



Official Publication of the
West Allis Radio Amateur Club

Hamtrix

[click here to go to web site](#)

Volume 67, Issue 9 October, 2019

OCTOBER CLUB HAPPENINGS



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

Sunshine Committee
If you know of a member who could use a bit of cheer or support,
Barb Garnier (KD9HPS) is now the Sunshine Committee Chair.
Contact her: 414-529-3536 or barbsewsblue@gmail.com.

New Location for Club Meeting
New Berlin Community Center
14750 W. Cleveland Ave.
New Berlin, WI
Between Mooreland and Sunny Slope

HF Circular Polarized Antenna Frank Humpal KA9FZR
Special Events Bill Reed N9KPH

Premeeting dinner
Premeeting Dinner Berlin Ale House 5:15pm
16000 WCleveland Ave
West of Mooreland Rd.

See Page 9 for
2019 annual award's dinner
info
Sunday October 20, 2019
5:00pm QSO Time
6:00pm Dinner

WARAC 2-meter net
Every Wednesday at 8pm
SEWFARS W9TJK Repeater 146.820 standard (-)
offset
127.3 Hz CTCSS
if repeater down try 146.55 simplex

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The President's Shack October 2019

Hi WARAC,

Some months I wonder what I'm going to write for this column. This ain't one of those months. This month we've got nothing but BIG, BIGGER and BIGLIER items!!!

Let's get started.

AWARDS DINNER:

Do not wait to sign up. This is going to be an excellent evening with the greatest group of ham friends you'll ever meet. October 20th is the big date and we are in need of a roomful of wonderful West Allis Radio Amateurs. By the way, the Keynote Speaker is Dr. Joe Salmons from UW Madison talking about, of all things, how we talk in this wonderful state. The title of his presentation is "Wisconsin English" and he comes highly recommended. We are very lucky to be able to entice him to our evening gala. So come on....go see Bill in the back of the meeting room and SIGN UP.

NEW MEETING LOCATION

This will be the first meeting at our new location. This has been a goal of the board for quite some time and we are thrilled to have finally made it happen. Our new digs are at the New Berlin Community Center, 14750 W Cleveland Ave. It is the old New Berlin Library and is located on the north side of Cleveland Ave between Sunnyslope and Moorland. We will meet in the Lions Room. You're going to really like the new location: Nice big parking lot, no stairs, acoustic friendly, handicap restroom facilities. Did I mention NO STAIRS. In no small part, our wonderful relationship with the City of New Berlin was a big help in making this a reality. So a big thanks go to our friends at the City of New Berlin. They have really rolled out the red carpet for us.

NEW PRE-MEETING DINNER LOCATION

Do NOT go to Johnny V's. No more Johnny V's. The new pre-meeting dinner location is the New

Berlin Ale House. They are located at 16000 W Cleveland Ave, just west of the new meeting location. They are a much bigger facility and can handle our business very easily. I've spoken to the manager and they are expecting us, the West Allis Radio Club, on club meeting nites. I've told him to expect a dozen or so for dinner, but more are AOK. You should plan on arriving around 5:15 or so. That will give you plenty of time to get to the meeting. It is literally a 5 minute drive to the new meeting location.

ELECTION NIGHT

The first order of business for the night is Club Officer elections for 2020. If you attended last months meeting, you know the situation. We've got critical openings for President and VP. We need your help, participation, direction and enthusiasm to move the club forward. We had a great info exchange last meeting and I know that helped to bring forward a couple of members helping out with our operations. This is a big deal. We need your help.

I'm out of breath. I didn't even get to the cool part where Frank, KA9FZR finally gets his chance to talk about his circular polarized HF antenna project. Or where Bill, N9KPH regales us with his passion for Special Events Operations. Or the latest in NanoVNA or Lithium Batteries. It's gonna be tough to fit it all in.

See you all at the meeting.

