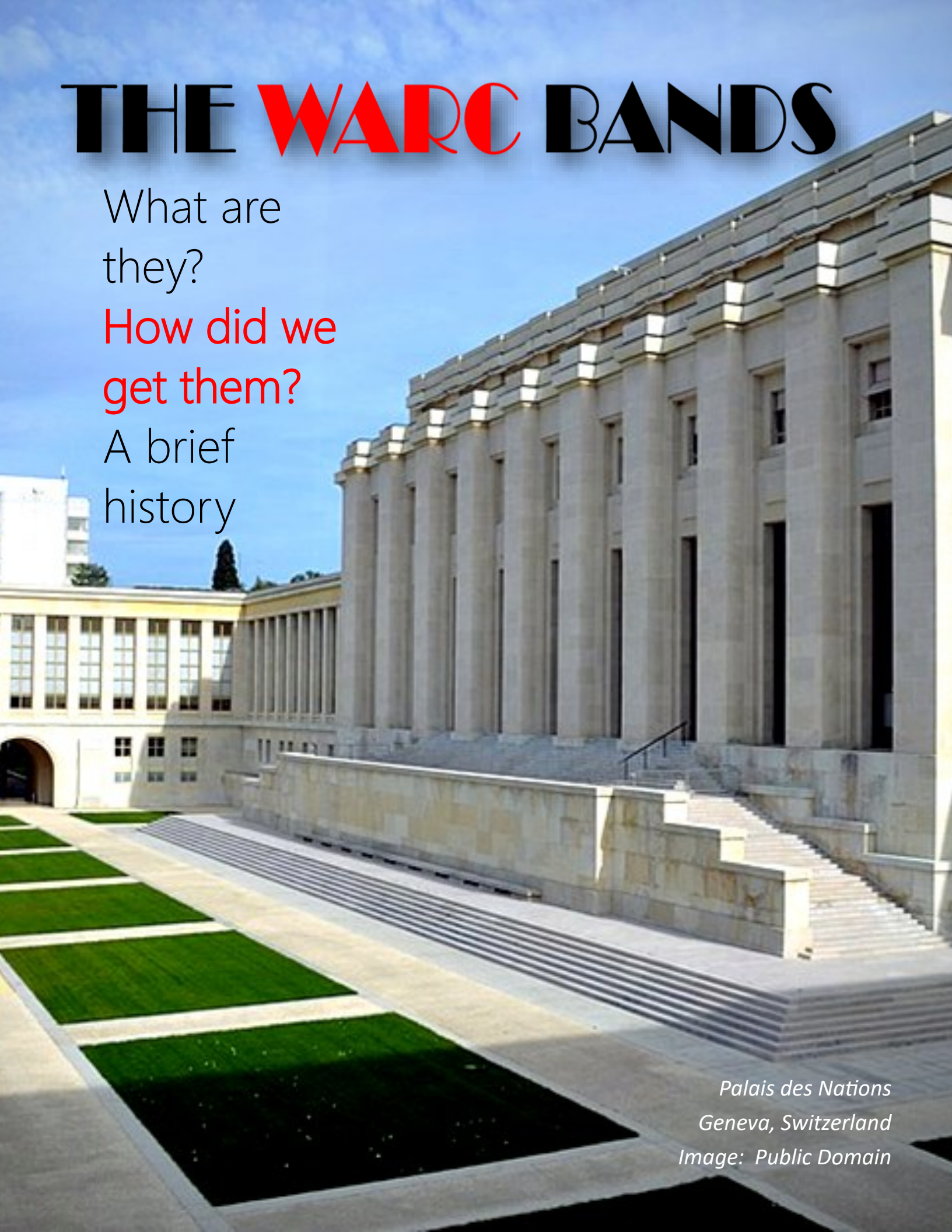
-Dave W7UUU

THE WARC BANDS

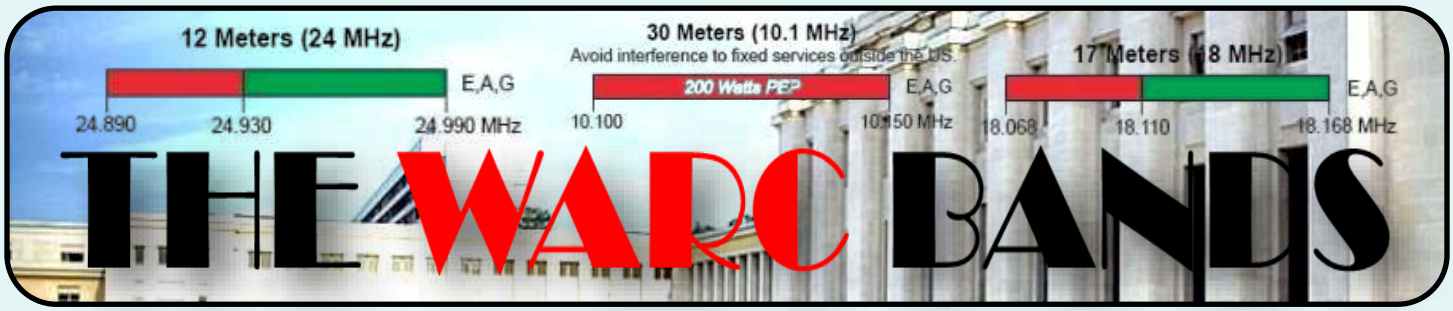
What are they?

How did we get them?

A brief history



Palais des Nations
Geneva, Switzerland
Image: Public Domain



I THINK IT'S PRETTY SAFE TO SAY THAT MOST HAMS today have at least heard about those bands we call "the WARC bands" even if they aren't up to speed on what the exact frequencies are or to what use the bands may be put. This article will hopefully fill in the gaps whether you're an old hat at ham radio or a newbie.

I vividly remember the buzz when these bands came to be—even though at 19 years old and getting by living on my own as a Radio Shack salesman I had zero chance to buy a new radio to cover them. My reliable old Heathkit DX-60 and Radio Shack AX-190 ham-bands receiver would have to do.

But the story behind hams getting this new band turf is a good one—I learned lots of things researching this and I hope you will do the same.

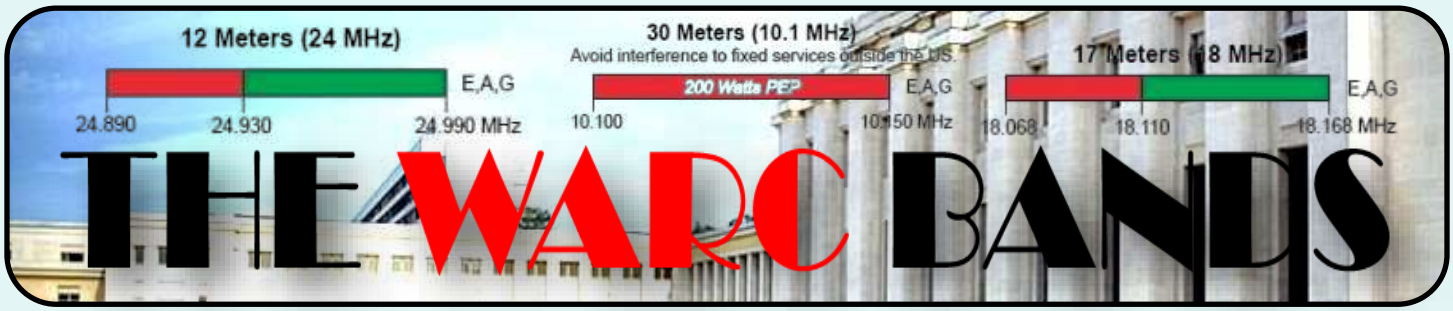
The very hall where our WARC-79 bands were created—United Nations Assembly Hall, Palace of Nations, Geneva (Switzerland)
Photo: Ludovic Courtès under Creative Commons license

By the late 1970s, the ham radio landscape was ready for a change. Hams around the world had spent *decades* operating within the same familiar frequency bands—80 through 10—allocations that traced their roots back to the early postwar period, when spectrum was more plentiful and interference less intense. [In last month's *Bark*, I ran a full history of the traditional ham bands on page 48 –ed.]. But the world of radio had grown crowded—the traditional bands were at capacity at that time.

On top of that, commercial services, satellite communication, maritime operations, and military radio networks were all expanding into the shortwave spectrum. The amateurs, though long recognized for their technical and educational contributions, were under increasing pressure to justify their share of the airwaves, much as we are today. International conferences were where these debates were settled, and for both hams who wanted to keep their bands, and commercial interests who wanted to acquire them, the stakes were high.

The ITU, or International Telecommunication Union, headquartered in Geneva, Switzerland, scheduled the 1979 World Administrative Radio Conference—known ever since as WARC-79—to reallocate and coordinate worldwide use of the radio spectrum for pretty much ALL interested parties.

Delegates from more than 150 countries



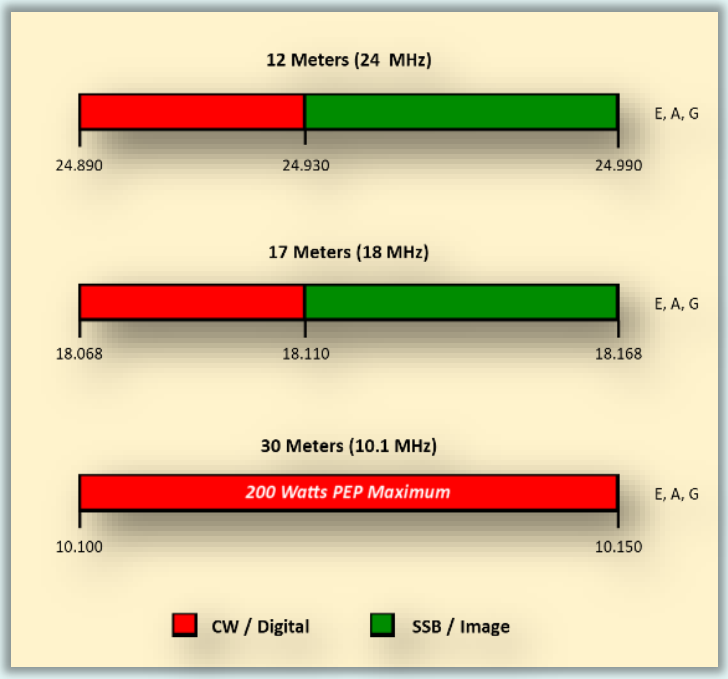
gathered at the Palais des Nations (the building seen on the splash page for this article), which was the old League of Nations building overlooking Lake Geneva. The event ran from late September 1979 into December, making it one of the longest and probably the most consequential of radio conferences ever held. For hams, it became one of the most historic. Out of the thousands of pages of technical and diplomatic discussions emerged a quiet but monumental victory for the amateur service worldwide: three *brand new* HF allocations that would come to be known collectively as the WARC bands—30 meters, 17 meters, and 12 meters. These three small slices of spectrum didn't seem like much at first.

The 30-meter band ran from 10.100 to 10.150 MHz, a mere 50 kHz wide.

The 17-meter allocation, from 18.068 to 18.168 MHz, spanned 100 kHz.

The 12-meter band, 24.890 to 24.990 MHz, another 100 kHz.

Together they totaled *only a quarter of a megahertz* of new territory, but their placement filled *important* propagation gaps and gave amateurs fresh territory to explore.

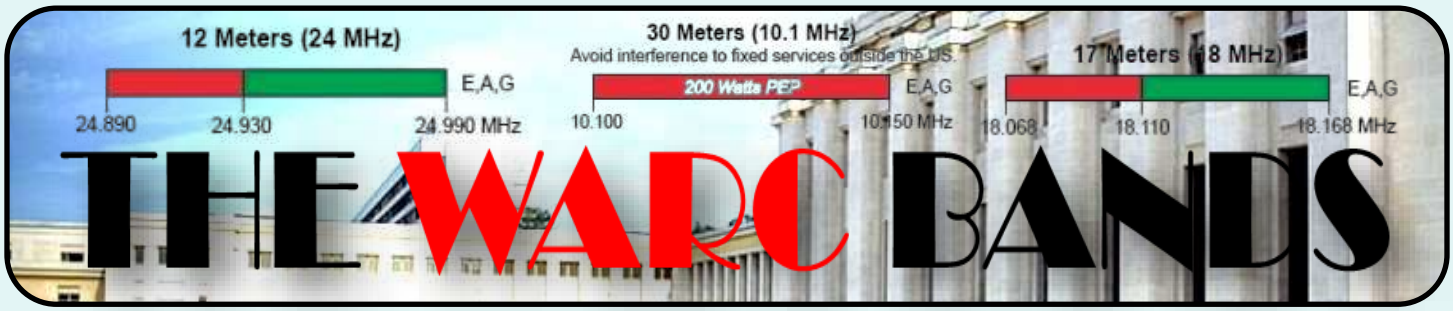


The 1979 WARC bands as they are currently implemented, formatted for U.S. amateurs here in ITU Region 2.
E is Extra, A is Advanced, and G is General FCC class licenses.
Technician and Novice class licenses do not have privileges.
Graphic by Dave W7UUU

The reasoning behind these new segments was partly political and partly technical. The ITU's planners wanted to reward the amateur community for decades of self-policing and innovation, yet they also needed to rearrange portions of the HF spectrum to make room for new international services. The WARC bands were a diplomatic compromise that managed to satisfy both goals.

The 30-meter band was the most unusual of the three. Because of its position between the traditional 40- and 20-meter bands, it offered excellent long-distance performance with surprisingly stable daytime propagation. To minimize interference with fixed and maritime services operating on nearby frequencies, WARC designated it for non-voice operation only (with a scant few exceptions I'll cover at the end). For the same reasons, it's limited to 200 watts PEP regardless of mode.

That decision limited it to CW and narrow digital modes, which at the time meant RTTY and a few experimental data signals. Yet that restriction turned into one of the band's real strengths. It became a haven for Morse operators and



weak-signal experimenters who wanted to work DX without the roar of SSB pileups. Even today, 30 meters remains one of the most peaceful corners of the HF spectrum—an oasis of calm where you can copy a whisper of CW from across the ocean without competition from a single contest. Of course, these days FT8 is a major presence on the band, but only in the FT watering hole of 10.136 MHz.

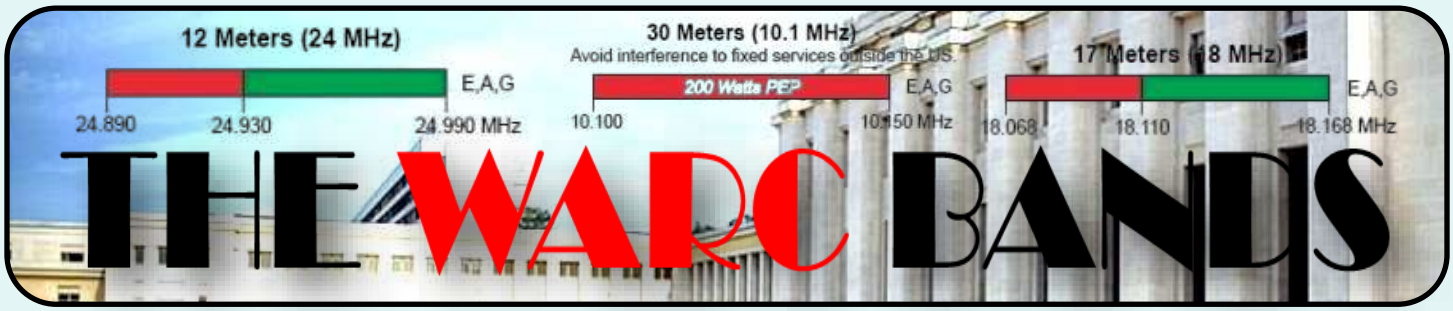
Seventeen meters, at 18 MHz, quickly became a favorite. Propagation there was remarkably well-behaved and stable, falling nicely between the 20- and 15-meter bands. During years of low solar activity, this band often stays open when 15 meters goes silent; during high sunspot years, it offers worldwide propagation, often with less QRM than its neighbors.

Voice, CW, and eventually digital modes are all permitted, making it one of the most flexible and enjoyable bands for everyday use. Many operators consider 17m the most "friendly" HF band—rarely congested, yet lively enough to support solid DX and casual ragchews alike. For antenna experimenters, 17 meters presents a fun challenge. It sits far enough from the traditional bands that existing multiband antennas often need modification. The result over the years has been a wave of new design ideas: compact dipoles, lightweight beams, and trap-free wire antennas optimized specifically for the WARC bands.

The highest frequency range of the three, the 12-meter band, was a sleeper hit. Sitting just below 11 meters (CB channels)—12 exhibits similar propagation characteristics, particularly during solar peaks. Early on, few transceivers covered it, and only the most dedicated DXers bothered to add the necessary crystals or outboard converters. But when the sunspot numbers climb 12 meters comes alive.

