

**October 2021**

# The Standing Wave



*The monthly newsletter of the Hiawatha Amateur Radio Association of Marquette, Michigan. Comments and suggestions can be sent to the club at P.O. Box 1183, Marquette, MI 49855 or to the editor at [n8nav1@charter.net](mailto:n8nav1@charter.net) Club info, membership, dues, etc. can be found on our website at [www.qsl.net/k8lod](http://www.qsl.net/k8lod)*

**MONTHLY MEETING:**  
**Marquette Co. Health Department**  
**Lower Level, Negaunee Township.**  
**Date: Thursday, Nov. 4, 2021**  
**Time: 7:00 PM**

**CLUB OFFICERS, 2021**  
Pres. Lou Gembolis KG8NK  
VP: Greg Hanson KI8AF  
Treas. Mike Beltz KD8JIR  
Sec. Lee Rowe KD8BJC  
Board Members:  
Fred Mouser KD8JIP (Past Pres.)  
Jim Belles, N8NAV (EC)  
Dave Thomas KD8DRF

**STANDING WAVE**  
Editor, Jim Belles N8NAV  
Distribution, Greg KI8AF

**REPEATERS**  
With the proliferation of local and regional repeaters, it is no longer feasible to list them individually. However there is an extensive list – and map – contained in the HARA website at [www.qsl.net/k8lod](http://www.qsl.net/k8lod).



## FROM THE PRESIDENT

With the all the pandemic challenges the club has faced, hopefully the coming New Year will be a great time to meet once again with all of you. This has been a busy year keeping our four repeater systems and the linking we provide up and running. So far HARA is financially sound, and we are using our funds carefully as needed. Presently your dues are keeping us in the black. The Swap & Shop is our major fund raiser and, if canceled once again, this could put stress on our funds.

We are planning our annual Christmas Party and the Swap & Shop Hamfest, but if COVID 19 continues to rise in our area then we may have to cancel; especially if the locations start to not allow anyone to use their facilities. It has been noted that FT-8 has been great for Ham Radio by getting more hams to get back on the air with digital radio.

**73, Lou, KG8NK**

## V.E. TESTING:

December 11, 2021     **Marquette:** 8:30am eastern time, (arrive by 8:00am) Marquette County Health Dept. Bldg., U.S. 41 just east of the Michigan State Police Post. **You MUST preregister** at least by the Tuesday evening preceding the Saturday test date. Contact Rich N8GBA at 249-3837, [n8gba@att.net](mailto:n8gba@att.net) or Greg KI8AF at [ki8af@arrrl.net](mailto:ki8af@arrrl.net).

Please arrive one-half hour early for test sessions to give time to process applications. Testing applicants should bring the following items with them: Two pieces of I.D. one being a photo I.D., Original license and one clear copy of their license if applicable, Completed form 605 (one will be provided if you don't have one), pencils, calculator and the test fee of \$15.00. Please have the correct fee as examiners do not carry change. **You must have an FRN and provide a valid email address.** *Please contact the individual(s) listed to confirm date(s), location(s), etc.*

**Note:** Other clubs in the area may offer license testing. For a listing you can go to the ARRL website at [arrrl.org](http://arrrl.org). Click on *Licensing, Education, Training*, then *Getting Licensed*, and then *Find An Exam Session*. You can search by zip code or other criteria.

## HARA's Monthly Meeting Programs

**NOTE:** The Club is always looking for Ham Radio-related programs of interest to the membership. If you have something in mind, please contact VP Greg Hanson @ [ki8af@arrrl.net](mailto:ki8af@arrrl.net).

## **The Business**

### HIAWATHA AMATEUR RADIO ASSOCIATION

Monthly Meeting  
October 7, 2021

President Lou KG8NK opened the meeting at 1900 hours with a short comment about his ongoing computer problem attempting to get the WSJT-X software to work properly in the FT8 mode. Problem resolved....make sure you select the correct operating mode of the many available.

Attending: President - Lou KG8NK; VP - Greg KI8AF; Treasurer - Mike KD8JIR, 10 members and 1 guest. The guest was recently licensed Bob KE8SXO who then joined HARA. Welcome aboard Bob!

The proposed meeting agenda was accepted.

