

Northwest Indiana DX CLUB

Volume 11, Issue 9

September 2023

President's Corner

Hello,

Join us on FRIDAY, October 6, 2023 at the renovated Sugar Bowl and enjoy a great meal as well as hearing from special guest speaker Rob Sherwood.

Meeting time is Noon (12:00)
(Order from the menu)

73
John W3ML
Good DXing!

"Working the World from the Black Hole"

NWI DX Club Website

<http://nwidxclub.weebly.com/>



Don't forget Steve Mollman is our QSL Card Checker.

DXCC Card Checking is available by appointment and may be available at meetings. E-Mail kd9hl@arrl.net for an appointment or to make other arrangements.

<i>Northwest Indiana DX Club Officers and Staff</i>			
President	W3ML	John Poindexter	w3ml.ohn@gmail.com
Vice President	W9KTP	Jerry Hess	jerryhess@Frontier.com
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W9NWI Trustee	KD9HL	Steve Mollman	kd9hl@ARRL.net
Webmaster	W9YOU	John Reardon	kd9ron@ARRL.net
ARRL Card Checker	KD9HL	Steve Mollman	kd9hl@ARRL.net

Reminder, the NWIDX Club has a club call W9NWI.

The call is available to members for use during contests, special events, Field Day, etc. To schedule dates for its use, contact the trustee, Steve Mollman – KD9HL. kd9hl@arrrl.net

QSL cards are available.

Notice:

Articles in the Northwest Indiana DX Club Newsletter (except for those separately copyrighted) may be reprinted, provided proper credit is given.

The Question of the Month

(The correct answer is at the end of the Newsletter)

When was the first documented Ship to Shore radio communication made?

**A. August 23, 1899 from the US Lightship 70 to a shore station in San Francisco, CA.
(US Lighthouse Service)**

**B. July 18, 1907 from the yacht Thelma sailing on Lake Erie to a shore station located
at Put-in-Bay, Ohio. (DeForest)**

**C. July 1898 between the Town of Kingstown, Northern Ireland, and the steamer SS
Flying Huntress. (Marconi)**

D. None of the above.

Rob Sherwood, NC0B

A brief Introduction

By

Jerry Hess, W9KTP

So how well is that transceiver of yours working? Is it a good one? Are you sure? Maybe you are thinking of buying a new(er) one. How do you know which one is best for your needs? Well, join us on **FRIDAY**, October 6, 2023 at the renovated Sugar Bowl and enjoy a great meal as well as hearing from special guest speaker Rob Sherwood. Rob has been evaluating transceivers for almost 50 years using standardize tests that make comparing units possible (see <http://www.sherweng.com/table.html>). On the other hand, it does takes expertise to understand the data. You can expect Rob to make it easier.

You also may want to visit QRZ.com and take a look at Rob's biography and his "killer" station as shown below.



ZOOM 101
By
Jerry Hess, W9KTP

Although I usually arrange for onsite speakers for our meetings, it was necessary to use ZOOM for our last meeting. Our next meeting will also be via ZOOM with Rob Sherwood, a notable expert on technical capabilities of transceivers. Apparently there are many of you that have not used ZOOM. ZOOM is an immensely capable software package and the basic steps are fairly simple to become a ZOOM user. Since I'm definitely not a ZOOM expert you may want to watch one of the several videos available from ZOOM or YOUTUBE if you want a lot more information.

You will want to get ZOOM loaded before the meeting so you will need to do the following:

1. Download the software at [ZOOM.us/download](https://zoom.us/download). Follow the on-screen instructions and the process is relatively painless.

2. The second step is receiving the "Invitation" to a meeting via E-Mail usually several days before the meeting.

3. On the date and time of meeting, click on the link in the E-Mail which should trigger the ZOOM package already installed on your computer. ZOOM will ask if you want to join the meeting. Click YES and you are ready to go. You may be put in the "Waiting Room" but don't panic. It just means that the speaker has not begun his program. It is a good idea to "MUTE" your connection so background noise from your room is not broadcast to the entire group.

