



Official Publication of the
West Allis Radio Amateur Club

Hamtrix

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Volume 71, Issue 12 December, 2022

DECEMBER CLUB HAPPENINGS

Meeting

December 13, 2022 7pm

**New Berlin Community Center
14750 W. Cleveland Ave.**

New Berlin, WI

**Between Moorland and Sunnyslope
Presentations**

To be announced

Premeeting dinner

New Berlin Ale House 5:15pm

16000 W. Cleveland Ave

West of Moorland Rd.



NUT NET

3.985mhz

Monday-Saturday

8:15am CT

NUT NET

Breakfast

8:30am fourth

Tuesday

of the month

Milwaukee-Florida Net

Every Day on 14.290 Mhz

7:00AM - 9:15AM ET

6:00AM - 8:00AM CT

2023 Dues due see page 6 for more details

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Editor's Corner

Not much to report from the editor's point. Took my Yaesu FT-817 down to Kentucky when we went down there for a week vacation. Did get one SSB contact. Tried for a couple CW contacts but no luck, I might have been running the Sparkplug Gear end fed antenna parallel to some high voltage lines. That seemed to increase the noise. All sorts of possibilities.

The first two days were warm enough to sit on the patio which gave me access to more trees. After that only one window seemed a possibility could get the antenna out of it. Not the best set up but still I tried!

That's QRP portable. You try and sometimes get a bite sometimes not. Still I enjoy the challenge. I have been getting better at CW to give me more options. Works good contacting Parks on the Air.

Not much radio wise around here. I kluged together an easy way to switch from my Fan dipole set up and my tri-bander antenna. I already switched between them by sending a 120 volt signal to the RF relay I have near the antennas. That has worked good. I noticed I had an auto switching power switch... you could set it up so that when you turned on one piece of equipment 4 other plugs when live.

I use it so that when I turned on the rotor box it switched the RF relay to the Tri-bander seems to work well!

Everyone have a happy Holiday season!

Thats it for this month

Frank KA9FZR



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

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 – November 15, 2022

Club meeting was called to order by Feroz Ghose WU9N @ 7:07 pm.

Attendance: 11 club members.

Hamtrix Minutes: October general Meeting minutes was accepted and approved.

Treasurer's Report: Overview - Checking: \$10,137, Scholarship Savings \$4,843.

Should be starting the Audit in the next few days.

Feroz talked about:

Where do we want to take the direction of the club. Activities, programs.

Mike Johnson WO9B – Working on a pico balloon with stamp size solar cell.

We should have some type of learning objective.

Tom Macon KD9BTQ is preparing a program on the history of our club.

Trying to put other programs together for future meetings.

Annual Activities: Dinner (January?). WIQSO Party, Field Day. POTA Wednesdays, Get involved with Boy Scouts Jamboree, Trunk to Trunk (Maybe in spring). Sendik's fund raisers.

Mike WO9B remote setup. Talk with Mike to try his setup. <https://remotehams.com> Look for Mike's call. You need to sign up.

Possible program with a 911 dispatch and what they do, what may be needed from us. (Oak creek , Waukesha County)

Need to look if by-laws need to be refreshed, bring then up to date. Refresh the website.

Open to ideas for programs or other ideas.

The need to find younger members. Should we give a 1yr. free membership to a (WCTC) student in the electronics program?

What would make Amateur radio attractive to younger people? Learning, service, emergency communications.

Old Business:

Club is a 501c3 organization.

New Business:

There will be a Board Meeting before the end of the month.

Dave WB90WN ARRL published the club score for Field Day. 4132 total.

Mike WO9B is trying to setup a Vara 2M winlink node. No Vara node in the area.

Question asked about APRS. Location reporting, data reporting (weather stations, telemetry, messaging...).

You need a APRS radio.

Does the club get involved with Sky Warn. We had programs on Sky Warn.

Storm chasers take undo risks observing storms.

FT-8 low level signals and a quick QSO exchange. ~90 seconds.

**** Membership Renewal: Due November 1st. \$15 for standard, \$10 Retired.**

Paypal is preferred, but checks are accepted.

Meeting Adjourned at 8:14 pm.

Respectfully Submitted

Bill Dargis KD9BJZ

Secretary WARAC, November 16, 2022

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WARAC Board Meeting Minutes – November 29, 2022

Board meeting was called to order by Feroz Ghose WU9N @ 7:01 pm, this was a Jitsi meeting.

<https://meet.jit.si/WARACHamRadioClubVirtualMeeting>

Board Members Present

Feroz Ghose WU9N, Mike Johnson WO9B, Bill Dargis KD9BJZ, Tom Macon K9BTQ, Bill Reed N9KPH, Frank Humpal KA9FZR, Phil Tolefson WA9AQL.

