



**HUALAPAI AMATEUR
WB6RER
RADIO CLUB**

The Rumble
Next Meeting
May 1, 2024 6:00PM
NOTICE:
*May 25, Club Breakfast 8AM
WS7T QTH 3120 Ross Ave*
Meeting Location:
Northern AZ Fire Station #31,
2600 Northern Ave

From the Pres May 2024:

It seems I have run out of anything of weight to say. (Some people say that happened the day I learned to talk.) So, this month I'll throw in some info regarding club function and protocol at least as long as I'm president.

If you would like to speak at a club meeting, whether old business, new business, a complaint, or praise, please drop me an email so I can put you on the agenda for the next meeting. If you need more than five minutes you will need to let me know that is the case: jlzdv@gmail.com

I don't enjoy banging that gavel! It is annoying, so please refrain from talking to friends and neighbors after the meeting is called to order. The reason for this has nothing to do with the power of the gavel going to my head. It has to do with the acoustics in the room. All it takes is 2 or 3 people whispering back and forth, and suddenly there is mayhem. Many of us don't hear as well as we used to, and extraneous noise exacerbates our hearing deficiencies.

We are always looking for someone to put on a program. It doesn't have to be long and you don't have to be an expert in the field. Perhaps you just finished reading a good book on propagation or have just purchased a new radio and you would like to share some information you have learned with fellow club members. Go for it! Sure, someone might feel the need to correct you but that is OK. That is how we all learn. Remember, even experts do not agree on everything.

Our next club breakfast will be on April 27th at the Truck Stop Denny's.

I hope to have the Club Breakfast at my house at 3120 Ross Ave. on the fourth Saturday in May, 8:00 AM. Rick, K7CNT will be cooking up some biscuits and sausage gravy, and my wife, Tria, and I may have some other breakfast items for you to enjoy. There will be a donation jar, \$10 is suggested but not required. All proceeds will go to the club treasury minus expenses related to the purchase of expensive food items (in this case probably only for the pork sausage). There is plenty of room. I hope to see you all there. RSVP please to the email noted above. Put the date on your calendar.

73
Jerry, WS7T President HARC

CLUB EVENTS

This Saturday - April 27th 8AM Saturday Breakfast at the "Truck Stop" Denny's (Flying J) North of the Freeway on the East Side of "66".

Next Month - May 25, Club Breakfast 8AM WS7T QTH 3120 Ross Ave

From H.A.R.C. Director and immediate Past President, Rick, K7CNT:

WB6RER Pico Balloon update, launched May 19 2023. This coming May 19 it will have been flying around the world for 1 year. It has made more than 12 orbits around our planet. The balloon is equipped with a 20 meter QRPLABS WSPR tracker. A few

months into the flight it seems the lower half of the 20m dipole antenna broke off (we think) and the transmitted WSPR signals became very weak and the number of spots was greatly reduced. The balloon originally settled in at a float altitude of 47,000 feet and stayed there for a few months, suddenly the spots became less frequent, and what telemetry we did get showed the balloon now at 50,000 feet. So we assume the loss of the lower half of the dipole made the system lighter which caused the balloon to rise in altitude.

The power output is only 15 milliwatts so a antenna problem is not a good thing. Because of the weaker than usual signal it's spotting by earth stations has been very sporadic at best, but enough spots with telemetry have been coming occasionally for us to keep track of it. The balloon over the last eleven months has made its way into the southern hemisphere where there must be fewer WSPR spotting stations. It had not been spotted for over two months and we all thought it had finally come down. But on 4-20-2024 two stations in Australia VK5ARG and VK7JJ first started spotting it with complete reception of the telemetry, altitude, solar panel voltage and temperature.

It is still at 50,000 feet give or take a couple hundred feet as the air pressure changes at altitude. So the last few days the balloon crossed over Australia and is now starting another trip across the Pacific Ocean heading due east toward South America, so we probably will not hear from it for a while. The balloon is a hydrogen filled 32" Yokohama brand clear sphere which are purchased from Japan. Again, a special thanks goes to Craig KK7JDL for supplying the hydrogen and his expertise. This is a Hualapai Amateur Radio Club project. Kingman, Arizona

May God bless you

Thank you, Rick/K7CNT 73

Chs-rick@live.com

From Dave, WI6R via Groups.io:

The commemorative battleship museum in our Los Angeles Harbor the USS IOWA will be on the air; try

to work it; they will be using their original Navy-issued call sign of N-E-P-M which I was able to get back for them as the first museum ship to obtain it. Quite the feather and it will be manned by local hams here in So California. Give a listen and they QSL big time!



