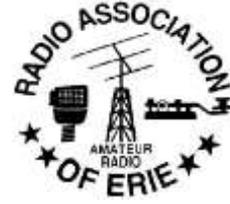




The QUARAE



Volume 19 Issue 9

Editor John Lindvay WB3IFD

September 2018

It Seems to Me

I have attended quite a few hamfests recently. I must give my wife credit for letting me be gone most Sundays traveling all over the country with Fred Kraus to hamfests. I went to the Wattsburg hamfest which I reported on last issue of the QuaRae. I went to the Portage Amateur Radio Club "Hamfair" in Ravenna, Ohio. I was glad to see it was more than a few tables. There were at least 400 yards of tables, packed with interesting electronic equipment. The hot weather quickly got to me and I went in the building, where more tables were set up with radio gear. They had a place to sit and talk to locals. I couldn't find any food available. (Not even coffee!) As we were leaving a food truck showed up, but I never found out what they were serving

I also went to the Cuyahoga Falls Hamfest. It was \$5 a carload. We made out. Fred, Rick, Gene and I were in the car. They also had free coffee and donuts. I went up to the presenters table and noticed some new Yeasu hats. I mentioned that my friend Joe was not present because his car got t-boned yesterday. They said they were for door prizes, and in the same breath they said my friend Joe won a hat. So Joe who didn't attend, got another hat. Talk about lucky.



I got a new radio/phone. It is called an RFinder and it is a DMR/VHF/UHF analog and digital transceiver and a smart phone with unlimited data from the internet. The only thing is, there was no user manual. There was

a little booklet and was half Japanese that was supposed to be the manual. I am slowly learning all the ins and outs of it by trial and error. The neat thing is it has built in GPS, so it knows where it is at all times.

IT comes with a program that lists the entire available repeater in the area with the correct frequencies, PO codes, and other relevant data and with a screen touch the radio information is automatically entered in to the radio. I now have another cell phone number. It is 814-882-2662.

Going to church doesn't make you a Christian any more than standing in a garage makes you a car.

General Meeting Minutes for July 2, 2018

Began At: 7:00 P.M.

Board Members and Officers Present : N3SRF-GEORGE, AD4UL- DOUG, KB3ZVH- RICHARD, K3PLV-CRAIG, WB3DOM- RON, KC3GBD- BOB.

Members Present: KE3V- KENN, K1MRK-MARK, N3SRF-GEORGE, AD4UL-DOUG, KB3ZVH-RICHARD, WA1YJZ-RICHARD, K3PLV-CRAIG, KC3GOC-MIKE, WB3DOM-RON, KA3CPV-JOE.

Program: Early 1920's Radio.

New Hams: None

Silent Keys: None

Visitors: Mark K1MRK

Treasurer's Report: \$993.32 Checking Paid Electric Bill \$46.20

Membership Report: From George 16 life Members and Paid Members 34

Facilities Report: We need to weather seal the ramp.
Will be done by George and Ron on 7-20-2018

Repeater Report: James Delancy from M.U.R.S. 2 way
Radio will be checking the Repeater System

Public Service: P.I. Triathlon 8-25-2018, Beast on Bay 9-
08-2018, PI Marathon 9-09-2018, See Doug AD\$UL to
sign up to help.

Old Business: Chain at Steps to Basement

New Business: None

Meeting End At: 7:33 P.M. Followed by Program

Submitted By Secretary Richard Quinn KB3ZVH

Jokes about German sausage are the wurst.

Manufacturer Recall notice:

Manufacturer Recall Notice:
Tin Foil Hats manufactured between
1929 and 2018.
1. not effective below 900 MHz!
2. attract HF and VHF frequencies!



Circular Waveguide Below Cutoff

$$f_c = \frac{1.8412 c}{2 \pi a}$$

Warning to all wearers of Tin Foil Hats. Tin Foil
Hats manufactured between 1929 and 2018.

1. not effective below 900 MHz!
2. attract HF and VHF frequencies!

Below Cutoff >

$$f_c = 1.8412 c / 2\pi a$$

Where:

f_c = circular waveguide* cutoff frequency in Hz

c = speed of light within the waveguide in metres
per second

a = the internal radius for the circular waveguide in
metres

* tin foil hats are shorted waveguides.

The waveguide below cutoff frequency determines
the lower end of frequency protection for tin foil hat
wearers.

Factoid: Modern mind control and FMRI mind-
reading entities use frequencies > that are far below
the effectiveness cutoff frequency of the common
tin foil hat. The tin foil hat may actually increase
the effectiveness of LF/HF/VHF mind control
waves, by acting as a receive antenna.

Some conspiracy theorists have suggested that the
proliferation of the tin foil hat could even be part of
a deeper conspiracy to increase the effectiveness of
remote mind control and mind-reading entities,
among the very population demographic that they
want to control the most.

Sage advice from a famous RF Engineer and MRI
machine designer:

The tin foil hat will do more harm than good in the
High Frequency part of the spectrum.

The tin foil hat acts more like an attracting receive
antenna at frequencies below UHF/microwave.

Where the wavelength of the signal is longer than
the diameter of the hat, the wearer is attracting
rather than rejecting the signal :)

see info: circular Waveguide below cutoff
calculation.

