

HAM DATES:

INDIAN RIVER CO.

Jan 2, 2021
Digital University, 9am-12pm
Donald McDonald Campground

Jan 3, 10, 17, 24, 31, 2021
Treasure Coast Ragchew/Traders
Net 8:00pm 146.775 repeater

Jan 5, 12, 19, 26, 2021
Indian River Co. ARES NET 7:30pm,
145.130 (107.2) repeater

Jan 14, 2021
Vero Beach ARC Meeting, 7:30pm
Italian American Civic Associates

Jan 28, 2021
Indian River Co. ARES, meeting
7:00pm 145.130 repeater

ST LUCIE CO.

Jan 5, 12, 19, 26, 2021
Ft. Pierce ARC Rag chew, Tech,
Traders NET 8pm, 147.345
Repeater (107.2), Echolink: 2004
(W4AKH-R)

Jan 6, 2021
St. Lucie Co. ARES NET, 7:30pm,
147.240 MHz (107.2) repeater

Jan 7, 14, 21, 28, 2021
Port St. Lucie ARA Rag chew, Trad-
ers, Tech NET 7:30pm, 146.955
MHz (107.2)

Jan 13, 2021
Ft. Pierce ARC, 7:30pm, ZOOM
(<https://fparc.org> for details)

Jan 20, 2021
St. Lucie Co. ARES, 7:30 pm, Meets
on the air, 147.240 repeater (107.2)

Jan 27, 2021
Port St Lucie Amateur Radio Assoc.
ZOOM meeting (request login)

MARTIN CO.

Jan 4, 11, 18, 25, 2021
Rag chew net 7:30pm, 145.150 MHz
(107.2)

Jan 14, 2021
MCARA ARES, 8:00pm MC EOC
800 SE Monterey Rd, Stuart

Jan 28, 2021
MCARA Meeting, 7:00pm Stuart
Police Dept., 830 SE Martin Luther
King Blvd, Stuart

Treasure Coast Ham News

VOLUME 2, ISSUE 1

JANUARY 2021

2021

HAPPY NEW YEAR

rawpixel

The CDC recommends limiting indoor events to just your household.
Hold virtual or outdoor events if you want to see your family and friends.
Please take all precautions to safeguard the health of yourself and your family,
Do your part to lessen the spread of coronavirus.

INSIDE THIS ISSUE: FROM THE PUBLISHERS * ARES * VE LICENSE TESTING UPDATE * HAM RADIO UNIVERSITY * HAM RADIO TRIVIA * EAVESDROPPING ON APOLLO ELEVEN * THE FRUGAL HAM RADIO OPERATOR * SHORT TAKES * GETTING STARTED IN HF RADIO (PART 2) * TREASURE COAST HAM DOCTORS * HELP REQUEST * FT-8 OPERATING TIP * RAMBLINGS OF AN ANTENNA ALCHEMIST * DX NEWS * DOMESTIC SPECIAL EVENT STATIONS * HAM HUMOR * WE NEED YOU * QSL CARDS

From the Publishers

WELCOME TO 2021

Goodbye 2020! I'm sure I am speaking for everyone when I say we are glad to put you in the rearview mirror.

Reminiscing about 2020, it is still hard to believe how tumultuous a year it was. I'm thinking not just about amateur radio, which is the topic of this newsletter, but of life in general. My own personal life was disrupted in many ways. Allow me to share just a few. I'm a big baseball fan; but the last half of spring training and all summer baseball in St. Lucie County were cancelled. I'm a subscriber to IRSC's performing arts program, but all spring semester performances and the summer program were cancelled. My wife and daughter's cruise was cancelled.

The list goes on and on. And I'm not alone. I'm sure everyone reading this editorial had their life disrupted and upset in some manner by the coronavirus pandemic.

Amateur radio was not immune to impacts from the pandemic. Local and national Hamfests were cancelled. Meetings and club activities were cancelled. Fortunately, nets continued. And video applications such as Zoom stepped to the forefront, allowing clubs to meet virtually.

Finally, let's not forget those area hams who became Silent Keys during 2020. We are already missing them.

So goodbye 2020! Scat! Scram! Get out of here! Welcome 2021! Here's hoping you offer us a better year than the last one.

Taking an optimistic view, perhaps the upswing has already begun. As of this writing, two vaccines have been approved to counter the risks of coronavirus, with several more on the horizon.

Some amateur radio clubs are already resuming in-person meetings and activities. Others continue to be cautious and remain in a wait-and-see

mode.

Some Hamfests are tentatively planning to resume in 2021. Let's all try our best to support them.

2021 will be here for a while. It is not going away any time soon. So let's strive to make the most of it. Support amateur radio by attending meetings – even if virtually. Participate in activities and attend Hamfests.

Clubs, use your imagination and try to plan activities where members can participate remotely. Consider vendor presentations, lectures, or perhaps on-the-air special events where members can operate from their homes. Let's also try to recruit new members into local clubs and grow amateur radio on the Treasure Coast.

Share your thoughts and ideas for 2021 with us. Send an email to tchamnews@gmail.com.

73, and Happy New Year to all!



ARES volunteers provided valuable community services. Striving to improve and modernize communication modes, SARNET was implemented.

What is SARNET?

SARNET is a linked network of analog UHF repeaters. The UHF repeaters are operated by local trustees. The repeaters were se-

The [Amateur Radio Emergency Service \(ARES\)](#) is a public service communication program of the ARRL. Over many years and following many natural disasters,

lected because they have light use. This helps ensure that long conversations and ragchews are rare on SARNET.

The repeaters use state-owned microwave IP communication resources - not Internet, cellular telephones, or land lines - therefore making the links very reliable.

Is SARNET for EMCOMM only?

No. SARNET repeaters are owned mostly by non-EMCOMM hams, so the network is not only for emergency communications. The repeater owners and other communication professionals have roles in both public safety communications and amateur radio. They have an understanding of what SARNET is and can do in support of emergency communications.