That's it, good luck.

73's,

Jerry

P.S. If you have problems with ZOOM, ask a kid. Schools, colleges and libraries have been using it for quite some time.

Speaking of ZOOM

Jerry has been working on getting a grant to pay for a year's subscription to the Zoom program in order to allow us to use it for more than a half hour at a time.

Here is the response from the ARRL on the grant proposal:

Hi Jerome,

Thanks for reaching out! For ARDC to consider covering these costs you would need to submit a grant application through our website, ardc.net... Your best bet may be to raise donations from your membership to more quickly meet this need.

Best of luck with your presentation,

Chelsea KF0FVJ

(Editor Note: Submission stage is not open at this time.)

RFI on the 80 Meter Band

By Ron Dohmen, NØAT

In the summer of 2021, I noticed an unusual noise on 80 meters. I live in an urban environment, and I see a lot of noise come and go. But this noise was more consistent in that it appeared every day.

The noise was broadband in nature and was present on 80 meters only; not on any other band. It seemed strange as the noise peaked in the phone portion of the band. In the center of the phone band it was S9 with no preamps enabled and with 18 dB of attenuation. That would put it at about 20 over 9. Not insignificant.

The noise peaked in the middle of the phone band, around 3.8 Mhz. Going down the band it got gradually weaker until at the bottom of the band, 3.5 MHz, it was barely readable. At the top of the band, 4 MHz it was only about S4. Maybe some of this variability is due to the response of my dipole antenna.

The noise didn't appear 24/7 hours of the day. It started up in the morning, usually between 7 and 10 a.m., and went off during the night. When it started, listening in the center of the phone band, it would start very weak, S1, and take about 10 minutes to build up to 20 over 9. On my radio the noise sounded like an electrical motor

I went to the ARRL web site, Sounds of RFI (arrl.org) to see if I could identify the RFI. I listened to all the recordings on the web site and did not hear any that sounded like the noise I was experiencing. I sent a wav file to the link on the site to see if anyone monitoring the site could help. As I found out later, the ham in charge of this web site became SK and the site wasn't up to date.

Since the noise sounded like a motor in the neighborhood, I decided to do a little sniffing. I used my Icom IC-R2 as an EMI sniffer. The IC-R2 was set to 3.675 MHz, AM. I searched my house and found nothing.



Icom IC-R2 Communications Receiver

The noise came on in the morning and remained on throughout the day, maybe it is coming from a pump. I live in a hilly area and have a few lift pumps in the area. I thoroughly investigated the lift pumps and found nothing.

One of my neighbors works for a floor cleaning company and stores his trucks in a 3-car garage in his backyard. Maybe he has some sort of cleaning machine running during the day. I went over to his house, he wasn't home (except for his dog), and sniffed all around his garage and house and heard nothing. I did hear the noise when I put my IC-R2 sniffer at the power line coming into his house.

GETTING CLOSER

Now I started to use my sniffer to get a more accurate id on the noise. I found the noise on all down wires on electrical poles in my block. These wires could be electrical for underground service, CATV cable, or telephone wires. At one pole I found a piece of 1 ½” hardline coming out of the ground and cut off about 10 feet into the air; I found the noise on this piece of hardline.

I worked my way around my block and couldn’t directly identify the location of this noise generator. I got into my car and drove through industrial areas and found nothing.

Next, I expanded my search. Since the noise was louder on my north beverage antenna, I decided to concentrate on the block to the north of me. Now I am making progress. Walking the street, I found an area where I didn’t have to put the sniffer on a down wire off a pole. The noise was audible while walking in the middle of the street.

BRING IN XCEL ENERGY

At this point I was ready to call the electric company, Xcel Energy. I called their electrical troubleshooter at 9 AM in the morning, and an hour later there was a knock on my door. That’s quick service.

The RFI specialist was somewhat new on the job, but he showed an interest in my problem. He took note of the frequency and location of where I had been looking. He left for a while and came back to tell me he fixed some loose connections, to see if that fixed the problem, It didn’t. Now we are going to have to investigate further.

