May 2021

The Hamgram

May 2021

Packet bytes

Post apocalyptic internet

There's a local revival in an old amateur radio mode, packet, since a presentation to the Winona Amateur Radio Club by Erik Westgard, NY9D, who talked about an expanding emergency communications packet net in Minnesota.

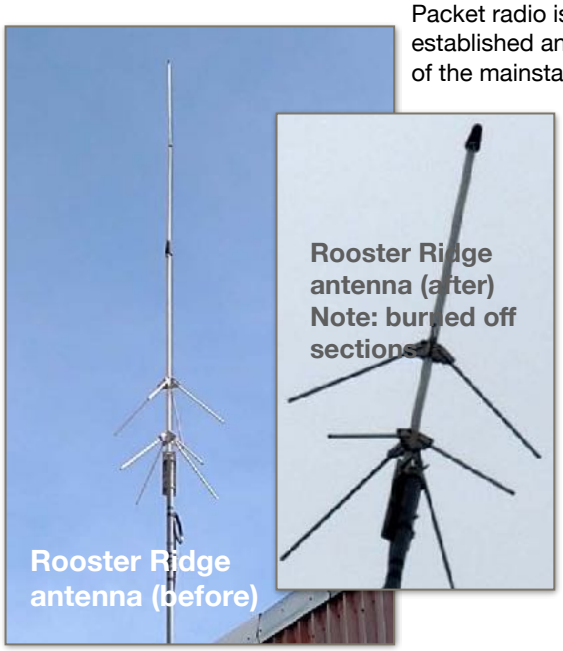
Right after the 9/11 attacks there was an article in the Wall Street Journal about dirty bomb attacks. The idea was bad actors would get their hands on some radioactive material, mix it with conventional explosives. This would cause panic and people to flee, potentially in large numbers. Having reliable ways to get messages out to other areas, such as Duluth, was key. ("500,000 people on the way in cars- prepare cots"). Generally, the reality of passing voice relay messages was that it works but not well for lots of information.

Long story short: There is a growing and effective packet radio net in the state that is available the next time someone wants to set off a dirty bomb in downtown Minneapolis.

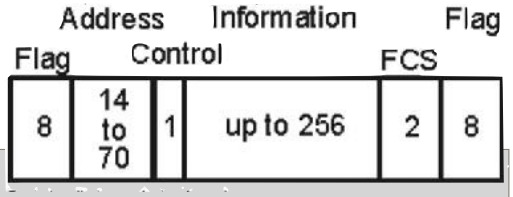
Packet radio is well established and one of the mainstays of communications within the amateur community. The system allows computer technology to enable error free communication combined with many useful facilities, and allows people to combine the hobby of amateur radio with computer technology.

Though true packet communication has declined among amateurs with the emergence of many other digital modes, many in the area still use it, and, in fact, the club has two packet systems, one located on Rooster Ridge (above Marshland, WI) for APRS and a new one at the Witoka tower. Additionally, Ben Kuhn, KU0HN, has a packet node and is connecting with the statewide emergency network.

It's easy to use existing amateur radio gear for packet radio. Most VHF / UHF FM equipment is capable of transmitting amateur radio packet signals. Even many small handheld radios provide an excellent means of communicating via this means. As many people already have computers, the investment required is often minimal. A few years ago Erik Brom, WBØNIU, led the group to a packet-related system using FLDigi software, handheld radios and laptop computers. Using audio interfaces (no wired connection between the radio and the computer) group members managed successful contacts.



WØNE ON ROOSTER RIDGE IS WOUNDED. MARV RODVOLD, AC9TO, VISITED THE SITE AND DISCOVERED LIGHTNING DAMAGE TO THE ANTENNA AND SOME CONNECTORS. HE REMOVED THE RADIO SO ERIK BROM, WBØNIU, COULD FIX IT.



Packet radio is a digital communications mode used to send packets of data which is very similar to how packets of data are transferred between nodes on the Internet.