Treasure Coast ARES Coordinators

Martin County:
Emergency Coordinator
[Steve Marshall, WW4RX](#)

St Lucie County:
Emergency Coordinator
[Paul Horner, W4ISZ](#)

Indian River County:
Emergency Coordinator
[Bud Holman, WA4ASJ](#)

Get involved and be a part of ARES.



If your club is testing, please let us know the location, date and examination results

VE License Testing Update



December Examination Session Successful

The Port St. Lucie Amateur Radio Association successfully completed its third VE License Examination Session of the COVID-19 era on December 12, 2020.

The session was held at the Buffalo Chophouse restaurant located at 918 SW Gatlin Blvd in Port Saint Lucie. Testing for all three license levels was offered. Social distancing rules were observed throughout the session.

Two candidates were tested. The first, William Mahneke of Port St. Lucie took and passed the Technician Class Exam. Congratulations William, KO4KKY!

A second candidate attempted the General Class exam, but unfortunately did not pass. We expect this candidate will make another attempt at a future session.

Future VE Exam Sessions

At this time, no future VE Exam Sessions have been scheduled by Port Saint

Lucie ARA.

Because of COVID-19 restrictions, we still have no permanent location available to utilize for sessions. We continue to monitor the situation. If restrictions prevent us from scheduling regularly occurring sessions, we will attempt to schedule another special session in the late March to early April timeframe.

Buffalo Chophouse

We are grateful to Buffalo Chophouse restaurant for hosting three VE Examination Sessions in 2020. Thank You, Debbie! You Rock!

If you are hungry for a good lunch or dinner, be sure to stop by the restaurant for some great food and libations. The restaurant is open daily except Monday from 11:00 am to 10:00 pm.

For additional license examination information contact Bob Brown, VE Liaison at 772-201-5485, or by email at brownpsl@comcast.net.



Indian River County

We understand Indian River County may have resumed license testing, but we have

no details concerning schedules.



We have no report from Martin County.

Potential candidates are encouraged to contact the clubs directly for further information. Contact information for all local clubs is shown below.

Vero Beach ARC

Bud L. Holman
(772) 559-3342
budholman@earthlink.net

Ft. Pierce ARC

Jess Porter
w4dns@arri.net

Port St. Lucie ARA

Robert Brown
(772) 201-5485
brownpsl@comcast.net

73,
Bob, AI4RB
VE liaison, PSLARA

Attention Club VE Teams

Please keep us updated on your VE activities. Notify us when your club schedules a session, and keep us apprised of the results of your sessions.

Send your information to tchamnews@gmail.com.

Ham Radio University 2021

JANUARY 9, 2021
8 AM to 4 PM

"A day of education to share ideas, experiences, knowledge and fellowship among Amateur Radio operators"

This is a virtual event! Please REGISTER for each webinar using the Register links below. We will be using GoToWebinar - there is an attendee guide at [Go to Webinar Attendee Guide](#).

8:00am – 8:50am EST

An introduction to HRU and Newcomer's meeting
[Register](#)

9:00am – 9:50am EST

All things Digital VHF & above w/DMR & D-Star
[Register](#)

10:00am – 10:50am EST

Basics of HF Operating
[Register](#)

11:00am – 11:50am EST

The Art of Operating Amateur Satellites with an HT
[Register](#)

How to Learn and Have Fun with CW
[Register](#)



12noon – 12:50pm EST

DXing – Awards, Propagation and QSLing
[Register](#)

Software Defined Radios
[Register](#)

1:00pm – 1:50pm EST

Antenna Power Flow and SWR
[Register](#)

Remote Station Operation
[Register](#)

2:00pm – 2:50pm EST

HF Digital Modes including FT8
[Register](#)

Overview of Ham Radio Logging Programs
[Register](#)

3:00pm – 3:50pm EST

Raspberry Pi applications for Ham Radio
[Register](#)

QRP low power fun
[Register](#)

Please contact us at info@HamRadioUniversity.org for further info.

If you can help defer some of the costs of this year's Ham Radio University, click the button below to make a donation to HRU using PayPal.

Make a \$5 donation [HERE](#)

Ham Radio Trivia

Answer to last month's question:

Last month's trivia question featured some well know music icons from the past. Let's see how well you did.

Which of the following musicians is not (or was not) a licensed amateur radio operator?

- A. Joe Walsh
- B. Jim Croce
- C. Alice Cooper
- D. Ronnie Milsap

The correct answer is: **"C. Alice Cooper"**

Here are the call signs for the others:

- Joe Walsh – WB6ACU
- Jim Croce – WN3OQW
- Ronnie Milsap – WB4KCG

The licenses for Joe Walsh and Ronnie Milsap are still carried as active in the FCC database.

January Trivia Question

For this month's question, try your luck on this question based on electronics and RF technology.

Which word from the list below IS NOT associated with antenna technology?

- A. Somersault
- B. Batwing
- C. Turnstile
- D. Butterfly

(Look for answer in next month's newsletter.)

Do you have a challenging trivia question for the newsletter?

Send your questions and ideas to: tchamnews@gmail.com.

"Brush up on your radio knowledge and skills."

Eavesdropping on Apollo Eleven

Chris Graney christopher.graney@kctcs.edu

The nearly forgotten story of how a radio amateur successfully detected transmissions from the first men to land on the Moon.

In July of 1969 a ham radio operator and amateur radio-astronomer by the name of Larry Baysinger, W4EJA, accomplished an amazing feat. He independently detected radio transmissions from the Apollo 11 astronauts on the lunar surface. Fortunately, his accomplishments were recorded by Glenn Rutherford, a young reporter for the *Louisville (Kentucky) Courier-Journal*. “Lunar Eavesdropping: Louisvillians hear moon walk talk on homemade equipment,” sporting Rutherford’s byline, appeared in the Wednesday, July 23, 1969 issue of that paper.

