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Volume 74, Issue 5 May, 2025

MAY CLUB HAPPENINGS



NUT NET 3.985mhz Monday-Saturday 8:15am CT

WARAC 4th Tuesday
Breakfast
At the Forum
Layton & Hyw 100 at
8:30am

The Milwaukee-Florida Net time is: 7:15 - 8:00AM Central 8:15 - 9:00AM Eastern Mon through Sat Meeting
Tuesday May 13, 2025 7pm
New Berlin Community Center
14750 W. Cleveland Ave.
New Berlin, WI
Between Moorland and Sunnyslope
presentation
POTA 2025 Rick Wyrwas, WA9JBQ.

While spring cleaning keep a look
out
For Items
For May's meeting
TRUNK to TRUNK
Sale
6pm to 7pm

Sendik's Grill fundraiser
May 17, 2025
Sign up at meeting
11:00 to 4:00 pm
At the New Berlin store

Field Day June 28 - 29

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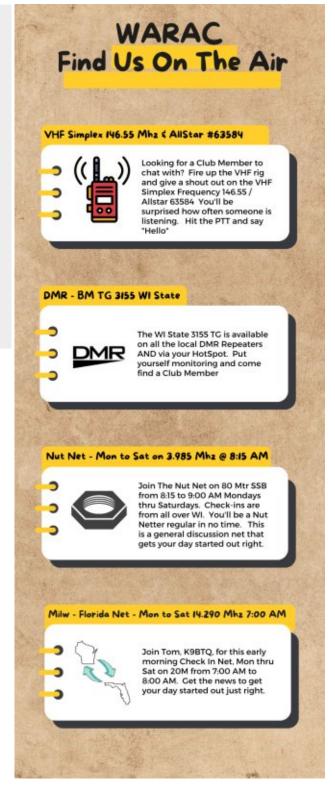


WARAC 4th Tuesday Breakfast

NOTE NEW LOCATION

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 The Forum Restaurant, corner of HWY 100 and Layton, Greenfield, WI. Looking forward to seeing you, mark your calendar.





The Season Starts

May has landed and the club summer activities have begun. I've been transitioning from inside to outside focus projects. lt feels great. ľve been to a couple of parks on Wednesdays, but it has been a bit cold. take it as positive omen that my doublet antenna waited until the nice fall weather to down. I said "Thank You" and spent a really pleasant late morning stringing it back up. I even managed to raise it up few feet

higher. On the down side, my overreach with rejuvenating an old Heathkit SB200 continues to frustrate. Pretty soon I won't be able to call it an old amp as just about everything about it will be new. Who knew??

Our May Monthly Meeting will be an early start as we have our Spring Trunk-2-Trunk parking lot club swapfest which runs from 6:00 to 7:00. No dinner meetup this month so plan accordingly. Gather up those goodies and share them with your club compadres. I've got a few items needing a new home!!

For the regular meeting agenda, this month's presentation is WARAC's own POTA expert Rick Wyrwas, WA9JBQ. Rick's presentation, POTA 2025 - The Adventure Begins will detail his POTA plans for the year. He also will bring us up to date on the latest POTA news for WI. You don't want to miss this one.

Finally, Saturday, May 17th from 11:00 to 4:00 PM is the first Sendik's Grill Fundraiser for the club. As usual, we will be at the New Berlin Sendik's located at Moorland and National serving up piping hot grilled deliciousness all afternoon. We can use your help and your support. Volunteering is easy duty and a great opportunity to catch up with club members. Sendik's does a great job and we are thrilled to be included in their community outreach program.

WARAC General Meeting Minutes - April 8, 2025

Called to order by Mike Johnson WO9B @ 7:10 pm.

Attendance: 27 Member's. **Meeting Minutes** – Approved.

Treasurers report Bill Reed: March: income \$136.50, expenses < \$75.00, checking \sim \$6900, CD \$5402, general operating funds \sim \$12500 and equivalent amount in the Scholarship fund. Bill completed establishing a Charles Swab account for the scholarship funds.