Approved minutes of October 4, 2022 Board Meeting.

Treasurer's report accepted.

Club sanctioned activities:

The Board has concerns about the club's liability, with club members going out and doing antenna or tower work on their own. The Board will be working on a policy for the Club's Board Sanctioned activities. And a policy on club accepting donations.

Program thoughts: Try to get outside speakers. Phase array antennas, 911 dispatch.

January - ? No regular meeting, do a social get together.

February – WIQSO party.

Web Site Refresh: Mike WO9B is working on an update of the website with Feroz.

Phil Tolefson WA9AQL resignation to the Board was accepted.

Meeting Adjourned at 8:10 pm.

Respectfully Submitted

Bill Dargis KD9BJZ

Secretary WARAC, November 30, 2022

2022 Challenge for our membership. Have someone you meet, Ham or Ham wannabe come to a meeting this year!

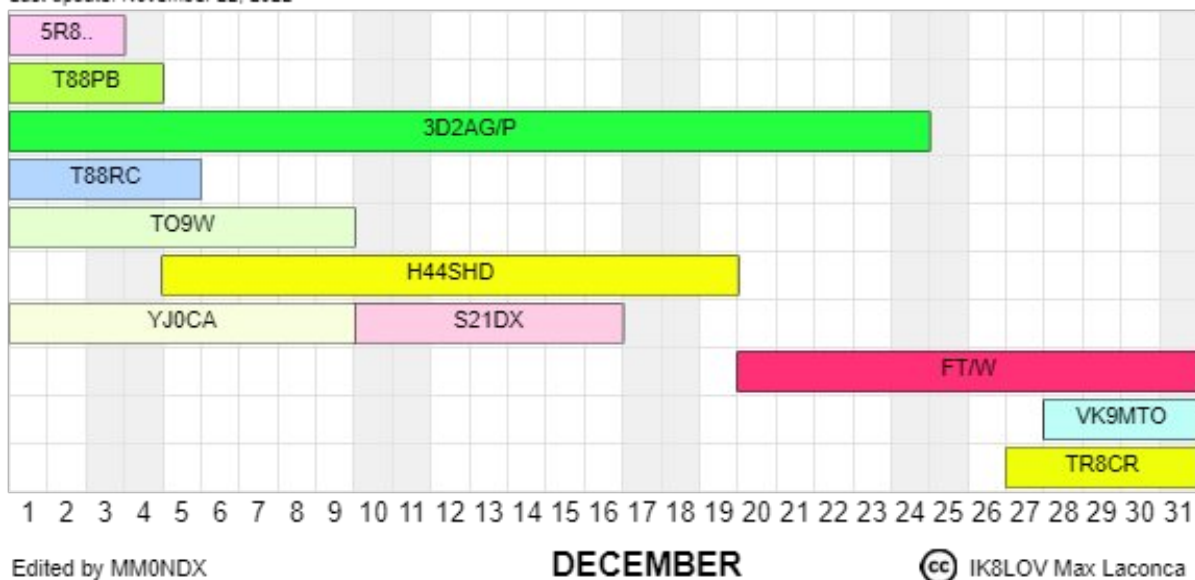


DX Update:

What a great month it has been for NBC's (New Band Country's) or even an ATNO (All Time New One). My log was full of NBC's and one ATNO. Just like old times as Solar Cycle 25 continues. Of course a very sought after one is Bouvet Is. which hopefully will be active in January as 3Y0J. I was fortunate to work Bouvet back in 1990 but will look for NBC's from them this time around. VK9CVG Cocos (Keeling) will also be active again February 17-24. I hope that this holiday season brings you lots of DX.

DX WORLD.net FEATURED DXPEDITIONS TIMELINE

Last update: November 22, 2022



Contesting:

The big one this month is the ARRL 10M contest December 10 from 0000 to December 11 2359. Field Day Results for 2022 are on page 63 of the December QST. Check page 59 in the December 2022 QST for more contests. For more contests check out:

<https://www.contestcalendar.com/contestcal.html>

Special Event Stations:

For special event station listings (there are many) check out:

<https://www.425dxn.org/index.php?op=wcal>

If you have further ideas or suggestions for this page please let WA9BZW (Al) know
wa9bzw@arrl.net



