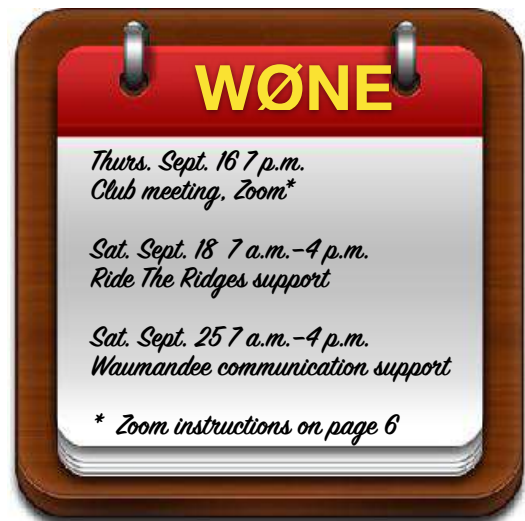# The Hamgram

Sat. Sept. 18
Ride The Ridges communication support

Rolling hills, Autumn colors, a well-run ride and good food are a treat for hundreds of bicyclists on this year's Ride The Ridges, Sat. Sept. 18. Members of the Winona Amateur Radio Club provide their communication skills to assure the ride is comfortable and safe for the bikers.

WØNE

Thurs. Sept. 16 7 p.m.
Club meeting, Zoom*

Sat. Sept. 18 7 a.m.–4 p.m.
Ride The Ridges support

Sat. Sept. 25 7 a.m.–4 p.m.
Waumandee communication support

* Zoom instructions on page 6

BLOEDOW'S DONUTS ARE ONE REASON BIKERS DO RIDE THE RIDGES.
W9LSE EXPLAINS. SEE "SWEAT," PAGE 4

Sat. Sept. 25
Waumandee Time Trials communication support

Grab your H-T and head to a narrow, winding road near Waumandee for a fun day watching 40 year old—and older—cars race from the bottom of a hill to the top. There's the excitement of loud, fast driving, generous treats and meals, and, of course, communicating on your radio!

The Waumandee Time Trials is fun and a test of the Winona Amateur Radio Club's emergency communication skills.

Be prepared starting at home

By Steve Wiebke, WØSTV

When people think of ARES they forget the most important level–personal. This is about your home and neighborhood. These are important building blocks of any ARES support in a disaster.

People feel things happen to others and not to themselves, and they may be correct. But how prepared is your home and neighborhood for a disaster? Think of ideas to better prepare your home and neighborhood for situations like a power outage. The length of time makes a big difference. Time of day is concerning, and time of year could make it even more a disaster.

How you would deal with your heating/cooling, food preservation and cooking? Your neighbors would be dealing with the same issues. So talk to your neighbors about preparation, and communications is the first step. Many people have FRS radios which allow a neighbor radio network. When manure hits the fan, you can talk to each other no matter what. Discuss how you may organize area resources to help each other. Let the neighbors know you are a Ham and have ways to get and send information. Table top your what if's, to better be prepared and organized for

disaster issues. When you are prepared the more you will be able to help others.

Our neighborhood has set up an FRS radio network on channel 9, they know I am a Ham radio operator, we have access to each others homes, we know who has resources to share: firewood, portable LP heaters/stoves, generators, campers, extra food and water storage, gasoline, LP tanks, etc. We set up group phone texting, when neighbors are away to stay informed.

Your situation may not become a neighborhood organized, but it should be a minimum home based preparation for your family. Check FEMA, Red Cross, and local government resources for information and ideas for preparing for your family. Sign up for area alert notifications either through city/county apps or other alert services to stay informed.

Do you have the local repeaters and state wide simplex frequencies in your radio memories? When is the last time you tested your batteries? Contact me for discussions, information or ideas at 507 254-3993.

Packet

When All Else Fails, or when its time for fun

by Shawn A. Hicks, KD9KGQ

Access to the world of packet radio has gotten a lot easier for Hams in the La Crosse county area over the past months. Thanks to the efforts of Erik Brom, WBØNIU, Ben Kuhn, KUØHN, and others at the Winona Amateur Radio Club; reaching packet node stations beyond normal VHF and UHF propagation limits is achievable via WØNE-7.
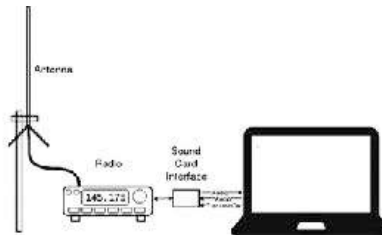
SHAWN HICKS, KD9KGQ.

