

HAM DATES:

INDIAN RIVER CO.

April 3, 2021
Digital University, 9am-12pm
(Suspended due to COVID-19)

April 4, 11, 18, 25, 2021
Treasure Coast Ragchew / Traders
Net 8:00pm 146.775 (107.2) repeater

April 6, 13, 20, 27, 2021
Indian River Co. ARES NET 7:30pm,
145.130 (107.2) repeater

April 8, 2021
Vero Beach ARC Meeting, 7:30pm
Italian American Civic Association

April 22, 2021
Indian River Co. ARES, meeting
7:00pm 145.130 repeater

ST LUCIE CO.

April 1, 8, 15, 22, 29, 2021
Port St. Lucie ARA Rag chew, Traders,
Tech NET 7:30pm, 146.955 MHz
(107.2)

April 6, 13, 20, 27, 2021
Ft. Pierce ARC Rag chew, Tech,
Traders NET 8pm, 147.345
Repeater (107.2), Echolink: 2004
(W4AKH-R)

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

April 14, 2021
Ft. Pierce ARC Meeting, 7:30pm,
ZOOM (<https://fparc.org> for details)

April 21, 2021
St. Lucie Co. ARES, 7:30 pm, Meets
on the air, 147.240 repeater (107.2)

April 28, 2021
Port St Lucie Amateur Radio Assoc.
ZOOM meeting (request login)

MARTIN CO.

April 5, 12, 19, 26, 2021
Rag chew net 8:00pm, 145.150 MHz
(107.2)

April 8, 2021
MCARA ARES, 7:00pm MC EOC
800 SE Monterey Rd, Stuart

April 22, 2021
MCARA Meeting, 7:00pm, Stuart
Police Dept., 830 SE Martin Luther
King Blvd, Stuart