Meeting place agreement expires the end of this month. They are only promises us the facility here to the end of August when the facilities will be closed. Bill R. assumes we will have access to the new facilities down the road. Still needs to be verified.

Sendix's - Frank: May 17 and September 6. At the New Berlin Location.

Field Day: June 28 @ Colonel Heg Memorial Park – Wind Lake, Norway. Dave is looking for a point wrangler. Someone to take over the point, Bonus points.

WIQP - Chuck Dellis said the Log count is down from last year. New replacement computer is working. Did have some minor issues with the new software upgrades.

May - Trunk to Trunk and Rick Wyrwas WA9JBQ - POTA Plan 2025 presentation. Meeting will start earlier.

Tri - County Swapfest March 16th, Ozaukee Radio Club Swapfest April 26th, Dayton is May 16th,17th,, Green Bay Ham Fest May 31st.

CAP Fox hunt: Still looking at a Saturday, 2-3 hours in small groups.

Mike Ham Clock update: DX cluster filter. Showed where in the program to setup a filter. In page 2 of the setup screen, filters. Create a filter script, restart Ham Clock. Ham Clock runs best on a raspberry pi. Running on Windows has problems.

Ham Clock runs best on a raspberry pi. Running on Windows has problems.

Presentation - Gary KD9VGL: Milwaukee Broadcast History. Video.

A very informative video on the history of radio and television in Southeastern WI. In 1920, 360m for entertainment, 485m for information was established. WHA radio UW Madison was one of the first to be heard in Milwaukee. 1925 WCAY was licensed for music, Gimbels brothers had a license for WAAK to market receivers. Marquette University WHAD. School of engineering WSOE. WTMJ Sept. 1927, in 1929 became 620AM with its first Packer Football broadcast. WTMJ created the first fully directional antenna system in the country to eliminate the night time interference from WFLA Tampa. In 1940 WTMJ applied for construction permit to launch W9XAO to become WTMJ FM and become WKTI in 1974. 1922 WIAO 360m. In 1924 WIAO partnered with WSOE 1200khz, in 1927 moved to 1110khz. In 1932 WISN. In 1934 WISN purchased WHAD... And early Television history.

Meeting Adjourned at 8:11 pm. Respectfully Submitted Bill Dargis KD9BJZ Secretary WARAC, April 8, 2025

WARAC Board Meeting Minutes - April 22, 2025

Board meeting called to order by Mike Johnson WO9B @ 7:05PM.

Present: Mike Johnson WO9B, Pierre Porter KD9SSY, Bill Reed N9KPH, Bill Dargis KD9BJZ, Jeff Pahl W9JSP, Feroz Ghouse WU9N.

Treasurers report: Bill Reed - Approved. Lion park is approved for August.

Sendik's: May 17. Sign up sheet will be at May meeting.

Field Day: Dave is on track for this years Field Day. Still needs a person to tally bonus points.

WIQP: Everything is going find. Logs received are down 5% from last year. Targeting Dayton as the release date for results.

Publicity Pierre: Pierre asked if WIQP is published with ARRL Bulletins. Mike mentioned he uses WB9 Contest calendar to see all the contests. Trunk to Trunk is in May. Email list, members Db should all be up to date.

Symposium Feroz: No news. Field Day, maybe I will supply brats and burgers. Bill R. asked if he could man the grill?

Web site: Mike - No progress.

Meeting place status: Bill R. We have a permit through August. No news about after August.

Name Badges - Bill D.: When we ordered badges, as a single or small group(1-6), the shipping has been the same price. I currently order as a group to save on individual shipping costs. Looking @ ordering the next group after the May meeting.

FTP site to Google Drive - Pierre: Pierre has not done any thing. Jeff will look at how to keep file dates with the move. Jeff, Pierre, Bill D. Will work together on the change.