When conditions are good, 12 behaves very much like 20 meters or 10 during a sunspot peak and global signals pour in, often day and night. Because it's narrow and not a contesting band, QSOs there tend to be more personal and relaxed much of the time. I often hear SSB and CW ragchews on the band when it's open.

One of the most interesting and important decisions made at WARC-79 was the understanding that these new bands would be *protected from contesting*. The IARU and member societies agreed that no major international contest would include 30, 17, or 12 meters. The goal was to preserve them for experi-



mentation and normal operating. It was a rare moment of restraint in a hobby that loves competition, and it has paid dividends ever since. The WARC bands have really become the refuge for operators who want to escape the chaos of contest weekends and enjoy a little calm on the airwaves. POTA activity is pretty popular on the WARC bands these days, and some hams consider that in the same vein as "contesting" but that's certainly open for debate (and in fact often is debated in the QRZ forums!).

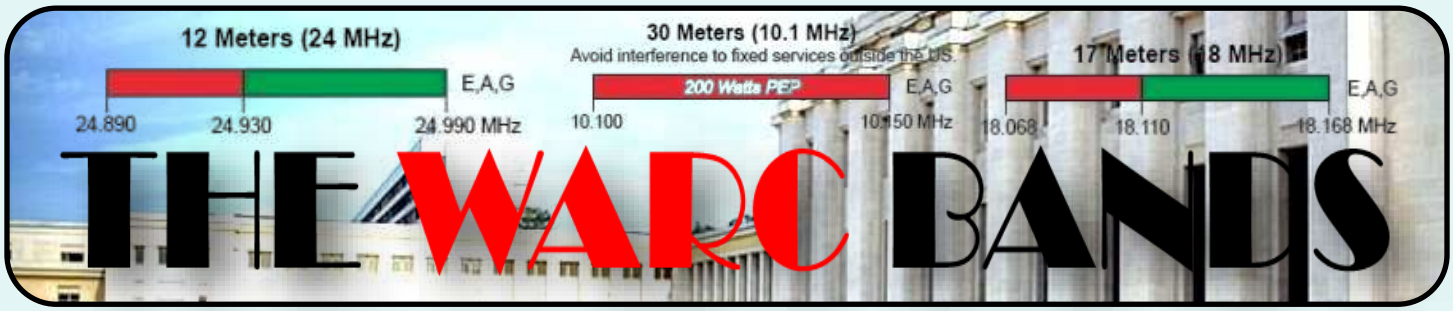
From a regulatory standpoint, implementation of the new bands was gradual. Each country's telecommunications authority had to amend its own band plans, a process that took several years. By the early 1980s, most major amateur nations had adopted the WARC allocations. Equipment manufacturers of course followed suit as soon as possible. Companies like Icom, Kenwood, and Yaesu began adding the new bands to their transceivers—sometimes just through added band crystal sockets and "AUX" bandswitch positions, later as standard coverage.

As if by premonition, the R. L. Drake company in 1978 introduced the very first "frequency agile 1.8 to 30 MHz transceiver" - the TR-7. This rig had an easy option to make it fully able to transmit and receive on any frequency in that range—which of course included the WARC bands. So it's pretty likely the very first actual pioneers of the bands, the day the FCC made them legal to use, were Drake TR-7 owners.

As far as I could tell in researching, it appears that Kenwood with their TS-830S transceiver was the first full-on WARC-enabled commercial rig. Others quickly followed suit.

Antenna makers introduced "WARC traps" to their antenna designs—such as the "W" option for the venerable Mosley TA-33 tri-band Yagi, that provided for a trap dipole to cover 12 and 17 meters. For homebrewers, the challenge was irresistible: new frequencies meant new circuits to design, new filters to build, and new propagation to study.

Drake TR-7 transceiver lineup with external VFO and speaker, the day I brought it home in October 2017. Arguably the very first transceiver to cover the 30, 17, and 12m WARC-79 bands even before they existed. This rig was lost in my October 2020 shack fire along with countless other great old radios—I never really got a chance to use it much! Photo by Dave W7UUU



Propagation studies after WARC-79 showed that the new bands were especially well placed for long-haul communication. Thirty meters bridged the nighttime reach of 40m and the daytime reliability of 20m. Seventeen meters often opened paths to regions that were marginal on 20m, especially during the late afternoon or early evening. Twelve meters behaved much like 10m but remained open longer as the sunspot cycle waned. Each filled a propagation "gap" that hams had long noticed but could not exploit before 1979.

The WARC conference itself was an impressive feat of international cooperation. Thousands of delegates, interpreters, and engineers filled the meeting halls of the palatial Palais des Nations. Negotiations often ran late into the night as representatives from every continent debated spectrum usage down to the kilohertz. Amateur radio, though a small slice of the overall discussion, benefited from decades of goodwill and technical credibility built up through emergency communications and education.

When the final acts were signed in December 1979, hams had not only *retained* their existing HF allocations but *gained* three new ones. It was a quiet triumph for the hobby—a testament to persistence and diplomacy rather than volume or lobbying.

Photo: Dave W7UUU

1984 saw the release of the Heathkit HW-9 QRP rig with a WARC band option that was hugely popular for 7 years

Today, more than four decades later, the WARC bands remain distinct in character. They are not the widest or the busiest, but they reward patience and curiosity. On a quiet evening, 30 meters can carry a low-power CW signal halfway around the world.

Seventeen meters often delivers pleasant surprise openings to distant places when other bands are dead. And 12 meters, during a good solar cycle, can make the globe feel small again. These are the bands that remind us what shortwave radio is really about: the thrill of making contact across oceans with nothing more than skill, wire, and a bit of ionospheric magic. And above all, for the "contest haters" (and there are many!) the WARC bands are a peaceful walled garden away from the cacophony of contesters tearing up the traditional bands.

The 1979 WARC gave hams only a quarter of a megahertz of new space, but that small gift reshaped the rhythm of HF operating. It provided breathing room, and inspired new designs for homebrew as well as commercial gear and antennas. The WARC bands stand as a lasting symbol of cooperation—between nations, between modes, and between generations of radio amateurs who continue to keep those frequencies alive. We as hams owe a big debt of gratitude for those delegates from the U.S. and around the world going to bat for us like they did.

-Dave W7UUU

MANY HAMS TODAY PROBABLY WON'T RECOGNIZE the name Stew Perry or the call sign W1BB—especially if they are not using CW on the 160m band. But Stew's influence in amateur radio goes beyond the use of Morse and rather speaks to what he did for hams: showed us that the 160 meter band ("Top Band") was more than a local ragchew band, but in fact had national and even global potentials for hams everywhere.

So let's start with the name: Top Band is an old nickname for 160 meters that goes back to the very early days of amateur radio. In the 1920s and 1930s, the amateur allocations looked very different than they do today. At that time, the ham bands were designated *merely by their wavelength not by their frequency*. 160 meters therefore was at the top of the wavelength chart—followed by 80 meters, 40 meters, and so on.

Stew Perry W1BB around the time he was awarded ARRL 160m DXCC #1 in 1976

Of course, today it's the opposite. Hams generally don't think about wavelengths (other than the term we call a band, such as 20 meters), we think about frequency. So today, 160-meters (not counting the recently-granted 630 and 2200 meter bands) is at the bottom of the "chart of bands" if you look at frequency (1.8 MHz to 2.0 MHz vs. 28-29.7 MHz for the 10-meter band).

Confusing as that might be for non-hams or newbies, the name "Top Band" for 160-meters has stuck for all these years and is still in common use today by those who are fond of the band (myself being one of them).

Stewart S. Perry, W1BB, born April 1, 1904 in Winthrop, Massachusetts, became an influential ham in the world of amateur radio back in the 1930s, especially when it came to the often-overlooked 160-meter band. In those days, 160 was viewed like hams today would view 2m simplex—it was a band used mostly to chat locally, and regionally such as is common today on 75 meters. In one anecdote I read, one Fred Mahaney, W8IQC, joked that sometimes he would get on 160 cand call "CQ California" from his QTH in Ohio, not realizing that working California on 160 was actually possible! Hams of that time just didn't know what the band could do.

So long before most hams fully appreciated the unique rewards of Top Band, Stew became a tireless advocate and pioneer of the band, carving out an understanding and interest in the ham radio community's collective consciousness.

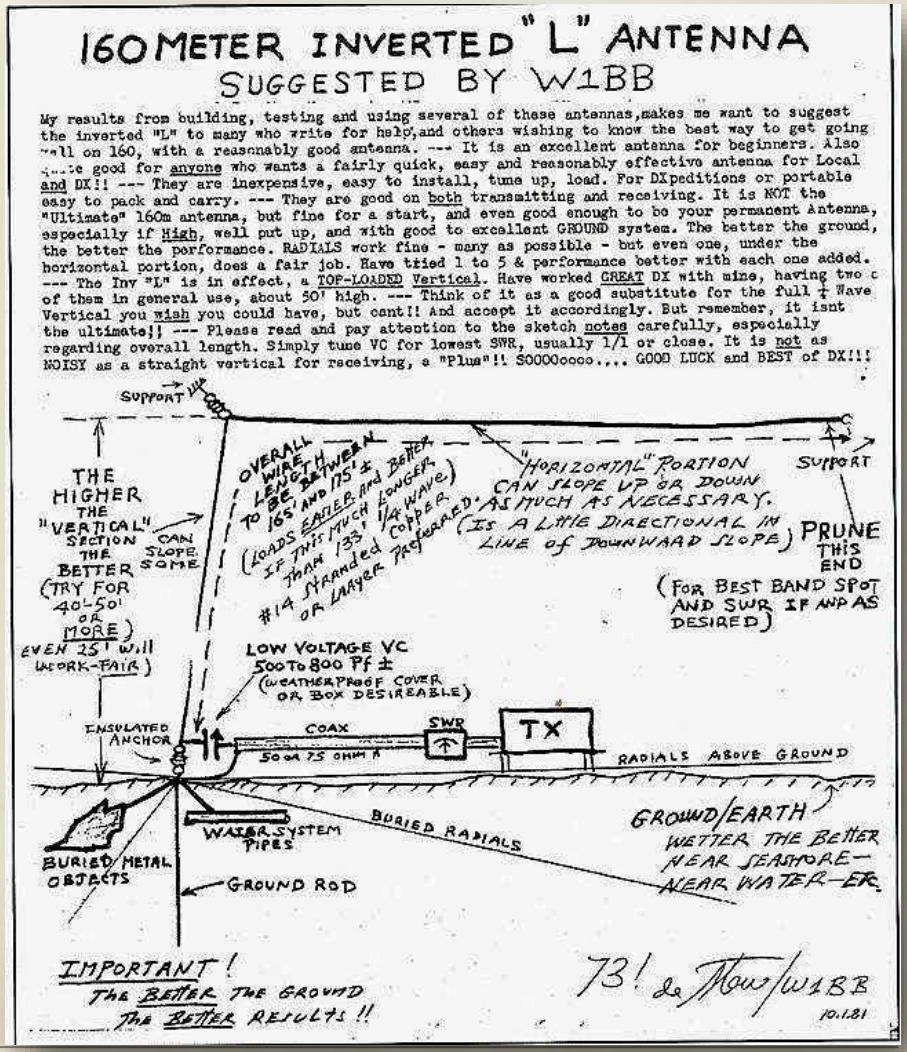
His passion for 160 meters went far beyond simply making contacts; he was *deeply* committed to fostering interest in the band, sharing knowledge of antennas and technique, and inspiring operators to explore the possibilities of the longest HF wavelength available to most amateurs.

Born in the early days of ham radio's golden age, Stew Perry's career ended up spanning decades, through some of the most transformative periods in radio history. By the 1930s, he was already involved in pushing the boundaries of 160-meters—especially as relates to DX communications. By 1932, Stew was participating in transatlantic amateur radio tests that helped demonstrate the band's potential.

In those days (and for many today as well!), 160 meters was often regarded as a very tricky, noisy band with limited reach—easy to be a "radio alligator"—all mouth and no ears due to the frequently high noise levels for receiving despite having a loud signal going out.

But Stew saw beyond the challenges. He understood that with the right antennas, right operating techniques, and copious patience, 160 meters could be a real gateway to serious DX contacts — and he worked tirelessly to prove it to the ham world.

After World War II, when amateur radio was slowly recovering and the bands were being reorganized, Stew Perry played an important role in advocating for the restoration and preservation of 160 meters as an important part of the ham spectrum. During the years that followed, he amassed an impressive collection of confirmed DX contacts on Top Band, eventually becoming the very first to earn 160-meter DXCC award in 1976! His tally of post-war DX entities on 160 meters numbered over 150 — a re-


160 METER INVERTED "L" ANTENNA
SUGGESTED BY W1BB

My results from building, testing and using several of these antennas, makes me want to suggest the inverted "L" to many who write for help, and others wishing to know the best way to get going well on 160, with a reasonably good antenna. --- It is an excellent antenna for beginners. Also quite good for anyone who wants a fairly quick, easy and reasonably effective antenna for Local and DX!! --- They are inexpensive, easy to install, tune up, load. For DXpeditions or portable easy to pack and carry. --- They are good on both transmitting and receiving. It is NOT the "Ultimate" 160m antenna, but fine for a start, and even good enough to be your permanent Antenna, especially if High, well put up, and with good to excellent GROUND system. The better the ground, the better the performance. RADIALS work fine - many as possible - but even one, under the horizontal portion, does a fair job. Have tried 1 to 5 & performance better with each one added. --- The Inv "L" is in effect, a TOP-LOADED Vertical. Have worked GREAT DX with mine, having two of them in general use, about 50' high. --- Think of it as a good substitute for the full ¼ Wave Vertical you wish you could have, but can't!! And accept it accordingly. But remember, it isn't the ultimate!! --- Please read and pay attention to the sketch notes carefully, especially regarding overall length. Simply tune VC for lowest SWR, usually 1/1 or close. It is not as NOISY as a straight vertical for receiving, a "Plus"!! SOOOOcoco.... GOOD LUCK and BEST of DX!!!

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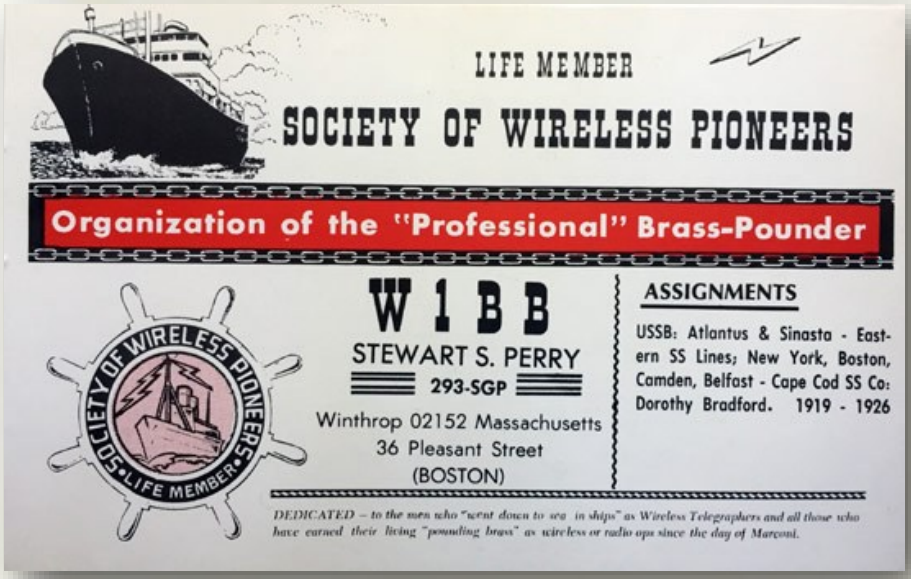
markable achievement even today that set a high bar for operators worldwide. (I have exactly three countries on 160: US, Canada, and Mexico. I guess I should mention Navassa Island—but only because Nick K7MO invited me to use the KLAY 1340 broadcast tower to work the K1N Navassa DXpedition in 2015—it counts, but not the same).

It wasn't just about his own personal accomplishment for Stew. He understood that community and communication were the lifeblood of amateur radio. To that end, he published "160m News," a widely distributed printed and mailed bulletin that kept hams informed about 160 DX openings, antenna designs, operating tips, and other news related to the band. This bulletin, produced with painstaking care and enthusiasm, became a beacon for operators hungry for information and eager to improve their own stations. Through these efforts, Stew cultivated a sense of camaraderie and shared purpose that helped elevate 160 meters from a niche curiosity to a respected and cherished band—at a time when it was the band that didn't get much attention.