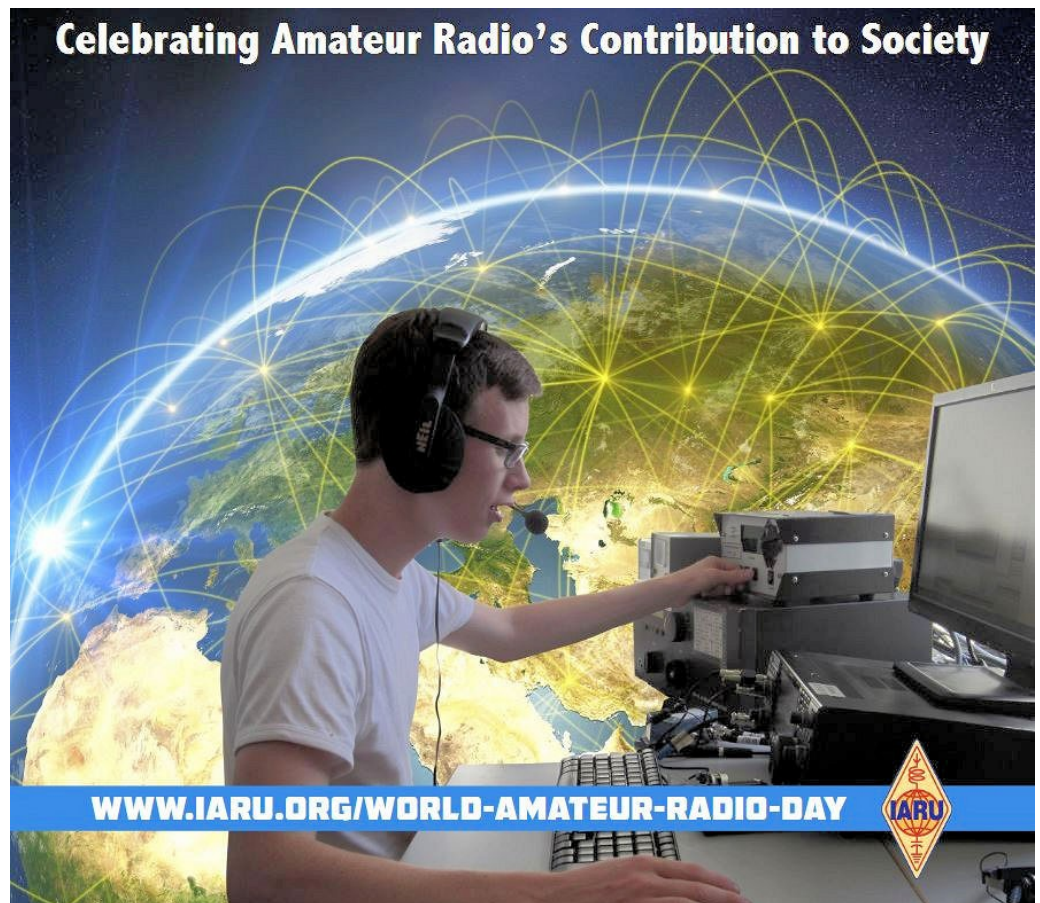
Treasure Coast Ham News

VOLUME 2, ISSUE 4

APRIL 2021

WORLD AMATEUR RADIO DAY

April 18, 2021



INSIDE THIS ISSUE: FROM THE PUBLISHERS * ARES * VE LICENSE TESTING UPDATE * JIM JAQUES, K6RXX (SK) * MARS * IDENTITY THEFT * QSO TODAY EXPO * UPCOMING HAMFESTS * HAM RADIO TRIVIA * RADIO A LA CORTLANDT ST * THE FRUGAL HAM RADIO OPERATOR * SHORT TAKES * THEODORE HUF, W4ZE (SK) * TREASURE COAST HAM DOCTORS * FT8 OPERATING TIP * ANTENNA QUIZ * RAMBLINGS OF AN ANTENNA ALCHEMIST * MORE DXING WITH BRUCE, W8HW * DX NEWS * SPECIAL EVENT STATIONS * HAM HUMOR * WE NEED YOU * HOW TO SAVE YOUR MARRIAGE * HAM RADIO GEAR FOR SALE * QSL CARDS

From the Publishers

On April 18, worldwide radio amateurs will take to the airwaves to celebrate World Amateur Radio Day. It was on this date in 1925 that the International Amateur Radio Union (IARU) was formed in Paris.

Amateur Radio experimenters were the first to discover that the short wave spectrum could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

Just two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today — 160, 80, 40, 20, and 10 meters. Since its founding, the IARU has worked to defend and expand the frequency allocations for Amateur Radio. Thanks to the support of enlightened administra-

tions in every part of the globe, radio amateurs are now able to experiment and communicate in frequency bands strategically located throughout the radio spectrum. From the 25 countries that formed it in 1925, the IARU has grown to include 160 member societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

The IARU Administrative Council has chosen “**Amateur Radio: Home but Never Alone**” as the theme for World Amateur Radio Day, Sunday, 18 April 2021. Faced with a pandemic that forced the adoption of extreme physical isolation to reduce the spread of the virus, the worldwide amateur radio community responded positively to overcome the resulting social isolation. In the days and weeks following the onset of the

pandemic radio amateurs reached out spontaneously to one another via the airwaves at the local, national, and global levels. Local “wellness nets” provided friendly voices and regular status checks to those, especially the elderly, who are confined to their homes. “Stay safe” special event stations in dozens of countries reminded us all of the importance of limiting the spread of the virus. On-the-air activity was at an unprecedented level throughout 2020, with record-breaking numbers of entries in the major contests.

The **Fair Lawn (NJ) Amateur Radio Club** will operate club station W2NPT on CW and phone throughout the day on 18 April. In support of this year’s theme the operators will share information about the Health & Welfare Net that the club is running during the pandemic. Look for other clubs to also be on the air.

Show your support of World Amateur Radio Day and operate.



The [Amateur Radio Emergency Service](#) (ARES) is a public service communication program of the ARRL. Over many years and following many natural disasters, ARES volunteers stepped up and provided valuable community services.

On April 10th and 11th, 2021 Comm Academy 2021 will have a virtual training conference for anyone interested in learning more about emergency communications technologies and practices. Comm Academy is organized around the theme “Disasters Here, There and Everywhere – Are We Ready?”

The conference will feature expert speakers on a wide variety of topics, from radio and messaging technologies to communications techniques and tales from the “trenches.” Comm Academy is more than just a collection of online presentations. It is an interactive event, with participants able to converse with presenters and other attendees.

To register for Comm Academy 2021 please use the following Eventbrite link: [Comm Academy 2021 Registration, Sat, Apr 10, 2021 at 9:00 AM | Eventbrite](#)

Registration is completely free. However you must register for the event to gain access to the full event schedule and presentation materials.

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.

VE License Testing Update



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

The results from Port Saint Lucie's February, 2021 license exam session are in.

Congratulations to the following candidates who earned their Technician Class license at this session:

Olivier Gerbaud, KO4NOX
Port Saint Lucie

Jeffrey Lane, KO4NOY
Port Saint Lucie

Kraig Malstrom, KO4NOZ
Port Saint Lucie

Congratulations to the following candidate who earned an upgrade to General Class.

Michael Neville, KN4TGC
Port Saint Lucie

Another candidate, who previously held a general class license that expired, took the exam to apply for a new license. By passing the Technician exam and providing proof of his previous license, FCC rules allowed award of a new General Class license. Our congratulations to:

Allan Ramsay, KO4NPA
Port Saint Lucie

And finally, one candidate took and successfully passed the Extra Class examination. Our congratulations to:

Michael Ciardi, W4PPM
Port Saint Lucie

Future License Exam Sessions

A date has not yet been set for Port Saint Lucie's next license exam session. Watch for an announcement by email and at club events when plans are finalized.

Email Address Required

Don't forget, effective June 29, 2021 all amateur radio license related applications submitted to the FCC must include a valid email address where the applicant can receive correspondence. Failure to include an email address can result in the application being dismissed as defective.

