

# Hamgram

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Newsletter of the Winona Amateur Radio Club, Inc.
-- When All Else Fails...AMATEUR RADIO --

November 2015

# WARC November Business Meeting & Program-Nov. 19

<u>WHAT</u>: November Semi-Annual Business Meeting. It's time for a full business meeting and election of three Executive Board members. Term of Paul, K0ZYV; Harro, KG6RLM; and Syed, AC0VA, expire at the end of this year. All three have indicated interest in being on the slate of candidates for the next term. In addition, nominations from the floor will be accepted at the meeting. Be sure to attend this interesting session to learn of the many, many activities of the club in the past year and have a voice in the direction of the club for 2016 and beyond.

There will also be a short program, "The Great Capacitor Plague," by Len, KCORSX. See if your equipment is infected and what treatment is available. As usual, there will be a social time after the formal portions of the evening.

DATE & Time: Thursday, November 19, 2015 – 7:00 PM

<u>WHO</u>: All amateur radio operators and other interested persons are encouraged to attend.

<u>WHERE</u>: Conference Room B, Winona County Office Building, 202 West 2nd Street, Winona, MN. Doors will be unlocked from 6:45 to 7:15 PM. If you are late, please try the 146.835 repeater to have someone let you in.

### **UPCOMING CLUB ACTIVITIES**

**ARRL Sweepstakes-SSB** Options and plans for the November 21-22 ARRL Phone Sweepstakes will be discussed at the November program.

Skywarn Appreciation Day We are all invited...to the La Crosse National Weather Service for Skywarn Recognition Day on Saturday, December 5. Drop by the La Crosse weather station any time between 8:00 AM and 4:00 PM for some good food, talk, operating time, and/or a great tour of the weather station. No RSVP required. See <a href="http://www.wrh.noaa.gov/mtr/hamradio/">http://www.wrh.noaa.gov/mtr/hamradio/</a> for more details about this national event.

<u>January Holiday Party</u> Mark your calendars for the upcoming holiday party—<u>Thursday, Jan. 21, 2016</u>. Plans are in the process of being made for another fun and enjoyable evening. More details will be available next month.

Did you know that there were <u>731,941</u> amateur radio licensees in the USA as of September 30 this year? This is a new all time high. (Per the FCC license database.)

HBCI has agreed to donate an Internet link for the WARC to use at the Witoka tower. Thanks to Dan WK0W, Paul K0ZYV and others who worked on obtaining this important resource for the club.

## Great Time at K9P in Trempealeau



Finishing up lunch—Bob W9LSE, Stephanie, and Dan WK0W.

The weather cooperated, the food was good, and band conditions cooperated. All made for a really great time at the Trempealeau National Wildlife Center on October 17.

Well, the equipment could have gone together without a couple of minor hiccups—a hiding power cable for the Riverland station and a disguised interconnect cable for the Winona set-up. But both hiccups were resolved after a little looking and thinking (typical ham radio "stuff").

Radio operations were relaxed for the day. It seems that the participants were as interested in talking among themselves and trading stories as they were about getting on the air. But many contacts were made, especially with Boy Scout on JOTA outings and youngsters working on the School Roundup event.

We also had a first-time operator join us for lunch and her first QSOs afterwards—Stephanie, a part-time employee of the refuge. She had some nice contacts and smiled a lot as she tried her hand with the mic—so we think she enjoyed the experience.

Thanks to the Riverland ARC for taking the lead in this fun event and to Lance, KB0YJU, and others from Winona for jumping in to help make it work for all of us.



Stephanie making her first Qs.

# **WARC Repeater Update**

By Erik Brom, WB0NIU

Considerable work is going on with the club's voice repeaters!

At the 146.64 MHz site, we completely rebuilt the DC backup power distribution system to eliminate a lot of mess inside and behind our rack. This was done with donated materials. Thanks to Dale, KE0EKD, and Dan, WK0W, for work at the site. Unfortunately, at the end of this work we discovered that the repeater's DTMF decoder was not working, so we are unable to change the tail message back to normal. We are going to temporarily install one of the surplus Motorola repeaters donated to us by Winona County while Matt, KF0Q, troubleshoots the issue. This gives us a chance to set that up so that it will be easy to switch repeaters around in the future in the event of a failure. Les, K0BAD, is setting this up.

At the 146.835 site we have been working to determine why the receiver is being de-sensed by the transmitter. First, we found that the connecting cable between the duplexer and the lightening arrestor was shorted out. Mike, W0VTT, donated a new cable. That helped but did not completely solve the problem. With the help of Syed, AC0VA, Dale, KE0EKD,

and Tom, KC9ECI, we took a lot of measurements and determined that the duplexer is not working up to specifications. This is odd, since it was purchased new for this repeater and has not been touched since. Along with the Motorola repeaters mentioned above, the county has also donated some surplus duplexers to the club. As of this writing, Syed, AC0VA, Dale, KE0EKD, and I are in the middle of retuning one of them. If we are successful, we will swap it out so that we can bring the original one down for troubleshooting.