The AX.25 (Amateur X.25) protocol was derived from the X.25 data link layer protocol and adapted for amateur radio use. Every AX.25 packet includes the sender's amateur radio callsign, which satisfies the US FCC requirements for amateur radio station identification. AX.25 allows other stations to automatically repeat packets to extend the range of transmissions. It is possible for any packet station to act as a digipeater, linking distant stations with each other through ad hoc networks. This makes packet radio especially useful for emergency communications.

Field Day imminent

Our annual trip with our radios to the wilds is just a month away, a fact Marv Rodvold, AC9TO, would like to remind us. Marv seems to be chair of this year's event and he plans to spend some time at the club's May 20 meeting setting some direction to this year's effort.

"Please copy"

A pet peeve of efficient amateur radio operators and something that makes you look silly is sending or saying "73s." 73 as a procedure signal is already plural —meaning 'best WISHES.' If you send '73s,' it translates to 'best WISHESES' which is grammatically incorrect, not to mention silly. So please, just '73,' NOT '73s.' The same applies to '88' which also should be used without the 's' at the end.

During Field Day you will hear many operators start their end of the exchange by saying, "*Please copy*…." Why? The other operator understands he must copy the operator's information. A good operator will simply say the other station's call and the required information, "*W1AW, 3-alpha Minnesota*."

Most Q signals have evolved to being used incorrectly, just as English grammar evolves over time. An example: QTH is not a noun as in "My QTH is Winona, MN." It's an abbreviation for the phrase "My location is," and its correct usage is "QTH Winona, MN" which means "My location is Winona, MN." Be aware that Q signals are correctly used as abbreviations for phrases, not nouns.

Copy CW

By Ron Morrison, K5DUZ

So many of us have learned to record each character as received with our trusty pencil. One reason this is not good practice is that it impedes learning to copy words, which becomes more necessary as the word speed is

increased. By breaking this character by character recording habit and learning to copy "in our heads" we free ourselves to learn to copy words as word sounds. Anyone who can copy 15 wpm or greater has probably observed that some frequently used words, Q signals and CW abbreviations are being recognized as complete words rather than a sequence of characters.We can practice copying words as "word sounds" by using a CW practice program that sends commonly used words in a random manner. If your program doesn't have this feature you can make a text file of the words that you want to practice receiving. When we were training our subconscious minds to recognize character sounds we listened to characters sent in random order to prevent our minds from "guessing" the next character. Now that we are practicing word copy-ing our mind is free to "guess away," and guess it will!During casual QSOs we "copy in our heads" and record only the pertinent information such as call sign, RST, name, QTH, etc., but now that we are beginning to copy words we record the information after receiving the complete word. So by waiting until we've heard and recognized the entire word before recording it we've become much more efficient at receiving. Note that we "hear word #1," then record "word #1" while receiving "word #2," etc. So we have made the receiving and recording processes loosely coupled. In fact, because some words are long and others short, several short words can be received while recording a long word. These long/short word sequences force us to even more completely disassociate the receiving and recording tasks. As with most things in life, "practice makes perfect" so have faith that you too can master copying behind.Once you have begun to master copying words and copying behind during casual QSOs, you can try your hand at copying messages on a traffic net or copying W1AW code practice sessions. You will quickly note that you will need to expand your inventory of word sounds. Just add words to your practice file as you dis-cover them. Until next time, HPE CU SN ON CW!

WARC Executive Board (unofficial minutes)

Wednesday, May 5, 2021, via Zoom

Attendance: Lance Tagliapietra, ADØUT; Tom Wilmot, WØMK; Dan Goltz, WKØW; Bob Seaquist, W9LSE; Marv Rodvold, AC9TO; Harro Hohenner, KG6RLM; Clare Jarvis, KØNY; Mike Foerster, WØIH; Ben Kuhn, KUØHN; Paul Schumacher, KØZYV.

Meeting chaired by Vice-President Lance Tagliapietra, ADØ0UT, once he got his Zoom straightened out.

Minutes: Bob Seaquist, W9LSE. Approved

Treasurer: Harro Hohenner, KG6RLM:

Balance on 3/31/2021		$4,730.2
Deposits:		
Dues		$30.00
Balance as reported by bank		$4,730.25
Paid members	43	
Inactive	39	

Public Service: Dan Goltz, WKØW. Winona County Emergency Manager Ben Klinger says that since the county buildings are still technically not open yet due to Covid, we should continue to operate Skywarn and other nets from home as we have been doing. This has been quite effective since Ben is a licensed amateur and does monitor the amateur nets and is able to respond to us without problems. There have been a couple storm systems already this season that warranted severe thunderstorm warnings, but they were isolated, and developed rapidly, and no Skywarn call outs were issued. We have some new area amateurs that have taken Skywarn training and we can expect them to be checking in to the Skywarn nets.

Ben plans to call the tower climber again this week, and will let us know what he finds out.

Our club has had minimal contact with the Winona County Dive Rescue team in recent years since Russ Marsolek, NØQK retired as the head of that organization. Russ has been asked to return to that position on an interim basis. I contacted him about re-establishing our working relationship with them and we will be discussing how we can help serve their communication needs. They use the 800 MHz ARMER state-wide radio network, but as we all know, there are limitations to that system in this part of the county.

There has been no more information from Ride the Ridges. Some routes will be changed, and when we get that information we will be able to determine if we will need portable repeaters or digipeaters.

Bylaws Update: Bob Seaquist, W9LSE, will provide the correct text regarding club dues and submit a PDF to Ben Kuhn, KUØHN to put-on the club web site.

MFJ antenna analyzer: Jim Brown, NØWE, is offering an MFJ antenna analyzer for sale; there was a suggestion the club purchase it and have it as a loaner for members. Concerns about storing and accounting for it as well as comments that many members have such devices and are willing to help others resulted in a motion:

Motion: Clare Jarvis, KØNY/Harro Hohenner, KG6RLM. Not purchase the analyzer.

Grants: Ben Kuhn, KUØHN. Grants from Amateur Radio Digital Communications are available for various amateur radio projects. A committee consisting of Ben Kuhn, KUØHN, Clare Jarvis, KØNY, Lance Tagliapietra, ADØUT, and Marv Rodvold, AC9TO. planned to meet at 7:30 p.m. Wednesday, May 12 on the club Zoom.

Examples include installation of dedicated microwave links (such as HamWAN or AREDN) to replace expensive or problematic commercial Internet access (such as DSL or cellular) for repeater control and linking; creation of new emergency communications capabilities such as Winlink at Emergency Operations Centers.

Club members are encouraged to submit their ideas.

Witoka: Mike Foerster, WØIH. A 40M antenna was installed at about 88'. The automatic antenna switch was updated to put the 40M antenna in line for that band only.

Link project: Marv Rodvold, AC9TO. Marv went to the Rooster Ridge site and removed the packet gear and the refrigerator that was used as a cabinet. Rod Baker, KØROD, will recycle the refrigerator. Erik Brom, WB0NIU, will repair the packet gear which appears to have been struck by lightning.

Field Day: Marv Rodvold, AC9TO. It appears Marv will chair/coordinate Field Day and will discuss it at the May club meeting. It will probably be a 3-alpha event using IC-7300s at "Granny's Farm" near Minnesota City (same location as last year.) The Emergency Government trailer tower is available. Operating will be in the club-owned screen tents.

Adjourn: 7:59 p.m.

"Breakfast" on Zoom
Get back into the Saturday club breakfasts without the fear of Covid. The Winona Amateur Radio Club will meet 9 a.m. Saturdays on Zoom, https://minnstate.zoom.us/j/3120290434 Pass: WarcBoard

Remote station improvements

The Winona Amateur Radio Club remote station at Witoka has a new 40 meter antenna. It's up at about 88' and fed with a 90' piece of LMR400. There is also a current balun at the antenna.

The automatic antenna switch is updated to put the 40M antenna in line for that band only.

Currently 160 and 80 use an End Fed Half Wave antenna. 40 uses a dipole. 20/15/10 use the driven element off at Mosley Classic 33 beam. 17 & 12 meters also use the driven element.

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.**

Winona Amateur Radio club meetings are 7 p.m., third Thursday of the month on Zoom video conferencing. The monthly program is open to the public.

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, 202 Zephyr Circle, La Crosse, Wis. 54601 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.