Official Publication of the
West Allis Radio Amateur Club

Hamtrix

click here to go to web site Volume 72, Issue 11 November , 2023

NOVEMBER CLUB HAPPENINGS

NUT NET
3.985mhz
Monday-Saturday
8:15am CT
NUT NET
Breakfast
8:30am fourth
Tuesday
of the month

The Milwaukee-Florida Net time is:
7:15 – 8:00AM Central
8:15 – 9:00AM Eastern
Mon through Sat

Meeting
November,14, 2023 7pm
New Berlin Community Center
14750 W. Cleveland Ave.
New Berlin, WI
Between Moorland and Sunnyslope
"Presentation Potluck"
(Bring your own stories and questions)

Premeeting dinner
New Berlin Ale House 5:15pm
16000 W. Cleveland Ave
West of Moorland Rd.

Index


I WALK
AROUND
LIKE I'M OKAY
BUT
DEEP DOWN
I Wanna
BUY MORE
Radios

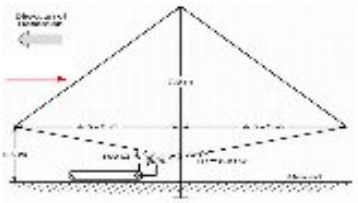

HAM
RADIO
ZONE
TURN OFF
All Blasting
Equipment
QRZnow.com


WARAC
Find Us On The Air
VHF Simplex 146.55 Mhz
Looking for a Club Member to chat with? Fire up the VHF rig and give a shout out on the VHF Simplex Frequency 146.55. You'll be surprised how often someone is listening. Hit the PTT and say "Hello"
DMR - BM TG 3155 WI State
DMR
The WI State 3155 TG is available on all the local DMR Repeaters AND via your HotSpot. Put yourself monitoring and come find a Club Member
Nut Net - Mon to Sat on 3.985 Mhz @ 8:15 AM
Join The Nut Net on 80 Mtr SSB from 8:15 to 9:00 AM Mondays thru Saturdays. Check-ins are from all over WI. You'll be a Nut Netter regular in no time. This is a general discussion net that gets your day started out right.
Milw - Florida Net - Mon to Sat 14.290 Mhz 7:00 AM
Join Tom, K9BTQ, for this early morning Check In Net, Mon thru Sat on 20M from 7:00 AM to 8:00 AM. Get the news to get your day started out just right.
6 Meter Chat - Wed, Fri 50.160 Mhz @ 9:30 AM
Paul, W9PCS, hosts this informal 6m online get together on Wed and Fri starting at 9:30 AM. This is a round table discussion and everyone is welcome to drop by and join in.

WARAC General Meeting Minutes – October 10, 2023

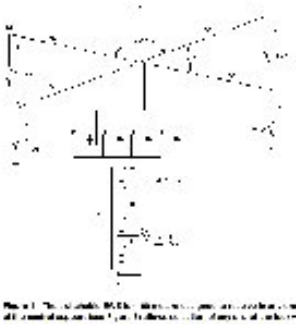
Club Meeting called to order by Feroz WU9N @ 7pm.
Attendance: 27 – 25 Members, 2 Visitor.

Gary Sutcliffe W9XT: **Presentation – Low Band Receive Antennas for the Yard.**
Low bands – 160 to 30m. Main challenges is noise. QRN – static, QRM – skips, RFI from digital devices (switching power supply's, plasma TV's, cell phone chargers, home solar power systems, new wireless car charging.) The key to hearing anyone is signal to noise ratio, reduce the noise by using directional property of the antenna. Types of receive antennas, Beverage, large Loop, small Loop, vertical array, waller Flag – Huge in size. Beverage antenna is a long-wire suspended ~ 7', with a resistor to ground, by Harold H. Beverage 1920's. The longer the better. ARRL info- Silver Donovan.pdf (arrl.org) .



The K9AY Loop Antenna: A Directional E-H Antenna for HF (rtl-sdr.com)

K9AY Loop is directional. If you use a relay you can change direction. If you use two at right angle's, you would have 4 directions. VE3DO Loop The VE3DO receiving loop (ok1rr.com). EWE antenna.



ewe2.pdf (hard-core-dx.com)

Small Magnetic Loop. 3' - 4' diameter or square, bi-directional and can be rotated.