Exam Fee Increase Coming Soon

Also, remember that the FCC will begin imposing a \$35 processing fee for amateur license applications in the near future, at a date still to be determined. This fee is in addition to the \$15 service fee charged by the ARRL VEC organization to administer the Volunteer Examiner (VE) program.

New Technician Exam Question Pool

The National Conference

of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) is requesting input from the amateur radio community on new or modified questions for the 2022 - 2026 FCC Element 2 (Technician pool), which goes into effect on July 1, 2022. Send your suggestions for new questions, changes to current exam topic areas, or changes to existing questions to NCVEC-QPC.

License Exam Contacts

Vero Beach ARC
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budholman@earthlink.net

Ft. Pierce ARC
Jess Porter
w4dns@arrl.net

Port St. Lucie ARA
Robert Brown
(772) 201-5485
brownpsl@comcast.net

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.

James (Jim) Jaques/K6RXX (SK)

<p>We are sad to report that Jim Jaques, K6RXX became a Silent Key on March 10, 2021.</p>	<p>Jim volunteered with ARES for almost 5 years and serving as Training Coordinator.</p>	<p>approximately 48 hours during that event.</p>	<p>Duty stations and assignments included Iceland and the Defense Communications Agency.</p>
<p>Jim was a member of the Ft. Pierce Amateur Radio Club, the Port St Lucie Amateur Radio Association and Saint Lucie County ARES. He served as a VE for the Ft. Pierce Amateur Radio Club.</p>	<p>During the 2017 Hurricane Irma event Jim deployed as an emergency coordinator to both the Fort Pierce Central HS shelter and Lawnwood Medical Center. Jim was on station for</p>	<p>Jim was a certified instructor for FEMA Incident Command System (ICS) classes. He was also involved with CERT as a trainer.</p>	<p>Jim worked as an engineer for L3 Technologies Undersea Strategic Systems and Northrop Grumman Air Combat Systems before retiring.</p>
		<p>Jim spent 22 years in the US Navy Surface, Air and Subsurface Commands.</p>	<p>73 Jim.....</p>

MARS Announces Schedule of Dates for 60-Meter Interoperability

The Military Auxiliary Radio System (MARS) has announced dates in 2021 during which MARS members will operate on 60 meters for interoperability with the amateur radio community. Some dates coincide with quarterly Department of Defense Communications Exercises (COMEX).

All exercises will begin on channel 1 as the initial calling channel and move to other 60-meter working channels as may be appropriate.

"In addition to voice calls, I want to introduce passing ICS 213 messages in both voice and digital modes to enhance the overall interop experience," said US Army MARS Chief Paul English, WD8DBY.

English continues, "Our exercises will yield the frequencies to other scheduled exercises or mission activations,

which may be called by other agencies for interop support (e.g., hurricane, wildfire, etc). We regularly instruct MARS members to work cooperatively with the amateur radio community during the use of the 60-meter interop channels. We will continue to track our 60-meter usage and activities."

English said he plans to provide a quarterly usage report of 60-meter interoperability activities.

The interoperability schedule for April is:

April 3 - 10
Exercise: Interop Outreach
Location CONUS

April 30 - May 6
Exercise: DOD COMEX 21-2

The **Military Auxiliary Radio System (MARS)** is a US DOD program, managed and operated by the United States Army and Air Force. The program is a civilian auxiliary consisting primarily of licensed amateur radio operators who are interested in assisting the military with communications on a regional and national level when access to traditional forms of communication may no longer be available.

The main benefit of MARS membership is enjoying the amateur radio hobby through an ever-expanding horizon of MARS service to the nation. MARS members work by the slogans "Proudly Serving Those Who Serve" and "Proud, Professional, and Ready." (Wikipedia)

PREVENT IDENTITY THEFT

It's no secret that we are often targeted by con artists.

A recent report finds that consumers age 55+ are no more likely to be victims of identity fraud than their younger peers. What's more, when such fraud occurs, older consumers spend far less effort

fixing the problem than younger victims.

Fortify your anti-fraud defense

- . Freeze your credit reports to make it harder for thieves to open new lines of credit in your name.

- . Use digital wallets that encrypt your card information, so it isn't shared with retailers when you're shopping in-store

or online.

- . Use a password manager to help create and store strong passwords for all of your accounts.

- . Install anti-malware protection on all your computing devices.

- . Sign up for text or email notifications with your bank, brokerage, and credit card companies to alert you to suspicious activity in your accounts.

Upcoming 2021 Florida Hamfests

08/14/2021

Ft Pierce Hamfest

Location: Indian River State College
3209 Virginia Avenue Fort Pierce,
FL 34945

Sponsor: Ft. Pierce Amateur Radio Club
Website: <https://fparc.org>

10/2021 - 56th Annual Melbourne Hamfest

Location: Melbourne, FL
Sponsor: Platinum Coast Amateur Radio Society (PCARS)

12/10/2021 - Tampa Bay Hamfest, ARRL West Central Florida Section Convention

Location: Plant City, FL
Type: ARRL Convention
Sponsor: Florida Gulf Coast Amateur Radio Council
Website: <http://www.fgcarc.org>

Why Your Son Should Learn Radio, A Talk with "Dad"



Published in Shortwave Radio Craft—April 1935 (John T. Fry (W9EGV))

Ham Radio Trivia

Answer to last month's question:

Last month we asked you about a question about a Hollywood personality who once held amateur license KE6PZH. Let's find out if you were able to guess the answer.