His reputation as the "Godfather of Top Band" was well earned. Many remember how he affectionately dubbed 160 meters "the Gentleman's Band," capturing the spirit of respectful, thoughtful operation that he championed—and largely remains to this day.

Stew was never about flashy CW speed or contesting for its own sake; he valued the art of making contacts, the thrill of overcoming antenna and noise challenges, and the friendships he built on his shared passion.

When he passed away in 1990, the ham community wanted a fitting way to honor his legacy. From this desire sprang the Stew Perry Top Band Distance Challenge, a contest unlike most others on the calendar. Unlike traditional contests that simply count contacts, the Stew Perry contest uses a scoring system based on distance, rewarding operators not just for the number of contacts but for how far apart those contacts are. This really unique approach mirrors Stew's own focus on reaching the farthest corners of the globe on 160 meters and encourages op-

erators to stretch their skills and their antennas.

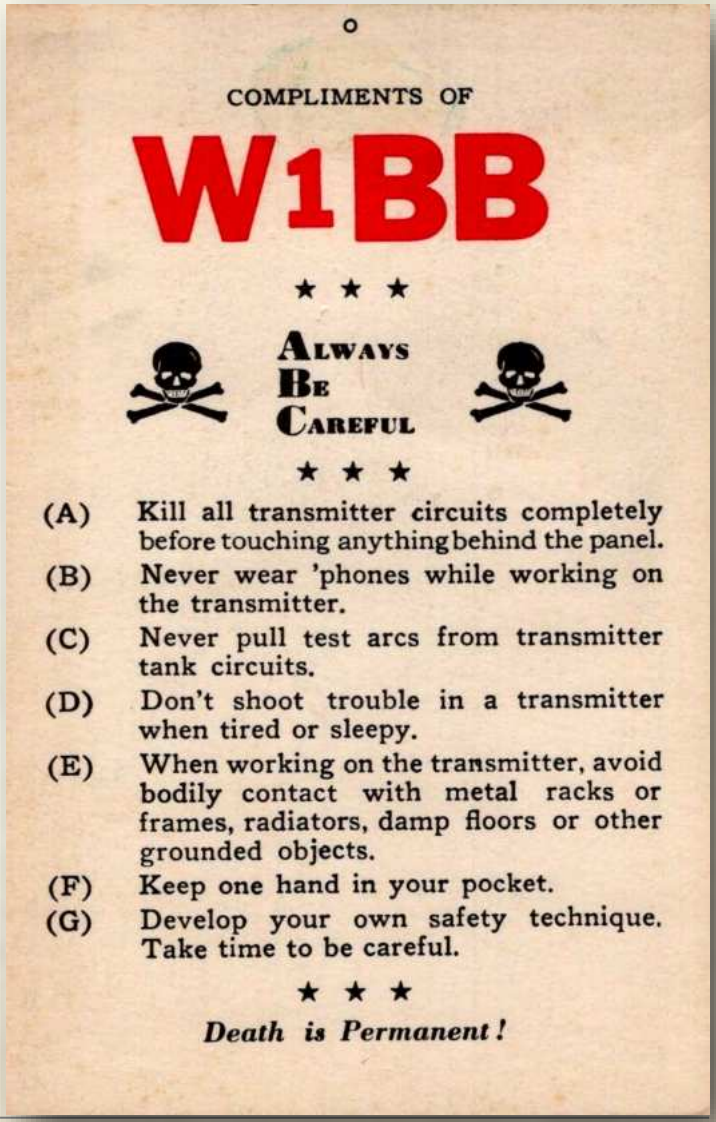
The contest also rewards efficient, low-power operation, with multipliers for stations running QRP and low power levels, making it accessible and appealing to a wide range of participants. It's often described as "the friendly 160-meter contest," well known for its welcoming atmosphere, reasonable CW speeds, and an emphasis on technical skill and creativity rather than raw power or frantic exchanges. Note that ALL of the 4 Stew Perry contests are CW only. If you want to use SSB, the ARRL and CQ run 160 contests to support voice.

Held multiple times a year now, the December running of the contest — sometimes called the "Big Stew" — has become a highlight for many operators. It attracts a strong field of international participants, from seasoned DXers to newcomers eager to try their hand at Top Band. Stories abound of operators eking out contacts with modest antennas, portable stations operating from remote locations, and the satisfaction of overcoming the band's inherent challenges. The contest really is a tribute to the passion that Stew put into what was essentially a single-band lifelong effort.

And now, in this modern age, as well all know—FT8 has taken hold on 160 with just about the same fervor as on all the other bands. It's FT8 that's now the most-often heard signal. But it really is a mode that further improves the ability to work stations with all the challenges that 160 presents. While of course I never knew Stew personally, I cannot help but think that he would have most certainly embraced FT8 as yet another tool for those striving for success on the Top Band to find it.

The Big Stew is coming up soon—CLICK HERE for details. I fully plan to be participating. I will hope to work as many stations reading this as possible. And if I do, please don't hesitate to shoot me an email after the contest and let me know.

-73 Dave W7UUU



COMPLIMENTS OF

W1BB

★ ★ ★

ALWAYS BE CAREFUL

★ ★ ★

(A) Kill all transmitter circuits completely before touching anything behind the panel.

(B) Never wear 'phones while working on the transmitter.

(C) Never pull test arcs from transmitter tank circuits.

(D) Don't shoot trouble in a transmitter when tired or sleepy.

(E) When working on the transmitter, avoid bodily contact with metal racks or frames, radiators, damp floors or other grounded objects.

(F) Keep one hand in your pocket.

(G) Develop your own safety technique. Take time to be careful.

★ ★ ★

Death is Permanent!

THE WAY BACK PHOTO BOOTH

Highlighted photos from the club's past

Researched & Compiled by Dave W7UUU

Archive Photo

Jerry Seligman W7BUN and RCT Club President Dennis Rainier W7UBA officially launch the Radio Club's Hamfair 1972. The club always took pride in having this event be much more than just a flea market for ham gear, but rather a family-oriented event with lots of activities. There were bunny hunts, treasure hunts such as searching a field where 500 resistors had been scattered, and the person who found the "most Ohms" in a fixed time limit won a prize. There was always a great kitchen setup with food for all. There were classes, Morse practice sessions, technical seminars,—the RCT Hamfair was a wide-ranging event that was fun for all, young or old. *-Dave W7UUU*

MIGHTY DK! QSO REPORT

Reporting all the HF QSO action from the club

EACH MONTH in the Bark, the Radio Club of Tacoma recognizes the members and guests who have made non-contest QSOs using the HF stations at our clubhouse. Saturday Open House, especially, is a time when members have access to this equipment. Why not sit down at one of our operating desks and make a contact or two? Assistance is almost always available for those unfamiliar with the equipment, and if your license class doesn't permit HF operation, ask the denizens of the HF Room or the Saturday clubhouse host to help you find a suitably-licensed control operator to sit with you. It's a feather in the club's hat for the call sign of The Mighty DK to be heard on the airwaves. So get on the air and get your name in the Bark! (Don't forget to *enter your call sign as the operator* into our logging program.) ■ *-editor*

Clubhouse QSOs during this period:

NAME	CALL	QSOs
Mike	W7XH	31
David	AC7KP	19
Mike	W7MKE	17
Julie	W7JUL	17
Becky	KG7FZH	14
John	K2CCT	12
David	W7GEL	2
Samuel	KK7USO	2

Above: HF Room Flex 6600 & Mercury III

Below: HF Room Icom IC-7610 & KPA-500

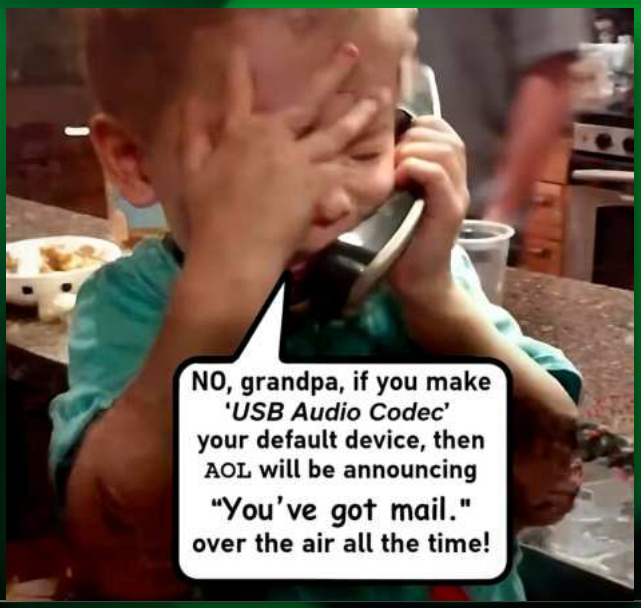
Photos this page provided by Dave W7UUU

THE FUNNY PAPERS

Ham Humor for Humorous Hams

If the person who named Walkie Talkies named everything

Stamps - Lickie Stickie
Defibrillators - Hearty Starty
Bumble bees - Fuzzy Buzzy
Pregnancy test - Maybe Baby
Bra - Breastie Nestie
Fork - Stabby Grabby
Socks - Feetie Heatie
Hippo - Floatie Bloatie
Nightmare - Screamy Dreamy



HOW'S DX?

DXpeditions and Notable DX operations

WEB

NG3K Upcoming DXpedition Calendar

November						
2025 Nov01	2025 Nov06	Palau	T88HR	JH1MLO (B/d)	OPDX 20250603	By JH1MLO fm Koror I (OC-009, PJ77fi); 75-6m; SSB
2025 Nov01	2025 Nov22	Falkland Is	VP8THW	LoTW	TDDX 20250919	By DL7HW; 20 17 15 12 10m; SSB FT8; 10w
2025 Nov03	2025 Nov07	Cyprus SBA	ZC4RH	LoTW	TDDX 20250930	By G4WXJ fm Dhekelia (KM64ux); 40-6m; CW SSB FT8 FT4; 100w; dipoles and EFHW; holiday style operation
2025 Nov03	2025 Nov20	Chatham I	ZL7	Club Log OQRS	OPDX 20250727	By LZ1GC as ZL7/LZ1GC fm IOTA OC-038 (AE16ug); 160-6m; CW SSB FT8 FT4; QSL via LZ1GC direct
2025 Nov03	2025 Nov27	Lesotho	7P8EA	HB9CCS	TDDX 20250930	By HB9CCS fm Thaba Tseka (KG40hl); 15m; SSB (21.223 MHz) CW (21.050 MHz), perhaps 17 12 10m; 100w; EF wire
2025 Nov15	2025 Nov21	Tuvalu	T2JK NEW	LoTW	DXW.Net 20251010	By JK1JXZ fm Funafuti; 80-6m
2025 Nov20	2025 Nov30	San Andres I	5J0EA	LoTW	DXW.Net 20250903	By EA7BF EA7FPG EA7JW EA7ATX fm IOTA NA-003 (EK92dm); 160-10m; CW SSB + digital
2025 Nov20	2025 Dec03	Bonaire	PJ4KV	DL6KVA	DXW.Net 20250927	By DL6KVA; HF; CW
2025 Nov20	2025 Dec31	Namibia	V51WH	DK2WH	OPDX 20250903	By DK2WH fm nr Omaruru; 160-6m, incl 60m; QRV for CQWW DX RTTY using V55Y; to continue until Mar 24, 2026
2025 Nov22	2025 Dec05	Vanuatu	YJ0GC	Club Log OQRS	OPDX 20250727	By LZ1GC; 160-10m, incl 60m; CW SSB FT8 FT4; QSL via LZ1GC direct
CQ Worldwide DX Contest, CW (Nov 29-30, 2025) Check here for pericontest activity too.						

Click anywhere on the table above to visit Bill's site directly—the hyperlinks will be active there.

Courtesy Bill Feidt, NG3K
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STRAY TOPICS OF INTEREST

RADIO ADS FROM 50 YEARS AGO THIS MONTH

W7UUU

IN NOVEMBER 1975 HEATH CO. WAS VERY much in the 2m FM game with their popular HW-202 transceiver. But the 2m FM repeater craze was just ramping up, so they started placing ads for this compact rig right inside the front cover of the ham radio magazines to help capture some of the excitement of that market among the ham buyers.

The HW-202 was crystal controlled with capacity for up to 12 crystals. The crystals could be set for simplex (146.52, 146.58, etc.) or set up on pairs with a plus or minus offset as we still do with modern repeaters. PL tones as we know them today were still just a bit in the future, but "tone burst encoders" were starting to catch on and for $26.95 you could add one to your HW-202 which would give you "burst tones" (up to 4 of them) to open repeaters that required them.

At a cost of $179.95, the HW-202 was a bargain for the time—when most 2m transceivers were well over $200. The "build your own" discount factored in heavily.

But even at that, $179.95 at that time could buy a medium-size freezer, a nice wooden dining table with chairs, a good quality upright vacuum (made in the US!), or a decent home stereo system. And for the crystals, assuming a pair for a repeater (transmit and receive requiring separate crystals), at $12 you could have bought a new toaster, a full tank of gas for a compact car, or several bags of typical groceries. And that was per pair of crystals! You'd have to repeat that order six times to fully load the radio with crystals, whether for repeaters or for simplex. Then of course, for home use, you might need the $32.95 power supply or even splurge for the $59.95 40-watt amplifier

Having owned a few of these over the years, I can attest to their solid performance—great transmit and receive audio, and really simple operation. It's no wonder the HW-202 was on the market for almost five full years.

-Dave W7UUU

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Homebrew & Kits corner

PHOENIX RISES

PROJECT PROFILE

By W7UUU

MOST WHO KNOW ME KNOW THAT I'VE BEEN A Heathkit fan for many years. In fact my very first ham radio was Heathkit HW-7 QRP CW transceiver that I built myself at age 13 in January 1975, while awaiting the arrival of my Novice ticket (WN7AWK). Later that year, I got an amazing (to me) Heathkit SB-101 SSB and CW transceiver after I had passed my General and got my new call sign, WB7AWK.

Fast forward to 2017 when I had planned a massive "70th Anniversary of the First Electronic Heathkit" special event with the call sign K1T, and I had amassed a huge Heathkit-centric station pretty much from top to bottom.

The shack space was really stretched, and I was concerned about the old tube rigs overheating in the confines of my then much-smaller shack.

Homebrew "Fake Heathkit" GD-128 Fan Control with equally-fake Heathkit IP-128 power supply. All photos by Dave W7UUU

So I conceived of a way to build a super-simple fan system, with a long chain of linked 12v fans, fitted to the cabinets of the many Heathkit rigs in the shack at that time. I had a simple idea in mind: use a basic 12 volt linear power supply and a really big wire-wound rheostat to allow me to adjust the fan speed manually simply according to need. Or, much of the time, to simply leave the fans off.

During this heady time of the 70th anniversary of that first electronic Heathkit (a 5" oscilloscope, that when introduced, didn't even have a model number) I traveled to Benton Harbor, Michigan where Heathkit had been based and did a very immersive dive into "all things Heathkit" which included visits to all the former Heath Co. facilities from the 1940s until their demise. I also visited the grave of Howard E. Anthony, the man who took the Heath Company into the electronic kit world.

But back home, I really did need a solution to "cool things down" in the shack with so many radios in tight quarters. I had painstakingly serviced them to working condition (I don't use the word "restored" anymore—I just got them working and stable which really falls short of real restoration). I didn't want the heat build-up to be detrimental to their operation during my K1T special event. But the many fans powered by my variable-speed system worked great and despite the horrid band conditions, my special event for the 70th anniversary went off very well!

Homebrew & Kits corner

PHOENIX RISES

PROJECT PROFILE

By W7UUU

That amazing Heathkit-centric station stayed on the air for several more years, even following our move from suburbia in University Place out to our 5-acre property in Burley, Washington, or as we call it, "Willoughby" (a Twilight Zone reference for what we call our peaceful place in the pseudo-country "where a man can slow down to a walk and live his life full measure").

October 2020 brought tragedy. My shack suffered a severe fire (failed power strip) and virtually ALL the gear in the shack was lost—including all the Heathkit rigs I'd spent years amassing.

But amazingly, in the mayhem of that awful event, my "fake Heathkits" that constituted the fan system were mostly spared. See the photo above for the evidence of this. Fires work in weird ways—almost in waves—some things spared while others are utterly destroyed but in many cases only separated by mere feet.

My fan system was mostly spared. The damage was largely from water, causing the artwork to bubble and separate from the cabinets. But not much else was really damaged.

The fan control and power supply after the fire, as seen in the red circles above. The only real damage was from water and soot—it was an easy restoration.

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Homebrew & Kits corner

PHOENIX RISES

PROJECT PROFILE

By W7UUU

In my rebuilt shack, while I no longer have any tube-type Heathkit rigs, I do have a Drake B-Line that's sort of tucked under a shelf in the main operating area. I thought it might be a good idea to restore the fan system to operation and put it to use to help pull the heat from the chassis of the T-4XB transmitter finals cage, just as it had done with the SB-101 and SB-401 years before.