From the ARRL dtd May 11, 2024:

Armed Forces Day Crossband Test,

The US Department of Defense will host this year's Armed Forces Day (AFD) Crossband Test on May 11, 2024. For more than 50 years, military and amateur stations have taken part in this event, which is an interoperability exercise between hobbyist and government radio stations. The event is open to all licensed amateur radio operators and will not impact any public or private communications. The AFD Crossband Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service (ARS), as authorized in 47 CFR 97.111.

These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario. Military stations will transmit on selected military frequencies and announce the specific ARS frequencies monitored. All scheduled times will be in Zulu (Z), and all scheduled frequencies will be upper sideband (USB) unless otherwise noted.

Information on frequencies, times, and other technical information can be found at DoD MARS - Armed Forces Day. Information for QSL cards and contact information is available at Armed Forces Day QSL request form.

AFD is classified as an observance -- not a federal holiday. It will be celebrated on Saturday, May 18, 2024, and it will be a time of honor. The establishment of AFD was first announced on August 31, 1949, by then US Secretary of Defense Louis Johnson. It was meant to replace the separate Army, Navy, and Air Force Days. All branches were combined to create the US Department of Defense. The first Armed Forces Day was held on May 20, 1950. The day is celebrated with special events, tributes, observances, and parades.

A personal note on the above activity from Tom, N6BT:

Many years ago, several of us from the Northern California Contest Club ("NCCC") were invited to operate NPG from the Skaggs Island facility. The actual transmitters and transmit antennas were located to the east in Davis, CA. Skaggs Island was the receiving facility. Security was high and no photos were allowed. This was particularly true of the main receive antenna, a wullenweber.

The military designation is the AN/FRD-10 and is a United States Navy circularly disposed antenna array (CDAA), built at a number of locations during the cold war for high frequency radio direction finding (HF/DF) and signals intelligence. In the Joint Electronics Type Designation System, FRD stands for *fixed ground, radio, direction* finding. Fourteen (14) sites were originally constructed as a part of the "Classic Bullseye" program. Two AN/FRD-10 systems were later installed in Canada.

AN/FRD-10 systems were constructed in the early 1960s, but after the dissolution of the Soviet Union, the systems began to be shut down and demolished. This included the NPG facility at Skaggs Island and Davis. The Naval Security Group operated and maintained the U.S. Navy AN/FRD-10 systems. The system had several nicknames including *Fred-10* and *Elephant* or *Dinosaur cages*. As of 2015, none of the US Navy AN/FRD-10 sites are extant, but the two Canadian sites remain in service. The AN/FLR-9 was a system with a similar design and function, but operated by the US Air Force and Army.

The term "*wullenwever*" was the name the World War II German cover team used to identify their

secret CDAA research and development program. The name was unrelated to any person involved in the program.

Operating NPG was unique to say the least. Our transmit frequencies were set by agreement between the military stations and close, but not inside, the amateur bands. My 40-meter frequency was a few kHz below the bottom of the band, so it was easy to listen up in the band. Of course, my transmitter was miles away and I was listening locally, making the operation full duplex. All we brought with us to the "party" was a keyer and headphones.



As the sun was setting, 40-meter propagation changed and the east coast was increasingly stronger. A few stations commented to me that my signals were being QRM'd (unintentionally) by another military station on the east coast. I sent, "QRX 5", meaning standby for 5 minutes, and went to the control operator to explain the "problem." He listened, then asked exactly where I wanted to communicate. He then turned back to his teletype machine, typed away for a few minutes, turned back to me and said, "That should do it." Returning to my operating position, I went back on the air and every station noted how strong NPG was, head and shoulders above the other station. After my shift, I went back to the control operator and asked him what he had changed -- he said I was originally running 100 watts to a high dipole, then he changed

me to a lot more power and a rhombic antenna aimed to the east.

One of the operators from the NCCC was Bob Vallio, W6RGG, who was an active contester, DXer, a member of many DXpeditions to rare places and he recently retired from his position in the A.R.R.L. →

ARRL News:

* Bob Vallio, W6RGG, has been honored by the ARRL Board of Directors as an Honorary Vice President. The motion passed with an extended standing ovation at their January meeting, and honored Bob's lifetime of service to ARRL and amateur radio. He was first licensed as a Novice with the call sign WN6RGG in July 1952, and he later upgraded to General class as W6RGG in 1953. He has held an Amateur Extra-class license since its inception in 1968.