Last Month's Question:

This late Hollywood super star once held amateur call sign KE6PZH. Who was it? Hint: He is known for once using his Oscar as a doorstop.

Your answer choices were:

- A. Jimmy Stewart
- B. Marlon Brando
- C. Richard Burton
- D. John Wayne

The correct answer is:

- B. Marlon Brando

All were great actors, but only Marlon Brando held an amateur radio license.

April Trivia Question

For this month's question we will stick with the entertainment theme.

Question: This pianist and band

leader's handle is Bob and his call sign is K6YBV. He is famous in his own right, but his daughter is even more famous, having starred in the movies 'Sixteen Candles' and 'The Breakfast Club.' Who is she?

- A. Ally Sheedy
- B. Annie Potts
- C. Haviland Morris
- D. Molly Ringwald

Bonus question: What is her father's last name?

Answers will appear in next month's newsletter.

(Have a good trivia question? Send it to:

tchamnews@gmail.com.)

"Brush up on your radio knowledge, skills and trivia."

Radio a la Cortlandt Street!

(Before Lafayette, Allied and Olsen stores, and before hamfests, free fleas, and ham stores, and before eBay, Aliexpress, Alibaba, Amazon, and the Shenzhen, China Electronics Malls, we had New York City's Cortlandt Street.)

"Pick 'em out yourself! The prices are all marked," the sidewalk display said at the corner of Cortlandt and Washington Streets in New York City in the 1930s.

There is no city in the world that has a Radio Row comparable to New York's [Cortlandt Street](#). To the great army of Service Men outside of New York City, this article is dedicated. Read it and weep!

"Any set - 25 cents," said a crudely crayoned, yard-square sign, stuck on a heap of once-expensive broadcast receivers, thoroughly exemplifying the spirit of New York's famous "Radio Row," where there are more radio shops per square foot than anywhere on earth. The stores themselves are not big enough to hold all the cut-price merchandise offered to the passing crowds, so they disgorge their surplus onto the narrow sidewalks. Here loud-voiced barkers exhort the cash customers not to overlook the wonderful bargains, while at the same time they keeping a sharp lookout for the light fingered gentry to whom low prices mean nothing.

The whole district has a sort of carnival atmosphere, with only the music, the kooch dancers and the freaks missing. "What," you exclaim, "No music on Radio Row?" Until a few years ago every store kept two or three powerful sets running from morning to night, but the din was so

terrific that the city was forced to pass a municipal ordinance to curb it. Where once the roar of the nearby elevated train was completely obliterated by the output of 12-inch dynamic speakers, today the receivers in the windows stand altogether silent. Demonstrations are given in private rooms, with soft lights and artificial flowers lending a much needed air of respectability.

The main axis of Radio Row is Cortlandt Street, on which the majority of the stores are located. The two blocks between Greenwich Street and West Street (which runs along the Hudson River), are practically solid with radio stores, with the exception of a few interlopers, such as beverage dispensaries, and an empty bank. On Greenwich and Washington Streets, which cross Cortlandt, and on Liberty Street, one block south, and Telegram Square, one block north, are dozens of additional stores. Some are mere holes in the wall, perhaps eight feet deep and five feet wide; others are really fine places with balconies and plenty of aisle space.



This is an honest-to-goodness photo of a Washington Street sidewalk. The sign is no joke; you can take away any set you like for one quarter, no more, no less.

Why Cortlandt Street?

Just how or why the district assumed its present identity no one knows. A factor of undoubted importance is the location of a string of ferry slips at the foot of Cortlandt Street, from and toward which New Jersey bound commuters stream by the thousands twice a day. During the week the "Street" is filled with normal New York crowds, but on Saturday afternoons it is well nigh impassable, for radio men from the entire metropolitan district come down to do their weekly buying.

A casual tour from store to store soon reveals the attractions that have crowded Radio Row for ten years. On Washington Street between Telegram Square and Cortlandt Street the visitor finds himself tripping over chasses by the dozen, with the most absurd prices marked on them. Look at the heap pictured nearby. A sign in plain view states, "Any Set 25 cents." Shades of departed glory! Here we find Radiola second-harmonic superheterodynes that once sold for \$200; old three-dial Grebe's with their beautiful workmanship; Freshman Masterpieces, with one R.F. coil missing; Stromberg Treasure Chests, once the finest radio instrument in existence - and others too numerous to mention.