After stripping the ruined artwork off, removing the indicators, switches, and rheostat, and cleaning the soot and stains from the fire, the really crappy old source boxes were fully revealed! Both came from the "Free" table at my local club (W7DK.org).

The control box and the power supply were both junker items found on the "Free" table at my local radio club

Once cleaned and stripped of fire ooze and soot, I re-sprayed the cabinets with "Heathkit SB Turquoise" spray paint (which I still have cans of) and reapplied the panel art.

Since all that was really ruined was that artwork, it was a pretty simple matter to recreate it using Microsoft Publisher (the very software I use to produce this magazine in fact). I had the files I had created back in 2017, and simply reprinted it at Office Depot (on 12pt semi-gloss cover stock). I then carefully cut it out to fit, and using Scotch 77 spray adhesive, restored the panels to their pre-fire luster.

How it looked back in 2017, ready to roll on the SB gear

I've yet to "work it into the scheme of things" in the new shack to use on the Drake rigs, but it was certainly a fun process to see the "fake Heathkit" fan system rise from the ashes to live again. This is now the second such homebrew project from the fire I've been able to restore to operation.

-Dave W7UUU

As it looks today, ready to reinstall in the shack. Virtually restored to original condition. The indicator lights , switch, and knob were replaced with new identical parts

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COOL OLD RIG O'THE MONTH

1959 Heathkit CO-1 Code Oscillator

By Dave W7UUU

THIS MONTH'S COOL OLD RIG IS ACTUALLY RIDICULOUSLY simple in concept and construction. I chose it for a couple of reasons: first, it was one of Heath Co.'s first transistor products for the amateur radio market, featuring a Texas Instruments 2N238 germanium PNP transistor—the single most expensive part of this $7.95 kit (1959 dollars, $87 today). My research indicates that this transistor debuted in 1956, and had a "street price" of about $2.45 or $28 in today's money—but Heath bought large quantities at wholesale for around 80 cents a pop—$8.76 today. Secondly, the CO-1 oscillator is one of very few Heathkit ham radio products that matches nothing else whatsoever. Only the plastic case—which was used for a resistance decade box and for the famous CR-1 crystal radio matches anything. Even the panel color matches no other Heathkit—it's a very pale greenish white. The screwheads are also a very pale green. It's not from aging—my own specimen is pristine, and those colors clearly are original.

It's also a unique product in that it's one of the very tiny fraction of ham radio Heathkits that was so incredibly simple in design and construction. Powered by two "C" batteries, it uses a germanium PNP transistor to generate a 1 KHz audio tone (Heath loved the 1 KHz CW frequency—it was their standard for many years). When the key is pressed, the simple circuit applies voltage to the transistor turning it on, and with feedback through an audio transformer it produces oscillations that drive a speaker. It's what is called a single-transistor relaxation oscillator. Or, slide the switch to the "Light" position and the key simply turns a 3v pilot light on and off for visual Morse (not likely a feature that was used very often with the CO-1 oscillator).

The parts count is really low—two resistors, one capacitor, the transistor, the transformer, and the speaker. The rest of the parts are mechanical or relate to the simple "on off" indicator light for visual Morse. The kit did come with a very basic straight key—alas my example does not have the original key.

Connection was simply by screw terminals—there was no key jack, and no option for external power. It ran on the 2 "C" batteries only but "shelf life" was expected with minimal use.

Heathkit CO-1 Code Oscillator and manual ca. 1959—Photos by Dave W7UUU from his collection

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COOL OLD RIG O'THE MONTH

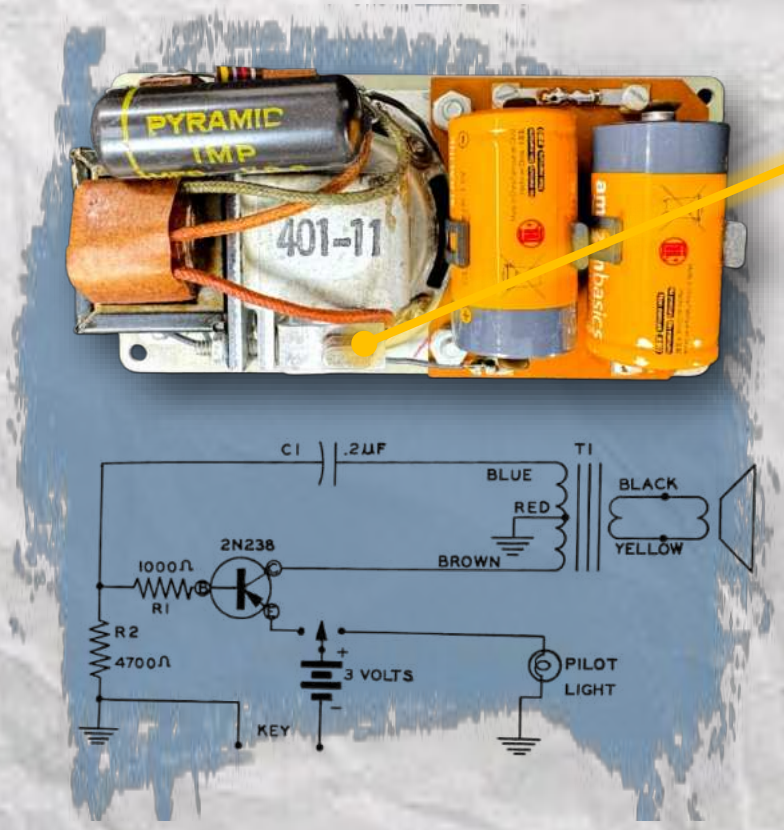
1959 Heathkit CO-1 Code Oscillator

By Dave W7UUU

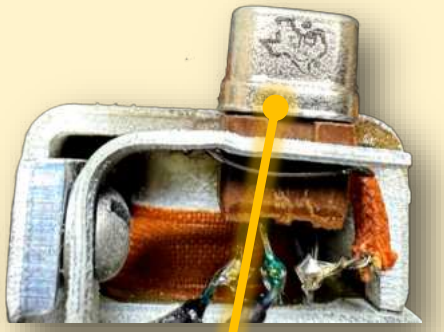
The CO-1 was sold from 1959 until 1966 but despite that, they are seldom seen "in the wild". The one I own is the first I've ever seen in person. The same basic design later became the much-more-common HD-16 (with the nice slope-front panel) in late 1966, and finally the HD-1416 which was largely the same circuit but in a basic cheap plastic box and a PC board.

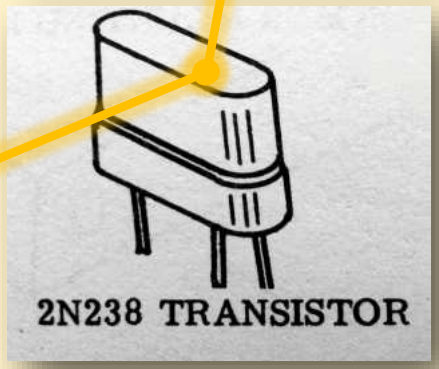
But the lowly CO-1 stands in my mind as a "cool old rig" just for the leading-edge tech of introducing many hams to their first transistor circuit (complete with socket—that's how delicate these early transistors were). And if you don't mind the 1 KHz oscillator tone, it still does the job it was designed for.

-Dave W7UUU



Top: Rear view of the CO-1 code oscillator, clearly showing the transformer, speaker, capacitor, transistor, and C batteries
Bottom: The extremely simple schematic but this would have been considered high-tech in 1959 when it came out.





Top: Texas Instruments 2N238 closeup view
Below: Light bulb for visual Morse operation

Photos by Dave W7UUU

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ONE HAM'S JOURNEY THROUGH THE CONTACT CLEANING WARS

By Steve Reed, KW4H

By Steve Reed, KW4H

If you've ever wandered into an online forum or club meeting when the topic of contact cleaners comes up, you know it can sound a lot like a DX pileup—every operator certain they've found the *one true method*. Some swear by a specific brand, others preach the gospel of "never use anything," and a few rely on techniques passed down from the golden ages. The truth is that every restorer develops their own habits, preferences, and trusted rituals. My intent here isn't to refute anyone's folklore—or prove who's right—but simply to share what has worked for *me* over years of bringing silent switches and noisy controls back to life. Consider it one ham's field notes from the bench.

Photo: Steve KW4H

Before we get started, it's worth remembering that even the very best cleaners and deoxidizers have their limits. When contacts are physically worn, pitted, or plating is gone, no amount of chemistry can restore what's been lost. Corrosion can eat through base metal, spring tension can weaken, and silver or tin plating can be severely worn. In those cases, cleaning may give temporary results, but reliability won't last and replacement is the only real fix. The goal of using these products is to preserve and extend life, not perform miracles. Sometimes, the smartest move is recognizing when a component has reached the end of its serviceable life and needs to be rebuilt or replaced rather than rescued with another round of chemicals.

In my experience restoring vintage gear, contact cleaning works best as a three-stage process, not just a quick blast. First, I start with a pure solvent to wash away years of grime, grease, and dust. Next comes deoxidation, where a cleaner breaks down the oxide that causes scratchy audio, noisy switches, or weak connections. Finally, I apply a light protective film to seal the metal and slow oxidation's return. Following this routine (with some variances, of course) has brought countless controls and connectors back to life and made the difference between a radio that merely works and one that feels factory-fresh again.

Let's walk through those three stages—initial cleaning, deoxidation, and protection (often combined). I'll explain what I use and why. The goal isn't to convince you to use the same products I do, but to un-

derstand the reasoning so you can make your own informed choices.

For the first stage, I always start with a pure solvent—almost always a quick-drying electronic cleaner or 99% isopropyl alcohol. The goal isn't to fix oxidation yet, but to remove grime, old lubricant, nicotine film, and dust. If you skip this step, any deoxidizer or protectant you apply can mix with that residue and trap it in place, sometimes making things worse. A cleaner, barer surface also lets you see the contact's condition and ensures later treatments can reach the problem areas, especially in old rotary switches. This first cleaning also prevents cross-contamination, since loosened oils can carry conductive residue—the last thing you want inside a switch or potentiometer.

My usual chemical is CRC QD Electronic Cleaner. Others, like WD-40 Specialist Contact Cleaner, work similarly. When used properly, QD leaves no residue, is non-conductive, non-corrosive, and safe on most plastics, rubbers, and coatings. It evaporates quickly, minimizing the chance of residue or interference with later steps—provided you use it carefully, in a well-ventilated space, with the gear unpowered, and with awareness of flammability hazards. In my experience, it's rarely sufficient by itself to restore badly oxidized contacts. That's when a true deoxidizer or regenerative cleaner does the heavy lifting.

To use QD on a rotary switch, I spray it onto a swab, gently hold it against the rotor, and rotate the switch. Turn the rotor to clean the switch—don't

CRC QD Electronic Cleaner, and very similar WD-40 brand Contact Clean (this is NOT WD-40 oil! Do not confuse!) Photos: Dave W7UUU

scrub with the swab. It may take two or three passes. For a potentiometer, I spray a short burst inside the shell and rotate the pot about a dozen times. For a slide switch, a short burst followed by a dozen cycles works well.

When cleaning vintage gear, I often alternate between QD and 99% isopropyl alcohol. QD evaporates instantly, leaves no trace, and needs no wiping. Isopropyl is slower to evaporate but gentler—ideal for larger or delicate parts like tuning capacitors, control shafts, or circuit boards. It dissolves fingerprints and water-based contamination well but isn't as effective on old oil or carbon film. Nei-

ther solvent removes oxidation, but both are excellent first-stage cleaners.

And now we enter the wonderful world of deoxidation and protection—the source of endless debates between DeoxIT zealots, detractors, and drama queens. The debates, combined with hands-on experience, can actually help separate fact from folklore.

Several good contact deoxidizers exist, all designed to chemically dissolve oxide layers. Brands like Chemtronics, MG Chemicals, Kontakt Chemie, Servisol, and Electrolube offer effective products. I'm not promoting any particular one, but since I've used the DeoxIT line the most, that's what I'll discuss. Once you understand DeoxIT, you can apply the same logic to other brands.

CAIG DeoxIT traces its roots back to the late 1950s and early 1960s, when CAIG Laboratories (originally California Industrial Group) developed specialty chemicals for the electronics industry in San Diego. Their first flagship product was Cramolin, a German-made contact cleaner imported and sold under license in the U.S. When Cramolin's formula was discontinued in the 1970s because it contained freon, CAIG reformulated and created DeoxIT. Over the years, DeoxIT evolved into several specialized series—D, Gold, Shield, and Fader—each with a specific purpose.

The DeoxIT line is built around one core idea: restoring and maintaining clean, conductive metal contacts. Each product focuses on a different part of that job. The D-Series is the primary cleaner and deoxidizer, reportedly containing about 20% active agent. It's designed to dissolve oxide and sulfide layers that interfere with conductivity and leaves a thin protective film. The Gold-Series, with about 0.5% active agent, is for conditioning clean or freshly restored contacts—especially plated ones—to enhance conductivity and prevent new oxidation. The Shield-Series contains no deoxidizer and is purely protective, sealing clean surfaces against harsh environments. The Fader-Series, with about 1% cleaning agent, is for conductive plastic and carbon controls like potentiometers, providing light cleaning and lubrication without harming delicate elements.

Within those categories are many variations, but for my bench work, three DeoxIT products cover about 99 percent of my needs: D5, F5, and D100L.

DeoxIT Fader F5, DeoxIT D100L, and DeoxIT D100 (same formulation as D100L, just in a spray rather than liquid). To use as liquid simply spray in a small cup and brush on. Avoid spraying directly—it simply wastes the product and gets it all over. Photos: Dave W7UUU

DeoxIT D5 is the best-known and most widely used version—a 5% solution of the D-Series formula in a solvent. It dissolves oxidation, flushes away dirt, and leaves behind a microscopic protective film. The aerosol gives enough flushing action to clean tube sockets, switches, jacks, and connectors quickly.

Why bother with QD before applying D5? QD is a pure solvent rinse that removes grime and oils without residue. That clears the way for the deoxidizer's chemistry to contact the actual metal surface rather than mixing with dirt. D5 isn't a degreaser—it's meant to react with oxides and sulfides. Clean first, then deoxidize, and the D5 will work far more effectively.

I use a short spray of D5 on slide switches, sometimes on pots and other controls, but not on rotary switches. For those, I use D100L.

DeoxIT F5 is formulated for potentiometers, faders, and other conductive-plastic or carbon-based controls. Unlike the more aggressive D-Series, F5 contains only about 1% cleaning agent—enough to remove light oxidation without damaging resistive tracks. Its main purpose is to restore smooth motion and electrical stability by replenishing lubrication lost over decades. F5 leaves behind a thin, lubricating film that maintains consistent resistance and smooth feel.

F5 is my go-to finishing touch for pots. After a QD cleaning, maybe even a shot of D5, I'll give the control a quick spray of F5 and work the knob. QD can remove factory lubrication, so I always follow with a fader lubricant like F5. You can even try just F5 and skip the QD.

DeoxIT D100L is the full-strength, 100% liquid concentrate version of the D-Series, with no added solvent or propellant. It allows precise application to sensitive or confined areas like tube sockets, switch wafers, or plug-in modules. Because it lacks carrier solvents, it's generally safe for older plastics, phenolic materials, and conductive films that might be damaged by aerosols. It dissolves oxides and sulfides, restores conductivity, and leaves behind a thin film. It doesn't flush debris the way D5 does, so it's best after a solvent cleaning when you need targeted treatment and long-term protection.

D100L is what I always use for old rotary switch contacts—just a tiny dab or two on the rotor. Old rotary switches, especially those with phenolic wafers and spring contacts, are easily damaged by excess liquid or overspray. The wafers are sometimes porous and hygroscopic, meaning they can absorb solvents or oils, causing leakage paths or binding later. By applying just a small dot of D100L, you're delivering the active deoxidizer only where it's needed—without soaking the insulator. Because it's concentrated, even a tiny amount is enough to dissolve oxidation and leave a protective film that prevents further corrosion. Used sparingly, it doesn't attract dust.

A quick note: D100L and D100S-2 use the same full-strength D-Series formula. The difference is application. D100L is a concentrated liquid for precise, controlled use on delicate parts like rotary switches or tube sockets. D100S-2 delivers the same chemistry in an aerosol form using CO_2 as a propellant, making it easier to reach multiple or recessed contacts without solvent. D100L is for precision bench work, while D100S-2 is for broader spray application—both provide identical action.

The real secret isn't any one brand or formula—it's the three-step process itself.