**Secretary's Report:** Motion to approve by Dave, KD8DRF, seconded by Dave, KE8PND to accept the September meeting minutes as published in the Standing Wave. Approved.

**Treasurer's Report:** Motion to approve by Dave, KD8DRF, seconded by Dave, KE8PND to accept the August 2021 and September 2021 treasurer's reports as presented. Approved.

## Committee Reports:

Repeaters: Repeaters are working good but we still are experiencing some problems with the 82 system. Repairs were made to the feedline connectors which has given us a great SWR reading on the feedline right at the 82 repeater. The linking system is working fine once you get into the 82 repeater. There seems to be a possible power out problem with the repeater itself. We will be checking into this.

ARES/RACES: Jim N8NAV our EC gave a report on the upcoming SET exercise. Those assisting with the exercise have been notified and have been provided with the needed scripts and forms. This is an ARRL ARES exercise, you need to be an ARES member, and it's easy to become one, just contact Jim.

Newsletter and PR: Jim N8NAV continues to do a great job with our monthly newsletter but can always use news items of interest, photos, and items for sale. Greg, KI8AF said he'd try and get a PR program moving again for announcing meetings and special events to the general public.

**Election of Officers:** With no one volunteering to accept an officers position, Lou, KG8NK, Greg, KI8AF and Mike, KD8JIR stated they'd be willing to serve in their respected positions for one more year. With no further candidates for these three positions a voice vote was held and approved unanimously. Some discussion being held about the secretary's position, Greg nominated Scott, WU8H for the position. The nomination was supported by Dave, KD8RDF. Scott accepted the nomination and a voice vote was held with full approval. The remaining board members are Fred, KD8JIP, Dave, KD8DRF and Jim, N8NAV.

**New Business:** A reminder the Christmas Party, Ski Race, Sled Dog Race and Swap & Shop are in the planning stages. Your help and support will be greatly appreciated as each event gets closer.

Motion to adjourn at 1930 hrs by Dave, KD8DRF, seconded by Scott, WU8H. Approved

Program: Tubes and tube testers by Lou and Greg

Minutes submitted by Greg KI8AF



Greg, KI8AF and Lou, KG8NK set up their tube testers.



Greg, KI8AF prepares to test a tube while Bob, KE8SXO looks on.

**Friday Lunch is back!**  
**(meet in the back room at Big Boy at 11:00 am)**



Left side: Judi, KE8LRW, John ex-N8RSE, Jim, N8NAV, Dave, KD8DRF (hiding), Greg KI8AF  
Right side: Don, N8HDT, Tom, KC8OND, Bill, KD8ZEG, David KE8PND, Fred, KD8JIP

**Happenings!**

The following is a list of local events that, as of press time, are happening:

- HARA Christmas Party – stay tuned for details.
- HARA Swap & Shop – February 5, 2022 at the Negaunee Township Hall.



**HARA 10-meter Net**

Some months ago, the club established a weekly get-together on 10 meters. The original intent was to give those Hams with a Technician-class license a chance to gain experience on HF SSB. Since that time, it has grown into a combination rag-chew, Health & Welfare and generally an old-fashioned good time! We continue to have a good showing of “regulars” and visitors! With the Cycle 25 (hopefully) increase in propagation, 10 meters appears to be hopping. 28.400 MHz is a calling frequency, so we have decided to move our net to **28.396** on Friday nights at 7:00 pm local time. Net control is usually Greg, KI8AF. Because it is a local net, you don’t need to run much power or have a big antenna installation to be heard. So finish your Friday fish fry early and join us on 10 meters! We look forward to hearing you!



### A Note about Photo Submissions

A couple of things to keep in mind when submitting photos to be published in the Standing Wave:

1. We always prefer shots of Hams in action over those just depicting random people or scenery.
2. We'd love to include captions to go along with the photo. So please identify the individual Ham(s) as well as the activity. THANKS!

### Challenge

At a recent Friday lunch session, an idea was floated about putting together some sort of a monthly challenge for our HARA membership. Some ideas included trying a new band or mode, working a certain number of new states or DX countries, participating in an on-air contest or Special Event. The "prize", in addition to personal satisfaction, could be something like a certificate (aka wallpaper) and/or your article in the Standing Wave.