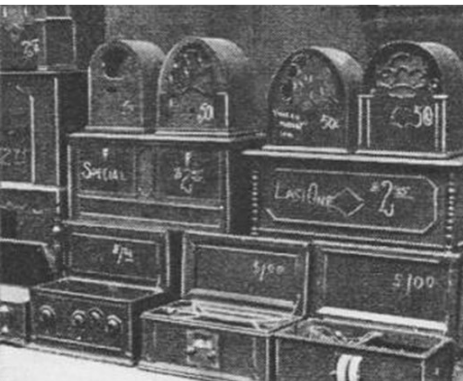
Move along a few feet and you encounter a line-up of cabinets, some with sets still in them. Look at that yard-long Fada, marked \$1.00! Or the Philco midget for 50 cents! Of course, everything is sold "as is" and refunds are unknown, but who can go wrong for a mere quarter when one socket or transformer may earn two to five dollars in a repair on a customer's set of the same make?

(continued on page 7)

(continued from page 6)

A sidewalk display at the corner of Washington and Cortlandt Streets draws the visitor because the apparatus looks pretty clean. An Amrad screen-grid job for \$11.50, Atwater Kent Compacts for \$2.50 and \$3.95, Exide batteries that you can't even lift, for \$4.50. This is all workable apparatus, not junk.

And parts! Stuff you thought went out of existence in 1918 finds space alongside pentode output transformers that you see many boys buying! You don't even have to go inside a store to do your shopping, as in many places the counters are right on the street, with big items like chasses and loudspeaker baffles hanging invitingly in open sight.



Cabinets, with and without sets, 50 cents and up! The center set at the bottom, marked \$1.00, once sold for about \$275. No refunds; you pay your money and take your chances.



Why go into a store. Just gather your parts on the run. Look at these prices for aluminum chassis! 25 cents, 75 cents, 85 cents. Some may be cut, drilled or bent.

A Radio Paradise

The variety of the parts available is beyond belief, and is amazing to the man who has grown up on mere catalogs. From the Service Man's standpoint the district is a virtual paradise, because in it he can find pretty nearly everything that was ever made in radio, from year one and on. This is by no means an exaggeration. One famous store, hardly wide enough to accommodate two people but running three stories high, will sell you pre-war loose couplers and electrolytic detectors in their original factory cartons. Also fixed spark gaps, coherers, oscillation transformers, and absolutely any ancient part you can think of. Only a few steps off the busy waterfront, it is a meeting place for radio operators from all over the world.

They come in to buy spare or replacement parts for their private short-wave receivers, for their captains' broadcast sets, and for the sets of friends and relatives in remote places where an extra tube or filter condenser may save months of boredom or loneliness. They often leave souvenirs in the form of tropical fish, South Sea Island shells, Japanese fans, etc., which help to dress up the window displays.

Don't get the idea from the foregoing that only obsolete junk is on sale along Cortlandt Street. Far from it. The street boasts a number of flouncy stores, with canopies covering everything, where you can see, hear and buy the very latest superhets with two or more loudspeakers, and where you can be waited on by polite salesmen who actually wear coats and speak English.

Auto Radio Booming

The latest development along Radio Row is automobile radio. It is an in-

spiring sight to the visiting serviceman to see the curbs parked solid with all kinds of automobiles, on, in and under which one or two men are working. A car owner can leave his machine in front of a store in the morning and drive it away in the afternoon with a complete radio receiver in it. The installation men run AC power out from the stores to the curb, draping them around convenient light poles to prevent passers-by from tripping over them. Oblivious of the curious crowds that gather to watch them work, they dope up ignition wiring, saw out footboards, rip out upholstery for aials, and snake wires around hot exhaust pipes and steering columns. A lunch hour tour on an average Tuesday revealed more than two dozen cars being fitted with auto radios on Telegram Square and Washington and Cortlandt Streets. There must have been equally as many cars on the side streets.

Special Service Station

So far the police have been obligingly tolerant of the curbside activities, but traffic being what it is in lower New York, some of the store owners are making other provisions for their rapidly expanding auto radio business. One man, now occupying a large store, has rented an adjoining one, which he plans to equip as a special auto radio service station. The car owner, instead of leaving his machine at the curb at the not-so-tender mercies of the curious onlookers, will drive it right into the store, where it will be fitted with a receiver in jig time. This arrangement is the answer to the question that has perplexed auto radio manufacturers for so long, "Should auto sets be installed by auto mechanics who have only a faint notion of what it is all about, or by competent radio service men who know just what they are doing?"

By Robert Hertzberg, 1932

The Frugal Ham Radio Operator



In a recent TCHamNews issue I mentioned a frugal ham (Bob, WB8BEL) who designed and constructed a 6 meter antenna from aluminum crutches.

Aluminum crutches can be found at many Restore, Salvation Army, or Goodwill stores. Used crutches can sometimes be bought for \$5 or \$10 dollars. Yard sales are another source. You may even have a pair in your garage or attic just waiting for an opportunity to be repurposed.

With summer rapidly ap-

proaching and sporadic E propagation almost a guarantee, why not try 6 meters with aluminum crutches? For information please go here: [Build a 50 MHz Dipole Out of Crutches | Nuts & Volts Magazine](#)

In Nuts & Volts Issue 3-2020, Bob is back with another frugal article that you may find interesting. Entitled "An Easy CATV Coax Antenna." Bob shows how RG-6 CATV coax can be used to build a 20 meter HF End Fed antenna.

Now we know RG-6 is 75 ohm TV/CATV/Satellite feed line. You might also be saying it works good as a 1/4 wavelength matching transformer for loops, but questioning it as an antenna.

Several years ago I bought a partial roll of Belden double shielded RG-6 coax cable at Restore in Stuart for \$30 to rewire my house CATV. I ended up using just 100' so the rest sat in my garage... that is until Bob's article. (By-the-way, Bob paid a buck for 150 feet of RG-6 plus connectors at a yard sale.)

As a frugalist I like to find ways to repurpose things, and Bob's approach to building an end fed antenna from RG-6 coax was right down my alley. For his end fed RG-6 coax cable antenna, Bob specified a 1:49 unbalanced to unbalanced (UNUN) transformer.

If you have a FT140-43 core, #18 wire and a 100pf, 3 kv cap you can

easily build the UNUN. Bob however found a frugal source on eBay. Seller "Eddieson" had exactly what he needed for \$15 dollars including shipping.



Using his MFJ Antenna Analyzer Bob determined his antenna would need about 28' 8" of coax. In order to fine tune the length he used a 10" piece of wire between the coax and UNUN. So how did it work? His first contact with the antenna only 6' off the ground was 800 miles. Not too shabby.

73, The Frugal Ham

Short Takes

2021 International DX Convention

Originally scheduled for April 16-18 for part one and April 23-25 for part two, the convention will now be May 15-16. Each day, Saturday and Sunday, it will be from 0800-1700 PST, with eight "DX related webinars," and eight "Exhibitor Webinars."

Pre-registration is required but free. The pre-registration will open April 18. There will be door prizes, "Which is why you need to pre-register,"

they say. The event will be recorded and posted to the NCDXC website for viewing at a later date. More details will be forthcoming. Direct questions and comments to K6MM and KEIB at info@dxconvention.com

K3FN Custom QSL Service

Jim, K3FN, offers a unique approach to QSL service. Check it out at: [AirMailPostage QSL Service](#). (Look for an article about Jim's service in a future issue of Treasure Coast Ham News.)

Windows 10 Updates

Does the computer you use for logging and/or digital QSO's run on Windows 10? Do you get frustrated when an automatically applied Windows 10 update disrupts your sound card settings and/or device drivers. If so, you may want to consider disabling automatic updates. Here's a web site that tells you how: [Disable Windows 10 automatic update](#).

Theodore (Ted) Huf, W4ZE (SK)

It is with regret that we must report the passing on March 22, 2021 of Theodore (Ted) Huf, W4ZE, past president of the Port Saint Lucie Amateur Radio Association.

Ted was a champion of amateur radio and a friend to all who knew him.

Our thoughts are with the family in this time of sorrow.

Treasure Coast Ham Doctors



Stations Do Not Send a Grid Identifier

More and more frequently FT8 operators

tend to bypass the grid identifier step when responding to CQ calls.

A new ham just learning FT8 has noticed this and sent us a question concerning the subject.

Question: I am new to amateur radio, having recently passing the Technician and General exams. I purchased an HF rig, have it set up and on the air. Now I am trying to learn and understand FT8 operation.

My question concerns the message sequence of the FT8 QSO. According to everything I read, when I send a CQ call, the responding station should respond with his

grid report. Yet sometimes I receive a signal report instead of the grid. What gives? Am I doing something wrong? Or is the responding party doing something wrong? Or is there a problem with the configuration and setup of my station and WSJT-X software?

Answer: Relax. If you are getting responses to your CQ calls, then there is nothing wrong with your hardware, software or configuration.

What you read in the manuals and how-to books and videos is that the correct procedure is to reply to a CQ call by sending your grid identifier.

However, we are seeing more and more frequently that operators choose to skip the grid report and jump directly into reporting signal strength.

I can only speculate why they do this. My best guess is that they are in a hurry for some reason and want to complete the QSO in the shortest time possible.

One of the things I do after each FT8 contact is check the other party's QRZ page. Frequently, the person's biography page contains guidelines asking responders to his CQ calls to skip the grid locator response and proceed directly to the signal report. So I think it is a fair assumption that persons who want you to skip the grid identifier response will likely skip it when responding to your CQ calls.

So what do you do in this case? Basically nothing. If you have the "Auto Seq" option checked on the WSJT-X main screen, the software will handle the rest of the message sequence even without having received the grid locator. If you are operating manually, just send the "R" signal report response.

If you really want to know the other party's grid, look it up on his QRZ page. It is located on the detail tab.

Thanks for the question.

Happy operating.

This is the Ham Radio Help Column

This column is reserved to post your questions, problems and/or observations about any amateur radio subject.

Our hope is that other readers will provide answers and offer comments about the questions you ask.

So, if you have a question, problem, need information about a specific rig or software package, or are simply looking for information about any amateur radio topic, email us at:

tchamnews@gmail.com

FT8 Operating Tip

Everyone is familiar with the "Buddy System." We use it all the time when swimming or doing potentially dangerous work, such as climbing towers, working with hot electricity, etc.

Have you considered applying the "Buddy System" to your FT8 oper-

ating practices. The editors of TCHamNews do it regularly.

We will operate on different bands, always looking for an unusual or rare DX entity or special event station. Should we spot something of interest we will fire off a text message alerting the oth-

er party. Using this method we both are able to successfully complete QSO's which one or the other of us would likely have missed.

Have an Operating Tip to share with the ham community? Send it to tchamnews@gmail.com.

Antenna Quiz by K3EUI

Test your antenna knowledge. All questions can be answered TRUE or FALSE. Good luck!

(Answers on newsletter last page)

1. A balanced two-wire feed line will not radiate as long as the two conductors have equal currents in opposite directions, since their fields cancel.
2. The SWR on a feed line is determined by the impedance mismatch that occurs at the junction of the feed line at the antenna terminals.
3. Changing the feed line length by $\frac{1}{4}$ wavelength will change the measured impedance and antenna system resonant frequency in your shack, but will not change the SWR on the line (assuming low-loss line).
4. The impedance of a $\frac{1}{2}$ wavelength dipole operating slightly off the resonant frequency changes mostly due to reactance changes (X) and not so much from changes in resistance (R).
5. If your antenna operates on a frequency where one-half of the forward voltage is reflected at the antenna terminals, then the reflected power will be 25% of the forward power, and the SWR will be about 3:1.
6. Attenuations of 1 dB or less are too small to be detected so ignore them.
7. Attenuations of 3 dB in your coax result in 50% of the power lost to heat in the cable. That represents about $\frac{1}{2}$ S – unit loss to the receiving station.
8. Ladder-line and window-line have far less loss than typical coax.
9. RG213 has a loss of less than 0.5 dB / 100 feet at 4 MHz, so 200 feet of this cable can be neglected in terms of your antenna efficiency on 80m.
10. The impedance of a center-fed $\frac{1}{2}$ wave dipole at a reasonable height in the clear is roughly 50-70 ohms, depending on ground and other nearby conductors. As the dipole gets closer to ground, the impedance drops rapidly.
11. If both halves of a center-fed dipole get equal current, then each half of the antenna will radiate the same energy. Even the side that is connected to the shield (grounded at the rig) will radiate 50% of the wave's energy.
12. When operating at a frequency BELOW resonance, a dipole exhibits CAPACITIVE reactance (the current leads the voltage at the feed point).
13. When operating at a frequency ABOVE resonance, a dipole exhibits INDUCTIVE reactance (the current lags the voltage at the feed point).
14. The resonant frequency of a dipole does NOT depend on where the feed line is attached (center-fed, off-center fed, or end-fed) .
15. The impedance of a dipole increases as the feed point location moves outward from the center of the dipole towards the ends of the dipole.
16. A 100 ft long dipole mounted at least 40 ft above ground and fed with ladder line or window-line makes a great all-band HF antenna, but you will likely need an antenna tuner in the shack to match the higher impedance ladder line to the 50 ohms your rig wants to see.
17. All end-fed antennas present a high impedance to your feed line, and thus need a high impedance to low impedance UN-UN or a parallel tuned LC circuit to match the antenna to typical 50-ohm coax.
18. The main function of an antenna tuner is to provide a “conjugate match” and turn the reflection LOSS due to high SWR into a reflection GAIN. The reflected power is turned into additional forward power.
19. Non-resonant antennas can radiate just as well as resonant antennas if matched to your rig.

Ramblings of an Antenna Alchemist



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



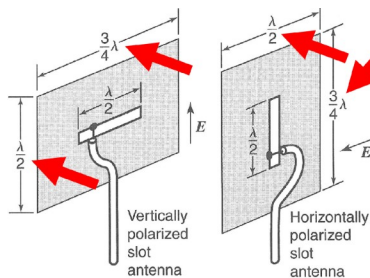
A couple of weekends ago I attended the virtual QSO Today HamExpo. Eric Guth, 4ZLUG, and his team lined up top vendors for the marketplace and an impressive list of speakers. Almost 100 presentations were given either live or via Podcast. Most had a live Q & A session with the presenter immediately following. Attendees could chat throughout the session.

The keynote address was given by Dave Minster, ARRL CEO. As a long time league member I listened to his presentation on how the ARRL hopes to be more in tune with its members and hams as a whole. The ARRL has had a few false starts with their CEO position since Dave Summer retired. Some thought WB2ITX, the most recent CEO's transformation plan was long overdue. Good or bad the ARRL Board did not agree and out he went. Dave came on board late last year.

I listened to Dave's pre-recorded address. While it would have been nice to hear him live, he had a lot of ground to cover and the pre-recorded format worked. Dave seems to understand what it will take to get the league back on track. Only time will tell, of course, but he may be the CEO the league members need as the ARRL moves forward.

Being an alchemist I shifted to the antenna presentations

after the keynote address. Of great interest was a presentation by John Portune, W6NBC and Marcel Stieber, AI6MS on slot antennas. John is a well known antenna alchemist, having published QST articles for almost 2 decades. His antenna alchemy is very prolific. Marcel worked with John on adding UHF to the VHF slot satellite dish antenna. Both John's presentation on an Inverted Dual Delta Slot Skelton antenna and Marcel's presentation on how to add UHF to John's VHF Slot Satellite Dish antenna were excellent. Check out John's website (www.w6nbc.com) for construction details for his skeleton antenna and Marcel's QRZ page for the dual band VHF/UHF satellite antenna.



So what is a slot antenna? The origins for this type antenna date back to the early days of TV broadcasting. Slots are a type of folded dipole with the feed point on the side.

For HF John developed a skeleton version. It started as an inverted Delta with the feedpoint at the bottom. He added a 2nd element rotated 90 degrees. An automatic

antenna tuner along with a relay to change polarization is located at the feed point to enable multi-banding and directional propagation. If you're only interested in mono-band operation, you can dispense with the auto-tuner. He commented that in his deed restricted community, the HOA thought it was some sort of nautical structure and so far had not questioned him.

John's VHF satellite dish antenna was published in QST in 2016. I remembered reading it, but at the time living in Virginia, a stealth antenna was not something I needed. Marcel adding UHF was a good enhancement. Our local hams who have overly zealous HOAs might try this type of antenna. The nice thing is that you don't lose your satellite TV.

I have seen satellite dishes around the area, many with their coax cut or on the ground. It should be easy enough to find one for free or a couple of bucks. You can use a jig saw to cut the slot, but be aware that the dimensional stability of the dish is greatly compromised when slotting. This issue can be overcome by either reinforcing the slot on the back side of the dish with pieces of fiberglass or wood. One enterprising ham after cutting the slots, used epoxy in the slots.

73, The Antenna Alchemist

MORE DXING WITH BRUCE, W8HW

(Editor's note: This is part 3 of a continuing series on DXing and the QSL process. This month Bruce discusses DXpeditions and offers tips for obtaining QSLs through the OQRS process.)

Let's begin this month's discussion by examining a few QSL cards from DXpeditions. Then we will discuss some time and money saving tips that can improve your QSL efficiency.

(Note: The card images shown nearby are reduced in size to fit in the limited space available. Don't be concerned with any of the fine print. Only the circled areas and red arrows are relevant to our discussion.)

South Georgia Island

VP8 VP8SGI South Georgia Island

South Georgia Island is a British Overseas Territory in the South Atlantic Ocean, between the Antarctic Peninsula and the Falkland Islands. It is the largest island in the South Atlantic and the second largest in the world. It is a remote island with a small population of about 30 people. It is a popular destination for DXpeditions and QSL cards.

Date	UTC	Band	RST	ZK	Operator
1/20/2016	08:53:00	30M	599	CW	W8HW
1/20/2016	14:16:00	15M	599	CW	W8HW
1/20/2016	15:07:40	12M	599	CW	W8HW
1/20/2016	19:30:40	17M	599	CW	W8HW
1/20/2016	20:00:00	15M	599	CW	W8HW
1/21/2016	00:30:00	15M	599	RTTY	W8HW
1/21/2016	22:07:00	10M	599	QRP	W8HW

QSL Manager: Bruce, W8HW
QSL cards printed by WZBP

VK0EK Heard Islands

VK0EK To Radio: W8HW
VK0EK confirms the following QSO(s):

Date	UTC	Band	Mode	RST (S)
2016-03-26	04:20	30m	CW	599
2016-03-27	23:09	40m	CW	599
2016-03-28	00:31	80m	CW	599
2016-03-28	12:04	15m	CW	599
2016-03-30	12:48	12m	CW	599
2016-04-01	04:29	20m	CW	599
2016-04-07	12:24	15m	RTTY	599

Thanks for 7 QSOs and QSL 73 de VK0EK

FT5ZM Amsterdam islands

FT5ZM Amsterdam islands

Date	UTC	Band	RST	ZK	Operator
1/20/2014	02:48:00	30M	599	CW	W8HW
1/20/2014	15:12:13	20M	599	CW	W8HW
1/20/2014	02:34:44	20M	599	USB	W8HW
1/21/2014	01:18:02	40M	599	CW	W8HW
1/21/2014	13:05:05	15M	599	CW	W8HW
1/21/2014	13:11:25	12M	599	CW	W8HW
2/1/2014	12:28:04	10M	599	CW	W8HW

QSL Manager: Bob Schenck, N260 / QSL SUPPORT: SSB.C
QSL designed by SSB.C.net QSL printed by WZBP

These sample cards confirm my successful QSOs with three DXpeditions to rare DXCC entities. We will use them to point out some tips that hopefully can improve your DXCC success.

Rarity

The three sample cards are from 2014 and 2016. As of today, some five to seven years later, no one has returned to these locations. Who know when someone will next be on the air?

Tip #1 - