

Hamgram

October 2017

Winona Amateur Radio Club
Winona, Minnesota

Harold Ham vs the Hurricane

There was no hurricane on that warm, comfortable, sunny June day when "Harold Ham" wobbled into the Field Day site with his Go-Kit. He had a Yaesu FT 897, antennas, scores of adaptors, tools in a rolling tool box and the best of intentions. However his Go-Kit weighed more than 100 pounds and was difficult for the overweight, bad-kneed, older "Harold" to move. Yet Harold planned to provide emergency communications despite the fact he was as much a disaster as any hurricane.

As public-service minded Hams know, a Go-Kit is a portable amateur radio station with personal items, self-contained rigs and batteries which the radio amateur can take when asked to go to an event which needs support with radio communication like hurricane-stricken Puerto Rico or fire-ravaged California. The Go-Kit must be completely self-contained.

Many well-meaning Hams assume that some day they will help out in an emergency. They have the equipment but that's the extent of their preparation. Too many are not trained nor do they have the physical stamina to perform in rugged disaster areas. Importantly, "Harold" and others are not familiar with operating modes required in disaster scenarios such as Winlink 2000, ALE (automatic link establishment) HF



voice, and VHF communications plus previous experience in disaster response. Hams responding to the



Hurricane Maria disaster in Puerto Rico had to meet several requirements: deployment up to three weeks; General class license or higher; familiarity with WinLink, HF voice, and VHF simplex communications; strong technical skills; ability to work under difficult conditions; ability to work as part of a team; Spanish language skills; previous or current work as a Red Cross volunteer; previous experience with shelter operations.

Our man "Harold" would have failed those tests even IF he could've lugged himself and his gear that far. Then he could not deal with official communication protocols, considering he barely could check into the club's weekly net.

Local deployment of Hams, even as a SkyWarn spotter, asks a lot of the volunteer starting with that person's advance training.

News items...

(Oct. 10) More than a dozen wildfires in Northern California have damaged or destroyed cellular telephone and internet infrastructure in some areas, and Amateur Radio has helped to fill the communication gap.

(Oct. 12) The American Red Cross (ARC) this week invited the Amateur Radio volunteers now in Puerto Rico to extend their duty tours. Members of the "Force of 50" deployed to Puerto Rico at the start of the month, all as ARC volunteers.

ARRL ARES Field Resources Manual

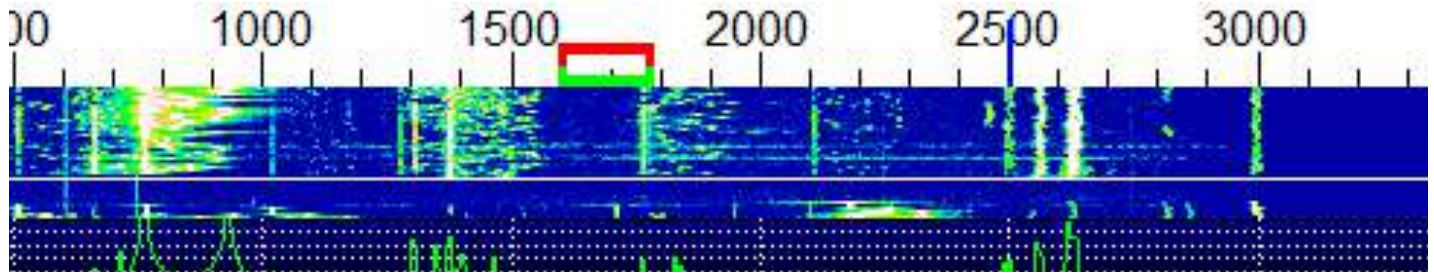
<http://www.arrl.org/files/file/ARESFieldResourcesManual.pdf>

American Red Cross classes

<https://www.redcross.org/ux/take-a-class>

FEMA emergency supplies for your Home

https://www.fema.gov/media-library-data/1390846764394-dc08e309debe561d866b05ac84daf1ee/checklist_2014.pdf



Rotten propagation, lack of some bands, and few signals have creative Hams trying the new “in” thing for Amateur Radio operators, WSJT-X, a suite of digital modes including the very popular “FT8,” which has been catching on like wildfire. It’s the Amateur Radio digital software suite developed by Joe Taylor, K1JT, and Steven Franke, K9AN. The mode’s name, “FT8,” stands for “Franke and Taylor, 8-FSK modulation.” It gets through with very low power during very tough conditions.