The Fusion 444.225 MHz repeater is at the Witoka tower site. It is working well, but that location creates some shadows along the Minnesota bluffs. Overall coverage is still being evaluated. Your reports, especially from out in the county ("out county Winona"?) will be appreciated.

The WONE APRS node is on the air, but intermittent. We have not determined the root cause, and Lance is continuing to troubleshoot.

Erik

## Moving "UP" in Ham Radio

By Bob Seaquist, W9LSE



For some time my Ham radio experience has involved shovels, wheelbarrows, fence post drivers and some solder but no RF. I am now back on the air after a lot of planning, a lot of spending, a lot of worrying, help from a couple buddies and a sign company crane -- first contacts were a Dutch Ham in Bonaire and a Cuban. The World Headquarters of W9LSE

finally has a real tower, a real antenna and some real RF!

I had an ancient TV mast from my wife's parent's home for more than a decade. It was from the early 1950s, a lightweight, telescoping structure that (apparently) extended about 35'. I was terrified raising it above 20' but that was enough for a 2m/70cm antenna and a G5RV inverted Vee. It died of rust last spring; the creaky, frail old tower teetered on two legs, though only one of the two was any good. I hastily took it down. That ended all my HF operations for the past several months.

Lightning struck in the form of a zillion volts of real

lightning blasting the Winona home of Tom Mauszycki, KA0MLO. His insurance company bought him a brandnew beam (and a huge home remodeling) and his generosity gave me his undamaged HyGain five element, three band beam and a really big 2m beam. I dismantled the beams and hauled them home, storing them in the garage until I could find a decent tower.

As fate would have it, I found a Rohn HBX tower for sale. It is a nice tower but it turns out not to have the wind load capacity I needed. Back to searching and planning.

Wind load, grounding, construction, and safety were among many things I learned in the process of putting up a useful tower. Absolutely my best purchases have been two books, ARRL's "Antenna Towers For Radio Amateurs," and Steve Morris', K7LXC, "Up The Tower." They provided guidance and considerations for an important - and expensive - project. It would have been very easy to buy a used Rohn 25, the "standard" for Hams, and put it up. The serious (VERY SERIOUS) questions of "will it remain standing?" "Is it legal?" and "What about lightning?" would not be answered.

Both books are very cautious about used towers because of potential structural problems not to mention going to someone's home and trying to safely dismantle an old tower. I know it is a violation of Ham law to buy something new but I decided it is a once in the lifetime purchase. I also decided it should be safe: no more used, rusty steel, no more threats of lightning zapping my gear, no more fear of a tower falling into my neighbor's bedroom.

The tower had to be self supporting because I have no place to put guy wires and it had to be 45' or less because of city zoning regulations. Additionally, it had to withstand at least 10 square feet of wind loading. After some shopping I summoned some courage and coughed up some (lots) of cash and ordered a brand-new, aluminum Universal 40' tower.

If only the process would be so easy that you could just order a tower. But "no," with Ham radio, some adult assembly is required. Like pouring a 6,000 lbs concrete base, driving many ground rods plus bonding the grounding to the home's ground, getting coax to fit and more.

But first....there was the old Sakcrete base to remove. Too heavy to dig out, a rental jackhammer was required.

For your future reference, rental jackhammers are awkward, heavy and heavy and awkward.

Two hours of chopping away the old block damn near killed me - I was way too weak to even call first

responders for help. The revenges of age and conditioning hit me like a brick (propelled by a jackhammer): professional help was required! I possibly could have soldiered on and saved some money but common sense and some Ben Franklins brought Wellendorf Contractors of La Crescent to the scene excavating a foundation, setting forms and pouring the 7,000 lbs of concrete.

A four foot cube of concrete takes a month to cure so in the meantime I made up coax, rehabbed a used rotor and controller and asked lots of questions.

Greg Miller, KA9FOZ, gave a very good piece of advice when he said he used Coulee Sign Company's crane to lift his tower and antennas. It is either that or three old, fat, bald guys struggling with 45' of aluminum topped with lots more aluminum.

The crane came, it slowly lifted this lovely structure to its base and all was good! A few connections, a lot of cleaning to satisfy the wife and the radio went on the air.

The first two contacts, both returning my call on the first try, were with a Dutch Ham vacationing in Bonaire and then a Ham living in Havana, Cuba!



Minutes of the October WARC Board Meeting are below. Minutes of the November meeting will be published when available.

Minutes of October 2015 WARC Board Meeting held at Watkins Hall, Winona State University.

Present: Lance (KB0YJU), Syed (AC0VA), Harro (KG6RLM), Dan (WK0W), Paul (K0ZYV) Les (K0BAD) attended the meeting from Hawaii via Skype.

Call to order by Paul at around 7 PM.

