

**December 2022**  
*Merry Christmas*

# 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: **January 5, 2023**  
Time: **7:00 PM**

**CLUB OFFICERS, 2023**  
Pres. Lou Gembolis KG8NK  
VP: Greg Hanson KI8AF  
Treas. Mike Beltz KD8JIR  
Sec. Scott Machalk WU8H  
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

The HARA Christmas party was held on December 1st and everyone in attendance had a great time. There was plenty of food and desserts! It was nice visiting with everyone, and it was a very relaxing evening.

With HF conditions improving it's time to dust off your radio equipment and get on the air. We are also entering contest season with various contests scheduled during the next several months. You do not need expensive rigs and antenna arrays to participate; just a radio and wire antenna will get you on the air.

If you want experience operating contests, you can go to the ARRL site on the Internet ([arrl.org](http://arrl.org)) to see the requirements for each contest. Also, 10 meters is starting to open and will be improving all winter (I hope).

I wish you a Merry Christmas and a Happy New Year. Hope to see you at the January meeting.

**73, Lou, KG8NK**

## V.E. TESTING:

**Stay Tuned** *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@arrl.net](mailto:ki8af@arrl.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 [arrl.org](http://arrl.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@arrl.net](mailto:ki8af@arrl.net).

**The monthly program for the January 2023 meeting will be a presentation on Raspberry Pi by Scott, WU8H.**

## The Business

### HIAWATHA AMATEUR RADIO ASSOCIATION Monthly Meeting (Christmas Party) December 1, 2022

Attending: President - Lou KG8NK; VP - Greg KI8AF; Treasurer - Mike KD8JIR, Secretary - Scott WU8H, 17 members and 16 guests.

Social Hour: 5:30 pm. This being the annual Christmas Party, no formal club business was conducted.

President Lou opened the festivities at 6:30 pm with a welcome to all, followed with a beautiful Grace by Ann, N1CDG, first in Hebrew and then translated in English. An excellent potluck meal and dessert was followed by the 50/50 drawing, won by Tom, KC8OND. Door prizes were given out to just about everyone who attended. The main prize, two HTs, were won by Don, N8HDT, and Rich, N8GBA.

A great time was had by all!

Minutes submitted by Scott WU8H

**The officers of HARA and the staff at The Standing Wave wish everyone a Merry Christmas and a safe and prosperous New Year!**

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



Left side: Dave, WD8PAK, Judi, KE8LRW, Pam, KD8KMN, Joe, AJ8MH, Don, N8HDT, Greg KI8AF  
Right side: Bill, KC8EWD, Dave, KD8DRF, Tom, KC8OND (hiding), Bill, KD8ZEG, Jim, N8NAV, Fred, KD8JIP

**Happenings!**

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

- Noquemanon Ski Marathon - January 27-28, 2023. Contact Eric Smith, N8RRZ.
- UP 200 Sled Dog Races - February 16-20, 2023. Contact Paul Racine, KB0P.



**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!

# *HARA Christmas Party* — 2022



President Lou, KG8NK, welcomed the group.



Treasurer Mike, KD8JIR, (standing left) encouraged everyone to pay their dues to be eligible for the grand prize.



Everyone anxiously awaiting their chance at a door prize. Tom, KC8OND, (standing left) won the 50/50.

## 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



It seems (to me) that this year is slipping by way too fast! So fast that I didn't get much of a chance to advertise one of my favorite operating events – the annual Skywarn Recognition Day – held the first Friday/Saturday in December. As the name implies, Skywarn Recognition Day is an event that recognizes the hard work that the network of Skywarn Storm Spotters provide. With COVID restrictions eased a bit, this year Hams were permitted back inside the National Weather Service (NWS) office in Negaunee for the 24-hour event. Four Hams – Jim, N8NAV, Bill, KC8EWD, Dave, KE8LRX, and Jim S., KF5KAI – operated from WX8MQT which is the callsign assigned to our local NWS station. (See photos elsewhere in this issue – Ed.) Compared to previous years, the bands were in pretty good shape. Both Dave and Jim S – currently Technicians – got a taste of operating in the HF bands and were enthused about upgrading their licenses (a hint to others)! At the conclusion, we made 70 HF and VHF contacts, 18 of which were with other NWS offices from across the US. This is a really fun annual operating event! Our thanks to Robin, KC8TII, and Matt, KD8EFY, for opening up the NWS office for our use. I hope to see you next year!