Dec 2022 * Hamtrix * By Michael Johnson, WO9B
Fox and Hounds

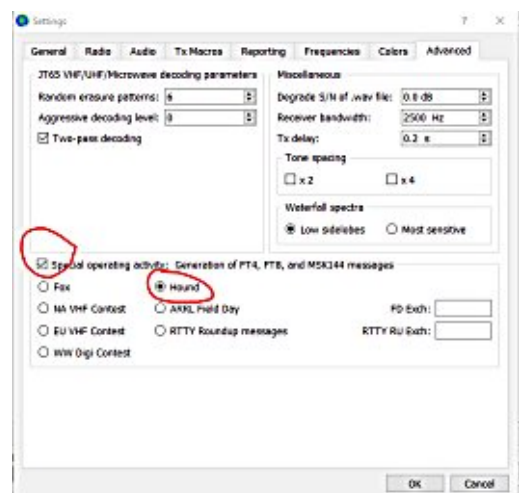
As the sunspots increase, oh my, but the bands do get better. Better can have different meanings to each of us, but speaking for myself, the thrill of working a DX station remains as fresh and exciting as when I was a newly minted novice. It is now almost typical to flip on 10 or 15 meters and pluck out an EU station on any given morning. Checking the stats at DX World, the DXpedition calendar has gone from blank to overfull in the course of a year. At the end of next month, the amateur radio community will be focusing on a small, inhospitable rock in the South Atlantic. Bouvet, 3Y0J will be the target for worldwide RF. Are you planning to work them? Thinking about it? I am, and here's how....

My first choice is CW, but that's just how I roll. With 100 watts and a dipole I rate my chances as slim to none. Regardless, I will saddle up into a monumental pile up and give it a try. Maybe I'll get lucky. It happens. I won't wa9bzw@arrl.net even try SSB. My signals will have no chance via that route.

What I will be using is FT8. To some degree, the WSJT-X FT modes are great at leveling the playing field. Maybe not totally level, but my little station has a real chance to score a QSO. In particular, Bouvet and many of the other DX stations will be using the Fox and Hounds mode, also known as DXpedition Mode. This is a special mode which results in multiple simultaneous QSO's on FT8 and a theoretical rate of 500 QSO's per hour. It is a special mode and to participate, you'll need to set it up correctly. Follow along, it's not hard. Note, I am referencing the latest stable version, WSJT-X 2.5.4. There are some new options available in the latest Release Candidate, so you may wish to explore those on your own.

Once FT8 is up and running, Fox and Hounds Mode is engaged from the Advanced Tab on the Setting Menu: Click the boxes shown and then "OK". You are all set.

Operating is just as simple. The DX Station (Fox) will be calling below the first 1000 Hz of bandwidth. The Hounds (You) should be calling the Fox ABOVE 1000 Hz. The Fox will be working 2 to 5 stations simultaneously. When you are ultimately called, your call will show up in RED highlighted in the normal fashion that FT8 signals when you are in an active QSO. From that point, it is a normal QSO with the normal automatic FT8 exchanges. All that is needed is a bit of patience. If your station can be heard, you will eventually get your QSO. One piece of advice from the Joe Taylor group: If you can't copy the DX station, they surely can't copy you. Good advice. If you are not FT8 active, now is the time to get your station up to speed. There are myriad sources of info on the internet, so I'll leave that up to you.





West Allis Radio Amateur Club, Inc. MEMBERSHIP APPLICATION

Name	Cell	Handle
Address		
City	State	Zip
Phone	Email Address	
Spouse's Name	Wedding Ann.	Birthday
License Class	Expiration	Licensed Since
Membership In <input type="checkbox"/> ARRL <input type="checkbox"/> Amsat <input type="checkbox"/> Other		
Operational Station <input type="checkbox"/> Fixed <input type="checkbox"/> Mobile Bands:		
Would You Be Willing To Serve <input type="checkbox"/> On A Committee? <input type="checkbox"/> As An Officer?		
Club Activities You Would Like To Participate In		
<input type="checkbox"/> Field Day	<input type="checkbox"/> Programs	<input type="checkbox"/> Sweepst
<input type="checkbox"/> Elmer	<input type="checkbox"/> Sunshine	<input type="checkbox"/> Education
<input type="checkbox"/> Public Relations	<input type="checkbox"/> Scholarship	<input type="checkbox"/> QSO Party
Class Of Membership: <input type="checkbox"/> Full <input type="checkbox"/> Associate <input type="checkbox"/> New <input type="checkbox"/> Renewal		
Dues Paid: <input type="checkbox"/> Full \$15.00 <input type="checkbox"/> Associate \$10.00		
<input type="checkbox"/> Family \$10.00 <input type="checkbox"/> Student \$10.00		
<input type="checkbox"/> Retired \$10.00		

I hereby apply for membership in the West Allis Radio Amateur Club, Inc. in the membership class indicated above. I agree to abide by the Constitution and By-Laws of the club and any rules or conditions that may be set forth in accordance with the Constitution and By-Laws.