Every successful pot or switch restoration starts with a thorough cleaning to remove grime and residue, followed by a chemical deoxidizing stage to restore true metal-to-metal contact, and finally a protective treatment to seal the surface against future corrosion. In many cases, the last two steps can be handled together with a good deoxidizing conditioner, but the sequence still matters: clean first, restore second, protect last. Follow that order, and you'll get reliable, long-lasting performance no matter which products you prefer to use.

Next month, be watching for my follow-up, "Chassis and panel refinishing: the fine art of not overdoing it" with complete DIY how-to details.

—Steve Reed, KW4H

Steve KW4H has been a ham since 1974 and is a very avid top-notch restorer of vintage ham rigs. He has published numerous restoration articles in Electric Radio Magazine and elsewhere. The work I've seen him do is nothing short of astounding. -Editor, Dave W7UUU

CONTACT CLEANING BENCH CARD

(PRINT THIS PAGE—Quick Reference from Steve Reed, KW4H)

STAGE 1 – CLEAN FIRST (Pure Solvent Cleaning)

- **CRC QD Electronic Cleaner** – Quick-drying solvent for switches, pots, jacks, and circuit boards. Removes grime, oil, and nicotine. Non-conductive, no residue. Always use before any deoxidizer.
- **WD-40 Specialist Contact Cleaner** – Works like QD; safe on most plastics. Quick evaporating, non-residue.
- **99% Isopropyl Alcohol** – Gentler cleaner for large or delicate parts such as tuning capacitors and shafts. Slower drying but ideal for water-based contaminants.
- Use any of the above to remove all residue before moving to deoxidizers. Never skip this step.

STAGE 2 – DEOXIDIZE SECOND (Deoxidation and Protection)

- **DeoxIT D5** – 5% solution cleaner/deoxidizer for tube sockets, slide switches, jacks, and connectors. Use after solvent cleaning. Avoid rotary switches. Also leaves a thin protective film, so deoxidation and protection can occur simultaneously.
- **DeoxIT D100L** – 100% liquid concentrate for precision work (rotary switches, tube sockets, phenolic wafers). Apply tiny drops sparingly. No solvent—safe for older plastics. Provides both deoxidation and light protection.
- **DeoxIT D100S-2** – Same as D100L but aerosol. Ideal for reaching recessed or multiple contacts.
- Alternate Brands: Chemtronics, MG Chemicals, Kontakt Chemie, Servisol, Electrolube – Use like DeoxIT D-Series; check specs for protection included.
- **Always clean first**, then apply deoxidizer/protectant. Some products combine both functions, so reading product specifications is important.

STAGE 3 – PROTECT & LUBRICATE LAST (Optional Additional Protection)

- **DeoxIT F5 (FaderLube)** – For carbon or conductive-plastic potentiometers and faders. Light cleaner and lubricant. Restores smooth motion. Use after QD or D5.
- **DeoxIT Gold (G-Series)** – Protective conditioner for clean, plated contacts. Enhances conductivity and slows oxidation.
- **DeoxIT Shield (S-Series)** – Protective sealant for clean contacts in harsh environments. No deoxidizer—only protection.

SUMMARY ORDER OF USE

1. CLEAN – CRC QD, WD-40 Specialist, or 99% IPA

2. DEOXIDIZE/PROTECT – DeoxIT D5, D100L, or D100S-2 (some products provide both functions)

3. PROTECT/LUBRICATE – DeoxIT F5, Gold, or Shield (optional if deoxidizer already provides protection)

Always follow: Clean → Deoxidize/Protect → Optional Protect/Lubricate. Following this order gives the most reliable, long-lasting results on vintage gear. Always read the product specifications.

LYSCO MANUFACTURING CO., OF HOBOKEN, NEW JERSEY, was an American ham radio manufacturer active in the early 1950s that catered to the amateur radio and mobile communications markets. They were a modest player in the market, notable for VFOs and a few small transmitters.

One of LYSCO's better-known products was the Transmaster 600 transmitter-exciter. It was built around an 807 final tube, offered full band-switching over 10–160 meter amateur -band coverage. It was built-in VFO or crystal-controlled, mains powered (no external supply required), and was AM capable with an added external modulator. The rig was sometimes marketed as a "mobile" or compact transmitter—despite being 17 inches wide and 9 inches deep…. Not exactly compact! It was advertised as offering 35 watts plate input (which should result in around 18-20 watts out or more) but is reported by a number of sources I read as only putting out maybe 8 to 10 watts…. Grossly inefficient? Hard to say.

Tube complement was a bit more than a MOPA with a 6AG7 oscillator, followed by a 6AG7 buffer, with a single 807 final. It included a VR-150 regulator tube as well—perhaps that's the reason for the lower reported output power?

But the upper shown product advertised in the November 1950 CQ magazine, the LYSCO model 400 modulator, is pretty much non-existent in the real world so far as I could find, anyway. I'm sure it's at the top of the ad in an artist rendering simply because none had yet been built…. Maybe they were "taking the temperature of interest" … Being also 17 inches wide, and 9-inches tall just like the transmitter, for a mobile AM rig that becomes pretty unwieldy by most any definition. The two boxes, while being electronically compatible, in the limited advertising I could find, they don't really much resemble each other at all.

Either way, neither the transmitter and certainly not the modulator turn up in any modern sales which leads me to believe these are not widely sought "nostalgia rigs".

Dave W7UUU


GO LYSCO

LYSCO MODULATOR
Model 400
Cabinet 17" × 9" × 11", Matches Transmasters

Input: High impedance (crystal or dynamic mic.)
Output: 40 watts into 4000-ohm p.a. load.
(Available for 500-ohm output on request.)
Tube Complement: 1st Audio, 6SJ7; 2nd Audio, ½-6SN7; Phase Inverter, ½-6SN7; Driver, p.p. 6SN7; Modulator, p.p. 6L6s; Rectifier, 5U4G.
Meter: Modulator plate current.
Features: "Standby-On" switch on modulator includes spare contacts that may be used to control keying circuit of any transmitter for break in phone operation.
Ceramic terminals for connection to r.f. stage.
Will modulate 100-watts of transmitter input.
AMATEUR NET, COMPLETE $119.95

LYSCO KIT NO. 21—For Transmaster Owners: A means of providing oscillator operation alone, to enable the Transmaster to be calibrated or tuned to a desired frequency without "swishing." Kit contains prewired switch, designation plate, and knob, along with modification instructions. No drilling necessary. Fits into position occupied by meter jack. Amateur Net $3.95

TRANSMITTER-EXCITER
TRANSMASTER
Mod. 600—TVAreas • Mod. 500—Wide Open Spaces

FEATURES: Break-in keying, illuminated dial, PA Plate meter, 35 watts input on 160, 80, 40, 20, 15, 11 and 10 meters, provisions for modulator tie-in, Grid Meter Jack, complete with tubes and built-in power supply, VFO or Crystal ("Rubbers" the Crystal also), Cabinet 17" x 9" x 11". Tubes OSC 6AG7, BUFF 6AG7, P. A. 807, Volt. Reg. VR-150 Rect. 5U4G.
Mod. 500 Amateur Net $109.95
Mod. 600 Amateur Net $119.95

ANTENNA COUPLER for all bands Model 50. Designed for Transmaster. $11.95

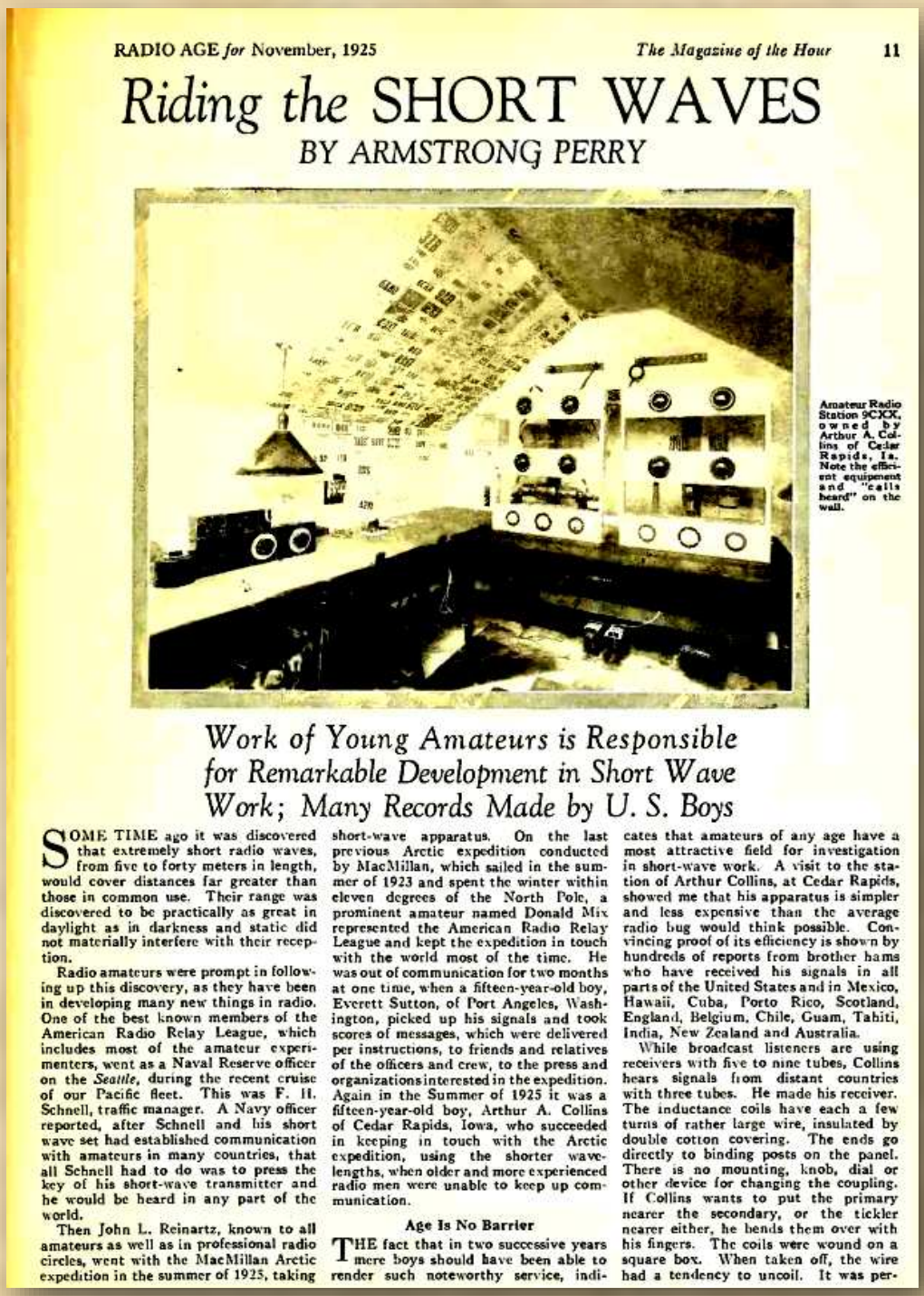
BUY LYSCO PRODUCTS AT LEADING DEALERS—OR WRITE FOR LITERATURE ON OTHER LYSCO PRODUCTS.

LYSCO MFG. CO., Inc.
1401 CLINTON ST. HOBOKEN, N. J.

In the 1920s, amateurs were really the first to discover the promise of shortwaves, finding that signals from 5 to 40 meters could *span the globe* day or night with little interference. One of the pioneers was *fifteen-year-old Arthur A. Collins of Cedar Rapids, Iowa—who would later found Collins Radio*. With a home-built three-tube receiver and transmitters running 50 up to 1,000 watts, he achieved feats that astonished the radio world.

When Admiral MacMillan's Arctic expedition aboard the Bowdoin struggled to maintain contact, Collins (who at only 15 had signed on as the radio operator) became their sole link for twenty-two days, passing traffic for the National Geographic Society, newspapers, and the crew's families. His signals, radiated from antennas as simple as a wire in a tree, reached across the United States and to stations in Europe, the Pacific, and beyond. Condenser.

Collins's early success proved that age and budget were no barrier. Youthful amateurs were showing shortwave's immense potential for worldwide communication. *-Dave W7UUU*



RADIO AGE *for* November, 1925 *The Magazine of the Hour* 11

Riding the SHORT WAVES

BY ARMSTRONG PERRY

Amateur Radio Station 9CXX, owned by Arthur A. Collins of Cedar Rapids, Ia. Note the efficient equipment and "calls heard" on the wall.

Work of Young Amateurs is Responsible for Remarkable Development in Short Wave Work; Many Records Made by U. S. Boys

SOME TIME ago it was discovered that extremely short radio waves, from five to forty meters in length, would cover distances far greater than those in common use. Their range was discovered to be practically as great in daylight as in darkness and static did not materially interfere with their reception.

Radio amateurs were prompt in following up this discovery, as they have been in developing many new things in radio. One of the best known members of the American Radio Relay League, which includes most of the amateur experimenters, went as a Naval Reserve officer on the *Seattle*, during the recent cruise of our Pacific fleet. This was F. H. Schnell, traffic manager. A Navy officer reported, after Schnell and his short wave set had established communication with amateurs in many countries, that all Schnell had to do was to press the key of his short-wave transmitter and he would be heard in any part of the world.

Then John L. Reinartz, known to all amateurs as well as in professional radio circles, went with the MacMillan Arctic expedition in the summer of 1925, taking short-wave apparatus. On the last previous Arctic expedition conducted by MacMillan, which sailed in the summer of 1923 and spent the winter within eleven degrees of the North Pole, a prominent amateur named Donald Mix represented the American Radio Relay League and kept the expedition in touch with the world most of the time. He was out of communication for two months at one time, when a fifteen-year-old boy, Everett Sutton, of Port Angeles, Washington, picked up his signals and took scores of messages, which were delivered per instructions, to friends and relatives of the officers and crew, to the press and organizations interested in the expedition. Again in the Summer of 1925 it was a fifteen-year-old boy, Arthur A. Collins of Cedar Rapids, Iowa, who succeeded in keeping in touch with the Arctic expedition, using the shorter wavelengths, when older and more experienced radio men were unable to keep up communication.

Age Is No Barrier

THE fact that in two successive years mere boys should have been able to render such noteworthy service, indicates that amateurs of any age have a most attractive field for investigation in short-wave work. A visit to the station of Arthur Collins, at Cedar Rapids, showed me that his apparatus is simpler and less expensive than the average radio bug would think possible. Convincing proof of its efficiency is shown by hundreds of reports from brother hams who have received his signals in all parts of the United States and in Mexico, Hawaii, Cuba, Porto Rico, Scotland, England, Belgium, Chile, Guam, Tahiti, India, New Zealand and Australia.

While broadcast listeners are using receivers with five to nine tubes, Collins hears signals from distant countries with three tubes. He made his receiver. The inductance coils have each a few turns of rather large wire, insulated by double cotton covering. The ends go directly to binding posts on the panel. There is no mounting, knob, dial or other device for changing the coupling. If Collins wants to put the primary nearer the secondary, or the tickler nearer either, he bends them over with his fingers. The coils were wound on a square box. When taken off, the wire had a tendency to uncoil. It was per-

Radio Age magazine article from November 1925 describes the amazing adventures of a very young Art Collins, long before Collins radio was founded. Click the image to see the full article at World Radio History. Shack photo above is Art Collins shack at that time.

COOL GEAR!

Interesting Bits of Gear Any Ham Can Use

By W7UUU

I AM WRITING THIS FROM OUR CABIN ABOARD the Sapphire Princess cruise ship, stuck a few miles off shore from Mazatlán, Mexico, awaiting word on whether the port will open for us to dock. Our sky doesn't look too different from the background I chose because it seems rather fitting for this month's Cool Gear column.

Where I live in Burley, Washington, severe weather isn't usually a big concern. It's important to note that even in such locales it's still possible to have crazy weather. On December 18, 2018 a tornado struck Port Orchard, Washington a few miles from my home. It was a EF2 event, and one of the strongest tornados ever recorded in Western Washington. Some 250 homes were damaged, with as many as 30 homes destroyed.

The Midland model WR120S Weather and Emergency Alert Radio.

Such events bring home the need for everyone to have some sort of "weather alert" radio such as that featured above (thanks to Bob K7MXE who lent me his WR120S for this article). This inexpensive ($50) device just like dozens of other brands and models that are similar, gives immediate audible alerts for over 60 types of severe weather and other hazards with warnings coming directly from the National Weather Service before such threats become imminent.

Rear panel: there is an RCA jack for an external antenna, a cloning port for copying settings to multiple such radios, an external alert to trigger a light or loud alarm, and the power jack. Qty. 3 AA batteries will maintain memory and power the radio in the loss of AC.

Most such radios use what is called the S.A.M.E. (Specific Area Message Encoding) protocol to target emergency warnings to specific geographical areas—down to the county level rather than just large broad areas.