Remember to protect you equipment, disconnect receive antenna when Tx and not using. Static and T-storms cause damage. 75Ω RG-6 quad shield with the correct connectors, can held reduce noise into the receiver. Use a preamp, ~10-20db gain. Use AM filter if AM station near by.

Meeting:
Feroz WU9N: - did intro's.
Minutes: July, Sept. General Meeting, Aug. Board Meeting - approved.
Treasury Report – Bill N9KPH: 2023 fiscal year Finance spreadsheet Presentation
- income and expenditures, balance's. - Report approved.

Feroz comments – Year in review, we picked up new members, Trunk to Trunk, good Field Day activities, WIQSO party, Fund raiser – Sendix's.

Meeting pg 10

Contest Corner and DX Report

November! Contest season is fully upon us! Three big ones this month, as well as many smaller events.

On the evening of Saturday, November 11th, there is the **North American SSB Sprint Contest**. The term "Sprint" is generically used for short contests, like the fall and spring VHF events. But, some sprint contests, including this one have one funny rule – after you answer a CQ, now YOU own the frequency and get to call CQ there. And then after that QSO, you must change frequencies before you make any other contacts. It kind of breaks your brain at first, but you get into a rhythm as it goes on. The Sprints aren't for everyone, but it is fun to see all that activity on the bands, and to have everyone, not just the big guns, calling CQ.

The **ARRL Sweepstakes** ran on November 4-6 for CW, and the SSB is coming up on November 18-20. Sweepstakes has that difficult, long exchange – serial number, precedence, call, check (first year licensed), and ARRL section; I might be "001 U AA9RK 94 WI". Working at least 100 stations in the Sweepstakes earns you a collectible pin, and working all of the US/Canada sections earns you a "clean sweep" coffee mug.

The **Sprint and Sweepstakes** are US/Canada focused events, but then the CQ Worldwide (CQWW) CW event runs the weekend of November 25 and 26. You don't get QSO credit for working people in your own country, but you score QSO points for other countries on your continent, and more credit for transcontinental contacts.

One event you might like to check out is the **PODXS 070 Club event.** There is one per month, and they are weekend-long PSK contests. PSK31 is a ton of fun, and these events are great for getting stations on the air and encouraging activity. there are events November 11-13 and December 9-11. If digital is something you enjoy, the Worked All Europe DX Contest (RTTY) is November 11-12, and the FT Roundup (FT4 and FT8) is December 2-3. I've operated in both in the past and enjoyed them.

On the DX side…

- 4W8X in Timor-Leste (East Timor) has been on the air for a couple days, 160-6 meters, all modes, and they'll be on for CQ WW.
- TJ9MD in Cameroon are still on the air through November 15, and they have already made 50,000 QSOs despite some power blackouts.
- VK9XY is QRV from Christmas Island from November 14-27, 160-10 meters, all modes.
- Later this month, VK9CY will be on the air from Cocos Keeling Islands (northwest of Australia) from November 29 through December 7, 160-10 meters, all modes.

What would you like to see in this space? Send me an email: aa9rk@e-falk.com
-Michael AA9RK

RFI & Me
Tom Langer DE KD9FPC
November 1, 2023

The Issue: Noisy rig, SDR with a 60mz sine wave and FLDIGI raising fits on CW.
Diagnosis: RFI, attested to by two other long time hams.
The Rig: Kenwood 590SG, Versa V induction tuner, to a 43 foot vertical.
Cure: Please read on

If one is alive, breathing and a ham, at some point you have had RFI issues. A trip down Google lane, and it's thousands of RFI videos, write ups, ARRL and the rest offers clues but no immediate cures. I am not positive, but other than antennas, appears to be a top subject. You hear it at meetings, conversations on the rig and magazine articles.

Looking for the cause of RFI is a really big deal. Assuming you have a rig, can carry it, have portable power and more it's possible to stand at the breaker box and shut things off one at a time until, maybe, the RFI goes away. Well, I have no portable power for the rig, am disabled so unable to tote all of myself and stuff to another place in the basement and need power for my air concentrator if the battery peters out. So, instead of starting at the "big" end, I launched from the little end.

