



**SPECIAL
POINTS
OF INTER-
EST:**

- **Emergency Preparation**
- **President's Upper Side Band**
- **Winlink Adventure**
- **Homebrew Cootie**
- **Meeting Minutes**

BE PREPARED ...By Bob Seaquist, W9LSE

When emergencies call on Hams for help, the Boy Scout motto, "Be Prepared," should combine with amateur radio's "When All Else Fails" Because there's more to helping with communications than wandering in with your handy-talkie. Hams need basic knowledge of emergency communication, training, building relationships and having a thorough knowledge of their gear. The last thing a Ham needs to do is build his go-kit, yet that seems to be the first—and sometimes only thing—that happens. Hams are still needed for emergency communication despite emergency responders now having highly sophisticated communication systems. As recently as last October when Winona County staged a train derailment exercise in Dakota it became clear official radios did not work very well at all in Dakota's

narrow valley. County Emergency Manager Ben Klinger tried to start the exercise on his official county 800 MHz radio but it would not work from Dakota. Fortunately, Hams were there with their trusty handy-talkies and other radios, and so they paired with fire fighters, marine units, and law enforcement to provide good communication for the event! The trainers that had set up the exercise were not that familiar with amateur radio but, their eyes opened, they are now!

Learning what emergency responders need and how they operate is easy. Every responder, professionals and Hams, must know the elements in the ICS 100 Introduction to the Incident Command System and IC 700 National Incident Management System. It's a system professional fire fighters established that clearly tells how incidents must be handled so everyone, even responders

from out of the area, know who is in charge and who does what.

There are special procedures for Hams too, in addition to knowing about incident management. The ARRL through the Amateur Radio Emergency Service (ARES) offers the Introduction to Emergency Communication course. It's a fine self-guided course where each Ham is linked with an Elmer who talks him through the course. It is essential that Hams should be familiar with their gear. Many times you see a Ham show up to help with a fun run and he has no idea how to program his radio. Of course he didn't bother to bring the manual either.

Speaking of fun-runs, get out and help with a few. This has been a bad year with all the "usuals" cancelled, so when events resume get your hand in the air and volunteer to man a corner or an aid station.

NVIS Highlights The September Club Meeting

Drew AB9NE suggested doing a NVIS test/demo with several stations around the county. This would be an exercise in setting up a HF station with a low horizontal antenna for local communication on 40 or 80 meters. We decided to do this activity for the September 1 club meeting at 7:00 pm. NVIS stands for Near Vertical Incidence Skywave. The antenna is set up so that the signals transmitted and received go almost straight up and down. See https://en.wikipedia.org/wiki/Near_vertical_incidence_skywave , http://www.aresok.org/pdf/NVIS_W8CX.pdf , and <https://www.qsl.net/wb5ude/nvis/> for more information. <http://www.hamuniverse.com/k6sojnv.html> has a simple NVIS antenna you can build that is easy to set up. Our club has two 40/80 dipoles and plenty of rope so not everyone needs to make an antenna.

For our activity on September 1 we will have at least four locations with stations participating. You can visit one of these locations or listen and participate from your own QTH. The first location is Veteran's Park in the valley just west of West Salem on highway 16. Drew AB9NE and Rick KD9GVS will be there. Shawn KD9KGQ will be at Holland Estates Park N8448 Ducke drive Holmen – not far from Drugan's golf course. Kelley KD9LQW and Steve W9DXE will participate from their house near Leon which is 7968 Jackpot Avenue. You can find me AB9TS near shelter #1 W6190 in Goose Island County Park. It is the first shelter on the right after you enter the park. I plan

to take check-ins and have folks report on who they can hear and what they are using for an antenna and radio. I think it will be a good learning experience. We plan to start out on 7.235 but we may switch to 3.935 if 40 meters doesn't work. Move up the band if those frequencies are being used by someone else. If you can't find us give a call on the 146.97 repeater and someone will tell you where we are. It should be an enjoyable exercise.

Feel free to contact me with comments and suggestions at AB9TS@yahoo.com.
73 de Dan Abts AB9TS



Reporting that walkers are at 28th and Farnum is good practice working with other Hams and learning effective communication techniques.