His tenure of service to ARRL started 46 years ago. He served as Communications Manager of the ARRL East Bay Section from 1978 to 1983, Section Manager of the East Bay Section from 1984 to 1999, Vice Director of the Pacific Division from 2000 to 2003, Director of the Pacific Division from 2003 to 2017, and Second Vice President of ARRL from 2018 to 2023. In addition, Bob has also served on the Executive Committee numerous times, as well as the Programs and Services and the Administration & Finance Committees, and many more. He's joined a number of high-profile DXpeditions, and he is an active contester. Thank you, Bob, for your lifetime of service to us all.

Government News

*** FCC Raises Definition of "Broadband"**

The FCC has changed its definition of "broadband" to mean download speeds of 100 megabits per second and upload speeds of 20 megabits per second; an increase from the previous 25 Mbps for downloads and 3 Mbps for uploads. This will impact a number of other decisions, such as how broadband is deployed and how government funding for broadband is allocated. The Commission also set a "1 Gbps/500 Mbps long-term goal for broadband speeds to give stakeholders a collective

goal towards which to strive". See the FCC news release at :

(<https://docs.fcc.gov/public/attachments/DOC-401205A1.pdf>) [PDF, 2 pages].

*** FCC Now Requires Two Factor Authentication for CORES Users.**

The FCC has announced an upcoming change to the Commission Registration System (CORES) that licensees use to pay any application or regulatory fees, manage or reset a password on an existing FRN, or request a new FRN. Beginning March 29, 2024, multifactor authentication will be implemented. Users will be prompted to request a six-digit secondary verification code, which will be sent to the email address(es) associated with each username. The user will then need to enter the code into CORES before they can continue. This is being done to make the system more secure. The FCC recommends that users confirm they have access to their username account email and to add a secondary email address, if need be. See the FCC public notice at:

(<https://docs.fcc.gov/public/attachments/DA-24-219A1.pdf>) [PDF, 1 page].

*** A Quick Introduction to Space Weather**

All hams, and especially those of us that use the HF bands, should be familiar with space weather, since it has so much impact on our ability to practice our craft. And in extreme situations, it can even impact our society's entire ability to function. If you don't know what space weather is, here's another video from the National Science Foundation, titled "What are Solar Flares & Space Weather?" See it at:

(<https://www.youtube.com/watch?v=JNXzp3DxSLc>) [YouTube. 00:05:36].

(Rick – maybe the balloon did something similar??)

*** Voyager 1's Communication Breakdown**

On August 25, 2012, Voyager 1 crossed the heliopause and entered interstellar space, making it the first spacecraft to do so. At a distance of 121 AU*, signals from Voyager 1 then took over 17 hours to reach Earth. Now, twelve years later, Voyager 1 is some 161 AU away, or 15 billion miles (24 billion kilometers) from Earth. Despite that, it's still

sending a signal back to Earth. The time needed for a radio signal to travel between Voyager and Earth has increased to about 22.5 hours, each way. You may have read in the media that Voyager stopped sending usable data back in November, and NASA has been working since then to solve the problem. Recently, they got a clue. Turns out what they were receiving wasn't gibberish, as they first thought. It's in a different format than what it should be and is a data dump of one computer's entire memory. Now that they know what the signal is, they can start working on how to reset things to get Voyager back to sending correct data on its remarkable journey into the unknown. See the full story at:

<https://www.space.com/voyager-1-communications-update-fds-memory-issue>

[AU = Astronomical Unit, or the average distance between the Earth and the Sun, roughly 93 million miles.]

*** Question Removed from the General Class Question Pool**

The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) has removed one General-class license question. They deleted question G1E09 because they determined the question is defective and must be withdrawn. They discovered that, as worded, the question is showing the wrong correct answer. Question G1E09 must be withdrawn from the pool effective immediately and should be removed from examinations as soon as possible. Updated question pool files, including the errata and new information, have been posted on the NCVEC General-class question pool web page at:

<https://www.ncvec.org/index.php/2023-2027-general-question-pool-release>

The current Element 3 General question pool became effective on July 1, 2023, and is valid through June 30, 2027. The ARRL VEC advises the community to regularly check the NCVEC website at: (<http://www.ncvec.org/>) for updates to the question pools, which may include errata and withdrawn questions.

*** Ham Radio in the News #1**

Here's an article from the IEEE* Spectrum magazine about how a college student was inspired to pursue his engineering degree because of his interest in ham radio. Always nice to see our craft recognized in the media, especially when it's the world's largest professional STEM organization:

<https://spectrum.ieee.org/ham-radio-inspired-scranton-student>

[*IEEE = the Institute of Electrical and Electronics Engineers]

*** The Clock That Made Power Grids Possible**

Here's another article from the IEEE Spectrum magazine. A discussion about the first clock that made it possible to maintain a steady, accurate 60 Hz frequency on a power system, allowing that system to be joined with others to create a wide-area power grid. Done over a hundred years ago. See it at:

<https://spectrum.ieee.org/history-of-power-grid>

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A mathematician, a physicist, and an engineer are all given identical rubber balls and told to find the volume. They are given anything they want to measure and have all the time they need.