Here's a short summary of what I did:

1 Unplugged the many wall warts in the shack. Still there.
2 Turned off the oxygen concentrator. Still there.
3 Cut off power to the furnace. Still there.
4 Turned off the computer and unplugged the screen and modems. Still RFI on the radio.
5 Examined all externals. Antenna, coax, UNUM, etc. Thank you Nigel for your help. Still there.
6 Undid the spaghetti of wires running between the rig and the computer. Even took the time to label each. Still there.
7 Took a handheld and AM radio out below the power lines and street light. No findings. Still there.

Frustration overwhelmed me. I was ready to call it a day and figure out how to live with the issues. Then, as if from Heaven, a miracle occurred. I was having a chat with my youngest and brother-in-law. Together they had redone the basement and built me a cool little shack in the corner of one room. As I listened to them talk, while sitting in the shack, noted they ran a home line to a series of electrical boxes with GFI around the top of my shack table. The result was that my now cleaned up spaghetti wire and the precursor were all running right below some outlets. I asked how the outlets were mounted… conduit straight, branches shooting up from below or from above. Seems all of my wiring was right at level with the wiring in the wall.

So, another day spent cleaning up wiring and moving it away from the powerline in the wall. Fired it all up. SDR is working just fine. FLDIGI is pacing right along the way it was made with no sine wave. And, the rig is MUCH quieter. Problem solved without launching a big hunt. And, if I had started with the electrical box, I would not have known since I would have depowered the lines behind the wall. So, as an old prof I had in grad school used to say, "Start simple and rule out the most obvious possibilities first".

DIGITAL DIGEST

November 2023 * Hamtrix * By Michael Johnson, WO9B

QDX Revisited

QRP Labs QDX Digital Transceiver is now 2 years old. This very clever kit QRP radio came along to fill the FT8 portable demand. And they sold as many as they could push out. Not familiar with the QDX? Checkout the QST review HERE. I was an early adopter and obtained a Rev 2 version just in time for Christmas 2021. I was looking for a way to easily do FT8 as part of a portable operating kit. The QDX fit the bill perfectly being tiny, power friendly using the same batteries and connectors as my CW radio and with the addition of only a USB cable plugged right into the laptop. The kit was assembled surprisingly easily and come spring 2022, I hit the field running anxious to add FT8 to my POTA, SOTA and Field Day repertoire. As with all good adventure stories, my experience had its ups and downs as reality dashed my lofty expectations time and again. The honeymoon did not last very long.

My first mistake was assuming that the QDX was a finished, polished, refined product that was ready to deliver piles of QSO's with a decent antenna and normal operator savvy.. It was none of that. The QRP Labs kits, while ingenious, clever and a delight to build, are not commercial grade,"toss the kitchen sink at it" gear. They are top notch, well supported kits aimed squarely at the builders/hackers market. Think of the QDX more as a journey and not a final destination. Like it or not, I had a ticket on the trip and so somewhat unprepared, off I went. So where does the QDX find itself two years, 5 Revisions and 10 firmware updates later?

Revision Updates: The physical QDX, despite the 5 revisions, remains pretty much unchanged. Rev 4 introduced a PTT connector designed to interface with an outboard amp. Aside from that, unless the PCC is removed from the case, you can't tell them apart. The bottom line is the circuit design and theory of operation

DIGITAL next page

have remained unchanged. The BIG Change is that you can now build the QDX for either the Low Bands (80/60/40/30/20) or the High Bands (20/17/15/12/10). The limitation on the number of bands is due to having only enough room on the circuit board for 3 LPF's. If you want all the bands, you're going to need two QDX's.

