



Hamgram

Newsletter of the Winona Amateur Radio Club, Inc.

-- When All Else Fails...AMATEUR RADIO --

September 2015

www.w0ne.org

WARC Sep. Program- Sep. 17

WHAT: September Club Program: Mike Foerster, W0IH, is opening his home station to the club for an interesting “field trip” this month. Mike plans to emphasize the two antennas recently featured in his QST articles—a 40 meter antenna using a TH11DX beam and the "W0IH Dipole" that tunes the full 75/80 meter band. Mike’s station also has some comprehensive remote control capabilities and a “K3 Line” as a central feature. Please be sure to attend this month’s great program.

DATE & Time: Thursday, September 17, 2015 – 7:00 PM

WHO: Due to space limitations, it is requested that only club members attend this month’s program.

WHERE: Mike’s home at 1403 Foxcroft Place, Winona--south on Pleasant Valley Road (Cnty Rd 17), 1st left onto Wildlife Drive , left at “T” onto Valley View Drive, and finally first left onto Foxcroft Place. Click [here](#) for a link to the location on Google Maps.

UPCOMING CLUB ACTIVITIES

Technician Licensing Class

Paul K0ZYV indicates that there will be a Tech class beginning in early October. More info will be available soon. Please be thinking about any of your contacts who might be interested.

Trempealeau NWR Special Event-K9P

The Riverland ARC has again obtained special event call sign K9P for this year's National Wildlife Refuge Week. In the past, the Trempealeau National Wildlife Refuge special event has been a fun joint activity for the Winona and Riverland clubs. Coordination is in progress—date is Saturday, Oct. 17.

ARRL Sweepstakes-SSB

Lance KB0YJU is wanting to know the club's preferences for this year's ARRL SSB Sweeps. Please let him know if you would be willing to host a club station, help set up, and/or operate at a club station for the event this year. Sweeps can be a fun event—especially for newcomers and hams without good HF capability at home. Week end of Nov. 21-22.

You may now post pictures and files directly to the club's [Facebook page](#). Please feel free to share your current successes, trials and tribulations with others as they occur!

The Radio System Bringing Connectivity to the Toughest Environments in the World

Adapted from an article by Eeva Haaramo appearing in *Norse Code*—Sep. 4, 2015

For some, not being connected may sound like a paradise, but if you're tanker in the middle of the ocean or conducting a military operation in a far corner of the globe, bad connectivity can cause more than a few headaches. Such remote areas have traditionally been the domain of satellite communications, but now Finnish startup KNL Networks claims to have developed an alternative that is not only cheaper but offers reliable global coverage.

KNL has been developing its Cognitive Networked HF (CNHF) radio system since 2011, when the company was spun-off from the University of Oulu's Centre of Wireless Communication. Although it's called a radio system, CNHF is far from your in-car entertainment: it uses shortwave radio transmissions to send and receive any form of digital data, including files and real-time location data, over thousands of kilometers.

The technology behind the system combines traditional high frequency (HF) terrestrial radio technology with modern [cognitive](#) and [software-defined](#) technologies.

The latter is key, as it replaces typical hardware components (such as mixers and amplifiers) with software, enabling it to work even in the most demanding environments. Meanwhile, cognitive radio can intelligently detect the wireless spectrum in its vicinity and automatically change its transmission or reception parameters according to what is the optimal wireless channel available.

The CBHF system is seen as an alternative to satellite communications, offering connectivity in parts of the world not subject to reliable satellite coverage. It also offers a dedicated one-to-one link for the user which improves throughput rates compared to satcom. Additionally, the link provides a level of security which is further enhanced in the commercial and defense applications by internal encryption.

Perhaps this technology involving software-defined and cognitive technologies will find its way into amateur radio. It's worth watching. Check the link [here](#) to the full article in *Norse Code*.

Final minutes of the August WARC Board Meeting are below. Minutes of the September meeting were not available at the time the Hamgram was released. They will be included in next month's issue.