Your thoughts and ideas are always appreciated. You can send them to a Club officer or me.



## News

from the desk of N8NAV



The Simulated Emergency Test, or SET, is an ARRL-sponsored annual exercise that occurs in October. As the name implies, it is another opportunity – along with Field Day and others – for us to demonstrate our ability to provide reliable communications support during an emergency situation.

This year, the State of Michigan decided to combine individual group efforts into a statewide exercise that was held on Saturday, October 9, 2021. Our local ARES group was a part of that exercise. Our portion started at 9:00 am when we took control of the 147.27 MHz (K8LOD) linked repeater network. We simulated a response to an explosion and fire in the City of Marquette that disrupted normal public service communications. A total of eight (8) local Hams performed simulated communications support duties at the explosion site (Dave, KD8DRF), Incident Command Center (Greg, KI8AF), city fire (Fred, KD8JIP) and police (Dave, W7DEG), area hospitals (Don, N8HDT and Jim, N8NAV) and a shelter (David, KE8PND) for displaced casualties. Lou, KG8NK, even went mobile into Dickinson and Iron counties to prove the extended reach of our VHF repeater network! And, as further evidence of such reach, we had a check-in (Roger, KB8PLR) from Delta County.

Another part of the exercise tested our ability to contact adjacent counties using VHF simplex and to pass message traffic to the State Emergency Operations Center (SEOC) in Lansing using HF SSB. In that part we were not so effective. But now we – and hopefully the powers that be – know our limitations.

My thanks and Well Done to KG8NK, KI8AF, KD8DRF, KD8JIP, W7DEG, N8HDT, KE8PND, Mike, KE8IL, who checked-in and Roger, KB8PLR (Delta County) for their assistance and great work!

We are always looking for new ARES members. If interested, you can download an application from the ARRL website, [www.arrl.org/ares](http://www.arrl.org/ares) and email it to me at [n8nav1@charter.net](mailto:n8nav1@charter.net), or contact me and I will arrange to get an application to you.

Stay safe and enjoy what's left of our beautiful UP fall! 73 de Jim, N8NAV



Fred, KD8JIP, checks in to the exercise from his impressive home station.



Dave, W7DEG, operating portable while on assignment.

### **Buy, Sell, or Trade**

**Please advise when items have been bought or sold.**

Lee, KD8PJC, has a fox hunting antenna for sale.  
No other details provided.

Her contact info: [ldrowe@charter.net](mailto:ldrowe@charter.net)

Tom, WA8VHO, has a General Class  
license study manual, 9<sup>th</sup> edition (current)  
for **FREE**.

Available for pick-up in south Marquette.

Contact Tom at: [wa8vho@aufrance.com](mailto:wa8vho@aufrance.com)

## **Parting Thoughts**

1. Two articles from page 70 of the October 2021 issue of QST:

### **FCC Application Fees Unlikely to Go into Effect Until 2022**

The schedule of FCC amateur radio application fees likely will not go into effect before 2022. FCC staff confirmed during a July virtual meeting with Volunteer Examiner Coordinators (VECs) that the agency is still working on the necessary changes in the Universal Licensing System (ULS) software and other processes and procedures that must be in place before it starts collecting fees from amateur applicants.

Once it's effective, the \$35 application fee will apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications. Administrative update applications, such as those to change a licensee's name, mailing, or email address, will be exempt from fees. ARRL VEC Manager Maria Somma, AB1FM, said Volunteer Examiner (VE) teams will not face the burden of collecting the \$35 fee.

"Once the FCC application fee takes effect, new and upgrade applicants will pay the exam session fee to the VE team as usual, but they'll pay the \$35 application fee directly to the FCC using the FCC Pay Fees system," she explained. When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate, who will then have 10 days from the date of the email to pay.

After the fee is paid and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license. The FCC no longer provides printed licenses.

### **ARRL Provides Free RF Exposure Calculator**

Under new FCC guidelines and procedures for evaluating environmental effects of RF emissions, some amateurs must perform routine station evaluations to ensure that their stations comply with the RF exposure rules. This can be as simple as running an online calculator to determine the minimum safe distance between any part of your antenna and areas where people might be exposed to RF energy from your station. Amateurs can take their own measurements, but evaluations can also be done by calculation.