Finally, the go-kit. It should be adequately equipped, light, and ready to go. That's totally unlike one that showed up at a Field Day, a huge wheeled trunk lugged, tugged and pushed into place by an out-of-shape, obese, Ham who decided his go-kit needed the kitchen sink. A go-kit must be ready to GO! That means easily handled, has good, working gear, and also has snacks and clothing so the Ham does not become an emergency. A good example of a go-kit was featured in a recent QST. The article described a Washington ARES group that had a competition for the best go-kit 10 pounds or less. (see the sidebar for the winner)

Helping in an emergency or volunteering for the MS Walk is not only good fun, a sandwich and a tee-shirt, but it is part of the law: in Part 97 amateurs are granted airwaves, in part, for emergency communication.



Rick Kolter, KD9GVS, left, provided radio communication from a SAG wagon for a bicycle event

SIDEBAR

A good, light go-kit
 Handheld radio and spare battery
 Headset microphone
 Coax connectors and cables
 Flashlight and spare batteries
 Car charger for radio
 Headlamp and spare batteries
 GPS, compass and whistle
 Personal protective equipment
 First-aid kit and rescue blanket
 Personal medication pack
 Multitool, matches and lighter
 Water bottle and snacks
 100-foot paracord
 Map and field resource manual
 Tape, zip ties and bungee cords
 Gloves, sun/rain hat, thermal shirt
 notepad pen, pencil and markers

UPCOMING EVENTS FOR SEPTEMBER 2020

RARC Sunday Night 2Meter Net is held on the 146.970 repeater at 8:00 PM. Net control operators for September are:

September 6, 2020	Mark kb9ofk
September 13, 2020	Rick kd9gvs
September 20, 2020	Kevin kc9zgd
September 27, 2020	David kd9epn

September 1...Program Night, experiment with NVIS communication. See Dans column on page 2 for information.

September 21...Trustee Meeting held virtually. Contact one of the Trustees for info on joining in.

My Winlink Experience

By Shawn Hicks, KD9KGQ

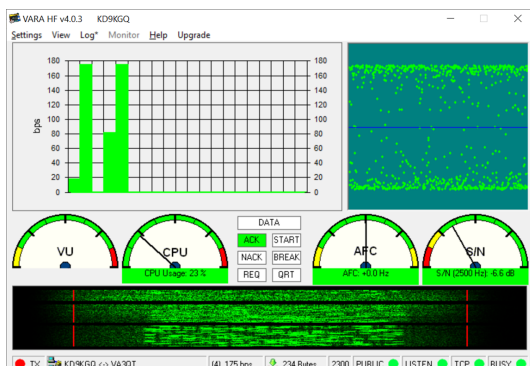
I have been experimenting with Winlink email for over a year now. The Winlink Express software is easy to download onto your computer. Any licensed Ham can create a Winlink email account using their call sign free of charge (they do ask for a donation). Up to just recently, because I didn't have the necessary equipment, I was only able to use the Telenet Winlink option within the Winlink Express software.

For those not familiar with Winlink, the Telenet Winlink option allows one to send email through a standard internet connection. It is really no different than sending email through a Yahoo or Gmail account, with the big exception that the content of the email traffic must fall within the FCC rules for ham radio use. Just like phone traffic on ham radio frequencies, conducting business for profit and use of profanity is forbidden.

While the Telenet Winlink option creates a convenient way to send email using Winlink when directly connected to the internet, it doesn't harness the full power that Winlink can bring to emergency communications. This is because Winlink email was designed to be used when the holder of the email account doesn't have direct access to an internet connection. If our commercial communication infrastructure is up and running after a natural disaster, then normal telephone and internet based email is going to be more efficient than Winlink email over HF.

After the hurricane that devastated Puerto Rico a few years back, this was not the case. The normal communication infrastructure had been destroyed. In these types of scenarios, it is where Winlink Express email sent via HF can make significant contributions to emergency disaster relief. With this approach a Ham can send an email via HF to a distance HF station that is connected to the internet. That internet connection is then used to relay the email to its intended recipient, whether that recipient is located locally, nationally, or globally.