Minutes of August 2015 WARC Board Meeting held at Watkins Hall, Winona State University.
 Present: Lance (KB0YJU), Syed (AC0VA), Dan (WK0W), Harro(KG6RLM), Ken (N0JP), John(K2OPT), Paul (K0ZYV)
 Les (K0BAD) attended the meeting from Hawaii via Skype.
 Call to order by Paul at around 7 PM.

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Minutes
Minutes Treasurer Report Committee Reports Ken's Concern Other Paul called the meeting to order at 7 PM.
Minutes
Minutes were approved. Board members took a bit time to read through the last Board Meeting Minutes. No correction was necessary.
Treasurer Reports
Harro was on his way to meeting but has not arrived yet. Treasurer report was approved. Les had questions on Treasurer report. Les was expecting few more payments on the sale of items at the Field Day Sale. Les was inquiring if those payments have been received. Paul did receive some of the payment and gave to Harro. It was found out that all of the money has not been collected. Some of the rest of the money was then collected right then and there at the meeting. Harro needed time to sort out the money he received and keep record.
Public Service Committee Report
Dan's Report: "Group did not meeting but there are some updates I want to share. Mike has been very busy working on the remote HF station. He has it working, but there are other issues that have to be addressed before we can even think about installation. Antenna switching, is one issue he mentioned, also we will need a control link, (internet access).

The internet access at the tower is an item that needs to be addressed fairly soon.

In tower update news, Paul and I have been to the site a couple times to take on the weeds. On both occasions the weeds won. We currently have the weeds down in front of the gate and a path to the door. Beyond that, the weeds and chiggers are reigning supreme.

Paul and I have removed most of the unused circuitry from the previous owners installation. We have a basket of stuff that needs to be gone through to see if any of it may be salvaged.

Matt has completed the electrical work he had planned on doing. We now have 240VAC so we may use the WSU rack with the regulated 110VAC power outputs. Matt told me today he has some of the supplies left over and could energize a bank of 110 outlets that are currently not connected, if we would want him to do that. Matt will be submitting a bill for supplies, but he told me he would not be charging the club for his time and effort.

Our next step will be to remove the 218MHz duplexers and the rack they are in, and finish the installation of the WSU rack and test the outputs. The new Fusion repeater needs a shelf to sit on in the rack and I think we can use a shelf from an existing rack for that. We have to find out if the county has a storage area for the equipment racks that we will not be using.”

Les mentioned Matt had interest earlier for 218 MHz duplexer. Dan mentioned Matt did complete all the electrical work at the Witoka site. Matt will only bill club for the material but will not bill for the labor. Board members appreciated the generosity of Matt. Dan and Paul agreed to visit HBC to facilitate Internet at the Witoka site. Board approved purchase of lightning arresters. Paul will order one of the lightning arresters.

Erik asked where the two county repeaters are. Les was not sure where he left them. Lance stated he does not have them.

Dan mentioned we should prioritize work because weather will be changing shortly.

Paul did investigate trailer for storage. Cheapest one he found is in State of Georgia. Lance mentioned he does visit Georgia few times a year. Les mentioned there are other companies in Wisconsin also. Board then discussed trailers. Paul will look for trailers. Syed mentioned we need to undertake fund raising effort before looking to buy stuff. Paul suggested we form a Fund Raising Committee. Proposal to form a fund raising committee was approved. Les mentioned instead of Fund Raising Committee this should be named “Development Committee”. Dan will contact Matt about the offer of duplexer to Matt free of charge for all the hard work he done for club. Lance

will bring the issue of "Development Committee" during upcoming General Meeting and try to solicit members for the committee. Paul mentioned club should also look for someone to be deputy to Len on PR issue. Len might not be available in near future and someone needs to learn all the tricks from Len to continue in his absence.

Repeater Committee

Erik had issue with entry gate going to 640 site. He has since cleared the obstacle. Club has now a key to the gate and also to door of structure building.