IDENTIFY THE HOUSE GENERATING THE NOISE

The next step is to identify the house where the noise is coming from. First the Xcel RFI specialist wanted to make sure the noise wasn’t coming from my house. I broke out my battery powered Yaesu FT817 to listen to the noise while he pulled the power meter on my house. The noise was still present.

After getting the OK from his boss, he went to the area where we heard the noise strongest, about a block and a half away. He opened the cutout on the electrical pole servicing the homes in the area, cutting off power to 6 homes. I was at my house and talking to him over our cell phones while he worked. When he cut the power, the noise went away! Now we are making progress.

After restoring the cutout, we needed to find out which of the 6 houses the noise was coming from. He walked through the neighborhood and began pulling meters, one at a time, until we found the house where the noise was coming from. The third house was the one.

CONTACTING THE NEIGHBOR

A few days later when the owners of the house were home, the Xcel RFI trouble-shooter stopped by and talked to them about the RFI problem. He got their phone number so I could contact them and do some further investigation. The gentleman at the house was very cooperative and interested in helping us find the noise source.

I went to his house, and he began to switch off circuit breakers until the noise went away. My wife was at my QTH listening and reporting to me over the cell phone.

When he flipped the third breaker the noise went away. He had built a custom display case with LED lighting for his antique guns. The guns in the display are heavy, he let me hold one; I don't see how anyone could hold and shoot one of these guns.

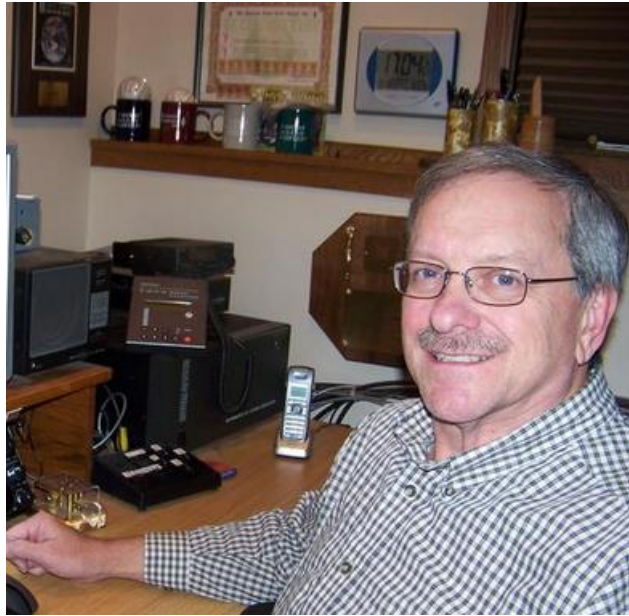
The power supply for LED display lights was generating all the RFI and putting it out on the power lines.

The display case power supply was wired through a switch in his hallway. He turned the switch on in the morning when he got up and shut it off when he went to bed. This explains the behavior of the noise coming on in the morning and going off at night.



A custom display case with LED lighting for antique guns

He said he had to take the display case apart to get at the power supply that was buried inside the wall. I suspect he was able to replace the power supply as I haven't heard the noise since.



Ron Dohmen-N0AT

This article is published with the permission of the author. Ron Dohmen is an Extra Class Amateur licensee and resides in Plymouth, MN. He is an experienced DX'er with 356 entities confirmed. His DX Challenge total is 3007. Ron has also operated as DX from many locations.

Sly as a Fox (The Fox's Secrets)

By Steve Mollman-KD9HL

FT8 and its Fox/Hound mode has become a favorite method for DXpeditions to make weak signal contacts. Many would think that the mode is just a blind computer exercise. That is not true as there are a number of unadvertised “tools” (along with a few quirks) that the Fox can use to control his communications. As always, the DX can control the pileup.

1. The mode maintains several queues in a manner that allows difficult QSOs to be completed while keeping the overall QSO rate high. It uses a “**3 strikes and you're out**” rule. Fox will call a specific Hound up to 3 times, waiting for a response. If a Hound repeatedly sends an “**received plus report**” message, Fox will send RR73 up to 3 times. Finally, the total timespan of an attempted QSO is limited to 3 minutes. When any of these timeouts is exceeded, the QSO is aborted and you are not in the log.
 2. Fox is programmed to call CQ in a single slot (and thus at maximum signal power) at least once every 5 minutes. If you see the Fox calling CQ it doesn't necessarily mean that his board is clear. **There may be**
-

dozens of stations on his screen. The CQ is programmed into the software and the DX has no control over it.

3. The Fox can limit the frequency range he is listening to by configuring the “Wide Graph” (Waterfall). Rather than looking at a wide 0-3000 waterfall he may make it smaller thus limiting the number of signals he is seeing and decoding.

4. The Fox can limit the displayed signals to those no stronger than a max dB that he selects using a max dB filter. When this happens, the “DX Hog” stations running max power and having +30 dB signals will NOT be heard. For those inclined to push the limits, a peek at PSKReporter to see what their signal is doing is called for. It may be time to cut back on the power!

5. The Fox can vary the number of streams he is transmitting. A large number of streams means that more stations can be worked each cycle BUT the more streams he uses the weaker his signal.

6. The Fox can program his CQ and received signals to a particular continent or call area. This was evident with the recent FT8WW-Crozet Island expedition when during the last weeks he directed his activity to Europe to the exclusion of North America and Asia (JA).

7. The Fox can place Hounds in a queue to be called later. This allows the Fox to “get ahead of the pileup” and take a small break. Sometimes when the Fox is doing this, the Hound has timed out his transmissions and suddenly gets a response from the Fox. Surprise! The Fox had the Hound in his queue and the Hound’s turn had come. Hopefully the Hound is “awake” and is able to quickly respond for a good contact!



As always, the DX controls the pileup.

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From Tom, W8FIB

Don't shoot the messenger but you knew, sooner or later, AI would surface in amateur radio. Just passing the info along. One reply asked if it had been tried with RTTY and the FTx modes. No answer.

73

Bill

----- Forwarded message -----

From: **Chris**

Date: Fri, Aug 25, 2023 at 1:29 PM

Subject: [TS-590] USE AI TO REMOVE NOISE IN ALMOST REAL TIME!

This is a very interesting project. Feed it SSB, CW, or FM audio from your rig, and get back a much cleaner copy in under a third of a second!

The FM model isn't so great yet, but that will improve as we feed it more recordings to train it.

Speaking of which, feed it half an hour of your own local noise so it can learn to remove it for you.

<https://ournetplace.com/rm-noise/>

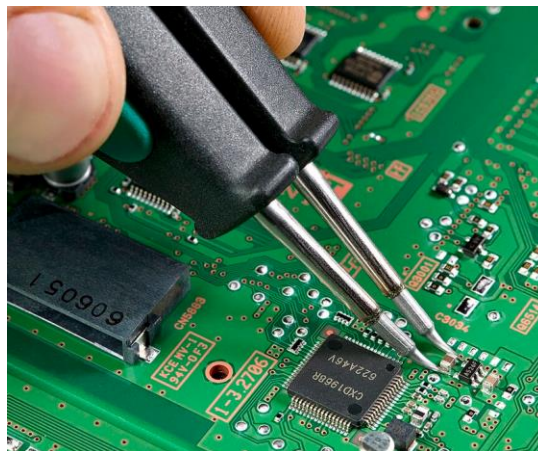
Chris

-Handy Hint-

Soldering SMD Devices

By Steve Mollman-KD9HL

The electronics world has always been in constant change. We have gone from huge to tiny with Spark-Gaps to Vacuum Tubes to Transistors to Intergrated Circuits to today's Surface Mounted Devices (SMD).



Because of their miniscule size, working with SMDs can be a challenge. Our trusty soldering iron and its accompanying solder are too large and clumsy. A SMD component can be mounted to a circuit board without difficulty using soldering paste and a craft store “embossing heat tool”.



Soldering paste, is a grey mixture containing solder and flux, is usually packaged in a syringe allowing a controlled application to the circuit board pad. Place a tiny dab on each pad. Then, using tweezers, place the component on the pad. The paste will hold the component in place.

Next, using the craft store heat tool, holding it about two inches from the component, begin the heat process. It will take a few seconds for the process to start. First the paste will become shiny, then the solder will melt and become silver colored. The solder and paste will spread beyond the pads but then retract as the solder binds to the pads. Let the board cool before you do anything else.

After the board has cooled, use rubbing alcohol to clean any excess flux from the board.

YouTube has a number of videos demonstrating the process.

<https://www.youtube.com/watch?v=4OYakUQmgd0>

Soldering paste is available from Amazon. **Embossing heat tools** are available from Amazon and craft stores such as Hobby Lobby or Michaels. An accessory that may be useful are auxiliary nozzles that attach to the heat tool and are available from Amazon.



Heat guns from Harbor Freight, Home Depot, Menards, Loews, etc. are not recommended because they will blow the component off the circuit board, lack a concentrated air blast and are better suited for large jobs such as paint removal.



Bonus Hint #1: Use a combination light/magnifying headset. Life is much easier when you can see what you are doing! We reviewed one in the March 2023 issue of the newsletter.

http://nwidxclub.weebly.com/uploads/1/3/8/5/138560097/nwidx_club_march_2023_newsletter.pdf

Bonus Hint #2: When you are finished with mounting your SMD, store the Soldering Paste in the refrigerator. The paste deteriorates at room temperatures.



Do you have a Handy Hint that you would like to share? Contact Steve Mollman at KD9HL@ARRL.net

Question of the Month Answer:

When was the first Ship to Shore radio communication made?

Answer: C. July 1898 between the Town of Kingstown, Northern Ireland and a steamer, the Flying Huntress (Marconi)

Even though there are newspaper articles and historical markers claiming that the first ship to shore radio communications were made at San Francisco and/or Ohio, it appears that Marconi was the first.



The written historical records are somewhat fuzzy and rife with conflicting claims.

Marconi telegraphy was employed to report the results of yacht races at the Kingstown Regatta for the Dublin Daily Express newspaper. A set of instruments were installed in a room at Kingstown, and another on board a steamer, the Flying Huntress. The antenna on shore was a strip of wire netting attached to a mast 40 feet (12 m) high, and several hundred messages were sent and correctly received during the progress of the races. This seems to be the first documented instance of ship to shore radio communication. Even though this was the “first documented instance”, it is probable that test transmissions occurred before then.

<Ω>



FOR SALE ITEMS

If you have ham items for sale, email me a list along with prices and contact information. I will put it in the next newsletter.

**Let me know when an item is no longer for sale so I can remove it.
For Sale items will be removed from the newsletter after 3 months.**

Mike Kasrich, AJ9C has the following items for sale.

This is a heavy-duty rotor. Just a bit too big for the top tower section where it was going to be installed. Rotor only, no controller. \$500 plus shipping or can be picked up at my QTH. Sold as is.

I have a new 250 ft spool of 4 conductor wire that I was going to use at the rotor cable that is available with the rotor at an additional cost. Wire will be available separately if not wanted by the rotor purchaser.



I have two HAM IV rotors with controller. Rotor have been rebuilt inside and out.

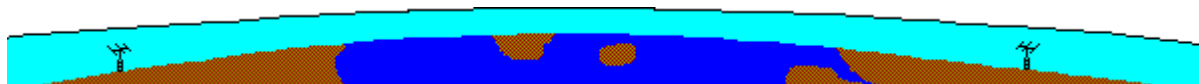
#1 the rotor is painted silver

#2 the rotor is painted gray.

\$400 for either rotor. Sold as is but rotors have been rebuilt and work like new.



I want to thank those that have been sending in articles for the newsletter. All items are appreciated.



Until Next Time,

73

John

W3ML

President Northwest Indiana DX Club

<http://nwidxclub.weebly.com/>



DX