MJ,W09B

Check out our Facebook page!!! Start Posting!!!!
<https://www.facebook.com/WestAllisRAC/> • —• —••

From the Editor

October is here. Maybe we had our last parks-on-the-air for the year. But for some of us it is not that hard to pack up a rig take it out to a park and operate for a few hours and return home. So who knows if we will hear the call of the park. HI HI

Actually we had at least 5 park activations with some

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WARAC Meeting Agenda September 10, 2019

Meeting called to order 7:00 pm

Members: 25

Get acquainted: Introduction of members and new members

Announcements:

-Sept. 17th, Calhoun Park Activation, 11am-2pm

-Sept. 21st, Wisconsin POTA, Bong Recreation Area, Site 7, which has shelter and power. All members invited, coordinated by David Garnier, WB9OWN.

-Sep. 27th & 28th, HRO Superfest

-Annual Awards Dinner on Sunday, Oct. 20th at New Berlin Hills. See Hamtrix for details.

-Today is last meeting at the church, so we need to clean out our cabinet.

-Oct. 8th meeting will be at our new site, the New Berlin Community Center at 174th and Cleveland.

Discussion held on future of the club. October is the month to elect new officers, and we need candidates for President and Vice-president. Job descriptions reviewed, along with volunteer numbers needed for Swapfest and Field Day. Do we continue with them and the annual Awards Dinner, or do we back off? Safety issues of our graying membership discussed. We have run the club in the past without some officers for several months. Options discussed.

Financial statements shared with the members present.

Our club's purpose is to provide college scholarship money to young hams, currently administered by the ARRL. If we disband, all monies would be transferred to the ARRL for continuing the scholarships.

Meeting adjourned 8:40pm, refreshments and eyeballing followed.