Firmware Updates: The design premise is that all QDX's, regardless of revision, will accept new firmware as it becomes available. That is certainly working well. Firmware changes, whether upgrading or reverting, is accomplished by simply dropping the new firmware file into the QDX folder which looks on your computer just like a thumb drive. When the QDX is power cycled, the new firmware is installed. Super easy.
The updates have made the QDX operating experience much more reliable. Lockups are rare now. Also interfacing with both WSJT-X and FLdigi has become almost trivial. Sound Card input/outputs and CAT serial ports recognized without issue as you would expect. Still, when problems do occur, the solution invariably requires a power down of the QDX and a restart of any computer software. That can be a little annoying. Other significant improvements have to do with the Diagnostic and setup operation which is accessed via a serial port using PUTTY. This has come a long way and in addition to helping to fine tune the BPF and LPF there is also decent control of the audio output to the computer.

Operating: Due to the firmware updates, the glitchiness (is that a word?) improved immensely. It is really a fun radio to operate. It is dead silent with pin diode switching. There are no operating controls on the case. The entire experience is software controlled from the computer. Aside from a red LED that flashes to indicate operating states and error conditions, there is no other sign the radio is "On the Air". I find it necessary to check the SWR/Power meter. I run FT8/FT4, WSPR, Olivia and RTTY. QSO's are easy to come by despite the 5 W power output. All that good stuff aside, there are some serious issues with the QDX:

- **Voltage Sensitivity:** The radio is VERY sensitive to supply voltage. You choose to build it for either 9V or 12V, with the understanding being that that represents a hard line. You do not want to exceed your chosen voltage by very much. Both of those voltages represent a bit of a problem for many of our typical battery supplies. The problem is that the PA MOSFETs are BS-170 devices which can deliver a bit more than 1W before reaching their limit. As power is controlled in the QDX via supply voltage, well, burned out finals are not unusual.

- **SWR Sensitivity:** Those same BS-170 MOSFETs also have a very hard 60V limit with the gate voltage. High SWR situations, like autotuner tuning cycles, expose the QDX to short periods of very high SWR which can detonate the finals. Poof. There are no safety circuits in the QDX nor tolerance in the design to accommodate SWR spikes. The solution is to replace the MOSFETs and swear off high SWR conditions. Oh, and for Pete's sake, turning down the supply voltage will reduce the problem almost to the point of bliss….but who wants to do that?

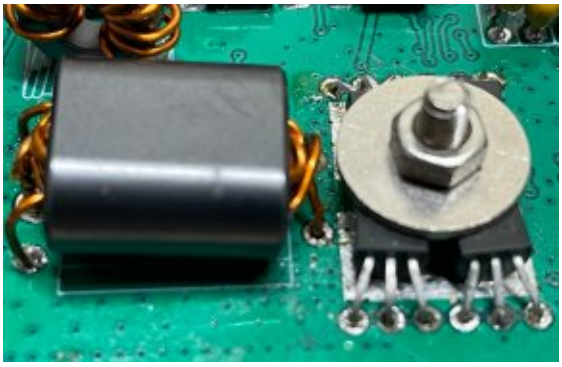
User Mods: As it turns out, it is a lot more fun to live your QDX life on the high edge of the supply voltage option. Why have a boring, reliable experience when you can play with the good possibility of letting the magic smoke out? As such the voltage and SWR issues have become the focus for the previously mentioned very active user group. Here are just a few of the "reasonable" ideas suggested via the forums. In the spirit of full disclosure, these are ones I've actually incorporated into my QDX. There are some really crazy schemes that, well, are just nuts.

• **Intermittent Power Connector:** After 6 months, my QDX was turning on and off at random times. I initially thought it was a faulty 12V plug and chased that demon unsuccessfully for some time. I was about to replace the board mounted female connector but thought to try to reflow the solder connections first. That solved the problem. It has been rock solid ever since.

• **Power Supply Diodes:** I use LiFePO4 batteries that supply 13.2V, well over the 12V ceiling. By putting two 1N4001 Diodes in the supply line, the voltage is dropped to roughly 12V. I've fried no finals using this scheme.

• **BNC Connector Replacement:** I dropped the QDX at some point and bent the nice round BNC connector. Though it still worked, I decided to replace it. Easy enough, well sort of. What I thought was a standard replacement device was not. I ended up filing away at both the case and connector to get it to fit. This is one I should have gone to the User Group to get a Mouser part number. Bad me.

• **Rewire Transformer T1:** T1 is the main power transformer for the final amplifier stage. By twisting the wires to more closely couple them, greater efficiency is achieved which results in a bit more power output plus some interference issues were solved on the 17 meter band. This was actually pretty easy to do with the most difficulty being desoldering the original from the circuit board.



• **Replacement MOSFETS:** Shortening what is a 6 month user forum story, I replaced the BS-170's with TN0110 MOSFETS. These replacements have a 100V gate voltage tolerance, otherwise they are a very similar spec. They are about 3 times the price of the BS-170's, but for me, for a single QDX, that did not amount to much.

• **PA ByPass Zenner Diodes:** Installing 1N4756A Zenner Diodes (47V) provides, theoretically, a safety bypass for the MOSFET finals in case of a voltage spike due to high SWR situations. The jury is out on the theory of operation, but the empirical evidence shows excellent results. I suspect the success of this mod is due to being tuned in to the supply voltage situation more than the Zenner's doing their Zenner thing, but that's just a hunch..

This pretty much wraps up my QDX odyssey to date. It has not been at all what I was expecting. My initial excitement was all about operating portable FT8 and on that basis, the QDX experience has come up a bit short. On the other hand this has been nothing short of a blast to build, experiment on, and dabble with the design and operational theory. I think it is actually now to the point where it will be a reliable field radio and I have plans to do just that next summer. Maybe even for Field Day. You can start your own QDX journey just in time for Christmas. The cost of the kit with delivery and enclosure is something around $100. A nice stocking stuffer.

Nut Net Breakfast

Several years ago there was talk among Nut Net members that we should get to meet each other. A breakfast get together idea was started. It was open to all hams, XYL/partners and anyone who wanted to learn about amateur radio. Even visiting OM/ XYL couples joined us.

So, on the fourth Tuesday each month at 8:30 am we meet at Gensis Restaurant, corner of HWY 100 and Beloit Road, Greenfield, WI. Looking forward to seeing you, mark
your calendar.

Phil, W9NAW

2023 Challenge for our membership. Have someone you meet, Ham or Ham wannabe come to a meeting this year!

From the Editor

October saw me driving two expert contest CW operators around Illinois during the ILQSO party. It was a warm up run to help us check out equipment and procedures for the Wisconsin QSO party next March. It was also a fun way to spend a beautiful Sunday afternoon.

All the equipment worked well, many contacts and a good time had by all.

Not much else Ham radio here. I'm still working on my Morse code. For me it's slow work with small improvements I notice them after the fact, improving. Like hearing that a CQ is a parks on the air even though they are operating a 20 words per minute. Also occasionally having a word jumping to my mind with out thinking about it. There is hope for me Hi HI

I've spent lots of time doing fall chores, including checking on antennas. Over the years I have got many of the ends of my wire antennas easy to get from the ground or maybe from a step ladder. This has helped more than once, where I was able to get back on the air without even thinking about getting on a snow covered roof! Must be getting old to even say something like that HI HI.

You might notice Tom Langer KD9FPC sent in an article on his interference problem. Thanks Tom. If anyone else has a story, problem or solution write up and send it in, please

Everyone have a great Thanksgiving

73
Frank KA9FZR

3 resolutions presented to the membership for voting.

1. Proposed resumption of Dave Knauss Scholarship (after a hiatus of 1 Year)
   We propose the following:
   1. The Scholarship be funded for the sum of $2,000.00 to be disbursed by the ARRL Foundation.
   2. The Board be authorized to fund any shortfall of funds as a result of poor fund performance not to exceed $2,000.00. The said funds to be withdrawn from the Scholarship Fund maintained by the Club.

   - **Approved**.

2. Club sponsored activities and club liability.
   New - Proposed Language for Club Sanctioned/Approved Activities
   "Any proposed club activity that has the potential to expose the club to any kind of liability must be reviewed and approved by the Board. This includes acceptance of donations that involve or require dismantling of equipment where there could be a risk of liability to the club."
   - **Approved**.

3. Proposed change/Increase in Annual Dues
   "Section 4 DUES: Membership dues shall be $20.00 per year including Family Membership. Dues for any member may be waived at the discretion of the Board.
   A grace period of one month from the start of a new club year shall be extended to all club members. Late payment of dues shall be in full."
   - **Approved**.

Feroz - October is annual Election's. If your interested in joining the leadership team. Come run for a position. Elections of officers - Board recommends to membership: Feroz Ghouse - President, Mike Johnson - Vice-President, Bill Reed -Treasurer, Bill Dargis - Secretary, Ex-official President - Frank Humpal - stays, Committee members (1) Tom Macon - stays, (2) vacant.

Election results

President: - Feroz Ghouse
Vice-President: - Mike Johnson
Treasure: - Bill Reed
Secretary: - Bill Dargis
Committee member(2) - Pierre Porter
- Members staying in position:
Ex-official President: - Frank Humpal
Committee member (1) - Tom Macon

November there will be a Board Meeting.

Meeting Adjourned at 8:41 pm.

Respectfully Submitted
Bill Dargis KD9BJZ
Secretary WARAC, October 10, 2023

WARAC Board Meeting Minutes – October 24, 2023

Board meeting called to order by Feroz Ghose WU9N @ 7PM.

Present: Feroz Ghose WU9N, Mike Johnson WO9B, Bill Dargis KD9BJZ, Bill Reed N9KPH, Tom Macon K9BTQ, Frank Humpal KA9FZR, Pierre Porter KD9SSY, Howard Smith WA9AXQ, Erwin von der Ehe WI9EV.

Election of President of Chairman of the Board: Feroz elected.

August Board Meeting minutes: Approved.

Membership – Continue to recruit new members. Try for 10% increase. Publish new members Name and Call in Hamtrix. If you have a Name Tag, try to wear at the meeting.
Mike: Currently we have ~ 48 paid members.
Pierre: Does any one know how the new members hear about WARAC. Internet search.

Treasures Report - Bill N9KPH: Only change since Oct. General Meeting. 1 new expense, Name Badges, $62.00.

Howard: Scholarship status, no change.

Feroz: Programming activities: Annual holiday party- Jan. New Berlin Ale House, WIQSO party, Field Day, Sendicks. Trying for a 911 center tour (Milwaukee county or Waukesha county), Trunk to Trunk, working on some technical topics – wire antennas, baluns, grounding, shack design, etc. Frank will coordinate with Sendicks. February is when we can put in for the 2 dates (? Spring, Summer, Fall). Dave G: Field day – DJ Mackie is a great site, but maybe look for a more central location, and try to get the media to show up.

Tom:? Whats the program for Nov. - Feroz - I have no idea. Will work on it.

Mike: New Website, way behind. No real new progress. Wednesday POTA will continue in 2024.

Feroz: 2 Ideas for the club to thing about.
1. Ham radio Symposium. Feroz in the position to have access to WCTC - 2 auditoriums.
-Thoughts: - January? Before Swap-fest season starts.
- How many ham's would participate? Do a survey.
- Subject matter. Large choice of subject matter. Do a survey?
- Local and or remote presenters.
- Sponsors.
- Start a committee. Develop a list of topics to choose from.
Work on ideas. Develop a plan. Work out the details.
Need time to plan. January 2025?
2. WCTC used to had a Ham radio station and club. Feroz - Proposes to ask the WCTC new president for his support to revive and start a amateur radio station, club in the school. We don't have to go big. Sell it as a centralized source of emergency communication services. The services we offer as an amateur service. Give the student a chance to experience something other than their cell phones and fiber internet. Give us the

ability as a club to get in to the class room and share our passion of ham radio. Try to make it as a school activity, grow interest in becoming licensed Ham. The radio club would be a commitment. Mentors, Elmer's. We want to put the young people on the right path. To become good and responsible ham's in our ham community. We can talk with WCTC and see if they have a space, what they would allow, what antennas for the roof.

These are two big projects. We can choice to do them one at a time or both together.