Fusion repeater is there at the 640 site. Fusion repeater will be tested out at 640 site before switching to Witoka site. Old repeater at 440 site has no use for club according to Erik but we should hang on to controller. Les mentioned the old repeater was donated and suggested we contact that person if he wants it back. Erik will try to locate that person.

Node at APRS site was unplugged. It ran for ten days and then ran out of battery. The farmer has been sent money and it has since been plugged back. It should be fine going forward. 835 site also needs attention. Syed is working with Erik for return visit to 835 site. Erik thinks we will need to reduce power and increase isolation to work better. Erik also has other plan to work there. Erik will only go there when there is no rain in the horizon.

Erik then discussed batteries for back-up power at Witoka site.

Erik also mentioned that he has notified Minnesota Repeater Council that we have a Fusion Repeater there. Erik will also co-ordinate to approve the Witoka site from Repeater Council. Paul asked if Fusion Repeater can be used simultaneously for both Analog and Digital transmission. Erik provided a detailed technical answer to the question. Les mentioned if one Analog and one Digital Transmission going on same time. Analog TX can't hear Digital TX.

Jim is buying one of the digital radio and that will allow us to see how everything works. Paul is also buying one. Erik mentioned Fusion Repeater can also be set to Auto mode.

Concerns from Ken (N0JP) and other items

Ken (N0JP) voiced concern over treasury. To quote Ken: "we are spending money like drunken sailors".

Other concern Ken has: if and when Fusion Repeater gets to Witoka site, is he or anyone else be able to hit that Repeater from the valley. Ken thinks Fusion Repeater will be shut off from lot of people. In reply Les said he can run an analysis of the Fusion Repeater Performance at Witoka site based on height, power etc.

Ken also raised the question of how many members realize what is going on in this board room and all the

expenditures being approved. Ken also brought up an old issue where club spent money on an expensive controller and has not been used much. Ken thinks it is lying somewhere idle and doing nothing. Erik replied that last time he looked at the controller it looked nice and clean and there is no reason it should not work. Paul asked how old is the controller. Erik replied it must 15 years or so old. Ken stated that it was an item we spend around \$ 900.00 and we had to have at that time. Erik suggested we should try to sell it. Ken could not agree more. Erik suggested it could be interfaced with Fusion Repeater. These items has been bothering Ken for a while. Also Ken mentioned at some point in the past club decided that it must have 440 Repeater. Ken is not planning to buy Fusion Handheld.

Ken also raised issue of club's participation of Matt Cummings funeral that is coming up. Matt Cumming passed away suddenly recently. Ken has sent has a condolence card to family. Board decided to send funds to family for the Matt's charity cause.

Ken then gave a report on Winona hams participation of LaCrosse Ham Swap meet last Week. At last count by Ken we had 17 participants from Winona to the swap meet. John said people should wait until the last door prize is drawn. Some of the club member's name was drawn but to win someone must be present there.

Lance showed members draft of Certificate for N2B Special Event. Shakespeare Festival Logo was part of the certificate. Lance will email to Les the logo.

John mentioned there were special prices on mesh Antennas during LaCrosse ham fest. John also has coaxial cable if anyone wants to buy

Meeting was then adjourned.

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

Executive Board

President: Paul Schumacher, KØZYV pschumacher@winona.edu	Vice President: Lance Tagliapietra, KBØYJU lancetag@hbc.com
Secretary: Syed Faruque, ACØVA sfaruque@yahoo.com	Treasurer: Harro Hohenner KG6RLM Harro@hohenner.com
Custodian: Erik Brom, WBØNIU ewbrom@hbc.com	Members: Dan Goltz WK0W Leslie Hittner KØBAD

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

Hamgram is published monthly by [The Winona Amateur Radio Club, Inc.](#)

Distribution is electronically by email and via the WONE.org website.

Distribution to individual members by USPS is available upon request.

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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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