Agenda
Minutes
Treasurer Report
Committee Reports
Other
Education Committee (Licensing Class)

Paul called the meeting to order at 7 PM.

#### **Minutes**

Minutes of last Meeting was approved. Board members took a bit of time to read through the last Board Meeting Minutes. Les mentioned he did receive the Minutes in Hawaii. No further discussion in the Minutes.

#### **Treasurer Reports**

Treasurer report was next. Harro had a correction on the treasurer report. Lance inquired if the checks written to Farmer Chris (APRS site) got cleared. Harro replied he did not see the checks being outstanding meaning the checks must have been cleared. Treasurer report was approved. Paul mentioned he is talking to some people to become member. Harro mentioned he has not received any bill from Matt yet. Paul mentioned Matt is not done with the work at the site.

#### **Committee Reports**

Dan's report of Public Services Committee:

Dan's report is appended at the end.

Board then discussed about 220 V/120V outlets of Witoka site and also of the power conditioners there. Les mentioned to take the model number and search the internet about the conditioners. Dan mentioned need to clean up the Witoka site. Paul can store the duplexers if need be. Matt has some UPSs from RTP. Paul mentioned to take on the offer. Paul has not been able to get hold of HBC to get internet on the Witoka site. Paul updated Board on Mike's work of Remote Operation. Mike has been very active on the project. Paul mentioned Mike is working on Remote setup of club Repeater Station. Mike is facing some challenges but he is working the issues. Paul could not get EchoLink to work other than as client.

Les mentioned he should be in Winona by the time next Board Meeting comes up.

Lance presented report on behalf of Erik:

"Erik is still working on mesh network. Erik is working with Jim on the project.

Dan mentioned if there is interest to go to Witoka tower and clean up the site. Board then discussed more on the cleanup project. Paul can put on the Reflector to get help. Les mentioned the duplexer's should not be that heavy. Paul mentioned we have bucket full of stuff that Les can look into when he is back.

Paul mentioned planned licensing class has only one person and also that person can't start right-away. We do have two more interest since then but none of them wants to start right away. Paul suggested we postpone the start of Licensing Class. Lance proposed to postpone till last Monday of January next year. Dan inquired if we can provide the books to prospective students to study. Paul replied we do not have the books yet. We buy them when we start the classes. Club does own two Manuals. Dan mentioned Les did publicize the classes very well. It was well advertised. But just did not generate interest. Lance motioned to postpone the classes to a time suitable for prospective participants of licensing class. Lance thinks we should postpone to Last Week of January. Motion was approved. On discussion Dan mentioned when we start the classes we can advertise again to see if we get more interest. Lance will inform Len of the postponement of the class.

Lance mentioned that "transceiver for the APRS node has died". There is a Kenwood radio for sale in town. Lance mentioned this is the third rig we lost at the APRS site. This does trouble him. When he went last time, he found out back Antenna Cable loose. Lance mentioned Transmitter does not work. Receiver is fine. Lance mentioned Erik is working on some rigs for the purpose but not ready yet. In the short time Lance will run the node from home until we work out a more permanent solution there. Erik and Paul will work on bidding the rigs on Craigslist. Board approved pursuing to purchase the rigs from Craigslist.

Paul had question to Les about some leftover items from Field Day. Les did clarify what the item were. It is programmable Repeater. It is not tooled for 440 Repeater but for higher frequency.

Lance mentioned October 17th is Trempealeau Wild Life Refuge Event. Lance would like Club to provide the Transceiver and Vertical Antenna for the event. Paul and Lance will work together to get all the stuff for Rig and Antenna.

Lance shared his communication with the Cummings family about late Matt Cummings ham radio stuff. Matt did have some of club gear and also of personal gear of some club member. Lance will get the name of Charity that Family member prefer for the club donation in the name of Matt Cummings.

#### Meeting was then adjourned.

Dan's Report of Public Services Committee (not attached)

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### The Winona Amateur Radio Club, Inc. P.O Box 1264, Winona, MN 55987-7264

#### **Executive Board**

President: Paul Schumacher, KØZYV

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Secretary: Syed Faruque, ACØVA

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Members: Dan Goltz WK0W

Leslie Hittner K0BAD

Dues: \$25.00 per calendar year per license holder.

\$30.00 per calendar year for all licensed members of the same family within the

same household.

Dues should be sent to: Harro Hohenner, Treasurer, P.O. Box 1264, Winona, MN 55987

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Board meetings are announced in advance (WEPNet).

Monthly club programs are held on the third Thursday. The submission deadline for the *Hamgram* is Wednesday of the week *prior* to that of the club programs.

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#### Winona ARC Repeaters:

146.640 (100.0 Hz) \*

146.835 (131.8 Hz) \*\*

444.225 (100.0 Hz) FM Voice & C4FM Digital

- \* SKYWARN Net When Activated.
- \*\* Sunday Night Net-8:30 PM Local Time.



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