The mathematician pulls out a measuring tape and records the circumference. He then divides by two times pi to get the radius, cubes that, multiplies by pi again, and then multiplies by four-thirds and thereby calculates the volume.

The physicist gets a bucket of water, places 1 gallon of water in the bucket, drops in the ball, and measures the displacement to six significant figures.

And the engineer? He writes down the serial number of the ball and looks it up.

Newton asked a group of medical students, science students, management students, and engineering students the question, "How can you write 4 in between 5?"

The medical students answered, "This is a joke, right?"

The science students answered, "It is impossible!"

The management students answered, "Not found on the internet!"

The engineering students answered, "That's easy, it's F(IV)E!"

OPERATING

(use ctrl-click to follow the links)

7th Call Area QSO Party 1300Z, May 4 to 0700Z, May 5 <http://7qp.org/>

Indiana QSO Party 1500Z, May 4 to 0300Z, May 5
<http://www.hdxcc.org/inqp/rules.html>

Delaware QSO Party 1700Z, May 4 to 2359Z, May 5
<https://www.fsarc.org/>

CQ-M International DX Contest 1200Z, May 11 to 1159Z, May 12 <https://cqm.srr.ru/en/rules/>

NAQCC CW Sprint 0030Z-0230Z, May 16
http://naqcc.info/sprint_rules.html

Arkansas QSO Party 1400Z, May 18 to 0200Z, May 19 <http://www.arkqp.com/>

CQ WW WPX Contest, CW

0000Z, May 25 to 2359Z, May 26
<https://www.cqwp.com/rules.htm>

10-10 Int. Open Season PSK Contest

0000Z, Jun 1 to 2400Z, Jun 2
<http://www.ten-ten.org/index.php/activity/2013-07-22-20-26-48/qso-party-schedule/2-uncategorised/51-open-season-rules>

1st Weekend in May <http://7qp.org/>

7th Call Area QSO Party -- 2024 Rules (partial)

1300 UTC Saturday to 0700 UTC Sunday (6 AM to midnight PDT the first Saturday in May). 7th call area stations work everyone, others work 7th-area stations only. Work stations once per band/mode. 7th-area mobiles (and those participating in other concurrent QSO parties or contests) may be worked again as they enter new counties. ***ARRL Contest and HF Contest rules apply, but these 7QP Rules take precedence.*** Rule changes are shown in ***bold italic***.

Entry categories: (Use of spotting assistance is permitted in all categories)

- Single-op: high-power, low-power <100W, QRP <5W; CW, Phone, Digital, Mixed

- Multi-single: high-power, low-power
- Multi-multi. No differentiated mode or power levels
- 7th-area County Expedition
- Mobile (capable of in motion); high-power, low-power; CW, Phone, Mixed. Use of APRS (location and call only) is allowed.

Awards: Certificates will be awarded to the top three finishers in each category within and outside the 7th call area, plus the top overall finisher *in DX* and in each state/province and 7th-area county; a 25-QSO minimum applies. See the website for a list of plaques to be awarded.

Exchange: 7th-area stations send signal report plus 5-letter state/county code (e.g., ORDES; see list). County-line stations send multiple codes, e.g., UTRIC/IDBEA (state code needed only once, e.g., ORDES/JEF). Non-7th-area stations send signal report plus state/province/"DX" two-letter codes. Stations in other QSO parties send their appropriate exchange. The 13 "Provinces" are VE1-9, VO and VY0-2. County-line contacts may be logged with one entry showing all counties or with separate entries for each county.

Bands: 160, 80, 40, 20, 15 and 10m. See suggested frequencies. All CW and Digital contacts must be in the CW/Data sub-bands.

Scoring: 2 points per SSB QSO, 3 points per CW QSO, 4 points per Digital QSO. See rules for county lines, etc.

Logs: All logs must be received by May 15.

- Cabrillo logs (preferred) may be uploaded to <https://7qp.contesting.com>.
- Non-Cabrillo plain-text logs may be submitted via [web form](#).
- ***Log submission via email is no longer available.***
- Paper logs (*containing no more than 40 QSOs*) may be mailed, with a completed [summary sheet](#), to 7QP, c/o CODXC, 61255 Ferguson Rd, Bend OR 97702.

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