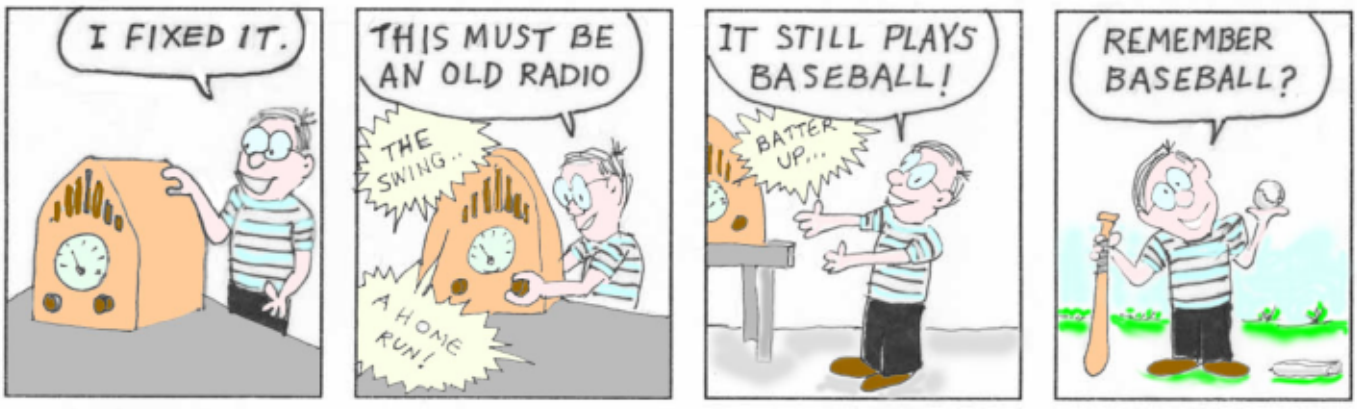
Howard: HRO Super-fest concessions – Boy scouts normally did it, but did not do for 2023. Do we want to try to do it. Its not as simple as doing Sendix's. Would have to plan, buy product, supplies, prep, setup, cook, work it, and cleanup. A lot more work.

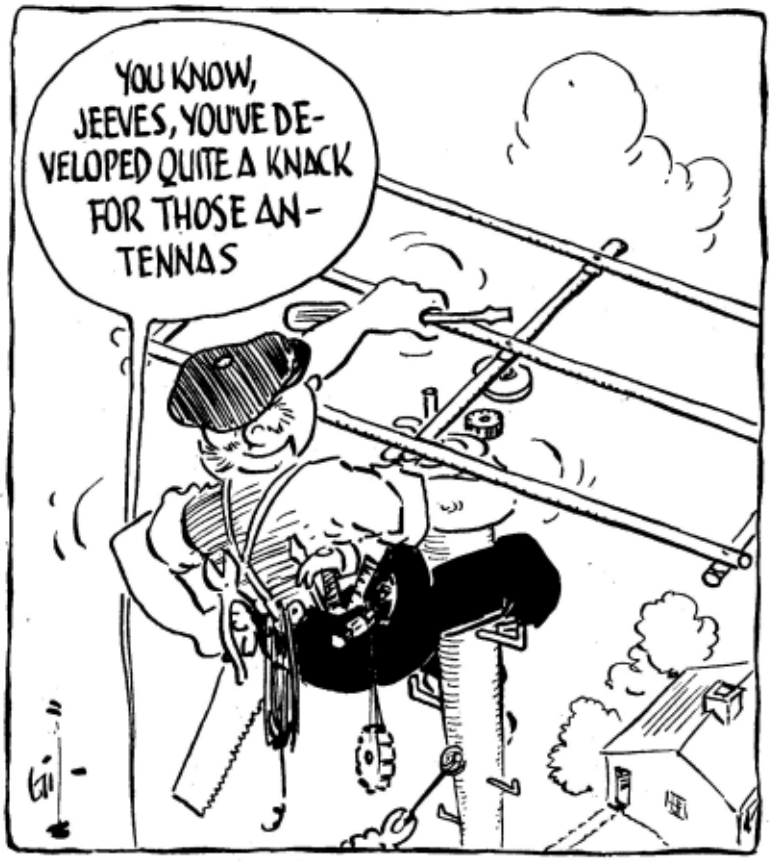
Bill R: New for next year. 2 new things. (1) Sent out, by mail-chip, individual dues invoice. (2) A letter reminding the membership in the change of the dues structure, preferred payment method – Paypal. Also updated the membership application form - editable pdf fill-in form. Feroz: Try looking at google Forms. It puts the Form data output to a spreadsheet. Feroz: Go ahead with the Letters, Invoices.