“This FT8 thing has captivated me and I’ve logged nearly a thousand contacts with it in just a few months and it’s been an eye-opener,” crows Jeff Davis, KE9V. “I simply didn’t know, and had no reason to *assume* that the digital HF segment of the hobby had grown so large. If you’re looking for a place where the younger, newer,

smarter, more motivated, and more active ham radio enthusiasts are hanging out these days, look no further than the waterfall.”

To operate using FT8 or the other WSJT-X suite programs is pretty basic for most Hams requiring an SSB transceiver and antenna; a computer running Windows (XP or later), Linux, or OS X; a monitor with at least 1024 x 780 resolution; computer-to-radio interface using a serial port or equivalent USB device for T/R switching, or CAT control, or VOX, as required for your radio-to-computer connections; audio input and output devices supported by the operating system and configured for sample rate 48000 Hz; audio or equivalent USB connections between transceiver and computer; and a means for synchronizing the computer clock to UTC within ± 1 second

Digital modes such as FT8 require that your computer’s internal time clock be set precisely. If your computer’s clock is off by more than 1 or 2 seconds, contacts may be difficult or impossible.

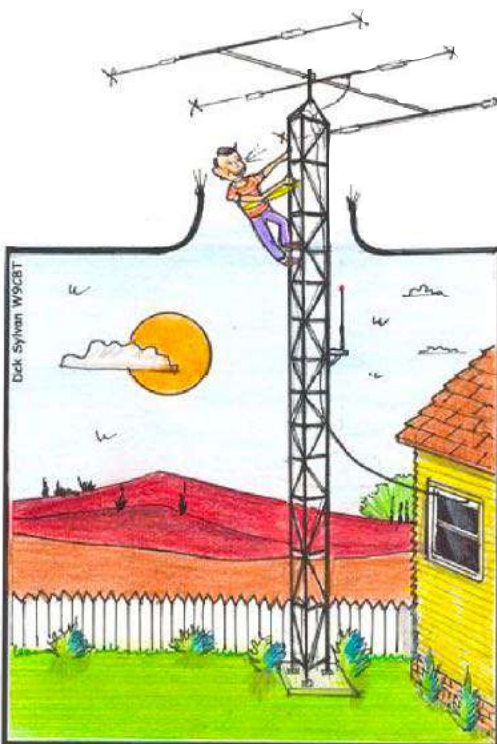
Prior to FT8, JT software had long transmit and receive cycles. The fastest most QSOs would be

completed was four minutes.

“Implementation of FT8 and its auto-sequencing feature is now more capable and more polished,” Taylor said. “Sensitivity extends downward as far as -24 dB in some circumstances.”

WSJT-X implements “modes” called **JT4**, **JT9**, **JT65**, **QRA64**, **ISCAT**, **MSK144**, and **WSPR**, as well as one called **Echo** for detecting and measuring your own radio signals reflected from the Moon. These modes were all designed for making reliable, confirmed QSOs under extreme weak-signal conditions. **JT65** and **QRA64** were designed for EME (“moonbounce”) on the VHF/UHF bands; **JT65** has also proved very popular and effective for worldwide QRP communication at HF. With either **JT9** or **JT65**, world-wide QSOs are possible with power levels of a few watts and compromise antennas. **WSPR** mode implements a protocol designed for probing potential propagation paths with low-power transmissions. **WSPR** is now fully implemented within WSJT-X, including automatic band-hopping.