Respectfully submitted,

Barbara Garnier

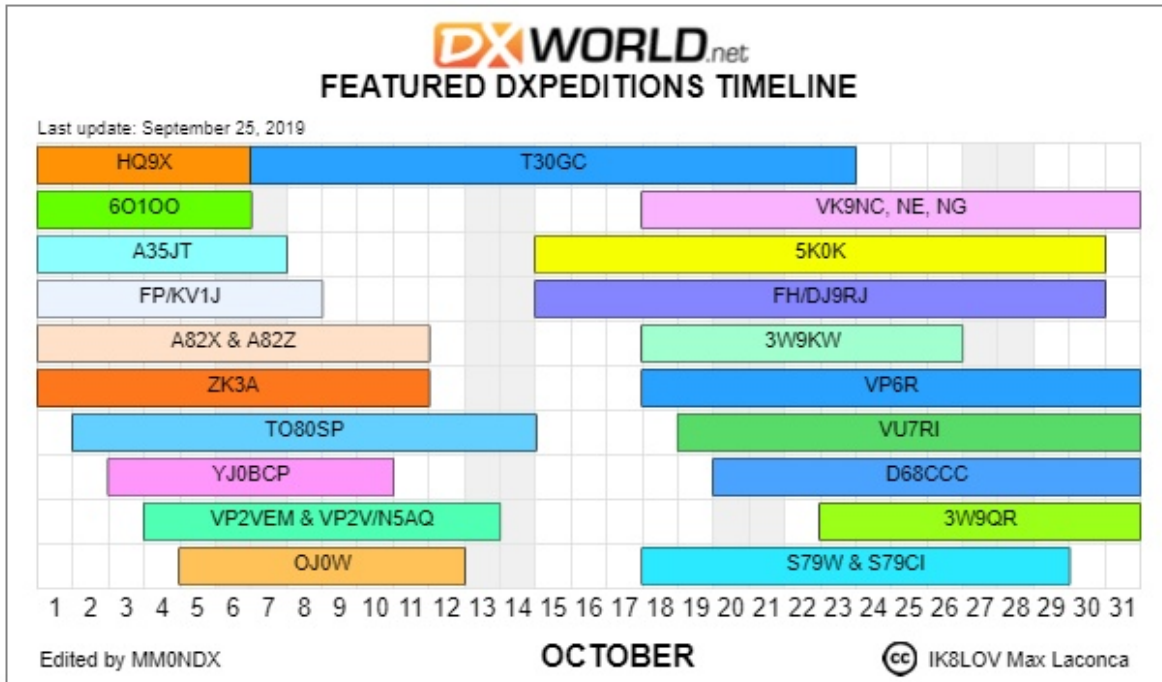
KD9HPS

DX / CONTEST UPDATE

By Mike Johnson WO9B

http://www.hamradiotimeline.com/timeline/dxw_timeline_1_1.php

DX: I've changed the reference website for DX news and updates. Dx-world.net is my latest go to site. The graphic below is clickable on the here and on the DX site and delivers solid information on the various operations. The long and short is that band conditions are poor and expected to remain so through 2020. That means your skills and patience will again be tested. Expect many hemisphere operations to go off...and those should be workable by anyone who is HF capable.



Contests: This is the month for State QSO Party Contests: CA, AZ, PA, NY, IL. Of the group, CA is always a house-a-fire event. It features the unusual feature that CA stations can only talk to non-CA stations. It is always a good time and is busy on the bands. Also, we get the SSB edition of the CQ WW DX contest at the end of the month. That's a major.

CA QSO Party Contest: <http://www.cqp.org/index.html>

CQ WW DX, SSB: <https://www.cqww.com/rules.htm>

And to check on all the contests: <http://www.contestcalendar.com/index.html>

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Portable Ops Power

By Mike Johnson, WO9B

This year I used the WARAC Mid-Week Park Operating Events to fine tune my setup for outdoor battery powered operations. In March, I gave up my QRP radios in favor of a Yaesu FT-891 which also became my base station radio. This has not been a totally great decision on my part, but the long and short of it is I still have the 891 and have no immediate plans to part with it. That's a different story.

My goal for the year was two fold: The primary goal was to get the gear ready for the WI QSO Party, a task much easier in the summer than the winter. The secondary goal was to enable digital and CW/SSB operations via backpack portable. The focus of this article is on the second goal which proved to be both fun and challenging. However, as the seasons change into the chill of fall, I think I've finally gotten there.

So what does "getting there" really mean? What I was looking for was to be able to operate digital (FT8) and CW for roughly 2 to 4 hours completely off the grid and at NON QRP power levels. Where my heart is certainly into QRP, the propagation reality dictates a different strategy. So I determined I will need roughly 20 to 30 watts of power keeping in mind that it all has to fit into a backpack. I'm no Recon Marine, so weight is pretty important. 20 lbs is about my comfort limit. To get there, everything had to consist of Little Boxes. My whole setup now consists of a



bunch of Little Boxes.

The picture shows pretty much everything needed for a field op. 891, RPi 2, SignalLink, Keyer, EndFed Antenna (Resonant on 40, 20, 15), Wi-Fi Access Point and I-Pad. Actually, I can use my phone in lieu of the I-Pad, but I'd rather have a bigger screen. The missing piece to the puzzle is the 12 V battery. And that, is the big deal as that can weight as much as everything else.

Battery sizing and chemistry were the two primary considerations. I have a Sealed Lead Acid (SLA) battery on hand. It is a 9Ah size and has performed well for the past 4 or 5 years. It is getting a bit long in the tooth and its capacity has degraded considerably. It is fine for QRP ops, but at higher power, it is not so good anymore. Its size is OK, but it is due for replacement. I was strongly leaning toward a Lithium Iron (LiFePO4) battery given its outstanding nearly 13V+ discharge curve. That pretty much made the decision for me. LiFePO4 it is.

The downside to the LiFePO4 battery is its initial cost is considerably higher than SLA. That cost however is somewhat mitigated by a life expectancy measured in 1000's of recharge cycles. This literally could be the last battery I purchase. Additionally, given the favorable voltage discharge curve, a LiFePO4 battery has something less than twice the available Ah's of useable capacity over a similar sized SLA. Size and weight also offer some advantage too.