For those not familiar with this mode of Ham radio, packet radio is a method of communicating with other Hams by sending packet bursts of data over RF. A Terminal Node Controller (TNC) connected between the radio and a computer converts incoming RF signals to digital data for the computer as well as converting outgoing digital data from the computer into RF signals. Equipped with a computer, a 2 Meter radio, and a TNC such as a Kantronics KPC3; one can begin using this mode with a minimal amount of expense. Packet radio can be thought of as a precursor to email and internet based chat rooms.

Connecting to a node such as WØNE-7 gives you quick and easy access beyond the Coulee Region. Once connected to WØNE-7, one can enter its chat room and have keyboard to keyboard discussions with other Hams in the room. Or you can connect to its BBS. The BBS is the node station's packet message mailbox. It is in the BBS that one can post messages to other Hams similar to traditional email messages. Additionally, from W0NE-7 you can connect to the RMS gateway which is an access point to Winlink Packet email.

W0NE-7 serves as a bridge to other packet stations extending your station's range to distant BBS's and Chat rooms. W0NE-7's antenna is located in Witoka, Minn. on a tower at 300 ft., giving it an impressive range. Because of this range, the growing numbers of packet radio enthusiasts in the should be grateful to the Winona club.

Prior to WØNE-7, if I wanted to leave a packet message for Kelley Becker, KD9LQW, on her BBS in Leon, WI it would often be hit and miss in connecting from my home in Holmen. Now by routing my connection through WØNE-7 and taking advantage of its range, there is no issue reaching her station in Leon.

Packet stations in Wisconsin side tend to operate on 145.03 MHz, while the 145.67 MHz is often used in Minnesota. WØNE-7 is hooked up to both. Now I can connect to MNROC2 in Rochester and then connect to a station in Minneapolis. One evening I was successful in reaching Duluth after connecting to two more stations beyond Minneapolis. The practical application of this type of exercise is to test your Emergency Communication capabilities. While packet radio is also done on the HF bands, this path only used VHF/UHF bands. A Ham with a Tech license could do the same.

Thanks to the hard work of the Hams in the Winona Amateur Radio Club, the La Crosse county area has another tool in its toolbox to use in an emergency situation. I encourage Hams to learn more about packet radio and the advantages it can offer over normal voice communication during emergency situations.

WØNE now has Winlink

By Ben Kuhn, KUØHN

Our packet node has authorization to operate as a Winlink gateway in addition to the Node, BBS, and Chat capabilities. Winlink is a robust infrastructure that permits the sending and receiving of regular email over the radio. It operates on many modes on VHF, UHF, and HF, and can operate with or without internet connectivity. The WØNE-10 Winlink gateway can be accessed either on 145.670MHz 1200 baud packet or on 145.030MHz 1200 baud packet.

Winlink has been the mode of choice for disaster response for the past several years as it's very easy to send and receive email directly to the served agency. For more information on Winlink and the benefits it has in disaster response check out the episode of ARRL's "On the Air" podcast: https://blubrry.com/arrlontheair/78772205/arrls-on-the-air-episode-20/

W9LSE ON GRABAAWR (GREAT ANNUAL BICYCLING ADVENTURE ALONG THE WISCONSIN RIVER) RIDING AND HELPING WITH AMATEUR RADIO COMMUNICATION SUPPORT. (NOTE THE 5/8 WAVE ANTENNA ON THE BIKE).

Why bikers want to be sweaty

By Bob Seaquist, W9LSE

It's a head-scratcher why someone would spend a perfectly good Saturday suffering the hills of the Winona-area Driftless on a bicycle, yet bikers ride our area daily, not just for events like Ride The Ridges. These are people that happily and easily pedal a bicycle 100 miles in one day.

"Tour" is a very important word for Ride The Ridges because this event is not a race but a wonderful backroads ride. It may be difficult to understand, but when all these sweaty, lycra-clad bikers get home they will talk about the gorgeous views, the Bloedows donuts at the rest stops, the wonderful people they met and maybe —maybe—a challenging hill.

A 30 mile ride is no big deal for these people, in fact 30 is a short ride.

For a quarter of a century my vacation was taking a week to ride across a state. I rode across Wisconsin about 15 times, west to east and North to South, across Iowa 15 times, up the Mississippi River from the Quad Cities to the Twin Cities, throughout Brittany for three weeks and many "day" rides like RTR. (And RTR)

You may wonder why but why do you go on your vacations? I hardly recall the riding itself but the pork chops, pie and people are vivid memories.

So when you're at a Ride-The-Ridges rest stop pay attention not to the riders' speed but to the laughter, friendship and healthy attitudes among the riders because that's why they are here.

Family friendly radio

By Bob Witte, KØNR

With news of so many disasters such as hurricanes, people are searching basic radio communications for their friends or family. It would be great to pull them into the wonderful ham radio world but sometimes the General Mobile Radio Service (GMRS) might be a better way of meeting their needs.

GMRS is a good fit for local communications, perhaps just using simplex or with repeaters, if available in your area. FCC regulations (Part 95) require you to have a license (and pay a fee) to use GMRS. Unlike ham radio, the license does not require you to pass an exam and the license is valid for you and your family members.

GMRS works well for family communication "around town." Depending on the equipment used, simplex range of 10 or 15 miles is achievable, maybe more. The use of repeaters can extend this a lot further.

Another common use of GMRS is when a group is traveling down the highway in multiple vehicles. Yes, you might be able to just use your mobile phone to stay in touch but a two-way radio may be a better solution (especially when mobile phone coverage is poor or non-existent). Many off-road vehicle clubs have discovered GMRS and use it for communicating during trail rides.

GMRS is also a great tool for outdoor activities such as camping, hunting, hiking and skiing. It is a handy way of staying in touch with your tribe, while not depending on the mobile phone network.

GMRS often gets confused with the Family Radio Service (FRS). They both include the use of inexpensive, low- power handheld radios and they share many of the same frequencies. When the FCC authorized FRS, GMRS was already an established radio service and it squeezed FRS into the same band. FRS radios were limited to lower output power, so many manufacturers decided to offer combination FRS/GMRS radios, which operated at higher power levels.

Regulations now prohibit the sale of combination FRS/GMRS radios.

WARC Executive Board (unofficial minutes)
Wednesday, Sept. 8, 2021, via Zoom

Attendees: Roger Wise, KIØF; Dan Goltz, WKØW; Paul Schumacher, KØZYV; Harro Hohenner, KG6RLM; Lance Tagliapietra, ADØUT; Clare Jarvis, KØNY; Erik Brom, WBØNIU; Bob Seaquist, W9LSE; Tom Wilmot, WØMK; Mike Foerster, WØIH.

Called to order at 7:01 by President Paul Schumacher, KØZYV

Minutes: Bob Seaquist, W9LSE. Approved

Treasurer: Harro Hohenner, KG6RLM. Approved

Balance on 6/30/2021	$4,434.10
Expenses:	
Final Field Day expenses	
- Memory cards for radios	$15.97
Balance reported by bank	$4,434.10
Paid members	49
- Inactive	37
Budget for Field Day	$280.00
paid $317.12 on various dates	
Budget for tower climber	$1,000.00

Keith Laken, KEØIJI, knows a retired climber that will climb and repair the Witoka tower; he needs 700' of rope. He will be on site in October.

MOTION: *The budgeted amount for a climber be left in the budget until September 2022.(Clare/Lance)*

Public Service: Dan Goltz, WKØW. Work continues on our two largest events of the year, Ride The Ridges and the Waumandee Hill Climb.

Ride The Ridges is scheduled for Sat. Sept. 18, and pre-registration indicates it will be the largest in the ride's history with more than 330 pre-registered.

This year, ride organizers have requested operators or APRS trackers in eight vehicles, at eight rest stops, and at the ride headquarters.

We will be working with the Winona Police Reserve, Winona County Sheriff's SOAR team, and various county first responder and medical units. We will be using three repeaters and a cross-band repeater setup, an APRS portable digipeater, as well as public service radios and cell phones to cover the two county area.

The second event is scheduled for Sat. Sept. 25, at Waumandee, and also involves a large number of hams to participate. This event requires the use of the portable repeater that will be set to 146.64 with no tone access so as not to interfere with the 04/64 machine on Garvin Heights.

Erik Brom, WBØNIU, has taken the lead on organizing both events. Participation from Winona area hams has been good, as well as loans of equipment.

WBØNIU will send a spreadsheet of assignments to all before the event.

Program: Lance Tagliapietra, ADØUT. The club program, via Zoom, Thursday, Sept. 16 will include previews and plans for Ride The Ridges and the Waumandee automobile hill climb; for the balance of the program he wants Russ Marsolek, NØQK, to make a presentation on go-kits.

Witoka: Mike Foerster, WØIH. Every thing is running good. He plans to work on antennas and restore use of 160M.

Adjourn 7:52

DMR used

Hennepin County repeaters receive major upgrade

Hennepin County Emergency Management is replacing all the repeaters in its WC0HC Public Service Amateur Radio Repeater System. There will be an analog presence with repeaters in downtown Minneapolis and Golden Valley and converting one repeater in Edina to DMR and adding a DMR repeater in Plymouth.

The DMR repeaters will initially operate as standalone repeaters and in the future be networked together to mark the beginning of a metro-wide amateur radio public service DMR network with specific metro amateur emergency communications talkgroups.
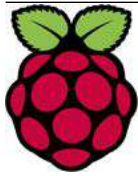
Pi for your shack

Hands down, the Raspberry Pi is an amazing open-source device. Technology hobbyists implement it in many projects from sending instant messages to making many amateur radio projects.

This is because these little single-board computers have many benefits, including being easy to implement and portable – eliminating the need for heavy, stationary, and expensive equipment. To whet your appetite for trying it here's a listing of some cool ham radio projects that use the Raspberry Pi.

Ham Clock

Create a clock that tells you not only the time but also the weather, solar flux, DX spot reporting, locations of satellites and the ISS, all on a touch

screen interface.
http://www.clearskyinstitute.com/ham/HamClock/

Satellite Tracker

Display the location of a satellite on a map in real-time. *https://stationproject.blog/2019/02/06/satellite-tracker-how-to/*

Weather Station

With a few sensors, power supplies, and the Raspberry Pi, you can create a weather monitoring station outside in your backyard.
https://www.instructables.com/Raspberry-Pi-2-Weather-Station/

R2Cloud Project

Obtain pictures of Earth from satellites orbiting above.
https://github.com/dernasherbrezon/r2cloud

Slow-Scan TV Security Camera

Build your own CCTV security system and catch plush bandits in the act.
https://www.instructables.com/Raspberry-Pi-security-Slow-Scan-Television-Camera/

Mini Satellite-Antenna Rotator

Automate your antenna's direction when you enter the azimuth and elevation of your source or target.
https://www.sarcnet.org/rotator-mk1.html

Code Keyer

In this project, you can use the Raspberry Pi to be an auto-keyer for Morse code.
https://grantwinney.com/building-a-morse-code-transmitter-on-a-raspberry-pi/

Winona Amateur Radio Club, Inc. P.O. Box 1451, Winona, MN 55987

WØNE Repeaters

146.640 PL 100.0 Hz *

146.835 PL 131.8 Hz ** FM Voice C4FM Digital

444.225 PL 100.0Hz FM Voice C4FM Digital

442.150 PL 100.0 Hz. FM Voice C4FM Digital

*   SkyWarn Net when activated.

**** Sunday Night Net—8:30 p.m.**

President: Paul Schumacher, KØZYV, *pschumacher@winona.edu*

Vice President: Lance Tagliapietra, ADØUT, *lancetag@hbci.com*

Treasurer: Harro Hohenner, KG6RLM, *Harro@hohenner.com*

Secretary: Bob Seaquist, W9LSE, *seaquist.robe@eagle.uwlax.edu*

Custodian: Erik Brom, WBØNIU, *ewbrom@hbci.com*

At Large: Dan Goltz, WKØW; Clare Jarvis, KØNY

Dues: $30 per calendar year per license holder. $35 per calendar year for all licensed members of the same family within the same household.

Send dues to: Treasurer, P.O. Box 1451, Winona, MN 55987

The Hamgram is published monthly by The Winona Amateur Radio Club, Inc. Distribution is via e-mail and the *WØNE.org* Web site. Distribution to individual members by USPS is available upon request. Editor: Bob Seaquist, W9LSE. Address comments and Hamgram correspondence to: Bob Seaquist, W5735 Woodhollow Rd., Holmen, WI 54636 or *seaquist.robe@eagle.uwlax.edu* 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.