Applicant	Date
Secretary	Date
Treasurer	Date
Accepted for Membership	Date

Meetings on the 2nd Tuesday of the month at:
New Berlin Community Center
14750 W. Cleveland Avenue

Bring your completed application to a club meeting or mail with dues payment to this address:
West Allis Radio Amateur Club, Inc.
P. O. Box 511381
New Berlin, WI 53151-1381

www.warac.org

October 2019

Click on form for a "PC editable membership application"

non-life members dues are payable on November first, with a sixty day grace period, after which membership is considered lapsed. Dues paid ANYTIME during the club fiscal year applies to that year only. So for example if someone pays next July, that covers dues through October 31st only.

Paypal is preferred by selecting and **using the friends and family option**. Send to "**West Allis Radio Amateur Club, Inc**" Of course, this avoids the club being charged a transfer fee. Note that this option is only available using a direct transfer from a bank account and NOT using the "credit" option. However, any form of payment is welcome.



Nut Net Breakfast to start, AGAIN

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 will once again meet at Gensis Restaurant, corner of HWY 100 and Beloit Road, Greenfield, WI. Looking forward to seeing you, mark your calendar.

Phil, W9NAW

The History of the Car Radio

Written by Carly Hallman

It's an almost universal experience: People get in the car and turn on their favorite music. But the first car radio wasn't sold until Chevrolet offered one as an option in 1922. And at first, radios in cars weren't a popular feature. In 1930, laws were proposed in Massachusetts and Missouri that would ban automobile radios, and a poll in 1934 found that 56% of people thought car radios were a dangerous distraction. Motorola kept refining the idea, though, and designed a more attractive and better-functioning radio. By 1946, around nine million cars had a radio installed in them. The technology improved over time, and by 1963, more than half of all cars driven in America had a radio in them.

The History of Car Radios

A head unit is like the motherboard of a car's audio system. Originally, head units only controlled the radio, but over time, they were used to control everything from 8-tracks to CDs. Today's head units incorporate touchscreens and smartphone integration. The size of the head unit is dictated by the size and design of the car's console and the size of the front faceplate of the stereo system. Most head units are a size 1DIN or 2DIN; DIN is an acronym for a German company, Deutsches Institut für Normung.

A History of the Car Head Unit

Lee de Forest invented the vacuum tube, which made radios possible. In 1904, he gave a demonstration of his invention at the Louisiana Purchase Exposition, and afterward, he was nicknamed the "Father of Radio." It wasn't until 1922 when Chevrolet put a Westinghouse radio into a car. But the first successful commercial automobile radio is considered by most experts to be the Motorola 5T71, which was released in 1930.

Radio on the Go

The radio was first invented for the military, and its purpose was to allow for short, simple, person-to-person messages. Even these very simple radios were large and bulky at the beginning. The first radios meant to play music were even larger and bulkier, and they don't at all resemble what most modern people would consider a portable radio or music player. Early radios were housed in a large box, which was accompanied by a second box for the speaker. They featured several large batteries and an antenna consisting of a long piece of wire. All of these elements would be put into what amounted to a large wooden suitcase to make the radio portable.

Portable Music

Early car radios of the 1920s and 1930s looked different from what most people today consider automobile radios. There was a tin box with:

- A speaker
- An audio receiver
- A tuning mechanism
- Sometimes (but not always) batteries

The car's battery would heat the radio's tubes, and the radio needed a separate box for its anodes. All of this equipment actually blocked the radio from getting clear reception from radio towers. The invention of the vacuum tube solved a lot of problems for car radios, making them more user-friendly as well as improving the quality of the audio.

When Mass Manufacturing Got Rolling

On Sept. 26, 1928, the Galvin Manufacturing Corporation, located in Chicago, IL, began production. In 1930, the company would introduce its **Motorola car radio, the very first mass-produced automobile radio offered for sale. The name “Motorola” comes from combining “motor” with Victrola.**

Car Audio Timeline: A Century of Progress

The 1920s marked the birth of large-scale radio broadcasting. Radio soon became a major source of entertainment, news, and information for a lot of people. Suddenly, masses of people could experience breaking news or sports events as they happened. Many Americans were making good money in the 1920s, and this was coupled with an increase in available credit that helped people to afford radios for their homes. Soon, inventors and marketers realized these people might also enjoy listening to their radios in the car.