I was stuck on the Ah capacity. It is very tempting to jump into the more is always better mode. Portable ops where everything is being lugged around on your back change the decision from more is better to what is necessary. I put together the following chart to guide my decision:

Battery Capacity	Hours of Battery Life @ 25% Duty Cycle			
	Radio Power Level (Watts)			
	5	30	50	100
8	20.5	3.4	2.0	1.0
16	41.0	6.8	4.1	2.0

The assumptions for the chart were based upon the current draw for the FT-891, a radio that is kind of battery hungry and duty cycle. I also realized that for the most part I will be doing CW only operations. To get to a 25% Duty Cycle on CW is pretty hard to do. FT8 modes are a different story and I'd guess 30% to even 40% is not hard to imagine. Given the numbers, the smaller battery was the call.

200A RATED!
LiFePO4



The last decision was to buy or build. If you've followed W9PCS's battery journey over the past 6 months, building a LiFePO4 battery is not that hard. Also the ready to purchase options from Bioenno or Dakota are very attractive (both have 9Ah products for \$120 w/ Charger). I ultimately decided to do a battery build using four 8Ah Headway battery cells. Each cell has an unbelievable 200A current rating, but they also are assembled using connector plates to a screw terminal on each pole of the battery cell. No spot welding needed. They literally screw together. It could not be easier.

Though the cells can deliver 200A, clearly that is way more than my needs. A critical component in these devices is a control board called a BMS. The BMS acts as a output current limiter, charging monitor and provides cell voltage balancing. I chose a 30A BMS. The commercial batteries limit the current output in their 9Ah batteries to less than 20A. In this case, more is better as some headroom under the max may

be helpful down the line. After all, this is the last battery I'll buy, right?

Oh, and the final price tally, just for the heck of it. Battery cells, terminal hardware and charger ended up at about \$95. So economics is not really significant. The current capacity and form factor really made the difference for me. —• —•

Hamtrix Sale Corner

This month we have a listing of club donated and member items:

- **Yaesu FT-920 HF transceiver** with a new mike and power cable. Will not transmit on AM—processor chip is not longer available. New hand microphone and power cable included. Instruction manual is available online. Very good condition. Asking price is \$500.
- **Kenwood TS-570(S)G HF/6m transceiver** with mike, power cables, instruction and service manuals. Recently checked over by AVVid: “checked OK, very clean radio, inside and out”. Asking price is \$500.
- **Rohn 25 tower, 30 feet**, good condition and included is a rotator mounting plate. Asking price is \$120.
- **Alpha Delta model DX-LB Plus** multi band long wire antenna, 100 ft. long. Excellent condition, for sale at \$100 OBO.
- **MFJ-4245MV, 45 Amp switching power supply**. Very good condition. For sale at only \$75.

For additional information about the above items, contact Phil, W9NAW, 414-425-3649.

Phil, W9NAW

3 Oct 2019 • —• —•

See Dave Garnier WB9OWN to pick up your badge!

KD9LCT Ken Kegley
KC9PQD Ron Clayton
KC9JET Paul Hass
KF9K Jim Nickel
W9DC Conrad Harold
AA9SY Bob Schwigel
KC9REN Dean Berglund
KC9SBN Darlene Berlund
KD9IGO Fred LeMere

Wisconsin Parks On the Air (WI-POTA) contest 9/21 by David Garnier WB9OWN

I operated Wisconsin Parks On the Air (WI-POTA) contest 9/21 and invited the West Allis club (WARAC) members to come join me. "Bring your radios, food and come an operate." "Everything is negotiable." At this point the only certainty I knew, I was going to be there.

As the weekend approached Chuck, W9WLX, indicated he wanted to operate. I was expecting a visitor KB9MHH to operate a 2 meters station but family illness intervened. Barb, KD9HPS, also bowed out due to illness.

Friday night before the contest it felt frankly chaotic until I received a text "This feels like FD." I knew I was good company.

When I arrived at the park, check in was needlessly confusing. Online registration indicated check-in was necessary to obtain my permit. The visitor center hadn't opened yet, so I backtrack to the entrance booth, I asked about my permit, "Oh, isn't the permit posted at the site?"