Meeting Adjourned at 8:15PM.

Respectfully Submitted
Bill Dargis KD9BJZ
WARAC Secretary, October 24, 2023

ELMER **by Rich Regent, K9GDF**





Thanks to Dave WB9OWN for taking the time to copy these out of old ham Radio magazines

Note date things have changed. Ed

GEORGE W. BAILEY, W1KH, PRESIDENT
CHARLES E. BLALACK, W9GG, VICE-PRESIDENT

KENNETH B. WARNER, W1EH, SECRETARY & GENERAL MANAGER

F. E. HANDY, W1BDI, COMMUNICATIONS MANAGER
DAVID H. HOUGHTON, ACTING TREASURER

THE AMERICAN RADIO RELAY LEAGUE, INC.

Administrative Headquarters
March 12, 1942

QST
OFFICIAL ORGAN
KENNETH B. WARNER, EDITOR

To: Members of the YLRL and other radio-skilled women.
(Copies to SCMs and Affiliated Clubs, for information)

From: Communications Manager.

Dear Fellow Amateur:

Next QST carries a small box reading:

ATTENTION, WOMEN ONLY!

The Bureau of Ships of the Navy Department has vacancies for radio engineering aides and graduate physicists and engineers who are experienced radio amateurs. Salaries range from $1620 to $2000 per annum, higher for special qualifications. All positions are for duty in Washington, D.C., only. Address requests for applications to Bureau of Ships, Navy Department, Office of Civil Personnel, Washington, D.C.

The Navy Department has asked us to try to interest some of you in applying for these jobs, and we can now add a little more information: They want a considerable number of women, to serve as technical aides either in the office of the Bureau of Ships or in the Naval Research Laboratory, both in Washington. The positions are in the Civil Service. While the emphasis is on college-trained women, any licensed YL or XYL can get a job at $1620 a year, and if you have a college degree you can get $2000 --- with more in sight for those with special qualifications. Preference would go to those holding degrees in science or engineering but the $2000 is available to the holders of arts degrees too. The kind of knowledge that you have gained by getting your amateur ticket is what they need.

If you can be spared from home, you have an opportunity to help the country. In many cases your work will release a man for fighting service. There are many jobs that you can do better than a man! If you can interest yourself, we urge you to write for application form and details to the address given above.

It is also expected that in the rather near future technically skilled women will be needed in considerable quantities on behalf of the Army Signal Corps, in the Aircraft Warning Service. Such work will not necessarily require expert radio knowledge but rather a good "sense of radio." Further information will be furnished through QST as soon as we have it. These are but the forerunners of a great flood of urgent requests for your services in radio work in the war effort, a topic commented upon in an editorial in next QST which will probably interest you.

Please pass along the word of the Bureau of Ships opportunity to any qualified YL and XYL operators of your acquaintance. Many thanks.

Sincerely yours,

F. E. Handy

F. E. Handy, W1AW/W1BDI
Communications Manager

FEH*LMS

CW Practice

One of the best and maybe the only way to get better at CW is practice. Having someone else who also wants to practice also helps. Just makes it more fun.

The West Allis Radio Club is going to try to help. We are running a CW practice net on Monday at 8pm The repeater is 147.045+ 127.3 the CW portion is on HF

Mike WO9B has been joining me and setting up some practice but we are open for suggestions on where to go with this. Come join us.

Officers and Board
President
FEROZ GHOUSE WU9N

Vice President
MikeJohnson WO9B

Secretary
William Dargis KD9BJZ

Treasurer
Bill Reed N9KPH

Directors
Tom Macon K9BTQ
Erwin von der Ehe Wi9EV

Newsletter Editor
Frank Humpal, KA9FZR
fhump@milwpc.com

past president
Frank Humpal KA9FZR

West Allis Radio Amateur Club
P. O. box 511381
New Berlin, WI 53151-1381

West Allis Radio Club
PO Box 511381
New Berlin, WI 53151-1381