Rutherford opened the *Courier* story with “Thanks to some homemade electronic equipment, including a rebuilt 20 year old radio receiver from an Army tank and an antenna made of spare pieces of aluminum, nylon cord and chicken wire, a small band of Louisvillians was able to ‘eavesdrop’ Sunday (July 20) night on the American astronauts’ conversations directly from the moon.”

The story discussed how Baysinger recorded 35 minutes of conversation from VHF signals transmitted between astronauts Armstrong, Aldrin and Collins. (He did not attempt to pick up the encoded S-band signals from the main Moon-Earth communication link). These 35 minutes included the time during which President Richard Nixon transmitted a message of congratulations to the astronauts.

Rutherford’s story briefly mentioned how Baysinger was previously successful in constructing a device to detect radio signals from Jupiter and in tracking and reproducing pictures transmitted from Earth-orbiting satellites. It briefly described the antenna used for the lunar

eavesdropping project, a fully steerable 8 × 12 foot “corner horn.” And it briefly discussed the amazing sensitivity of the receiver, which Baysinger specially modified for the lunar eavesdropping project. Rutherford finished the story with “Needless to say, the receiver worked to perfection Sunday night.”

Baysinger’s accomplishment earned him some brief recognition — and a meeting with the Collins Radio Company, which supplied the communications systems for the Apollo spacecraft. Collins was impressed with Baysinger’s work. Then the story faded into the mists of time. “Lunar Eavesdropping” quietly sat in the rolls of microfilmed *Courier-Journal* editions in the reference sections of (mostly Kentucky) libraries, awaiting rediscovery.



Providence brought “Lunar Eavesdropping” back to light this summer. Rutherford, now an assistant editor of the central Kentucky newspaper *The Record*, was interviewing me concerning the productive History of Astronomy research program operated out of the Jefferson Community & Technical College observatory. Our discussion drifted into the subject of science being done in unexpected places by a small homegrown operation (such as a Kentucky community college observatory).

This prompted Rutherford to mention Baysinger’s work and the attention he got from the Collins Company as an

other example of interesting, home-grown, small-operation science in Louisville. I was immediately intrigued, especially when Rutherford said he did a story on it that appeared in the *Courier-Journal*. He could not recall the exact date, so a few days later I was rummaging through the microfilm collection at the University of Louisville library. I found Rutherford’s story within an hour (with the help of my wife Tina and son Joe).

When I got back to Rutherford about how I was interested in the story and had found it in the July 23, 1969 *Courier-Journal*, he mentioned that Baysinger actually still lived in Louisville, retired from a radio career but still active in ham radio. In short order I was talking to Baysinger via phone and e-mail, learning more about the lunar eavesdropping project.

Lost in the Archives

Today a person can sneeze and let the whole world know about it through Twitter or Facebook, so it is hard to believe that the lunar eavesdropping project could have almost completely disappeared into the microfilm drawers, but so it had. Extensive searches through Google, as well as through the EBSCO and JSTOR databases, turned up no references to it at all.

So how did Larry Baysinger come to be eavesdropping on Apollo 11 the night of July 20, 1969? Baysinger told me that he got interested in radio in the early 1950s, when building a radio from scratch or modifying a military surplus device was common practice. Surplus WWII equipment was both available and inexpensive at that time and Baysinger has fond memories of high school road trips to Lexington (Kentucky) and Indianapolis (Indiana) where a radio enthusiast could find particularly good hunting for military

surplus equipment.

His interest and talents in radio eventually led him to a career with WHAS 840 AM radio in Louisville. WHAS and the *Courier-Journal* were both owned by the Bingham family of Louisville and it was through this connection that Rutherford met Baysinger and became aware of his work. By the late 1960s Baysinger was working professionally for WHAS and experimenting on the side with radio astronomy and satellite tracking. The lunar eavesdropping project arose because he had an interest in independently verifying the information that NASA had been providing about the Apollo program. Could he get unedited, unfiltered information about the Apollo 11 landing by eavesdropping on the radio signals transmitted from the lunar surface? Perhaps.

Maybe he could find out things that NASA did not want the public to know about. In addition, successfully detecting a transmission from the lunar surface would be a great technical accomplishment. Various “experts” had told him that it could not be done.



Aiming for the Moon

Baysinger says that on the night of the Apollo 11 landing, he and Rutherford had to essentially aim the antenna at the Moon by getting behind it and sighting it like a gun. This was difficult since the weather was cloudy and the Moon was not easily visible. The antenna, which was originally built for Baysinger’s radio astronomy work,

had a motorized steering mechanism but it had to be manually guided. Its “beam” or “field of view” was such that, once pointed at the Moon, it could be let go for a little while, but pretty soon it would have to be reaimed because the motions of the Earth and Moon caused the Moon to drift out of the antenna’s field and the signal to be lost. In fact, this was one piece of evidence that the Apollo 11 signals the receiver picked up were indeed from the Moon. If the antenna



was not kept aimed at the Moon, the signal disappeared. Baysinger’s wife and daughter watched the Apollo 11 landing on TV while Baysinger and Rutherford listened via Baysinger’s equipment. I asked Baysinger whether he found anything that NASA edited out, or comments about things going wrong, the astronauts being loose with their language or exclamations about meeting space aliens. He replied “No, absolutely everything was transmitted to the public on TV.”

In fact he said, “that was kind of disappointing.” Part of the idea of the project was to hear the unedited “real story,” and it turned out there was nothing edited. Indeed, Rutherford’s story makes no mention of hearing anything unusual. Perhaps because there was nothing to hear that couldn’t be heard on CBS, Baysinger did not

attempt to eavesdrop on any other Apollo missions. After Apollo 11 he moved on to other projects and Rutherford moved on to other stories. “Lunar Eavesdropping” was moved to microfilm.

An unanswered question in this story is whether there were other lunar eavesdropping projects conducted by Amateur Radio operators. This is something that *QST* readers with long memories can help with. My searching through Google and various databases, asking among those knowledgeable in the history of astronomy and querying various print and Web Amateur Radio publications has turned up only one other case of independent detection of Apollo transmission from the Moon. Sven Grahn and Richard Flagg picked up transmissions from the Apollo 17 command module in orbit around the Moon using a 30 foot radio telescope dish, but they heard only two recognizable voice transmissions, each consisting of only a few words.

It is possible there had been other projects like Larry Baysinger’s and perhaps these projects were told in articles like Glenn Rutherford’s. Those projects and their stories might be sitting in a drawer somewhere, waiting for a *QST* reader to bring them to light.

Lunar Eavesdropping Link

More information on Larry’s lunar eavesdropping, including some audio clips, can be found on Christopher Graney’s Otter Creek-South Harrison Observatory Web page, [Lunar Eavesdropping In Louisville, Kentucky](#).

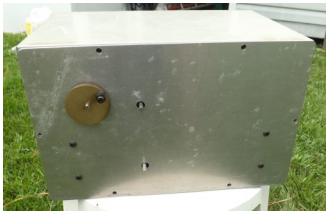
Christopher M. Graney is a professor of physics and astronomy at Jefferson Community & Technical College in Louisville, Kentucky. He can be reached at Jefferson Community & Technical College, 1000 Community College Dr, Louisville, KY 40272.

(With thanks to the ARRL & NASA)

The Frugal Ham Radio Operator

Ok, I admit it. When it comes to ham radio I am very frugal. I love rummaging through hamfest boxes, or repurposing things I find. Plumbing parts are my favorite. There is a lot of stuff out there, sometimes for free or very cheap to buy.

At a hamfest I spied an aluminum box, probably



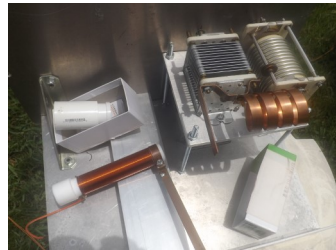
military surplus, sitting on

the ground. The box looked great for a go box, so I asked the ham what he knew about it. He shook his head and said it had come from a silent key's estate. He said \$25 bucks and I could take it away. That seemed too much for my frugal ways, so I moved on to look for other bargains. As I walked from table to table, I kept thinking about the box. In the end I decided to buy it.

The front panel brass knob and protruding metal shafts gave me wonder as to what was inside. So off it went home. I put it on my ham shack shelf and there

it sat. Until.....

One morning not long ago I took it off the shelf and opened the box. A look of amazement came over my



face. Wow, I said seeing two high voltage variable capacitors, a roller inductor, a plate choke, metal clamps, and several other items. This was the SK's start of a linear amplifier. So my frugal \$25 invest-

ment turned out to be a goldmine of new parts plus a aluminum go box.

My grandkids go through clothes very quickly. We usually buy them items hanging on a rack. Frugally, I thought of a use for the normally discarded hangers shown nearby. Are you thinking the same thing?

Next month.....



Short Takes

QRP Book for Download

Minimalist QRP Book V5.3 from IZ3AYQ
https://drive.google.com/file/d/1dw61-PQ-4JA9feh93H_KrldD4RpN1zZT/view

RF Interference

https://www.nutsvolts.com/magazine/article/September2015_Ham-Workbench

All About Ferrites

<https://nutsvolts.texterity.com/nutsvolts/201507/?folio=61&pg=61#pg61>

Dr. Duino's Starter Kit for the Arduino Uno

<https://www.nutsvolts.com/magazine/article/dr-duinos-starter-kit-for-the-arduino-uno>

Noise & Interference

Author, Jim Brown - K9YC, says, "The most fundamental cause of radio interference to other systems is the fact that the wiring for those systems, both inside and outside the box, are antennas. We may call them "patch cables" or "speaker cables" or "video cables" or "Ethernet cables," or

printed circuit traces, but Mother Nature knows that they are antennas! And Mother Nature **always** wins the argument." <http://audiosystemsgroup.com/RFI-Ham.pdf>

All about Satellites

Just about everything you ever wanted to know about satellites is explained by Ciprian, N2YO, on his satellite themed website. Click the link below for a detailed list of satellites intended for use by licensed amateur radio operators and more. [Amateur radio satellites \(n2yo.com\)](http://Amateur-radio-satellites(n2yo.com))
 (Thanks Sonia, KN4IZD)

Free Software Applications for Hams

Here is a great web site with free software applications for the amateur radio operator. Be sure to check it out. [N3FJP's Amateur Radio Software](http://N3FJP's-Amateur-Radio-Software)

Antenna Projects

William Wortman, N6MW, hosts an interesting web site, containing a series of articles about antenna projects and other topics of interest for amateurs. Good reading. Check them out here.

Seen a good article? Tell us. Send a link to: tchamnews@gmail.com.

Getting Started in HF Radio (part 2)

Background

Ever since I was a young lad admiring my Uncle Albert's (K2MLS) station, I have always been fascinated with amateur radio. It was five decades later when I was finally licensed in 2010 at age 65. I quickly upgraded to General and then Amateur Extra; but up until this spring, all my operating was on the VHF and UHF bands because I lacked a suitable HF antenna.

This series of articles talks about my start in HF radio. In the previous issue I shared my thought process concerning selection of an appropriate antenna for my situation. In this issue I will discuss further considerations before officially getting started in HF operation.

Operating Mode

I decided the easiest way to get started in HF radio would be to focus my study and understanding on one specific aspect of operation. Obviously, my choices were many: sideband voice, CW and various data modes. From my perspective any mode would suffice. I just had to choose the one I felt would make my entry into the HF world the easiest.