Strategic Plan Development -

How do we increase donations to the club. The market has become unpredictable. Will the ARRL fund produce \$2k for a scholarship? We due the scholarship, to help a Ham with high education, pursuing a 2-year or 4-year degree. The Board will begin keeping the scholarship discussions with in the board meetings and bring it to the membership when approval is needed.

What can we do make the local community more aware to our club.

June - Field Day and WIQP wrap up. July - Scott Scherer RaspberryPi Shack Automation. August - Pizza in the Park. September - Jim Burns - New Berlin Emergency Government. October - Elections.

Meeting Adjourned at 8:30PM. Respectfully Submitted Bill Dargis KD9BJZ WARAC Secretary, April 22, 2025

Contest Corner and DX Report Michael Falk, AA9RK

As we hurtle into spring, here's what you can find on the air:

The weekend of May 11th -12th, there are events for any mode you wish. There is an SKCC (Straight Key Century Club) Weekend Sprintathon if you a CW fan, running for 36 hours on bands 160-6 meters. **RTTY fans** can participate in the Volta WW RTTY Contest, run by an Italian group and running for 24 hours. If you like **SSB (or CW)**, the CQ-M International DX Contest, run by a Russian contest group, are putting on a contest for those same 24 hours. **The Canadian Prairies** QSO Party is also CW and phone, but just 10 hours.

Additionally, on Saturday the 11th, there is also the 6 meter Spring Sprint, which is a beast unto itself. It's a four hour sprint, and if there is any sort of fun propagation (Sporadic-E especially), you can work distant stations on the "Magic Band". The new rule for the Spring Sprints this year allows you to work stations twice per band, once on digital and once on analog, so that this doesn't just become an FT8 contest. (Though, FT8 helps you work DX you might not even hear on the other modes!)

There's another mix of events on the weekend of the 18th and 19th. There's a Feld Hell Sprint on Saturday, May 17th, for four hours in the morning. There are 24-hour European CW (His Majesty King of Spain) and PSK (EU PSK DX) contests running concurrently on Saturday and Sunday, along with the Arkansas QSO Party stateside if that is more to your interest.

The big one on Memorial Day Weekend is the 48 hour long CQ Worldwide WPX Contest (CW edition), from May 23rd to the 25th, from Friday evening until Sunday evening. This is probably the largest everyone-works-everyone CW contest in the world, and activity levels are through the roof. Serious contesters and casual ops alike can get involved and make a bunch of contacts.

The weekend of May 30th through June 1stlets everyone down gently from their contest hangovers. It brings a 72 hour PSK contest (PODXS 070 Club Three Day Weekend Contest), a 24 hour Russian WW MultiMode Contest (CW, SSB, RTTY, and PSK). Looking forward into June, mark your calendars for two big ARRL events, June 7th and 8th (ARRL International DX Contest) and June 14th and 15th (ARRL June VHF Contest). We'll talk more about those next month.

Here are your MayDXpeditions:

Wake Island: Richard KR4CDI/KH9 is working on Wake and is QRV all modes. He was mostly analog (especially CW) but he has recently started using FT8. He's been on 30 meter CW/FT8 and 12 meter SSB.

Reunion: TO974REF is active weekends on May, 40 through 10 meters, all modes, celebrating the Réseau des Émetteurs Français (REF) anniversary. The REF is roughly the French analog of our ARRL.

Aland Islands: From May 22-27, 2025, OH0ERF is on 40-2 meters, all modes, and QO-100 satellite. It is German ops activating these islands in the Baltic Sea, between Sweden and Finland, northwest of Estonia.

Kosovo: Z68TT and Z68ZZ are being activated from Kosovo by five Italian ops. They're activating

80-6 meters, all modes including RTTY and FT8, from May 6th through the 17th.

See you next month,

-Michael AA9RK





Green Bay Hamfest

Saturday May 31, 2025 from 8 'til Noon

At the Our Saviour Lutheran Church 120 South Henry St.



Henry

E. Mason

Exit 183

E. Mason

On Green Bay's East Side, just off Main St. at the corner of Deckner Ave. and Henry St.

Entrance tickets \$5 per person

Great Commercial Vendors Featuring Tower Electronics

Your one stop shop for all the radio and antenna accessories that keep your shack on the air.

Wolf River Coils offering a variety of products for mobile, portable, and base station needs.

C3 Electronics providing Bandpass Filters for your favorite HF bands. OTHER COMMERCIAL VENDORS INVITED

Huge parking lot for trunk sales/tailgating, PLUS plenty of space indoors with tables available for only \$10 a piece! (Parking lot and facility open for set up at 6:00 AM)

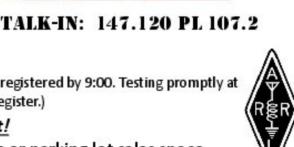
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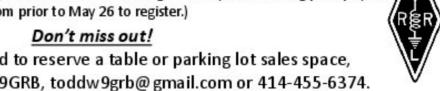
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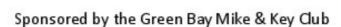
Be part of the fun!

- ✓ Food available on site
- √ 50/50 Raffle
- ✓ "Bucket Drawings"
- ✓ Estate Sale Items
- ✓ Meet our ARRL Section Manager
- ✓ Great Door Prizes
- ✓ Commercial Vendors
- ✓ Lots of Vintage Electronics
- ✓ Grand Prize Drawing (Must be present to win.)
- √ Trunk Sales/Tailgating
- ✓ FCC License Testing (Registration 8:45; must be registered by 9:00. Testing promptly at 9:00. Contact ks9wi@mail.com prior to May 26 to register.)

For more information and to reserve a table or parking lot sales space, contact Todd Clausen, W9GRB, toddw9grb@gmail.com or 414-455-6374.











By Michael Johnson, WO9B

RX-888 MK II SDR Review

A couple months ago, I reported on my new SDR receiver, the RX-888 MK II. At the time, I had just received it with little time to run it through its paces. Since then, I've managed to integrate the device into my shack and have had the time to play with it and see if it was what I hoped it would be. I use an SDR primarily as an HF Pan Adaptor which very nicely fits into my multi-screen, laptop centered ham shack. For several years that role has been filled with either SDRplay or AirSpy devices. Until the RX-888 came along, I was using the very capable SDRplay RSP1A. Despite its steady, reliable performance, I couldn't help but wonder if it was time for an upgrade.



Before continuing, a short pause to set the expectations for this review. This is not a technical, numbers/performance/comparison review. I have neither the gear nor the expertise to deliver on that front. The RX-888 MK II has been available for 4+ years and there are pages of reviews available via the magic of the internet. Google away, you won't be short on videos, blogs and technical articles to choose from. HERE is a good example. Instead, I am taking a more user's approach with an eye towards how well this device is working in the role of HF pan adapter. If that is of interest to you....let's continue.

The Nuts and Bolts

Description: The RX-888 MK II is a16-Bit ADC based SDR with a frequency range of 10 kHZ to 1.8 GHz. The ADC chip can be run at speeds up to 130 MSPS which allows for an astounding 64 MHz of bandwidth. That covers all of HF, up to and including the 6 Mtr band. By comparison, the SDRplay RSP1A is a 14-Bit device covering 1KHz to 2 GHz with a maximum bandwidth of 10 MHz.

Physical: The RX-888 has an all metal housing with significant heat sinks on three sides. It has a single USB-3 input connector and two SMA outputs: One for HF the other for VHF.

Firmware: Firmware is open source and is distributed via GitHub as is common for Open Source projects. It is without a doubt a looser operation than SDRplay or AirSpy. Upgrades might prove to be an adventure, but at this point, I have had no need to explore those options. Device pairing to other software packages (i.e. N1MM+) is via EXTIO, similar to its competitors. I have not been able to connect successfully to N!MM+ to date. Fingers crossed for the future.