Arrived at Shelter E and hung the club banner...



Surprise, I found all of the shelter's 120 Vac outlets were dead! Closer look revealed the 120 Vac outlets were GFI type and all of them were tripped! Pressing the Test buttons a couple of times cleared the fault condition. Phew.

When Chuck arrived the winds had picked up from the east and setting up Chuck's inverted V became a challenge.

We ran 2 stations, I ran 75m with my Icom 7300 and Chuck ran 40 & 20 with Flex 6700. Chuck's 40/20 inverted V was installed in front of the shelter, my 75m V was installed in back of the shelter along the tree line. Final configuration of the inverted V's was 125 feet apart perpendicular orientation, but it didn't start out that way!

A couple club members operated behind the microphone, Mike WO9B ran the 75 station for a while and Mike AA9RK and Max ran 40/20 station. Ron, KA9JCP, contacted with us on 75 but he wasn't heard on 40. Thanks for Q Ron!

Thank God I rented a shelter; it rained 4 hours and what better time to be messing around with antennas than in the rain.

- I first tried 75 meter horizontal dipole 3 feet off the ground (NVIS) but it didn't hear very well. Dang.



this brilliant idea... I parked my car halfway in the center of the parking lot and tied off the end of the inverted V to the side view mirror! That did the trick, I experienced no interference after that. Tho I was wet! ;-)

Thanks to Mike Johnson and Howard Smith for their assistance which smoothed out our over on the air operations. • _ • _ •

- Then the apex of the 75m dipole was hung from a tree 20 feet off the ground. Now 75 is starting to play but with Chuck operating on 20 or 40 I was experiencing S5 IMD basically wiping out weak 75m signals. I was starting to get a run going but I was getting jammed. I got fed up.

- Got this idea, Why not rotate the ends of my V to be 90 degrees to be perpendicular to Chucks V (to greatly reducing the horizontal coupling?) Now it's beginning to pour. "How am I going to pound a stake into the parking lot? The I got





WARAC ANNUAL AWARDS DINNER

Sunday, October 20th, 2019
5:00 PM QSO Time – 6:00 PM Dinner



New Berlin Hills Golf Club
13175 W Graham St
New Berlin, WI 53151
(262) 780-5200

WARAC Activites

The year in review

- WIQP
- Swapfest
- Field Day
- Club Contest

Presentation of:

- 2019 Scholarship Award Winner
- Years of Membership Awards
- Contest Awards
- 2019 Member of the Year

Program Speaker

Dr. Joe Salmons "Wisconsin English"

Dinner Menu

Your choice of

Parmesan Crusted Chicken with choice of Bruschetta or Toasted Red Pepper bread served with Wild Rice and Steamed Broccoli and Spring Green Salad

or

Pork Tenderloin Medallions with Cherry Glaze served with Roasted Red Potatoes and Steamed Broccoli and Spring Green Salad

Ticket Price: \$22.00 per person, tax and gratuity included

Sign Up Deadline: October 13th

Sign Up and Payment Options:

Sign Up at any Club Meeting, See Bill, N9KPH

Mail Check Payable to WARAC (address below)

 **PayPal** to waracpp@warac.org (Use Friends and Family Option)

WARAC Calhoun Park outing on 9/17/19



Thanks to Lee Todd
K9HCW for the pictures

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U.S. Navy Radio Operator

Contributed by

Glenn Miller Festival 2004

People in story:

Joe Pearson

Location of story:

Plymouth, North Africa, Sicily, France.

Background to story:

Royal Navy

Article ID:

A2963270

Contributed on:

01 September 2004



PLYMOUTH

I worked mostly below deck as a ships radio operator. One time we came into Plymouth for a mail run. We tied up the dingy collected the mail and went for a few beers. When we went back to the dingy - tide was out — no water — so back to the pub. There was plenty of trouble when we finally arrived on board.