CW Considered

I didn't want to struggle with learning transceiver operation, while also learning Morse code at the same time. Besides, the neurological problem I have with my hand muscles would make operation of a code key nearly impossible. And adding a keyboard to send CW by typing the text would just add another complication to the learning process. Decision made. CW would not be my initiation into HF operation. CW

would need to wait for a future time.

Sideband Voice Considered

Previous experience playing with HF receivers indicated sideband voice can be somewhat difficult to tune at times, especially during busy band conditions. Also, voice operation requires a microphone, which has its own setup procedures and could potentially offer its own set of challenges.

My conclusion was that the learning curve for voice operation could potentially be the steepest of any operating mode. I decided it would be best to defer voice operation until a later time after I became more familiar with my transceiver and HF operation in general.

Data Modes Considered

The more I read about data modes, the more convinced I became that they offered the easiest entry path into HF operating. Several of my radios have built-in RTTY decoders and offer pre-canned messages for transmitting. While not full automation, the presence of these features would allow me to focus less on the actual QSO and concentrate more on the learning aspects of HF operating.

Another data mode I considered was FT8. For the last couple of years FT8 has been an active discussion topic at meetings of the Port Saint Lucie, FL 2x4 DX Group. Multiple members of the group repeatedly commented on how much they enjoy FT8 operating and how easy FT8 is to learn and use.

They also raved about how well it propagated in the poor conditions

associated with the current state of the solar cycle.

One other important point for me was the fact that FT8 performed well in low power operation.

Decision Made

Ultimately, the decision wasn't hard. After weighing the various factors I decided that my entry into the world of HF would be with the FT8 data mode.

What's Next?

I'm officially on my way. I've chosen an antenna: a Hamstick style Vertical. I've also decided on an operating mode: FT8. Operating low power, FT8 should complement a small Hamstick vertical antenna nicely.

My next step is to learn all I can about FT8. I plan to start by understanding the reception and decoding process associated with FT8 signals.

I will start the learning process using my WinRadio G3I DCC SDR that tunes the full HF spectrum. My goal is to install FT8 decoding software on a computer and try to receive and decode FT8 messages using the WinRadio. More on that exercise next time.

(To be continued in a future issue of *Treasure Coast Ham News*.)

Do you have a story to tell about ham radio or how you became involved? Do consider sharing it.

Please submit to:

tchamnews@gmail.com

Treasure Coast Ham Doctors



Ask the FT8 Doctor

A beginner in FT8 sent the following question concerning WSJT-X and grids.

Question: I am originally from Michigan. I enjoy FT8 and am trying to log a QSO with every grid in Michigan. At this time I only need grid EN7I to complete the entire state.

Day after day I watch WSJT's receive window, and carefully review every CQ message highlighted in brown, which is WSJT's color that indicates a new grid. I see quite a few brown colored CQs from various grids, but I never see any from grid EN7I. Yet when I do lookups by zip

code in the FCC license database, I find there are lots of hams residing in this area of Michigan.

What gives? Am I doing something wrong? Why do I never see anyone calling CQ from grid EN7I? Do hams in EN7I not use FT8? Or is there something wrong with my WSJT-X configuration? Or could my log file possibly have become corrupted? Any advice would be appreciated.

Answer: From what you describe, the doctors don't think there is anything wrong with your configuration or log. We believe the problem is that grid EN7I is shared by Michigan, Indiana and Ohio. If you check your log, we think you will find an entry from a previous QSO with someone in grid EN7I.

Now look up this contact's call in QRZ.com or the FCC database. We believe you will find he/she resides in Indiana or Ohio.

What is happening is that WSJT-X uses the brown color to highlight CQ calls from new grids – not new states. Since you already have grid EN7I in your log, future calls from this grid will display with a blue highlight, indicating a new call.

To capture a Michigan QSO from this grid pay attention to CQ calls highlighted in blue, not brown. Reply to any blue CQ calls that show grid EN7I. Before long you should be able to log one from Michigan.

Thanks for the question.

Help Request

Dick, K4NJ needs help with a hotspot.

My problem is I purchased a ZUMspot RP; Nextion 3.5 and it works perfectly fine connecting to "reflectors". What do I need to do to is get it to connect to "repeaters"?

Cheerio
73, Dick, K4NJ

Readers - We know we have hotspot experts out there.

Please reach out to Dick and assist him.
langbertr@gmail.com

If you have a ham problem, please email tchamnews@gmail.com

FT8 Operating Tip

Do Not Call CQ Too Often

Repeatedly calling CQ takes away 50% of the time you could be monitoring the band and replying to other CQ calls.

If a DX station happens to be calling CQ in the same odd/even time slot as your CQ calls, you may

never see him and could miss an opportunity for a distant QSO.

As a guideline, here is how this doctor's operating time breaks down: 90% or more is spent replying to CQ calls and less than 10% is spent calling CQ.

Perhaps more important, all my

70+ DX countries to date are a result of replying to CQ calls. None have resulted from my calling CQ.

Now go make some new FT8 contacts!

Have an FT8 Operating tip? Send it to: tchamnews@gmail.com.

Ramblings of an Antenna Alchemist



(We hope our readers will participate in this column by submitting their practical experiences with antenna alchemy.)

VHF and UHF antennas can be almost any size and shape. They can be vertically or horizontally polarized. Ionized propagation can be rare, but sporadic E skip is possible and capable of reflecting signals many thousands of miles.

Natural and man-made objects such as trees, terrain, and building types can impede VHF/UHF signals. Inside building electrical wiring, appliances and lights can affect signals. Shorter wavelength antennas work better, the higher the frequency.

Common shapes can include dipoles (vertical & horizontal), 1/4, 1/2, & 5/8 wavelength verticals, YAGI, loops, log periodics, etc.