In the case of the featured WR120S, the radio can store up to 25 such locations so that you can monitor areas of interest.

Photos by Dave W7UUU—Radio provided by Bob K7MXE

COOL GEAR!

Interesting Bits of Gear Any Ham Can Use

By W7UUU

Locations such as a vacation home, or areas where loved ones might live who may not possess such a radio.

The NOAA Weather Radio (NWR) service is a nationwide network of radio stations broadcasting continuous weather information directly from a nearby National Weather Service office. This service runs 24 hours a day and is pretty much receivable anywhere.

Seven VHF channels are used for the transmissions: 162.400, 162.425, 162.450, 162.475, 162.500, 162.525, and 162.440. With the WR120S and most other weather radios, it's simply a matter of tuning through all seven frequencies at setup using the menu buttons, and stopping on the one with the strongest signal. Very often, the original legacy frequency of 162.550 will be the strongest as there are more transmitters on this frequency than on the others.

On the Midland WR120S, the "External Alert Jack" provides an open-collector transistor switching output to drive an external alarm device such as a siren or strobe. But being simply an open-collector, my own advice would be to use that output to then trigger an actual electromechanical relay to provide full isolation. You can then power 120VAC bells, sirens, or lights for a broader response.

Most such NOAA weather radios are competitively priced well below $100 and are something every home should consider having powered on 24/7 to provide advance warning—especially if you live in an area prone to severe weather. But the WRS also reports events such as tsunami warnings, and even volcano eruptions—ALL of which we have here in the Pacific Northwest!

-Dave W7UUU

Photos by Dave W7UUU—Radio provided by Bob K7MXE

Pouring rain & thunderstorms off Mazatlán while writing this article—we could have used a weather radio!

Plan Now: Upcoming POTA!

By BJ KO7T

RADIO CLUB OF TACOMA POTA 2025 Schedule

This past year, the club hosted 11 POTA activations at 7 different parks. We were very active in 2025 and hope to be even more in 2026.

The Club's POTA Chairman, BJ KO7T, is always looking ahead for fun new parks in the state to activate. It's always a great way for members to get involved with amateur radio while enjoying the great outdoors here in Washington State!

Here's the upcoming schedule:

PARK: **Illahee State Park (US-3202)**
DATE: November 9th
TIMES: 10:00 AM PST
NOTES: This park is in East Bremerton with a great "RF view" Northeast

DATE: December
TIMES: N/A
NOTES: Due to the Holiday Season and the W7DK Holiday Banquet, there will not be a POTA activation for December. But see you in January!!

Everyone is invited to come to our POTA activation events. It's a great opportunity to learn about different antenna types, setting up and tuning antennas with loading coils and/or a counterpoise, learn about different digital modes, and other topics related to portable operations. We usually have 3 to 5 stations set up running many modes on multiple bands. We encourage prospective hams to get on the air, and those with Technician licenses to operate on different bands with a control operator. For club members with a General license, we even have a portable POTA kit that is available to check out from the club the Saturday prior to our club activations. Please see or email BJ Rollison (KO7T) for more information.

-BJ KO7T

BJ KO7T operating at a recent POTA activation

WEDNESDAY SEPTEMBER 24 WAS THE FIRST TRULY spectacular fall morning of 2025, so Anne N7ANN and I decided to explore a new park for our 27th POTA activation together. Tiny Marrowstone Island in Jefferson County, Washington is just over an hour's drive from our home in Burley. But despite its small size, Marrowstone sports three state parks—Fort Flagler (very similar to Fort Worden, situated across the straight from Flagler), Mystery Bay, and the third—Kinney Point State Park which is accessibly by beachable boat.

Fort Flagler State Park is quite large, with many POTA activation options, some with astounding views from high on the bluff over Admiralty Inlet, with a very clear view to the East. This is perfect for a POTA activation!

However, we decided instead to activate the tiny Mystery Bay State Park which is quite the opposite: right at sea level, and looking due West. Not the most ideal POTA location, but it was a very pretty little park—albeit TINY!. The official Washington Parks website calls it out as 10 acres but I have a strong feeling they are including the "water rights" as well (note the dotted border above). In reality, the actual park seems smaller than our property in Burley, which is five acres.

There is only one picnic shed but several tables are arranged near the boat launch, and three more out on the dock itself (which would make for a unique POTA adventure).

As always, we packed a picnic lunch so of course

About 50% of the park is actually in the bay
Image: WA State Parks

Dave W7UUU at the operating position at Mystery Bay
Photo by: Anne N7ANN

that was first order of business. What a lovely place on a 74 degree day for a picnic overlooking the tranquil Mystery Bay (part of Kilisut Harbor).

After lunch, I set up the 20m 1/4-wave collapsing vertical (can be adjusted for a number of bands but I mostly just use 20 for POTA), the IC-7300 and LDG tuner, etc. and set about getting my required 10 QSOs to validate the activation. I always use FT8 for this, for the obvious reason of the popularity of the mode.

Then I switched to SSB and after 20+ minutes of calling (even while self-spotted on the POTA site, I only netted a whopping two contacts. A 20-minute stint on CW resulting in nothing at all. Sigh. But part of it is the very low elevation (30 feet above sea level and facing due-west with high terrain in all other directions). By then, rig battery power was starting to fade so it was time to pack up. But not before spending the rest of the afternoon driving around this peaceful country island setting.

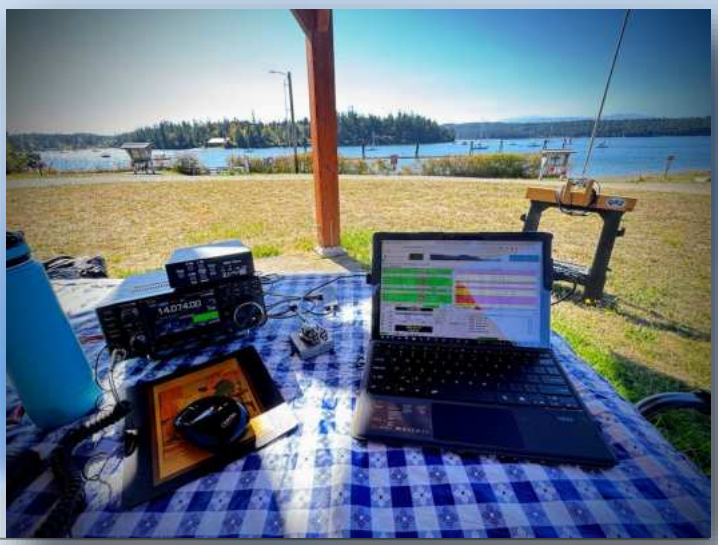
This activation brought me to my 19th "unique park" and the first tier of activation awards hits at the 20th, so hopefully soon on a similar day we will return and this time hit that high bluff facing east at Flagler. I have a feeling that, provided conditions prevail, my results on all of the modes will be a lot different that this outing.

But all in all, it was a delightful day and I still managed 12 contacts, which is 2 more than required to qualify an activation…. my 27th in fact!

-73 Dave W7UUU

Arial view—it's a tiny park—the yellow rectangle. Red rectangle is the picnic shed
Photo: WA State Parks

View of my operating position from the dock—below is my CW/SSB/FT8 station
Photos by Anne N7ANN



PARKS ON THE AIR ANNIVERSARY ROADTRIP STYLE!

I made another trip to Las Vegas in September for my 49th anniversary. The plans were pretty simple—woo my wife (definitely deserved it), wine and dine her, and take her to summer stock outdoor theater. Check, check, and check! It was a great week of sunshine, pools, and much-needed relaxation.

This trip, I was blessed beyond belief. Joy decided that I should enjoy the sunny outdoors relaxing with my Icom 7100. Bless her heart! Each morning she'd ask where we could go do a POTA. Now, I didn't want to hijack our anniversary week with ham radio activations, but she insisted. Knowing that "happy house, happy spouse" is a real thing, I said, "Yes, dear."

Park 1: Joshua Tree National Landmark US-6092 in Utah

Park 2: Virgin River Canyon US-11971 in Utah

For our first outing, we realized we were just about an hour from US-6092, Joshua Tree National Landmark in Utah. I'd never activated a park in Utah before—road trip! We found a nice off-road spot next to a Joshua tree and worked both sides of the clock with 13 contacts, then another 20 as UTC rolled into a new day. It was a great day—90-plus contacts total—leaving me grinning as we packed up.

I was smiling again knowing that just 22 miles away, across the state line in Arizona, was park US-11971, Virgin River Canyon. Guess what? I'd never activated Arizona before either. We set up quickly and got in several contacts before dark. I stayed on late into the evening—note to self: put flashlights in the trav-

el kit! We packed up after 7:30 in the dark with 58 contacts logged. My wife was a champion, though I thought her patience might be running a bit thin.

But again, she asked if there was another POTA I'd like to do. I've never met a POTA I didn't want to do. In just a few minutes she was packed up, snacked up, and—book in hand—ready to head out the door. Score! I'd activated a few Nevada parks before, but I looked for a new one nearby that I hadn't yet done.

We arrived at US-11050, Ice Age Fossils State Park. We'd tried going there once before, only to find it closing within a half hour. So it was on the list for another day. This time we arrived an hour before closing, quickly deployed the mast and EFHW antenna, table, chair, IC-7100, LDG 100 tuner, and battery box. I was on the air within 10 minutes. Soon the contacts started rolling in, including one from a guy just a mile away. With time running out and a polite reminder from the park ranger that the gates would soon be closing, I packed up. The weather was perfect—sunny with a gentle breeze and 95 degrees. Can it get better than that?

Well, yes! A few days earlier we'd driven out toward Mount Charleston but turned back before reaching the mountain. My wife asked if we could do a POTA there. Not wanting to disturb the "happy house," "heck yes" came out of my mouth faster than you could change your mind.

We drove to US-9266, Mount Charleston BLM Wilderness Area. Arriving around 5:45 p.m., it was a crisp 64 degrees at about 7,700 feet of elevation. And no, I still hadn't bought flashlights! We set up and began operating at 00:42 UTC, finishing at 2:21 UTC with 92 contacts. By the time I finished, the temperature had dropped into the mid-fifties. Cold and

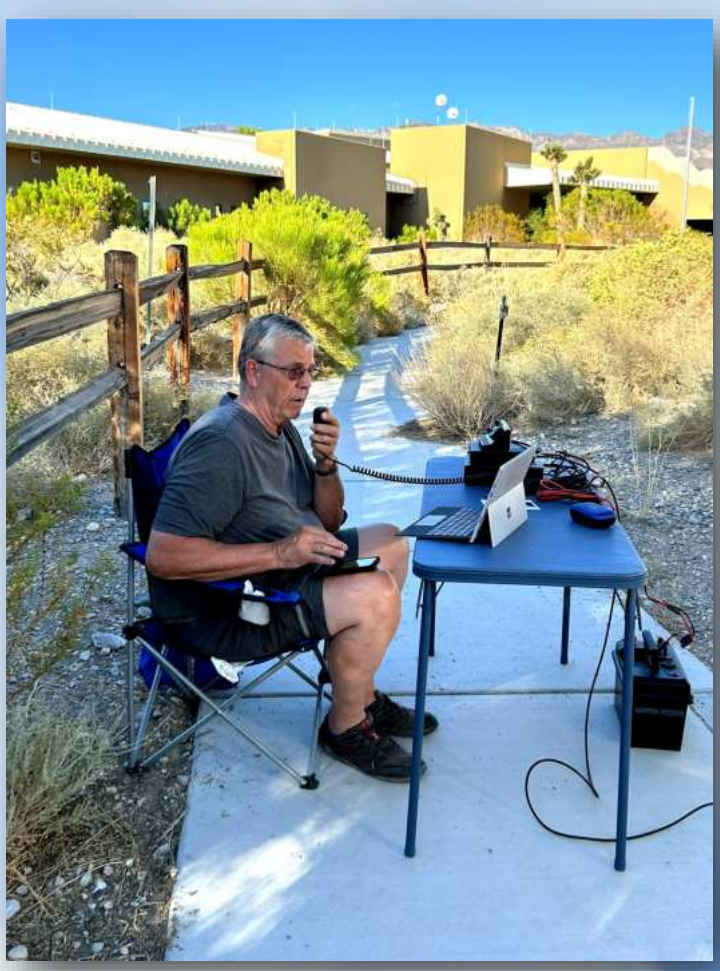
Park 3: Ice Age Fossils State Park US-11050 in Nevada

Park 4: Mount Charleston BLM Wilderness Area US-9266 in Nevada

dark, we broke down the antenna and packed up by the light of a cell phone. Hungry and tired, we stopped for In-N-Out burgers before heading back to the condo and hot tub.

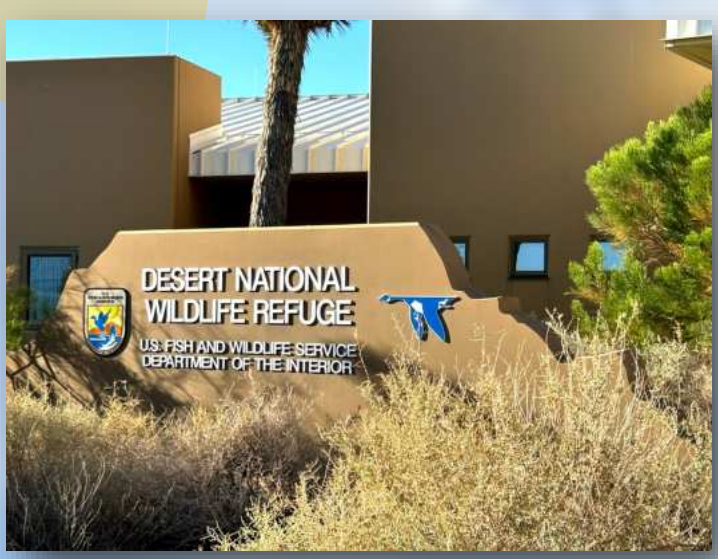
So far, I had completed four POTA activations in three states, and I was getting suspicious—do you ever wonder if things are just too good to be true? They are. I married up—to an incredible woman, friend, and wife. She wasn't done blessing me yet, because the next afternoon we activated US-0465, Desert National Wildlife Refuge.

The Desert National Wildlife Refuge sits on land that the Southern Paiute people consider part of their ancestral homeland—beautiful land that the Paiute are working to preserve and protect. The interpretive cen-



Park 5: Desert National Wildlife Refuge US-0465 in Nevada

Below: Park 6— Lud Drexler Park BLM Recreation Area US-12221 in Idaho



More Park #5: Desert National Wildlife Refuge US-0465 in Nevada

ter was closed, so while I found a spot to set up, Joy went exploring the trails. As I called CQ, I noticed several young couples dressed for prom heading down the trails with a photographer. When they returned, they stopped to ask about my radio setup, and after a short chat about Parks on the Air, they headed off to dinner and dancing.

A short while later, a ranger stopped by to inform us that the park closed at dusk—and that he would've preferred I operate elsewhere, as my radio "might affect the toads' mating habits." Is that a thing? I begged forgiveness, packed up with another 48 contacts logged, and took a quick 15-minute walk with Joy before dusk. I'll definitely return another day to visit the center and walk more of the trails.

Our trip to Las Vegas soon came to an end. Goodbye condo, hot tub, swimming pool, and sun! We'd be back in Tacoma in two days, where fall had already taken root. We used to drive the 21 hours straight through, but this year decided Twin Falls, Idaho, would make a good overnight stop.

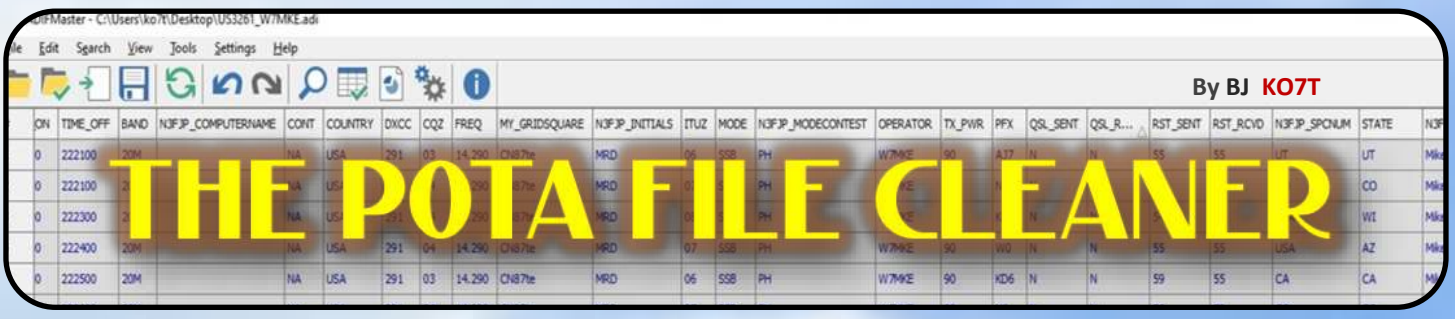
Wouldn't you know it—off Highway 93, about 40 minutes south of Twin Falls, is US-12221, Lud Drexler Park and Salmon Dam. Band conditions had been getting worse all week, with plenty of QSB and static crashes. But I was in the neighborhood, so I had to stop, check out the lake, and give it a go. Since I was there—POTA time! We set up, called CQ, and managed 55 contacts. It was better than fishing.