Waveguide λ cutoff

For the archtypical 3.5 inch diameter (9cm) tin foil
hat, the Waveguide cutoff frequency is: 977.3 MHz
Keep in mind that those with larger heads may have

tin foil hats with slightly lower frequency cutoff.

Also, the human body and its nervous system has other RF resonant frequencies, which act as antennas and absorbers of VHF radio waves!

The tin foil hat wearer who wants to avoid HF waves, would be better off wearing a hat made of 72 ohm resistors.

From Siegfried Jackstien siegfried.jackstien@freenet.de [hfpack]

Did you hear about the cross-eyed teacher who lost her job because she couldn't control her pupils?

Kit Building

One of my enjoyments is building kits, especially when I am making FT8 contacts. I get kits from www.banggood.com, www.jameco.com, and <http://vakits.com/> to name a few. Just "google" electronic kits and you will find hundreds of kits. Most kits are under 20 bucks. Usually you get a circuit board and parts, and sometimes instructions. Some kit makers post instructions on the internet. Be careful when you order kits; there are some kits with surface mount parts as opposed to thru hole parts. Surface mount parts add a whole degree of difficulty to kits. I suggest you stick to thru hole parts at first and maybe tackle surface mount parts after you have built some easier kits. There is a trend to mount the "sm" parts before you receive the kit and you only have to solder the thru hole parts. Generally you "weld" (what the orientals call soldering) the parts that lay flat on the board, such as resistors and diodes. Then you solder the small capacitors, then the sockets, connectors, and IC sockets. I suggest you install sockets instead of trying to solder the ICs directly to the board. The last things you install are transistor (heat sensitive) type devices.

One handy device is the Chinese MK-328 TR\LCR\ESR Tester sold by [banggood.com](http://www.banggood.com) for \$22. It has automatic detection of NPN and PNP transistors, n-channel and p-channel MOSFETs, diodes(including double diodes), thyristors, resistors, and capacitors, just with the push of a button. There are three leads and you can hook

them up anyway you want and after a very short self-test, it automatically tells you what part of the component is attached to each leg, and the value of the part. It is especially nice for telling the value of very small disc capacitors.

Some other handy tools are small Phillip head and straight screwdrivers, Hemostats (for heat sinks when you solder), small side cutters for removing extra leads after soldering, a solder sucker to remove excess solder; a needle nose pliers; a magnifying glass; 16 to 26 wire strippers, a circuit board holder; and a Teflon mat to work on. You also need a small 25 watts or less soldering pen and a spool of thin Rosin "NOT ACID" core solder.

Some interesting kits that I have built are a Maker TV be gone from Radio Shack. It continuously transmits signals to turn off different model TVs when you push its only button. I only used it once. Another kit I built was a Morse code practice kit, for only \$3. I also built a direct conversion receiver for 40 meters that works just fine. The last kit was a frequency meter for 160m thru 10 m. I am building a UBITX_SSB 10 Watt transceiver kit. It is made in India.

I also bought a kit and enclosure from MFJ for a 40 CW Receiver. I received the kit, but not the enclosure. I have been impatiently waiting for over 6 months for the case. I have called MFJ and they keep telling me, that they will ship the part as soon as they can. Yeah Right! MFJ sells many kits, but you take your chances on receiving one this year.

It is a good idea to keep spare parts on hand in case you lose or accidently destroy one. You can pick up individual parts at hamfest for pennies on the dollar. Of course the part you may need will be one that you don't have.

John WB3IFD

Men Are Just Happier People! What do you expect from such simple creatures? Your last name stays put. The garage is all yours. Wedding plans take care of themselves. Chocolate is just another snack. You can never be pregnant. You can wear a white T-shirt to a water park. You can wear NO shirt to a water park.

Radio Calendar

September 1 - Colorado QSO Party. See ppraa.org/coqp

September 1 - Alabama QSO Party. See www.alabamqsoparty.org

September 2 - Tennessee QSO Party. See tnqp.org/rules

September 3 – Labor Day

September 4 – Corry Club Meeting

September 6 – RAE Club Meeting

September 8 - Ohio State Parks on the Air. See www.ospota.org

September 8 - ARRL September VHF Contest. See www.arrl.org/september-vhf

September 9 - Butler County ARC Hamfest at the Unionville Fire Department, Mahood Road and PA Route 8

September 11 – Wattsburg Club Meeting

September 13 – Corry Club Meeting

September 15 – VE Session

September 15 - Collegiate QSO Party. See www.gatorradio.org/collegiate.html

September 15 - Iowa QSO Party. See www.w0yl.com/IAQP

September 15 - Wisconsin Parks on the Air. See www.wipota.com

September 15 - New Jersey QSO Party. See www.k2td-bcrc.org/njqp

September 15 - New Hampshire QSO Party. See www.w1wqm.org/nhqso

September 15 - Washington State Salmon Run. See www.wwdxc.org/salmonrun

September 16 - North American Sprint. See ncjweb.com

September 17 - Run for the Bacon QRP Contest. See qrpcontest.com/pigrun

September 22 - Maine QSO Party. See www.ws1sm.com

September 23 - Cleveland Hamfest and Computer Show located in Berea, OH. Sponsored by Hamfest Association of Cleveland. See <http://www.hac.org>

September 29 - ARRL EME Contest. See www.arrl.org/eme-contest

September 29 – Birthday of Enrico Fermi (1901) helped invent the Atomic bomb

September 29 - Texas QSO Party. See www.txqp.net