The coax cable used for HF may not be suitable for VHF and UHF.

dB loss per 100 ft of coax

Cable type	Mhz			
	10	50	100	400
RG-8, 8A, 213	0.55	1.3	1.9	4.1
RG-8 MINI, 8X	1.1	2.5	3.8	7.9
LMR-400		0.9	1.2	2.5
RG-58	1.2	3.1	4.6	10.5
RG-58A, 58C	1.4	3.3	4.9	12
RG-59, 59B	1.1	2.4	3.4	7

Cable loss is important at VHF and UHF frequencies.

Along with VHF/UHF antennas, the list of analog and digital modes available for VHF/UHF grows almost daily.

From the early beginnings of converting simplex Motorola and Johnson VHF public safety mobile radios to what the ham radio operator has available today exceeds many lifetimes and product life cycles.

While analog is still a viable mode, packet X-25 (being repurposed) and the newer digital modes such as DMR, D-STAR, and APCO P-25 have evolved to become the new standard.

The venerable Terminal Node Controller (TNC) continues its life with WINLINK.

Following public safety, many hams moved on from simplex (although simplex is still used for ARES and local talk) to repeaters. Now many of these repeaters are being linked (such as SARNET) to provide wider area coverage.

What was once the exclusive purview of HF, digital modes using Internet backbone linking are enabling long distance world-wide communications.

So where do we start with VHF/UHF antennas? Many hams start at a ham radio dealer, Amazon, or eBay, preferring to buy rather than build, but this is not always the case.

One of the good things about

VHF/UHF antennas is that most are easy to build, given their smaller size. Although HF antenna wire can be used, more prevalent construction materials are aluminum and copper tubing. That is not to say wire is not viable. An excellent antenna can be made from window or twin lead wire cut to be a J-pole. This design was popularized by Ed Fong in February 2003 and March 2007 QSTs.

An article on the ARRL web site describes an easy to build VHF ground plane that can be made with an SO-239 connector and #10 copper wire or hobby brass tubing radials. The radiating element and 4 radials are cut for 1/4 wavelength. The radiating element is soldered to the SO-239 center and the 4 radials are attached or soldered to the connector's 4 bolt holes.

Another easy antenna for VHF is a Delta loop. Using the loop formula of 1005 divided by the frequency will give a total length of about 6 feet.

The antenna can be mounted on a window using suction cup hooks and fed from a corner with a 75 ohm 1/4 wavelength coax matching transformer. Remember to multiply the matching length by the coax velocity factor. The design is on the Internet. Search for "Indoor VHF Delta Loop."

That's all for now, 73



DX News

(Extracted from the weekly **ARRL DX Newsletter** and other sources.)

DX OPPORTUNITIES

JAN MAYEN, JX. Erik, LA2US is QRV as JX2US until the end of March, 2021. Activity is on 160 to 12 meters using CW and FT8 in DXpedition mode. QSL to home call.

SRI LANKA, 4S. Members of the Radio Society of Sri Lanka, formerly known as the Radio Society of Ceylon, celebrates its 70th anniversary with stations adding /70 to their call signs. QSL via operators' instructions.

OGASAWARA, JDI. Harry, JG7PSJ is QRV as JD1BMH from Chichijima, IOTA AS-031, and plans to be here until January 9, 2021 unless plans change. Activity is on 40 to 10 meters using CW, SSB and RTTY. QSL direct to home call.

ALASKA, KL7. Jim, KL7KK is QRV from Bethel and is generally active on 80 meters using SSB around 1500 to 1600z and then from 1700 to 1900z, daily. QSL to home call.

NETHERLANDS, PA. Special event station PH20XMAS is QRV until January 3, 2021. Special event station PH21HNY is QRV until January 31, 2021. QSL both calls via bureau.

SLOVENIA, S5. Members

of the Radio Club Elektron Brezice are QRV with special event station S520SAFE until January 31, 2021 to support the STAY SAFE campaign and to express their gratitude to medical staff and care workers. QSL direct to S561PS.

POLAND, SP. Members of team SP2PBM are QRV with special event callsign HF2021HNY until January 10, 2021. QSL via SP2PBM.

GREECE, SV. Nine multi-operator special event stations, SX1A, SX2A, SX3A, SX4A, SX5A from Dodecanese, SX6A, SX7A, SX8A, and SX9A from Crete, are QRV in the countdown towards celebrations of the 200th anniversary of the Hellenic War of Independence in 1821. QSL via operators' instructions.

SOUTH SUDAN, Z8. Diya, YI1DZ is QRV as Z81D from Juba. Activity is on 80 to 10 meters, and possibly 160 meters, using SSB and FT8. QSL via OM3JW.

ROTUMA, 3D2. Tony, 3D2AG is QRV as 3D2AG/p until mid-January 2021. Activity is on 160 to 6 meters, including 60 meters, using CW, SSB, RTTY and FT8. QSL direct to home call.

ZAMBIA, 9J. Rob, IK2LON is QRV as 9J2RD while living in Ndola. Activity is on the HF, VHF and UHF bands using SSB, RTTY and FT8. QSL via

IZ8CCW.

MARSHALL ISLANDS, V7. Neil, WD8CRT is QRV as V73NS from Kwajalein Atoll, IOTA OC-028. Activity is on 20, 17 and 15 meters using CW. His length of stay is unknown. QSL via W3HNK.

PORTUGAL, CT. Valdemar, CT7AQD will be QRV as CQ750RSI throughout 2021 to commemorate the 750th anniversary of the birth of Elizabeth of Aragon, the queen consort of Portugal and patron saint of the city of Coimbra. QSL to home call.

IRAQ, YI. Giorgio, IU5HWS is QRV as YI9WS and remains active until January 20, 2021 in his spare time. QLS direct to home call.