All in all, it was a great trip—sun, lakes, mountain views, desert air, walks with my best friend, and plenty of radio. My wife still wants to do more POTAs, so it sounds like another road trip is on the horizon. There are still plenty of states I haven't activated, and she loves a good drive.

This trip: four states, six parks, and 313 QSOs. Don't look now, but our anniversary week turned into a POTA outing. Love ya, babe.

-Mike W7XH

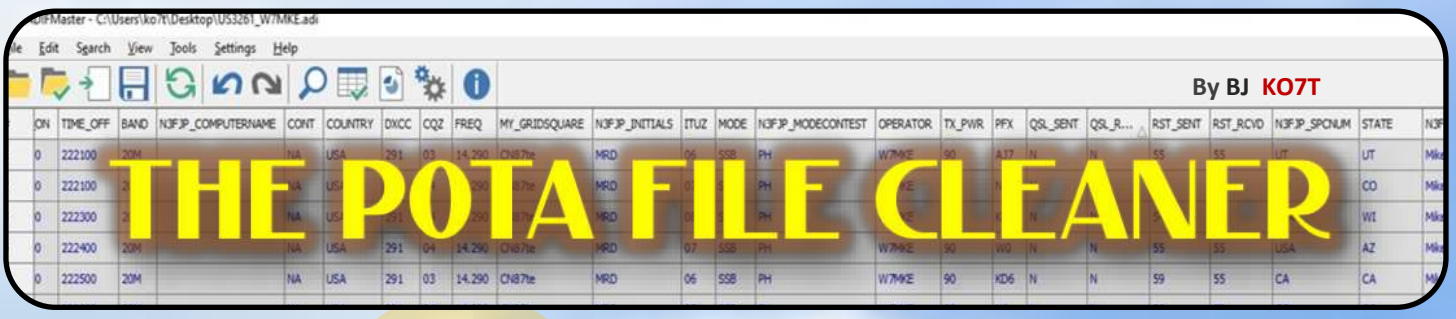
All photos in this article provide by Mike's wife Joy—and what beautiful photos they are! -editor



THE UPDATED POTA FILE CLEANER 4.0

POTA activators use a variety of logging programs, and those programs will export an ADI file in various formats. Some POTA activators still use pencil and paper to log contacts, and then usually transfer the logged contacts into ADIF Master or other tool to create an ADI file to upload to the POTA database. A few years ago, in the early stages of the Parks on the Air program, we had to submit our ADI files to regional representatives who would upload submitted files into the database. Unfortunately, a lot of the submitted logs had various errors, and it took a great deal of time for the representatives to manually parse through those files to identify the error. So, to alleviate some of the problems and ease troubleshooting problematic files, I developed a program called the POTA File Cleaner.

The POTA File Cleaner basically strips out all the non-essential ADI fields and organizes the newly exported ADI fields in a consistent format to make it easier to troubleshoot, and also makes the upload process a little quicker. Today, the critical ADI fields that are necessary for a POTA log are: DATE, TIME_ON, CALLSIGN, BAND, MODE, and STATION_CALLSIGN, MY_STATE, and MY_SIG_INFO (the park number), and SIG_INFO (for park-to-park contacts). Optional fields are SIG and MY_SIG (which is always "POTA," and OPERATOR (which can be used in lieu of STATION_CALLSIGN but is usually used when the station callsign is a club call, and the operator is the callsign of the individual operator). The out-



THE UPDATED POTA FILE CLEANER 4.0

put is a cleanly organized ADI file that is much easier to debug should there be a problem when uploading a file via the POTA app website.

ADI Export from N3FJP AC Log

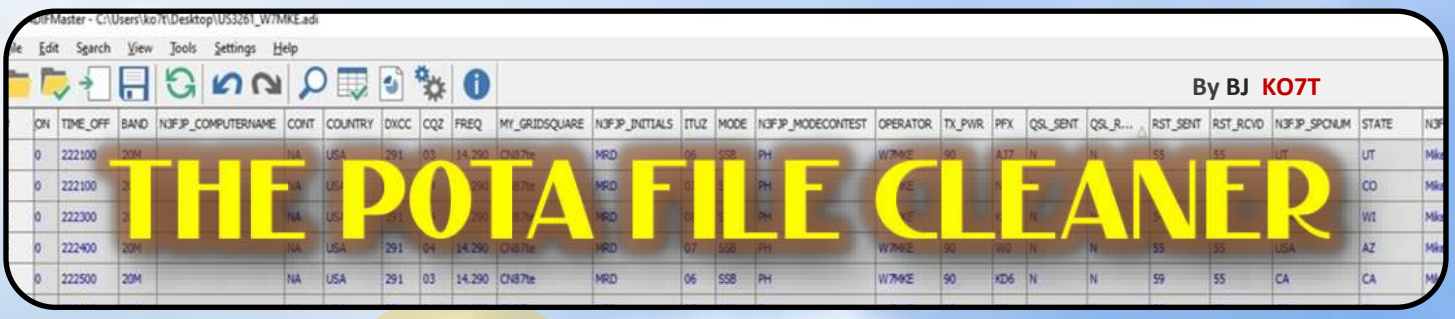
ADIFMaster - C:\USERS\KO7T\DESKTOP\W7DK@US-3261_20250720.adi

File Edit Search View Tools Settings Help

#	CALL	QSO_DATE	TIME_ON	BAND	MODE	STATION_CALLSIGN	MY_SIG_INFO	MY_POTA_REF	MY_STATE	OPERATOR
1	AJ7TM	20250720	183700	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
2	N0CVL	20250720	183800	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
3	KD9LZN	20250720	184000	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
4	W0TNT	20250720	184000	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
5	KD6ST	20250720	184100	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
6	N0VUN	20250720	184400	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
7	AJ7TM	20250720	184500	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
8	KX4MC	20250720	184700	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
9	KA6NPD	20250720	184800	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
10	WA9YOS	20250720	184900	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
11	W9GTY	20250720	185200	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
12	K9RBA	20250720	185300	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
13	KN6OKY	20250720	185600	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE
14	KF0SES	20250720	185700	20M	SSB	W7DK	US-3261	US-3261	WA	W7MKE

POTA Log Cleaner 4.0 ADI File

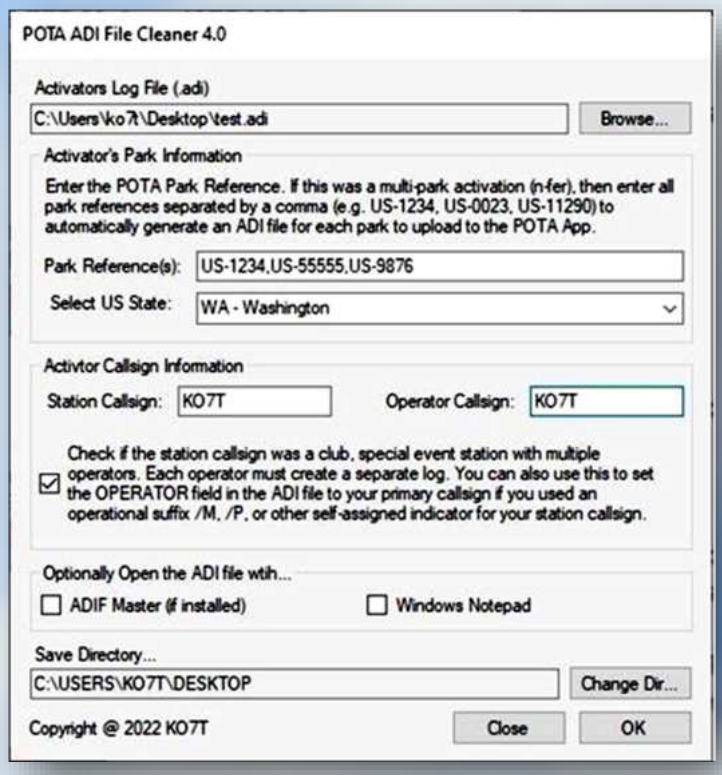
The utility program also includes error checking from some of the common problems reported in the past such as future dates, invalid park references, invalid modes, incorrect date or time formats, and even some rudimentary checking for incorrectly logged callsigns (e.g. callsigns with no regional number in the call).



THE UPDATED POTA FILE CLEANER 4.0

So what's new in version 4.0?

A few years ago, the ADIF committee created 2 new ADI fields named POTA_REF and MY_POTA_REF that are intended to replace the SIG_INFO and MY_SIG_INFO fields respectively. These fields are now automatically added to the exported ADI file from the POTA File Cleaner Utility and will be available when the POTA backend supports these fields. And the second big change will benefit POTA activators who work from multiple parks, commonly called "n-fers." Previously activators would bulk edit the MY_SIG_INFO field with ADIF Master, or change the park number and crank out another ADI file from earlier versions of this utility. Now, POTA activators who are working an n-fer with multiple park locations can simply enter all the park numbers separated by a comma and the POTA File Cleaner utility will produce an ADI file for each park number that can then be submitted to the POTA app website. (Note: in the future when the POTA database supports POTA_REF and MY_POTA_REF ADI fields, activators will only have to upload one file because these ADI fields support multiple park numbers separated by a comma. The program is simple to use by simply entering the park numbers, if the park is a U.S. or Canadian park you must also select the state or province, enter the station callsign, and optionally the operator callsign, and press the OK button! Its that simple. You can optionally open the final exported ADI file in ADIF Master if it is installed on your computer, or in Notepad.



POTA File Cleaners is available to download from SourceForge (https://sourceforge.net/projects/pota-file-cleaner/). You can contact BJ at KO7T@outlook.com if you encounter any problems or have additional questions.

-BJ KO7T

STRAY TOPICS OF INTEREST

Fun stuff for Hams to read!

W7UUU

Hidden Word Contest

This month's hidden word is "Condenser" - what we now call a capacitor. Alessandro Volta (for whom the term "volt" is named) coined the word, in the mistaken belief that such a device would "condense" or concentrate an electrical charge into a small space. The term fell out of use in the mid-20th century in favor of capacitor which better reflects the fact a capacitor stores electricity and doesn't condense it—a capacitor's value reflects that capacity. The term condenser however is till the norm when talking about the capacitor used across the ignition points of older cars.

Hidden Object Contest

Condenser—find the word or this exact picture, tell me where it is, and WIN COOL STICKERS!!

Famous Ham November Birthdays

Joe Walsh, WB6ACU, is not only a legendary rock guitarist but also one of the most recognizable ham radio operators in the world. Best known for his solo work with The James Gang and later his amazing work with the Eagles, Walsh has been a licensed amateur radio operator since his teens. He has long credited ham radio with helping him develop the technical curiosity that shaped his lifelong passion for sound, electronics, and communication. Walsh is often heard on the air (75m AM, 2m FM, etc.) and has been an outspoken advocate for amateur radio, frequently highlighting its role in education and community service. To many hams, Joe Walsh represents the perfect bridge between music, technology, and the spirit of experimentation that amateur radio fosters. If you go back to the March 2024 issue of the *Logger's Bark*, there's a full write-up of my interview and visit to his home in LA in 2002 on Page 31. His birthday is November 20th—so Happy Birthday Joe!

Rocker Joe Walsh WB6ACU in one of his numerous operating positions in his Studio City "man cave" - 2002
Photo by Dave W7UUU © 2002-2025

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STRAY TOPICS OF INTEREST

Survey Center & QSL of the Month

W7UUU

Survey Center!

Amplifier Use Survey (400 watt to 1500 watt classes only) Edit

I do not use any amplifer (external to my radio itself)		55 vote(s)	30.1%
I have a tube amplifier rated 400-1500 watts		33 vote(s)	18.0%
* I have a solid state amplifier rated 400-1500 watts		25 vote(s)	13.7%
I have more than one amplifier that uses tubes rated 400-1500 watts		24 vote(s)	13.1%
I have more than one amplifier that is solid state rated 400-1500 watts		10 vote(s)	5.5%
I have both solid state AND tube amplifiers rated 400-1500 watts		36 vote(s)	19.7%

This month's survey is an interesting look into the amplifier preferences of hams on QRZ. It's not scientific and it only reflects QRZ users who chose to vote (there are a few folks who send me grumpy emails every month for my "unscientific surveys").

For 46 of my 50 years as a ham, I never used an amplifier (outside of the finals in my transmitter) but 4 years ago I bought an Elecraft KPA-1500 solid-state amp and love it. Amplifiers are the one area where tubes still have a very strong presence. This is of course largely due to the very high cost of most LDMOS solid-state amps. Although the folks at Mercury have gone a long way towards making such amplifiers not only bullet-proof but reasonably priced. The Radio Club of Tacoma has one on the "Flex side" of the HF room and several members have them as well and rave about them. Great amps for reasonable prices.

QSL Card of the Month

3D-printed plastic QSL Card—click image to see more photos that show the printed text in relief where you can see how tall it is!

Randy WB4SPB brought a truly surprising (and enterprising!) QSL card to the clubhouse recently. It's from Michael Ehrlichman, AK6AR, of Albany California. Note that all of the text on the plastic card is printed in plastic, in relief (meaning it stands up). If you click on the image above, I took a number of photos showing the relief angles. Pretty cool!

But for the totally geeky cool factor, note the graph in the upper right. The B axis represents two full cycles of a sinusoidal wave form while the E axis represents the phase-shifted signal to that of the B axis over time, which is T. So the number 0.28419 µS represents the "period" or time it takes for two full cycles of RF at 7.035 MHz to travel. This graph is called a Lissajous Figure (or curve) and yes—I had to study up on the topic just to write this blurb… I knew the word since I was a kid but never really knew what it meant. Click HERE if you want to learn what graphs like this are about (if you ever watched "The Outer Limits" you will recognize other forms of the Lissajous Figure, shown during the intro to every episode.

Michael reports that it takes about TWO HOURS to print a pair of QSL cards on his Prusa MK4S 3D printer and each takes 10 cents of materials. He sends one to every ham he works the first time! Now how cool is that? Thanks for sharing, Randy.

-Dave W7UUU

This month's Ham Shack of the Month features Jim Hossack, W7LS (WA7KTD in this undated photo when he was 16-17 in the 1970s). Back when I started as Bark Editor, I found this old photo in the archives and thought "wow! This guy really was the cool kid in ham radio back then!". Seriously, he's got a Swan 350 transceiver (which was a current model then), and to the left of that is a Collins 75S-3B receiver (also a current model then), and at the far left was one of the true classic ham transmitters, the Harvey Wells TBS-50. I would have given a lesser body part for a shack like this in 1974 when I got started. Then toss in the Buddy Holly glasses, the sideburns, and that look that just screams "yeah… that's me. I'm the coolest kid on the block". Jim joined the Radio Club of Tacoma on January 23, 1969 as member #614 and as a result of this picture and tracking him down last year to see what he's up to (now lives in Idaho), he's now a good friend and by the time you read this, I will have yakked with him a few weeks ago at the Rickreal, Oregon Hamfest. Like all of us, he's a wee bit older now but still a pretty cool kid and one of the smartest guys I've ever known! *-Dave W7UUU*

W7OS DOC SPIKE MUSEUM

Featured Gear from the Museum

Photos & Text by Dave W7UUU

MANY READERS AND OF COURSE LOCAL MEMBERS of the Radio Club of Tacoma know that on the second floor of the clubhouse, across the hall from the main HF room and its associated stations, is the Dr. Clifford J. "Doc" Spike W7OS Museum. Housed in this space are many artifacts dating to the founding of the club in 1916 during the spark era, but it's also a living space with classic radios of the past in regular rotation.

Between our Museum Curator Dan KD7SV and IT Manager & Museum Assistant Randy WB4SPB, many classic rigs are kept in perfect working order and brought out to one of the three operating positions several times over the course of the year.

As we approach winter 2025, there are a couple of key events such rigs are ideally suited for, most notably the recently completed Classic Exchange (October 26-28) as well as Straight Key Night (SKN) held each New Years eve and day.

But even outside of such special events, there is always some assemblage of classic ham gear set up and ready to roll in the W7OS museum.