NORTH AFRICA

During the North African campaign I was on a LST306 (Landing Ship Tank) supporting the war effort in Tunisia. In particular the port of Bazarti.

We were preparing for the landings in Sicily, the

harbour was full of invasion craft and a certain young man by the name of Bob Hope and a lady by the name of Francis Langford came out to do a show for the G I's.

For the previous few weeks it had become routine for German Bombers to fly over at sunset, and this night was no exception, Bob Hope had just walked out on stage when Jerry came over sealing the end of the show, and caused 100's of small boats to rush their crews to their ships thus ended the USO show.

Bob Hope later wrote that this event was the reason he never left the old U.S. again.

SICILY

The landings in 1943 in Sicily were actually our first amphibious invasion which we learned what can happen in bad weather and high seas. It was very nearly a disaster but we did prevail. The sea was full of capsized small craft and dead bodies.

This was also our first time of misjudging the length of our retracting stern anchor and the distance to the beach from our drop off point. Consequently we beached high and dry had to wait for help to get off the beach.

Some of the crew had never seen the ship out of the water before and got off and walked around it. We did get successfully off the beach after several hours.

SALERNO ITALY

Following the landing in 1943 in Sicily we returned to Bazarti and refitted our ship for Salerno. On this trip we carried British troops.

When we arrived most of the beaches were under very heavy fire most of the time. In my confined radio room I could hear the bombardments and feel the vibration of the bombing. We were in a fortunate position that the Germans could not fire directly at us. We completed our landings.

Much to our surprise we found ourselves acting as a field hospital receiving British casualties in great numbers. It was a sad situation because we only had two first aid medics on board and no doctor. Every man on board who could be spared came to give a hand to do what we could to help the wounded troops. To this day I still feel bad that the guy I tried to help died. I was 21 and most of the casualties were in their 20's.

FRANCE

On 'D' Day my ship LST 306 which was a large slow target. I was in the first wave that went in at low tide. Approaching the beach we released our stern anchor too soon and lost our only means of retraction from the beach. We unloaded our cargo of tanks and landing stock and spent a long time attempting to get off the beach, which was under heavy fire. We were successful and had no casualties.

PRISONERS OF WAR

We were transporting German Prisoners of War one time, and although we weren't supposed to talk to them at all, I asked one why the Germans supported someone like Hitler. He replied that Hitler to the Germans was just like Roosevelt was to us Americans.

<https://www.bbc.co.uk/history/ww2peopleswar/stories/70/a2963270.shtml>





Beam Waveguide Cluster



The 34-Meter Beam Waveguide (BWG) Cluster of three antennas was constructed from 1992-1996. These antennas were the first DSN operational antennas to utilize the beam waveguide design that moves weather sensitive electronic equipment into an underground pedestal, instead of a centrally mounted feed cone structure. The use of the underground pedestal allows for easier repair, maintenance and upgrades. These antennas are equipped to handle the communications needs of a large variety of deep space missions. In addition, these antennas may be arrayed together with the 34-Meter HEF antenna to provide the equivalent communications performance of the 70-Meter antenna.

Editor from page 2

Club sponsorship. Mainly we just chose a time and day. Then show up with what you want to show off and/or operate with.

That gave us a wide range of experiences. E-bicycles, Satellite radio, Meteorite Scatter, battery packs etc .

My job at the next meeting will be to give a talk on my circular polarized HF antenna. I will also get to see how the new meeting room works for giving talks.

Don't forget about the new meeting place and the Awards Dinner. Should be a fun month.

Frank KA9FZR • —• —••

Officers and Board

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Mike Johnson WO9B

Vice President

Steve Dryja, NO9B

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Barb Garnier KD9HPS

Treasurer

Bill Reed N9KPH

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Frank Humpal, KA9FZR

Phil Tollefson, WA9AQL

Newsletter Editor

Frank Humpal, KA9FZR
fhump@milwpc.com

Webmaster past president

Tom Macon, K9BTQ

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

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PO Box 511381
New Berlin, WI 53151-1381**