Last month I made mention that operating during an emergency requires more than just showing up with your HT! Under the Incident Command System (ICS), there are standardized rules and reports that we Hams **MUST** utilize when providing communication support during an emergency. I again borrow some comments from John Ferguson, K3PFW, who pens the Emergency Communications column in CQ Magazine, who writes in his November 2022 article, "The ICS "basic four" are the **minimum** (emphasis added) requirement for most volunteers:

- IS-100: Introduction to the Incident Command System
- IS-200: Basic Incident Command System for Initial Response
- IS-700: An Introduction to the National Incident Management System
- IS-800: National Response Framework, An Introduction

If you are a current ARES member, you should complete at least these four (there are others available). These courses are available on-line from the [fema.gov](http://fema.gov) website. Now that winter has arrived and most of us spend more time indoors, this is the perfect opportunity to gain some important knowledge. Once you complete a course, please send (or give) me a copy of your completion certificate so that I can update your training record.

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!

73 de Jim, N8NAV

## Skywarn Recognition Day – 2022



The antenna array at NWS Negaunee.



Dave, KE8LRX, at the mic.



Bill, KC8EWD, was a serious operator!

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

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

Ryan, N8RY, has the following for sale:

1. Ameritron AL-1500 linear amplifier (pre-MFJ)
2. Yaesu FT-1000mp MKV Field (built in pwr supply)
3. Yaesu FT-920 (HF+6M)

If interested, or for more information, contact Ryan at [n8ry@chartermi.net](mailto:n8ry@chartermi.net).

## **Parting Thoughts**

1. From the October edition of Michigan Section News:

Thanks to the Hiawatha Amateur Radio Association for their wonderful hospitality and luckily great weather, we arrived after the big snow fall just west of there and after the temperature warmed up. No matter the season Michigan's Upper Peninsula is always beautiful. It is always great traveling the state and meeting Amateur Radio Operators.

2. A couple of items from Paul, KB0P, and our comrades to the south:

A. Activities: This time of year brings out a list of radio contesting as well as other Special Events. You can find the rules and other info at the ARRL.ORG site:

- January 1<sup>st</sup> Straight Key Night
- January 1<sup>st</sup> Kids Day
- January 8-9 RTTY Roundup
- January 15-17 January VHF

B. Software update: If you have liked to have human chats as with PSK31 or RTTY rather than mechanical as FT8, you may want to look into VarAC. EA5HVK is the maker of Vara HF and FM. These modems have sped up the message sending of Winlink and now providing us with the updated VarAC V6.3.3. Be sure to read what other updates may be required for operation.

3. From the December edition of Dale's, W8EFK, Tales:

- December is Youth on the Air Month. It is time to fire up the club station and introduce ham radio to all the kids in the neighborhood. According the recent YOTA News release, Amateur radio operators age 25 and younger will be on the air as special event stations around the world throughout December in celebration of youth in amateur radio. YOTA Month stations will be on all bands and modes at various times. QSL and award information is at [events.ham-yota.com](http://events.ham-yota.com).

- A couple of weeks ago I got a note from one of our members in Redford, MI. He commented that he had done a little research on some local clubs by looking at their web pages. What he found were many cases of seriously outdated pages and many links that just were not operating. I also checked, randomly sampling clubs throughout the Great Lakes Division. He is correct. Some were actually years out of date.

We all understand the people move, retire, and just plain change, meaning that these details are often overlooked. So, a reminder to all radio club webmasters and club officers: As this year ends, it would be really helpful to look at your club's web pages and make sure they contain the correct links and the information is spot-on accurate. It is all helpful material, especially for new hams and those who would link info on your club, let's make a real effort to insure you are providing accurate and timely information.

- As the year closes, it is time to recognize some unsung heroes of ham radio. These are the groups who tackle some heavy problems, sometimes controversial problems and always seemingly unending problems. They are our Amateur Radio Repeater Coordinators. Perhaps you are not familiar with their efforts but they do their best to find an available frequency for a new repeater, insure that those who have a coordination are truly on the air and they now struggle with the need for new channels for our influx of digital systems, and that it only the tip of the proverbial iceberg.

Properly coordinating repeaters means (among many other things) finding a clear frequency within a certain geographic range for repeaters thus minimizing co-channel and adjacent-channel user interference. A properly coordinated repeater according to FCC rules receives a degree of protection if it is suffering interference from a non-coordinated repeater. The rules put the responsibility to resolve the problem on the uncoordinated system.

#### 4. And from Vice Director Scott, N8SY:

- Where is your ham shack located? Is it in the basement, garage, or outbuilding? Most generally ham shacks are not in the living room and as such, heating devices for your shack are usually some sort of a supplemental heater/furnace and that is why this next paragraph is so important to talk about now that the weather is getting colder. I want to talk to you about Carbon Monoxide (CO) poisoning.