HAWAII, KH6. Alex, KU1CW is QRV as KH6/KU1CW from Oahu Island, IOTA OC-019. His length of stay is unknown. Activity is on various HF bands using mostly FT8 with some CW. QSL via LoTW.

SOMALIA, T5. Ali, EP3CQ is QRV as 6O1OO until January 15, 2021 while working for the UN Department of Safety and Security in Mogadishu. Activity is in his spare time on 160 to 10 meters using CW, SSB and FT8. QSL direct.

Good Luck with your DXing!

Domestic Special Event Stations

(from ARRL Listings)

Jan 1-Jan 10, 0000Z-2359Z, W2P, Battle of Princeton.

Trenton, NJ. Delaware Valley Radio Association. 14.250. Certificate & QSL, DVRA, PO Box 7024, Trenton, NJ 08628. Info on www.w2zq.com or lookup on QRZ.com. QSL only for SASE to DVRA, PO Box 7024, West Trenton, NJ 08628. Certificate of Commission in Continental Army Signal Corps for \$5 and address label to DVRA, PO Box 7024, West Trenton, NJ 08628. <https://www.w2zq.com>

Jan 2-Jan 31, 0000Z-2359Z, K3Y, Annual Straight Key Month

Ellicott City, MD. SKCC - Straight Key Century Club. 3.550 7.055 14.050 21.050. Certificate & QSL. Jeremy Downard, KD8VSQ, 511 W. Pottawatamie St., Tecumseh, MI 49286. K3Y/0 thru 9 plus KH6, KL7, KP4 and DX member stations in six WAC areas operating straight key, bug and cootie keys. QSL card confirms one QSO per area, up to 19 for all-area sweep. See URL for sched, map, stats, etc. www.skccgroup.com/k3y

Jan 8-Jan 9, 1800Z-0000Z, W5IR, Battle of New Orleans

Metairie, LA. The Mystic Knights of The Louisiana Roundtable. 18.145, 14.275

7.270, 7.045. QSL: Dale F. Budenski, 4713 Neyrey Dr, Metairie, LA 70002. FT8 on the usual freq. More details on QRZ.com. harry504@outlook.com or www.qrz.com/db/w5ir.

Jan 9-Jan 10, 0900Z-1500Z, K5S, 120th Anniversary of the Lucas Gusher

Beaumont, TX. Beaumont Amateur Radio Club. 14.0025, 14.250, 7.025, 7.250. Certificate: BARC, 4839 Hwy 326N, Kountze, TX 77625. Celebrate the discovery of oil in Texas. Look us up on QRZ.com for certificate instructions. k5s.lucascusher@gmail.com or <https://www.qsl.net/w5rin>

Jan 9-Feb 14, 0001Z-2359Z, N4DAB, Daytona 500/Speedworks

Daytona Beach, FL. Daytona Beach. CERT ART. 14.255, 14.070, 7.255, 7.070. Certificate & QSL. DB CERT ART/Steve Szabo, WB4OMM, License Trustee, 536 Central Park Blvd., Port Orange, FL 32127-1136. See Web Page for QSL and Certificate information. High Quality laser printed certificate and photo quality QSL Card. Operating hours dependent on propagation and availability. Phone, CW, and Digital modes scheduled. www.n4dab.com

Jan 15-Feb 15, 0000Z-2359Z, KL7RST, Alaska "RST" QSO Party

Various places, AK. North Country DX Association. 28.450, 21.350, 14.250, 7.250. QSL: John F. Reisenauer, Jr, 2573 Old Georgetown Rd. W., Kershaw, SC 29067. KL7RST, KL7RST/KL7, VY1RST/KL7, VE8RST/KL7 and VY0RST/KL7. Certificate by email for working any 3 of the above when you QSL. www.qrz.com/db/k7ice

Jan 16, 1300Z-1900Z, W1M, Woronoco Heights Outdoor Adventure/SCOTA

Russell, MA. Western MA Council - BSA. 14.290, 14.060, 10.115, 7.190. QSL: Tom Barker, 329 Faraway Road, Whitefield, NH 03598. All logging is done on paper and then uploaded to LoTW and eQSL. A QSL card can be had for a 4x6 SASE.

Jan 23, 1700Z-2100Z, 1st Annual Lone Star Frozen POTA Event

Various places, TX. Deep East Texas Amateur Radio Club Inc. All modes, all bands. QSL: Dayton Jones, KG5TKF. Email or see website for information. www.parksontheair.com.

Jan 23-Jan 25, 1700Z-0000Z, AG6AU, California Discovery of Gold

Placerville, CA. El Dorado County Amateur Radio

Club. 21.348, 14.248, 7.248. QSL: El Dorado County ARC, P.O. Box 451, Placerville, CA 95667. edcarc.net

Feb 1-Feb 28, 0000Z-2359Z, N9SES, JYI Special Event Memorial Station 2021

Lake Station, IN. Arab QRZ Club. 14.250, 14.030, 7.185, 7.030. QSL: Ayman Azar, 2861 Decatur St, Lake Station, IN 46405. See website for participating stations from other countries. All HF/VHF/UHF. All modes. Hamsphere Users can also participate in the event. www.n9ses.com/?page_id=18

Feb 6, 0900Z-1500Z, K3HWJ, Ground Hog Day Special Event

Punxsutawney, PA. Punxsutawney Amateur Radio Club. All modes, all bands. Certificate: Stephen Waltman, KB3FPN, 37 Clark St., Brookville, PA 15825. SASE for certificate. www.punxycub.com

Feb 6-Feb 7, 1400Z-2359Z, K5C, Shuttle Columbia Special Event

Nacogdoches, TX. Nacogdoches ARC. 7.216, 14.260, 21.350, 28.350. QSL: Army Curtis, 167 CR 2093, Nacogdoches, TX 75965. All contacts will be confirmed via LOTW. <https://w5nac.com>

Know of a Special Event? Please submit info to: tchamnews@gmail.com

Ham Humor

Laughter is always good medicine. Enjoy these tidbits found on the AC6V.com web site.