For more information go to <https://physics.princeton.edu/pulsar/k1jt/wsjt.html>



Is your antenna work done? There is not much time left before what’s-broken-stays-broken

Sweeps

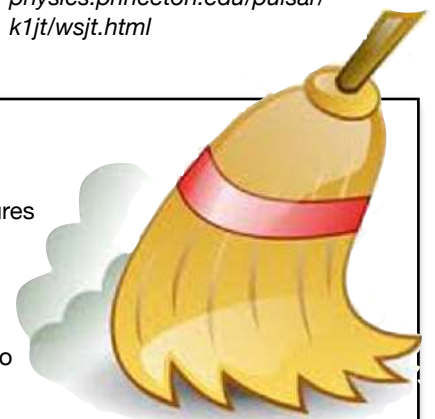
When Autumn winds stiffen, temperatures drop, the sky is leaden and the leaves have fallen it’s time to head to the shack for some good, old fashioned operating. The bands will come alive for the Sweeps, always a great return to operating.

Nov. 4-6 Sweepstakes–CW

Nov. 18-20 Sweepstakes–Phone

[www.arrl.org/files/file/](http://www.arrl.org/files/file/ContestResults2017/2017%20ARRL%20November%20Sweepstakes%20Package%20(Rev%20A%20-%202012%20July%202017).pdf)

[ContestResults2017/2017%20ARRL%20November%20Sweepstakes%20Package%20\(Rev%20A%20-%202012%20July%202017\).pdf](http://www.arrl.org/files/file/ContestResults2017/2017%20ARRL%20November%20Sweepstakes%20Package%20(Rev%20A%20-%202012%20July%202017).pdf)



WARC Board Meeting

Tues. Sept. 5, 2017

Watkins Hall, Winona State University

Present: Board Members: Syed Faruque, AC0VA; Paul Schumacher, K0ZYV; Dan Goltz, WK0W; Mike Foerster, W0IH; Harro Hohenner, KG6RLM; Erik Brom, WB0NIU; Lance Tagliapietra, AD0UU. Non-board member: Tom Wilmot, W0MK.

Called to order by Paul at 7 p.m.

Treasurer Report approved.

Minutes approved.

Committee Reports

Public Service Committee. Dan, WK0W, reported the committee had not met since its last meeting, however he spoke with Mike Bernatz of the Winona Rotary Club since our involvement with their Ride the Ridges event Sept. 16.

He and the Rotarians were very pleased with our assistance. While participation in the event itself was down a little due to the weather that day, their club feels it was still very successful. Mike stated that "once you have experienced how good it is, you don't ever want to go back," speaking of our involvement with them and their event. We have been invited to help them again next year. We learned some things that will help us in the future, some planning issues and technical issues. In particular we learned some interesting things about cross band repeating, and some of the pitfalls to avoid. We have had some internal discussions about how to improve our performance and how this can carry over to other events we may be involved with.

There is still no formal word on the appointment of the new County Emergency Manager.

Education Committee. Paul reported licensing classes are scheduled. Lance will ask Cathy to publicize classes. Paul plans to add a week to class based on past experience. It will consist of seven weeks of lecture with the exam the following week.

Witoka activities. Mike's concern is how to better power the laptop. Another concern is the antenna. Mike has information on two climbers. Harro still must find out if club Insurance will cover climbing on tower. Mike thinks the tower job is not easy and should be considered selecting climber. Dan said Witoka repeater shows problems after continual usage. Mike mentioned job that was done initially at Witoka tower was not up to standard. Dan would like to wait until someone is in charge of County emergency government to talk about future work on Witoka tower. Dan asked how much club willing to spend on Witoka tower. After insurance question is settled, Syed suggested to get free quote for work so the board can decide if it has the means to do the work. Mike (W0IH) then listed the work that he thinks need to be done in Witoka tower. Lance mentioned if we have clear

pictures of intended work that will help get the quotes. Mike will try to use telescope to get a clear picture. Paul mentioned other options of drones with Paul or Russ. Dan mentioned they will need a helper working with drones around tower.

Lance suggested that before the weather turns too cold, to take a trip to 835 site to check things out. It will be difficult to go there in winter. Erik suggested a load test on batteries there. Erik has some ideas of tweaking repeater there. Lance mentioned everything working there but needs yearly visit to check things out. APRS is working fine in Rooster Ridge site. Lance mentioned replacing the antenna was key to solving problem with losing transceivers at APRS site.