Right now, it's the station featured on the right consisting of a Drake 2B receiver paired with the Drake 2NT transmitter being driven by a Heathkit HG-10 VFO. While not all "matchy matchy" in the sense of a complete matching lineup of gear, these rigs represent some of the best of their day. The 2B receiver was the precursor for the very successful Drake A-Line (R-4A receiver paired with the T-4X transmitter), the B-Line (R-4B & T-4XB) and finally the C-Line (R-4C & T-4XC). The 2B receiver however was never able to transceive so was somewhat orphaned when the A, B, and C lines came along.

But the 2B is considered one of the very best receivers of its era (early 1960s). The 2NT transmitter (the NT denoting "Novice Transmitter") was a very sophisticated transmitter in terms of features offered and quite elevated for a "Novice" rig at the time. It was intended by the R.L. Drake company to pair with the matching 2C receiver. However the 2C, while a good receiver, was something of a step down in performance over the earlier 2B. And while the 2C/2NT pairing certainly looks amazing in any shack, the 2B really runs circles around the 2C in performance.

Lastly, the Heathkit HG-10B VFO was truly one of the workhorses of its day as a variable frequency oscillator to pair with such transmitters. Even to this day, a well-sorted HG-10 or HG-10B is a common VFO in many retro ham stations all around the world—including my own.

Rounding out the station is the Hammarlund S-200 speaker on the left, below the Art Deco-style Tymeter 24-hour clock. On the right above the VFO is a 1950s Heathkit AM-2 SWR/power meter. The key is a Vibroplex "Original" bug.

If you're ever at the clubhouse on an Open House Saturday, by all means come upstairs and check out the museum. There are always cool old rigs set up for use—just ask!

-Dave W7UUU

ANTENNA TIME

I'll Drink to That!

Dave W7UUU

MR. BEVERAGE AND HIS FAMOUS ANTENNA

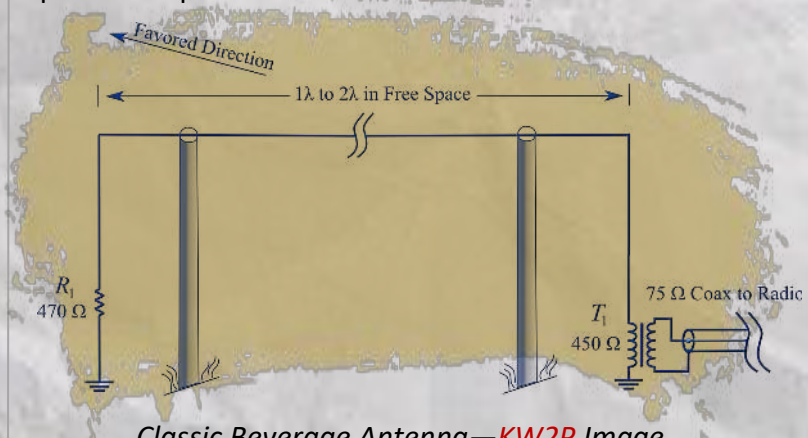
Arguably, one of the oddest antennas (to most outsiders anyway) is called the Beverage or "wave antenna". It's specialty is in *reception*, not in transmission. It was invented by a fellow called Harold H. Beverage just about 104 years ago in 1921. Just like the Yagi (sigh, poor Mr. forgotten Uda), the antenna quickly took on its creator's surname and to this day is simply referred to as a Beverage Antenna.

Harold H. Beverage

It's one of the more unusual antenna designs, in that it really functions nothing like a more traditional dipole or vertical antenna, which act as resonators on a specific frequency with RF current moving back and forth between the ends of the antenna as standing waves. Rather, the Beverage antenna design is called a "traveling wave antenna" and the incoming radio frequency currents travel in one direction along the wire, in the same direction as the radio waves, unlike a dipole. In other words, if you want East-West coverage of a dipole, you install it to be broadside East and West (aligning North and South). However, with a beverage, if you want coverage to the East or West, you align it pointing the direction you want to favor.

By not having a resonance like a dipole, the Beverage has a much wider bandwidth. Odder still, despite being installed in a horizontal configuration, it actually receives vertically polarized radio waves! And if that's not kooky enough, a Beverage is usually installed close to the ground (sometimes even on the ground, called a BOG or "Beverage on Ground" in that case). But an unusual characteristic is the antenna must be coupled to the ground with a termination resistor, typically in the range of 400 to 800 ohms. And it's this end, the terminated end, that is "incoming" end of the antenna, leaving the far end (presumably at the shack) being the end connected to the receiver (remember—it's a receiving antenna, not a transmitting antenna!). Most often a balun is required at the receiving end to match the expected impedance of the receiving gear.

So why use this rather odd antenna? Beverage antennas are considered high gain and can pick up weak signals, while also low noise (they reject a great deal of local noise). And on top of that, they are easy to construct. They are a great way to improve reception on 160 and 80 meters. ■



Classic Beverage Antenna—KW2P Image

Click image to visit site & other designs

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email loggersbark@gmail.com

STRAY TOPICS OF INTEREST:

Top Ten & Hamfests

Dave W7UUU

10

Top 10 most popular generic HF antennas

Totally unscientific searching to find the most popular "generic" HF antenna types in use by hams, ranked most common to least common—agree? Disagree? Think I'm crazy in the head and left out the single most popular one? By all means—shoot me an email to set me in my place! I'd love to hear from you!

1	Center-fed 1/2w Dipole
2	End Fed Half-Wave EFHW
3	Quarter-wave Vertical
4	G5RV
5	Yagi-Uda (beam)
6	Hex-Beam
7	STL Magnetic Loop
8	OCF Off-center fed
9	Random Wire
10	Cubical Quad

Upcoming Ham Fests in the Area

Data published with permission from Lynn at N7CFO.com

There are no November ham fests that have been reported to me… quietly probably not for December either—see you next year!

Radio Club of Tacoma Ham Fair 1970

HAM TECH 101

By Jim AF5NP

Useful tech info for newer hams and old

How to Get Over Mic Fright

MIC FRIGHT IS A REAL THING!

By Jim Peisker, AF5NP

Mic fright is a general term for anxiety leading to freezing, choking or hesitating when speaking into a microphone (mic). The physiological response of worrying about saying the right thing to an audience large or small is very natural and expected.

Mic fright or shyness is a reality in public speaking, stage performance and similar situations. Of course, it's an important topic to new amateur radio operators so let's provide some perspective and encouragement here.

Making that first voice contact over the radio can be an anxious moment for many new hams. This can also carry over into the first several radio contacts where you worry about saying the right thing and following the rules.

First off, don't let the "rules" make you nervous. It mainly comes down to proper identification which means giving your call sign every 10 minutes during an exchange and at the end of your last transmission (USA rules, other countries vary). That's pretty easy to remember.

Second, every ham was a newbie once and remembers what it was like not knowing exactly what they were doing. Most will be patient and helpful, giving coaching and gentle reminders along the way as needed.

For general phone (voice) contacts, there are no real procedures and formalities to worry about; it's more conversational, much like a phone call. While radio amateurs often use jargon, abbreviation and technical terms (see our Ham-Speak topic), this is not mandatory. Hopefully that takes some of the pressure off to make you more relaxed for your first few contacts.

A starting point for getting on the air the first time is to listen in on the local (VHF/UHF) repeaters and HF SSB bands for a few hours to learn what people say and how they say it. If you follow these examples you are almost certain to be successful when transmitting on your radio.

An excellent way to get past mic fright and performance anxiety is to ease into it with someone in pre-planned fashion on an obscure radio frequency. Get a few casual "practice" contacts in with someone you trust before jumping onto a popular repeater.

Who would this be? Well, it could be your Elmer. You have an Elmer, right? Someone who gives you encouragement, instruction and advice; basically a mentor. They would be the best person to get you on the air the first time and can suggest an appropriate mode, frequency and time to make your first contact or two. A radio exchange or QSO with an Elmer is a low-stress way to get started in ham radio as they can coach and encourage you in real time.

You may also consider doing a pretend contact face-to-face or over the phone, without actually transmitting via radio. This would provide good practice with zero stress.

If you don't have an Elmer or they are not nearby or otherwise available, find a friendly local ham in a club or EmComm group.

Speaking of clubs and EmComm groups, both are likely

HAM TECH 101

By Jim AF5NP

Useful tech info for newer hams and old

How to Get Over Mic Fright

to have regular formal or informal nets on a local repeater. These nets are a great way for new hams to practice talking on the air and gaining experience without having to say more than a few words. Again, listen in to get a feel for the flow of things before you jump in, although that shouldn't be an issue if you are mic shy.

Now if you're involved in a formal net in an Emergency communications (EmComm) situation, it is advised that you familiarize yourself with the protocol (terms and procedures). Hopefully a real-life EmComm event is not your first taste of speaking on the radio! Don't let it be; get some practice and experience first.

Bottom line, if you are struggling with mic fright, the only way to get past it is get some success under your belt. Start easy with a friend or trusted ham and work into more involved contacts as you gain experience.

Now if mic fright is so real for you that no amount of friendly practice can get you comfortable on air, don't despair. You can still enjoy several modes of communication that are non-spoken. Many hams, particularly on the HF bands, communicate non-verbally over great distances using CW (Morse code), keyboard-to-keyboard using the massively popular FT8 and FT4, or try RTTY, PSK, or even slow-scan TV.

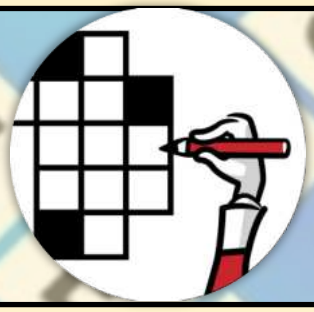
-Jim Peisker, AF5NP

This column is reprinted with permission of Jim AF5NP from his blog www.NEWHAMS.info
References to FCC question numbers may be out of date but the content will still be accurate

YouTube videos on the topic of Ham Radio Mic Fright!

FUN AND GAMES!

Crosswords, Word Search, etc.



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S	M	F	N	C	F	U	E	N	D	N	Y	M	C	V	T	H	Z	Y	Y	L	G	Y	I
T	K	Q	I	M	D	H	S	J	O	B	Z	C	O	D	R	R	R	Q	B	O	A	V	X
W	H	T	M	L	H	P	I	B	B	T	W	B	E	F	D	H	V	S	S	E	L	D	S
A	E	N	I	Y	A	E	W	J	D	T	R	D	V	E	R	X	Z	Y	S	Z	D	T	O
U	W	N	D	E	G	P	I	K	F	U	T	B	J	E	Y	T	S	U	F	M	V	C	O
H	T	G	P	R	L	R	S	C	U	L	A	A	C	F	S	B	U	G	E	I	X	Q	Y
B	T	V	E	E	N	P	T	C	O	E	I	Q	M	R	R	B	B	R	U	X	B	U	F
H	Q	Y	K	W	C	O	M	I	J	M	H	Z	J	E	C	I	A	J	C	W	H	I	Q
O	X	W	P	O	N	B	D	M	P	B	C	Z	F	Z	R	L	M	L	C	C	A	U	U
W	R	J	K	U	I	Q	E	E	O	A	O	C	U	O	B	I	V	J	P	Q	X	G	K
M	V	V	K	X	T	T	A	C	M	O	L	A	M	U	E	N	T	H	Q	R	Q	P	J
W	P	I	A	U	F	Y	Z	W	O	F	G	Y	Q	R	G	J	I	R	T	S	Q	L	H
D	N	D	P	N	A	I	Y	T	M	E	C	V	N	X	T	L	D	A	O	B	D	G	J
X	E	A	J	Y	R	D	N	L	L	N	N	X	H	U	B	E	P	Z	Y	N	C	K	O
N	S	D	I	U	C	E	R	M	W	G	C	W	F	E	D	U	K	E	N	W	O	O	D
Y	E	H	X	C	E	R	A	T	S	L	A	P	R	X	P	O	V	D	T	P	O	F	D
P	O	N	V	W	L	C	V	I	E	V	K	L	B	Q	U	B	C	A	F	K	T	V	A
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C	Z	R	T	J	K	F	N	P	Y	N	L	W	H	D	E	R	Z	W	S	O	D	T	C
V	J	A	Q	F	V	L	Y	A	G	S	Z	N	J	A	L	O	R	O	T	O	M	B	E
A	T	F	X	M	H	F	J	L	X	D	J	P	I	L	J	C	N	O	S	H	M	G	I
N	E	S	T	G	T	U	T	P	M	E	J	H	F	C	V	K	M	O	Q	P	U	C	S
H	W	O	M	R	J	T	M	J	F	Q	J	S	U	I	T	N	B	Q	O	A	M	Q	W

FUN AND GAMES!

Crosswords, Word Search, etc.

Answer Key… but don't cheat!

D	T	Y	T	E	R	A	P	A	L	I	N	C	O	H	K	U	A	H	H	Y	F	C	E
S	M	F	N	C	F	U	E	N	D	N	Y	M	C	V	T	H	Z	Y	Y	L	G	Y	I
T	K	Q	I	M	D	H	S	J	O	B	Z	C	O	D	R	R	R	Q	B	O	A	V	X
W	H	T	M	L	H	P	I	B	B	T	W	B	E	F	D	H	V	S	S	E	L	D	S
A	E	N	I	Y	A	E	W	J	D	T	R	D	V	E	R	X	Z	Y	S	Z	D	T	O
U	W	N	D	E	G	P	I	K	F	U	T	B	J	E	Y	T	S	U	F	M	V	C	O
H	T	G	P	R	L	R	S	C	U	L	A	A	C	F	S	B	U	G	E	I	X	Q	Y
B	T	V	E	E	N	P	T	C	O	E	I	Q	M	R	R	B	B	R	U	X	B	U	F
H	Q	Y	K	W	C	O	M	I	J	M	H	Z	J	E	C	I	A	J	C	W	H	I	Q
O	X	W	P	O	N	B	D	M	P	B	C	Z	F	Z	R	L	M	L	C	C	A	U	U
W	R	J	K	U	I	Q	E	E	O	A	O	C	U	O	B	I	V	J	P	Q	X	G	K
M	V	V	K	X	T	T	A	C	M	O	L	A	M	U	E	N	T	H	Q	R	Q	P	J
W	P	I	A	U	F	Y	Z	W	O	F	G	Y	Q	R	G	J	I	R	T	S	Q	L	H
D	N	D	P	N	A	I	Y	T	M	E	C	V	N	X	T	L	D	A	O	B	D	G	J
X	E	A	J	Y	R	D	N	L	L	N	N	X	H	U	B	E	P	Z	Y	N	C	K	O
N	S	D	I	U	C	E	R	M	W	G	C	W	F	E	D	U	K	E	N	W	O	O	D
Y	E	H	X	C	E	R	A	T	S	L	A	P	R	X	P	O	V	D	T	P	O	F	D
P	O	N	V	W	L	C	V	I	E	V	K	L	B	Q	U	B	C	A	F	K	T	V	A
N	Q	C	Z	G	E	C	R	M	Y	D	I	A	X	H	E	A	H	E	A	P	J	U	P
C	Z	R	T	J	K	F	N	P	Y	N	L	W	H	D	E	R	Z	W	S	O	D	T	C
V	J	A	Q	F	V	L	Y	A	G	S	Z	N	J	A	L	O	R	O	T	O	M	B	E
A	T	F	X	M	H	F	J	L	X	D	J	P	I	L	J	C	N	O	S	H	M	G	I
N	E	S	T	G	T	U	T	P	M	E	J	H	F	C	V	K	M	O	Q	P	U	C	S
H	W	O	M	R	J	T	M	J	F	Q	J	S	U	I	T	N	B	Q	O	A	M	Q	W

Alinco	Xiegu	Ameritron	Palstar
MFJ	Tytera	Daewoo	Hilberling
Motorola	QRPLABS	Wouxun	Baofeng
Icom	Kenwood	Yaesu	Elecraft

About this Publication

The Logger's Bark is the official publication of the Radio Club of Tacoma and is published by RCT, PO Box 11188, Tacoma, WA 98411. The Radio Club of Tacoma is a non-profit corporation as defined by law. All proceeds will be used exclusively for charitable and educational purposes. The Radio Club of Tacoma's Club House is located at 1249 Washington St, Tacoma, WA 98405, phone: 253-759-2040.

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Central Tacoma 2m:	**147.28 + PL Tone 103.5**
Central Tacoma 70cm:	**440.625 + PL Tone 103.5**
Crawford Mountain:	**147.380 + PL Tone 103.5**
North Tacoma:	**145.21 - PL Tone 141.3**

The Loggers Bark ***does not*** accept AI / ChatGPT submissions

Membership Information

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- Lifetime membership is 20 times the yearly fee you are eligible for. Lifetime memberships are calculated based on the FULL and ASSOCIATE rates.
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