My goal since downloading the Winlink software has been to send email over HF. As stated earlier, at that time I didn't have the required equipment or my current General class license privileges. That has since changed. In addition to my Yaesu 857D, laptop computer, and 20/40 di-pole that I already had, I needed to acquire a Signalink USB Interface and a Yaesu 857D compatible CAT cable. The Signalink USB Interface allows the Winlink software to communicate with the Yaesu 857D. The CAT cable allows the software to change the frequency on the radio automatically based on frequency selection in the software. While it is not required to have a CAT cable to send email, I highly recommend getting one for using Winlink. You can manually change your radio's frequencies to that matching the selected frequency in the software; however it quickly becomes tedious when searching for a clear frequency. This additional investment in needed equipment was under \$160.00 including shipping and handling.



The real trick for me having success sending email over HF was getting help from Elmers. I don't consider myself ham radio or electronic tech savvy. Greg K9LEC came to my house and helped me setup the 20/40 di-pole I eventually used to send my first email. Ken W9GM, spent hours over the span of a couple of weeks working with me over the phone to properly configure my radio, Signalink, and Winlink settings. It was becoming really frustrating, but even though Ken doesn't own an 857D he never stopped trying to help me get to my end goal.



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In addition to the internet based Telenet Winlink within Winlink Express mentioned earlier, you have the HF based options of Winmor Winlink, Ardop Winlink, and Vara Winlink under the session pull down menu. Ken and I tried all three of these and even attempted a Peer to Peer session in Winmor Winlink with almost near success. It wasn't until he contacted a fellow ham friend in Louisville, KY and got his Yaesu 857D radio settings he used when sending Winlink HF email that I felt I was going to be successful. I then took the recommended radio settings and kept playing around until one night I made a connection on 20 meters using Vara Winlink within the Winlink Express software. I recommend the Vara Winlink, as for my experience it was the only one that I had success sending email. I also plan on upgrading to the paid version that offers a higher data transfer rate.

With my mom living in Tampa, FL, where hurricanes are not uncommon and having family and friends living at the northern end of Tornado Alley, having another communication tool available to me was extremely important. I recommend and encourage everyone of our club members learn more about and try Winlink email via HF.

Shawn KD9KGQ



RIVERLAND AMATEUR RADIO CLUB

Monday, August 17th, 2020 Board Meeting

MINUTES

Call to order: 5:35, 2235 UTC

Members Present : Dan AB9TS, Carl KC9HDS, Shawn KD9KGQ, David KB9EWG, Rick KD9GVS, Bill KE9XQ

Approval of Minutes: David motioned to approve July minutes as written

Treasurer's Report: Dan gave a summary, full report available upon request from Drew, AB9NE

Old Business:

Rotary lights – Per Shawn, we are signed up and are awaiting assignments.

Newsletter articles – Carl, Shawn, and Bill all have potential ideas on topics. Drew wrote an article on building a Cootie key.

Fox Hunt – no progress

Wires-X – Dan has the HRI-200 and the W9UP room up and running. We will experiment with Wires-X further as time permits.

Committee Report

Messages on the 146.970 repeater – Dave will continue posting messages if he is able when his new shack is up and running, otherwise Rick would also like to learn how it is done.

Old repeater equipment – Dan suggested selling the oldest equipment the club currently has, and keeping the 2nd oldest repeater as a back-up.

New Business :

Monthly program – NVIS demo scheduled for Sept 1st club meeting activity

New regularly scheduled net on the digital side of the 146.970 repeater was discussed, the thought is it's a good idea. May-be schedule after the regular Sunday night net ?

Roger will be doing an in-person VE test session on Sept. 5th at a park shelter in Onalaska, contact him for more info.

Program ideas – Winlink presentation, battery powered HF radio, NVIS demo

Motion to Adjourn: 6:25, 2325 UTC

Homebrew Cootie

By Drew Neve - AB9NE

Although no longer required as part of the licensing process, Morse Code remains an effective and enjoyable mode of communications. Getting started can be a challenge, so organizations like Straight-key Century Club (SKCC) and CWOps help hams both learn code and develop their skills with it. SKCC encourages use of manual keys where the operator forms the dits and dahs rather than having the character length formed by a computer or electronic keyer.

A straight key works by closing the transmitter keying circuit when holding the key down. A cootie works on a side-to-side basis. The transmitter is keyed by moving the switch to the left and right, holding it for the length of time needed to form the dits and dahs. You merely close the circuit. This is very different than an iambic keyer that will form a string of dits by holding a paddle to the right, dahs by holding it left, and alternating dits and dahs by squeezing the two paddles.

A cootie is based on having a piece of metal that acts as a spring and stays straight while you push it back and forth between the two contacts. Typical sources of spring metal that cootie-builders use are spark plug feeler gauges, or hacksaw blades. I used a hacksaw blade. Hacksaw blades have a hole at each end, but it was necessary to make the hole a bit larger to accept the screw that holds it to the mounting bracket. Then I started setting up the contacts. I read an article about cooties that suggested 2 1/2 - 3 inches is a good length for the spring. I found that the narrow end of a 1 x 4 is not wide enough, so I mounted it the opposite way. This also works in that it gives me a piece of the base to hold while sending. CW operators often look for heavy bases for their keys. My goal was to experiment and use materials I already had. I have a second hand available, so I don't mind using it. I soldered the wires to the angle brackets, used adhesive felt chair leg bottoms as the handles, and adjusted the contact screws to my personal preference.

I've seen Youtube videos about cooties and email conversations by SKCC members, some recommended starting each character my moving to the right, and some recommended the left. I'm not sure it matters, but I do recommend finding a favorite and sticking to it. There is a knack to using it and practice helps proficiency. The side-to-side motion is easier on the wrist than a straight key, and the upper limit of speed is significantly higher than a straight key. I doubt it will replace my iambic keyer, but it makes for a fun project and it is a device I can use for the SKCC events. They are fun events and help to develop operating skills.



CLUB INFORMATION



Riverland Amateur Radio Club

PO Box 621

Onalaska, WI 54650

The Key is published monthly and e-mailed to members and friends of the Riverland Amateur Radio Club by the 28th of each month.

The newsletter focuses on news, announcements and activities of the Riverland Amateur Radio Club. It may also consist of news and information of interest to the Amateur Radio community as a whole. Guest editorials and articles related to Amateur Radio are welcome.

Address any correspondence or anything that should be included in the newsletter to: Greg Miller at KA9FOZ@gmail.com.

The Riverland Amateur Radio Club maintains a website at rarc.qth.com. More information about the club can be found there as well as past copies of The Key.

RARC also maintains a Facebook page where members add information and share there Amateur Radio adventures. Please friend us at Riverland Amateur Radio Club—RARC.

RARC maintains a repeater that is located on the WXOW television tower above LaCresent, MN. 146.970 pl 131.8.

RARC holds a weekly 2meter net on Sundays at 8:00 PM on the 146.970 repeater.

Trustee Meeting is held the 3rd Monday of the month at Perkins Restaurant, 9428 State Road 16, Onalaska, WI 54650 at 5:30 PM, all club members are welcome.

Program evening is held the 1st Tuesday of the month at 7:00 PM, elmer session at 6:30 PM at 401 West Avenue in LaCrosse.

Below are listed your RARC 2019 Board of Trustees and contact information.

President.....Dan Abts, AB9TS Email...ab9ts@yahoo.com

Vice-President.....David Peters, KB9EWG Email...kb9ewg@gmail.com

Secretary.....Rick Kolter, KD9GVS Email...rckolter@gmail.com

Treasurer.....Drew Neve, AB9NE Email...ab9ne@yahoo.com

Trustee.....Carl Thurston, KC9HDS Email...kc9hds@gmail.com

Trustee.....Bill Wood, KE9XQ Email...ke9xq@charter.net

Repeater Trustee...Shawn Hicks, KD9KGQ Email...eistim68@gmail.com

Newsletter Editor.....Greg Miller, K9LEC Email...ka9foz@gmail.com