Software: Despite issues with N1MM+, typically I am using SDR's in a standalone fashion running a pan adaptor type software. My software choice is SDR Console, though HDSDR and SDR++ are also supported. I have used SDR Console with all my SDR's. It has been a seamless transition between all the SDR manufacturers. There are only slight changes to the menu options presented as a result of the peculiarities of the individual SDR. All the SDR's have worked very well with SDR Console.

Off to the Races

Plugging in and running the RX-888 MKII took a bit of effort over my previous SDR's. Due to its large bandwidth, the data handling and power requirements for the device can be very significant. A USB-3 outlet and cord is needed. The plug is very different for the "B" connection. Fortunately a USB-3 cord was included. Due to the 2A power needs, I am also using a powered hub as I did not want to tax my laptop. Seemed prudent, though probably not required.



The second unique feature of this SDR are the heat sinks. They do more than give it a tough guy image, they are critical. This device runs VERY HOT. To be fair, the amount of heat generated is dependent on your choice of bandwidth. If it is running above 1 MHz of bandwidth, you will need to incorporate some kind of supplemental cooling. I have a USB fan attached to mine that does the trick. Even running full out at 130 MBPS, the fan will keep it cool and under control. None of my other SDR's needed cooling of any kind, so this was new turf for me.

Finally, the correct drivers need to be installed to power the board. I needed to download and install the Cypress drivers, which turned out to be harder than expected. The site rx-888.com has the necessary information, but the process was just not seamless due to some difficulty actually downloading the files. This goes back to my comment regarding open source as the experience is absolutely related to the quality of the maintainers.

In contrast to the firmware drivers, starting the device through SDR Console was easy and trouble free. The extensive menu system in SDR Console takes some getting used to, but as this was the 4th SDR I was using, it was no problem at all. The RX-888 makes only minor changes to the control menus, but in all other regards operates in the same familiar fashion as its predecessors.

Operating Experience

Operationally speaking, the experience has been great. It is impossible for me to differentiate between the RSP1A and RX-888 MK II by looking at SDR Console's display. I "believe" the RX unit is slightly more sensitive and therefore has an additional boggy or two in the spectrum scope, but that is being uber picky on my part. My environment is relatively RF quiet though occasional noise events do occur. The adjustment controls are very effective in cleaning up the display. As is typical of SDR's, gain and attenuation settings need to be adjusted for optimum performance. Once set up, only minor adjustments are needed.

Heat / Fan: Due to the internal heat generated, as mentioned above, a fan is a necessity. I

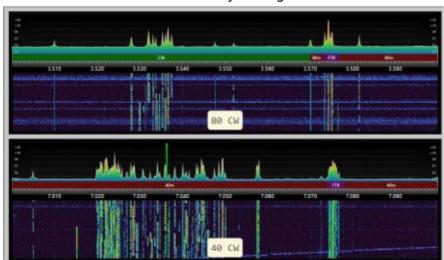
tried running without it for a time, but having an extended bandwidth capability, it is only 12 natural to use it. I am typically running at 8 to 16 MHz of width, so it is Fan On all the time. As such, I have just a bit of constant fan noise. Small complaint, and it is mitigated by positioning it well in the back, but it is still there.

Bandwidth / Sampling Rate: Of all the SDR's I've had, this is the only one that allows changes to not just the bandwidth available, but also to the sampling rate. For HF work, the realistic options are sampling rates of 32, 64 or 128 MBPS. There is a correlation between maximum bandwidth and sampling rate, but all in all the higher the sampling rate, the better the spectrum scope image. It does make a difference and I've been using the higher end more and more. Changes to both sampling rate and bandwidth can occur "on the fly" and do not require a restart.

CPU / GPU Processing: The rule of no free lunch certainly applies to CPU usage. Higher sampling and bandwidths require more computer power. The SDR Console package offers the capability of off loading to the graphics processor (GPU). My computer use is such that the processing load has never been an issue, but I am aware of it and if I am streaming a couple of live video streams concurrently, I'll turn down the SDR rate just a bit. After all, doesn't everybody watch the NCAA Tournament and the State High School tournament while working a CW contest?