The Roaring '20s ended by throwing the United States into a deep economic depression. Suddenly, large numbers of people were experiencing job loss and poverty. However, those with money continued buying radios and expressing interest in car radios. Radios were an expensive option: Adding a Motorola radio to a brand new Model-T made the price jump 20%. Some people pushed back against radios in cars, but continued technological advancement and the introduction of features like push-button tuning made radios more popular than ever. This was also the decade when FM radio was invented, improving sound quality.

The Tragic Birth of FM Radio

Nine million automobiles had built-in radios by the beginning of the post-war period. Head units became smaller and better designed. Many started to take on Art Deco styling to match the interiors of the cars of the moment.

Road Tunes: How Car Audio Systems Have Evolved

AM radio ruled the airwaves at the beginning of the 1950s, but the first automobile radio with an FM receiver was put on the market in 1952. One year later, the first radio with a fully capable automatic station-search feature was introduced. Chrysler also decided to experiment by selling cars with record players installed as a part of the in-car entertainment system.

Cars Once Had Record Players, But it Didn't Last Long

Two major technological advances had a great impact on car radios in the 1960s. General Motors and Ford teamed up with Motorola to create the Super 8 (better known as the 8-track) cassette and began putting 8-track players in their cars. At almost the same time, in 1964, Philips introduced the compact cassette. Even from the beginning, compact cassettes offered better sound quality than 8-tracks. But thanks to the involvement of two automotive powerhouses, 8-track players continued to be installed in cars into the 1970s.

Collector's Corner: The History of the 8-Track Tape

Cassette players took over the market in the 1970s. The '70s were a time of great advancement in the field of automotive audio systems. Vacuum-based amplifiers, which were bulky, were replaced with smaller models with better sound quality. Pioneer began selling car systems that provided almost the same sound quality as at-home stereo systems. The Supertuner, for example, offered a cassette player and FM radio tuner with excellent reception.

The 1980s

Pioneer once more led in-car stereo innovation when they introduced the first automotive compact disc (CD) player in 1984. The sound quality was much, much better than that offered by cassettes, but in-car CD players didn't achieve widespread popularity until the 1990s.

The 1980s also saw rapid advancement in speaker technology and sound. Systems with at least six speakers became popular. High-end automotive audio setups rivaled the best at-home systems. General Motor's Delco division paired up with Bose to make a high-end system for people buying luxury GM products, which at the time included Corvette, Cadillac, Oldsmobile, and Buick customers.

History of the CD: 40 Years of the Compact Disc

One reason the popularity of in-car CD players skyrocketed in the 1990s was that CD changers, capable of being loaded with up to 18 CDs, hit the market. Suddenly, drivers could truly curate their listening experience, even on very long drives. Sony attempted to compete with the rising popularity of the CD when it released the Minidisc in 1992, but the smaller format never caught on with customers.

The 2000s

Two huge new technological advancements ushered car audio systems into the new millennium. The first was GPS technology, which allowed for navigation systems to be added to car entertainment systems. Navigation systems meant larger screens, and soon, infotainment systems became a larger part of a car's dashboard. The other major advancement was Bluetooth. This technology allowed drivers to make and accept hands-free calls through their audio systems. At the same time, portable digital music players hit the market. Soon, people were using a variety of adapters to connect their music players to their car's audio system, but Bluetooth would go on to make this a seamless experience.

2020 and Beyond

The increase in people working from home coupled with people viewing their smartphones as their primary source of information has changed what people listen to in their cars and how they listen to it. The popularity of radio stations dwindles each year. Now, people are more likely to listen to podcasts or music streaming services as they drive.

As Podcasts Continue to Grow in Popularity, Ad Dollars Follow

The Next Leap for In-Car Technology

Car entertainment systems continue to make technological advancements. Many cars are now ready to let users control the infotainment systems using smartphone apps, and some will allow apps to guide even more of the functions of the car. Built-in screens with multiple uses also continue to increase in popularity, integrating with telematics systems to help drivers monitor vehicle diagnostics.

DIY

Even as infotainment systems become increasingly complex, aftermarket stereo shops and DIY systems continue to flourish. People often upgrade older cars with new infotainment technology, including Bluetooth-enabled stereos with backup cameras and touchscreens.

References and complete article found

<https://www.titledmax.com/articles/the-history-of-the-car-radio/>

DON'T KEY LIKE A PHONE MAN



SLOW SPEED CW QSO NET

Monday's - 8:00 PM - WB0AFB Repeater 147.045 + 127.3 Tone

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
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Secretary
Dave Garnier WB9OWN

Treasurer
Bill Reed N9KPH

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