To simplify the task, ARRL now provides an RF exposure calculator on its RF Exposure page, at <http://arrl.org/rf-exposure-calculator>. To use the calculator, enter your transmit peak-envelope power (PEP) and operating mode, and answer the questions about the maximum amount of time you might be transmitting. The calculator will give users the minimum distance people must be from your antenna and human exposure.

Results may be printed for filing; these do not need to be sent to the FCC.

2. Keeping us in the Hamfest frame of mind, our Midwest (Ohio) correspondent, John V., recently attended the Cleveland (OH) Hamfest and sent along these photos:



Looks like a nice selection of goodies!



But John, those aren't tubes!



That's better!

3. And finally, from Fred, KD8JIP:

## What Does the Solar Flux Index Mean?

**The SFI number is the number of solar flares**

**Solar flux** is measured in **solar flux** units (SFUs). It is the amount of radio noise or **flux** emitted at a frequency of 2800 MHz (10.7 cm, hence is it also called the 10.7 cm **flux index**).

### A and K INDEX

When talking about the solar cycle the numbers are based on 'smoothed' numbers, this means the monthly average rather than the figures for each day. Using 'smoothed' numbers gives more accurate results, daily solar activity varies dramatically, making accurate results difficult. A and K INDEX are measurements of the magnetic field activity that are used in predictions.



The K index is a reading of the magnetic activity as compared to a 'quiet' day made from various locations. This index is in the range 0-9. The K index is the average of these readings.

K = 0 Inactive

K = 1 Very quiet

K = 2 Quiet

K = 3 Unsettled

K = 4 Active

K = 5 Minor storm

K = 6 Major storm

K = 7 Severe storm

K = 8 Very severe storm

K = 9 Extremely severe storm

The A index relates to geomagnetic stability and is calculated from K indices for the previous day.

A = 0 – 7 Quiet

A = 8 – 15 Unsettled

A = 16 – 29 Active

A = 30 – 49 Minor storm

A = 50 – 99 Major storm

A = 100 – 400 Severe storm

A quick example of the A & K numbers

Say we are waiting for excellent conditions on the HF bands, then we are looking A and K indices of 0 lasting for a few days. Combined with a SFI (above 250). This can get all messed up by various random things happening on the sun, with these numbers you would be having a good time on HF.

If your interests are the lower HF bands, low A and K indices with very low SFI numbers would be the go.

In the real world generally propagation conditions are OK when the A index is 10 or lower, and the K index is 3 or lower and the SFI above 90. But remember lots of hams (Some like me using compromised antennas and low power) worked very good DX, added new DXCC entities to our logs, made new friends and had lots of fun. All at the bottom of the last solar cycle, when the numbers were terrible. So don't let understanding the numbers stop you from getting on the radio. There are countless stories about surprises on supposedly dead bands.

Cheat notes (for the non readers)

The A index [ LOW is GOOD ]

- 1 to 6 best
- 7 to 9 is OK
- 11 or more not so good

K index [ LOW is GOOD ]

- 0 or 1 best
- 2 is OK
- 3 or more not so good
- 5 is really terrible

SFI index [ HIGH is GOOD ]

- 70 not good
- 80 good
- 90 better
- 100+ best

Thanks to AL (VK4BL)

## Local Weekly DMR Net

The weekly DMR net starts each Sunday evening at 6:30 pm local time and is finished by the start of the HARA Sunday evening net.

The DMR net meets on our local KB0P DMR repeater and/or the U.P. Michigan Talk Group. Lucille KD8PTE is usually net control.

Repeater: 442.200 MHz receive/447.200 transmit

U.P. Michigan Talk Group: 31268



That's a wrap for this month!

**HARA membership** New member or need to renew your membership? Dues can be mailed to the: Hiawatha Amateur Radio Association, P.O. Box 1183, Marquette, MI 49855. Dues annual rate structure: Single \$15.00, Family \$20.00, Associate \$10.00, Family associate \$15.00, Student \$7.50. More information and an application form is available at <http://www.qsl.net/k8lod/membership.html>

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