Latency: Latency has not been a problem. There is an inherent latency associated with serial port connected devices. That is just the way it is. The pan adaptor display has a latency of a few milliseconds which corresponds to audio latency as well. There is no work around for this. This is only a problem for me when chasing DX working split on CW. Hunting the listening frequency of the DX station can be slightly more challenging as "599 TU" is just a blip on the screen and the chasing hounds will start baying rather too quickly. So that is a problem, but that applies to any SDR in the pan adaptor role.

Bandwidth: My initial plan to use the awesome bandwidth available was that I would monitor all of it, divided into separate ham band windows on my screen. I did that for a couple of days and then just stopped. It was way too much information. Of late, I am running enough bandwidth to monitor two receive bands, which is a very nice thing to have when running a contest. This past weekend, I was working the 7-Land, IN QSO Party, NE QSO Party mash up contest and it was really really helpful to have 20 Mtrs and 40 Mtrs under observation, with cluster spots, both at the same time. It made jumping between bands to pick up mults or Q's and informed decision. Bandwidth availability is huge.



N1MM+: Perhaps my biggest disappointment is being unable to integrate the RX-888 into the 13 N1MM+ contest logging software. The RSP1A operates as the signal source for N1MM's Spectrum Display which provides point/click QSO's and keyboard shortcuts for operating a contest. I use N1MM two or three times each week and am reliant on the Spectrum Display. The work around I had was to replace the RX-888 with the RSP1A unit. Dealing with SMA connectors was problematic and it got easier to only use the RSP1A and the RX-888 sat unused for about a month. I finally realized that both SDR's could use the same antenna feed via a Yconnector. Also, SDR Console supports multiple program instances, so now I could have both SDR's connected to the antenna AND each would run its own SDR Console window on my computer. Viola, this meant I could have my cake and eat it too.

Final Thoughts

What started out as a guest to upgrade my SDR capabilities, has ended up being an addition to the shack instead of a replacement. All in all I am well pleased with the RX-888 MK II. As an SDR, it works well and reliably. It has its challenges, with the largest unknown being continued support for the firmware and software it needs. As is the nature of this type of product, aside from the initial return policy of the seller, there is no tech service associated with it. I doubt in that respect the more mainstream vendors are much different, all living within the borders of their warranties.

I purchased this through the Ali Express website. Given the current circumstances with direct purchases through China, I'm not at all sure I'd do this again anytime soon. For comparison, the RX-888 MK II cost \$160 delivered to the door in February. It is being listed at just above that amount as of today. Amazon has it for \$223, which might be a more sure route.

Editorial

I'm enjoying watching the weather turn to the warm side. This challenges me to think of experiments I can do with antennas outside. First one on the list is to see if a so called "magic carpet" lives up to it reputation.

I will see if it will help my travel antenna, which at the moment I only use one ground wire on. More on this to come

Not much else Ham wise going on. I'm working on my screw driver antenna had some troubles at last QSO party. So far the big problem is time and taking it apart. It doesn't seem like that was a consideration when it was put together! Will see

So that's it for May. Hope to see you at the meeting and at the Sendik's fund raiser. Come buy some thing and/or work. It is one of our fund raisers. The food is good and it is fun to be together for a while.

73

Frank KA9FZR

ELMER

by Rich Regent, K9GDF



2024 Challenge for our membership. Have someone you meet, Ham or Ham wannabe come to a meeting this

DON'T KEY LIKE A PHONE MAN



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: Mike Johnson WO9B

Vice-President
Pierre Porter KD9SSY

Treasure: Bill Reed N9KPH

Secretary: Bill Dargis KD9BJZ

Committee member(2) Jeff Pahl W9JSP Tom Macon K9BTQ

Past President: Feroz Ghouse WU9N

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