First, let me describe what Carbon Monoxide (CO) is. Carbon Monoxide (CO) is the poisonous gases emitted from carbon fueled heat sources (i.e... gas or fuel oil furnaces, wood burning fireplaces or stoves, kerosene, or propane heaters). I could go on, but I think you get the idea. Carbon Monoxide is colorless, odorless and it will kill you if you breathe very much of it into your lungs. How does this gas kill? It migrates into the blood stream and replaces the oxygen in your blood with the Carbon Monoxide. Once it invades your blood stream it will be with you for many years to come. In fact, most of your life! Just ask any firefighter about that. That is where a Carbon Monoxide (CO) detector comes into play. These little devices are inexpensive (usually around \$20) and can really save you and your family's lives. Buy one or more of them now (if you don't already have one) and use them! Oh, if you haven't changed your batteries in your smoke detectors lately, you really need to do that too.

- This month we have the 160-meter, 10-meter and Rookie Roundup (CW) coming up, not to mention that there are a few hundred more contests that you could get involved with as well. Here's the link to see them all...

<https://www.contestcalendar.com/>

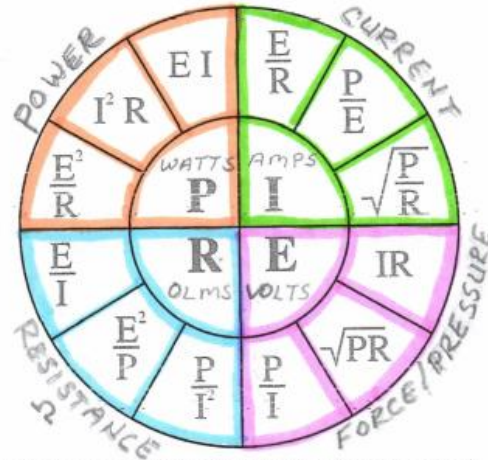


5. Finally for this month, for those who are taking the opportunity to hit the books and study for that license/upgrade, Treasurer Mike, KD8JIR, offers the following:

## 4.2 OHM'S LAW AND WATT'S LAW

It is possible to combine Ohm's law and Watt's law to produce simple formulas that permit you to solve for current, voltage, resistance, or power if any two of those quantities are known. In **Figure 4-3**, these equations are listed with an explanation of how they were created from the two laws.

These formulas can be arranged in a wheel-shaped memory device for ready reference. Refer to **Figure 4-4**. To use this device, find your *unknown* quantity in the smaller center circle. This is the left half of your equation. Next, choose one of the three variable combinations in outer circle that falls in the same quarter of the chart as



**Figure 4-4.** A memory device combining Ohm's law and the power formulas. It can be a great help when solving problems.

1. $E = I \times R$	Ohm's law
2. $E = \frac{P}{I}$	Watt's law
3. $E = \sqrt{PR}$	By transposing equation 12 and taking the square root.
4. $I = \frac{E}{R}$	Ohm's law
5. $I = \frac{P}{E}$	Watt's law
6. $I = \sqrt{\frac{P}{R}}$	By transposing equation 9 and taking the square root.
7. $R = \frac{E}{I}$	Ohm's law
8. $R = \frac{E^2}{P}$	By transposing equation 12.
9. $R = \frac{P}{I^2}$	By transposing equation 11.
10. $P = I \times E$	Watt's law
11. $P = I^2 \times R$	By substituting $I \times R$ from equation 1, for $E$ .
12. $P = \frac{E^2}{R}$	By substituting $\frac{E}{R}$ from equation 4, for $I$ .

**Figure 4-3.** This table states a variety of basic formulas that are needed to solve problems.

your unknown quantity. Choose the variable combination that uses two *known* quantities in your circuit. This becomes the right half of your equation.

For example, you are given a situation where current and resistance are known and power is unknown. Find the

$P$  in the upper left corner of the center circle. Then, find the variable combination that involves current and resistance (the middle combination of the three choices,  $I^2R$ ). Thus your final equation is  $P = I^2R$ . Plug in your known values, and solve for the power.

## **Late Breaking News!** **License Testing December 10, 2022**

HARA sponsored a VE test session on Saturday, December 10, 2022 at the Marquette Co. Health Department. Six examiners proctored exams for twelve candidates – the most at a single session that anyone can remember, at least in recent history! The result: one (1) Extra class, two (2) General class and five (5) brand new Technician class Hams have joined our ranks. Congratulations to all!



## **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 at 7:00 pm.

The DMR net meets on our local KB0P DMR repeater and/or the U.P. Michigan Talk Group. Lucille KD8PTE is usually net control, although she has recently been experiencing some radio problems and Dave, W7DEG, has stepped in to help!

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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