Erik reported work in progress for Ride the Ridges. He is working on multiple fronts to get things going. He has permission to put antenna in one location which he intends to do as well as working on other stops.

Erik said there will be a session on testing transceivers and test setup for Ride the Ridges at LEC. Everyone is to bring the gear and it will be tested and configured for the ride. A notice will go out on this.

Harro had a question on **sales tax exemption** in Minnesota for the club. Paul said it is not worth the effort to get the exemption. One way is to get the exemption # and provide to seller. It brings additional responsibility like applying tax returns. Lance stated 501C and tax exemption are separate processes. Lance stated club does not have enough economic activity to make it worthwhile and board left it there.

Mike had a display of SWR of 2 meter and 440 antenna from Witoka and SWR was very good.

Dan asked if there is interest to put **WiresX** in KAGE Fusion machine. Wires working well at Witoka and if it is put in KAGE site, we will have coverage from Redwing to south of La Crosse. Erik asked the issue of Internet at KAGE site. Erik wants club to experiment with router ports at Witoka before anything can be done at KAGE site. Dan does not think it is that priority.

Harro mentioned he has been approached by Learning Club to make a presentation on Ham Radio. Harro was asking if any presentation material available either with club or ARRL. Paul thinks ARRL has lot of presentation material. Paul also suggested Bob, W9LSE, might have some. Harro will work on this.

Meeting was then adjourned

Board meetings switch to the first Monday

Executive board meetings for the Winona Amateur Radio Club will change from the first Tuesday of the month to the first Monday of the month beginning 7 p.m., Monday, Nov. 7. Meetings are in Watkins Hall, Winona State University, and are open to all members.

Show and tell is Oct program

The club's October program, 7 p.m. Thursday, Oct. 19, starts with show and tell. Some club members have been building kits and will present their work. There also will be a Power Pole session with a fresh shipment of the gender neutral power connectors.

Learning and testing

There is a Technician licensing class underway in Winona and there are plans for a General license class starting Jan. 16. For those Hams planning to take the Tech test or upgrade there are some testing opportunities as well.

Rochester Amateur Radio Club

Thurs., Nov. 2, 6:30 p.m., American Red Cross building, 310 14th St. SE, Rochester. Pre-registration with Bob Dubke, 507 398-5964 or KOSIR@arrl.net

Riverland Amateur Radio Club, La Crosse

Sat. Nov. 11, American Red Cross, La Crosse. Reservations required with Roger Reader, KA9BKK, readers@centurytel.net or (608) 783-0723

Winona Amateur Radio Club

Tues. Nov. 28, 6 p.m., Watkins Hall, WSU

The proposed dates for the General license class are eight Tuesday evenings from 6–9 p.m. 1/16, 1/23, 1/30, 2/6, 2/13, 2/20, 2/27, 3/13



TIP: Use the RF gain control effectively

It's easy to overlook the RF gain control, but it can be another tool you can use to more quickly get stations into the log. With most radios, adjusting the RF gain control down results in an increase in the S-meter indication. In the presence of fading on a signal, you can adjust the RF gain just to the point where you can still hear your signal, but the S-meter is steady, with no fluctuations. At this point, any

effects of AGC on the signal should be minimal, and your copy should improve. Some operators even turn OFF their AGC to dig for the really weak ones on relatively quiet bands, preferring to manually control the gain using the RF Gain control. In noisy bandy conditions you can reduce RF gain, thereby reducing overall noise levels, which can help to decrease operator fatigue.

WØNE Repeaters

146.640 PL 100.0 Hz *

146.835 PL 131.8 Hz **

444.225 PL 100.0Hz FM Voice C4FM Digital *

442.150, 100 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 at the Winona County Office Building, 202 West Third St., Winona. The monthly program is open to the public.

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

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

Secretary: Syed Faruque, ACØVA, sfaruque@yahoo.com

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

At Large: Dan Goltz, WKØW; Mike Foerster, WØIH

Dues: \$25 per calendar year per license holder. \$30 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

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