The Wedding

Two antennas met on a roof, fell in love and got married. The ceremony wasn't much, but the reception was excellent.

Photo of the Month



How Does Radio Work?

"I am often asked how radio works. Well, you see, wireless is like a very long cat. You yank his tail in New York and he meows in Los Angeles. Now if you understand this concept, then you understand radio. It is exactly the same, except there is no cat." (Attributed to Albert Einstein)

The Job Interview

Back when the telegraph was the fastest method of long distance

communication, a young man applied for a job as a Morse Code operator.

Answering an ad in the newspaper, he went to the address and entered a large, busy office where the sound of the telegraph could be heard in the background. A receptionist instructed the job applicant to fill out a form and take a seat with the other applicants until summoned to enter the inner office for an interview.

The young man did as told and sat down with the seven other applicants already in the waiting area. After a few minutes, the young man stood up, crossed the room to the door of the inner office, and walked in. Naturally the other applicants perked up, wondering what was going on. They muttered among themselves that they hadn't heard any summons yet.

A few minutes later the employer escorted the young man out of the office and said to the other applicants, "Gentlemen, thank you very much for coming, but this young man has the job." The other applicants began grumbling, and one spoke up saying, "Wait a minute, I don't understand. He was the last to come in, and we never even had a chance to be interviewed. Yet he got the job. That's not fair!"

The employer replied, "I'm sorry, but the last several minutes while you've been sitting here, the telegraph has been ticking out the following message in Morse Code: 'If you understand this message, then come right in. The job is yours.' None of you heard it or understood it. This young man did. The job is his."

TREASURE COAST HAM NEWS

The editors like to reserve the last couple of pages of *Treasure Coast Ham News* for the readers. With your help these pages will include:

For Sale Section – Have something to sell or trade? Send us a description and/or picture to have it listed in this section. Looking to buy something? Provide a description and we will print it.

QSL Card Section – Many hams enjoy viewing QSL cards, especially those with colorful pictures. Send us scans of your favorite QSL cards. Maybe the first card you ever received. Or perhaps your favorite card, or your personal card. We will include some in each issue as space permits.

These are your pages. Help make them a success by submitting your photos, For Sale listings and QSL cards to tchamnews@gmail.com.



Treasure Coast Ham News needs you to write for us about your ham radio activities, kit building, DX operations, or any subject about ham radio.

You don't need to be a polished writer or a writer at all. We can help you edit your work.

While we don't pay for articles, you will receive a full byline. Please contact us at: tchamnews@gmail.com.

The QSL cards below show what can be done with minimal antennas, low power, CW, SSB or FT8. Don't let your radio and antenna situation be an impediment. Get on the air and enjoy the hobby!

W0NUD
 GLOVERSVILLE, NY USA
 Fulton County
 Scott Turner
 108 East BLVD
 Gloversville, NY 12078
 Grid Square FN23ub

To: W4RJP This confirms our 2-way FT8 QSO
 Date: October 20, 2020 Time: 08:59 UTC
 Band: 40M UR Sigs: -08

OZ1ØØMILL
 ITU: 18
 CQ: 14
 DANISH SPECIAL
 EVENT STATION

100 YEARS ANNIVERSARY FOR THE UNIFICATION
 OF SOUTHERN JUTLAND AND DENMARK - 1920-2020

To: AI4RB This confirms our 2-way FT8 QSO
 Date: December 15, 2020 Time: 13:22 UTC
 Band: 17M UR Sigs: -14

The final one of a QSO is an eQSL

OZ1CF
 PER W GIESSING
 ringvägen 7 a Sweden
 landskrona JO65KV, 26142
 sweden
 Loc: JO56KV ITU: 18 CQ: 14
 ICG: JIC 735-- YAESU FT 726 + YAESU 950
 ANT HF A99 vertical
 ANT: end feed 20 meter
 TNX FOR QSO „73 PER OZ1CF/OZ1CFO/HS0ZLT

To: W4RJP This confirms our 2-way FT8 QSO
 Date: December 2, 2020 Time: 15:22 UTC
 Band: 17M UR Sigs: -15

VK2DX
 Nikola Hacko
 PO BOX 900
 Spit Junction, 2088
 Australia
 Loc: QF56oe ITU: 59 CQ: 30
 IOTA: OC-001

To: AI4RB This confirms our 2-way FT8 QSO
 Date: October 14, 2020 Time: 20:21 UTC
 Band: 17M UR Sigs: -12

JA7QVI
 TAC Takashi Hirama
 146-1058, NAGARE, YOSHIDA,
 WATARI, 989-2331
 JAPAN
 Loc: QM08ka ITU: 45 CQ: 25
 IOTA: AS-007 JCG: 06016

To: W4RJP This confirms our 2-way FT8 QSO
 Date: December 4, 2020 Time: 22:18 UTC
 Band: 17M UR Sigs: -10

SANTIAGO · CHILE · CQ 12 · ITU 14

XQ3UP
 CPDXG

Esteban Asenjo
 Also: XQ7UP - XR3Y - Ex: CE7SYA & CE7UP

To: AI4RB This confirms our 2-way FT8 QSO
 Date: December 9, 2020 Time: 23:05 UTC
 Band: 17M UR Sigs: -20

If you are considering QSL cards or need to refresh your old card, please discuss with Fabrice at QSL Concept. Email: info@qslconcept.com or direct: fbertron@bftechnicarts.com. Phone 604-729-6454.



TCHamNews would like to publish QSL cards received by our local amateur radio community. If you have a QSL card you would like published, please send a scanned image (jpeg) to TCHamNews@gmail.com and we will include it in an upcoming issue. (If you send us a paper card, we will scan it and send the original back to you.)

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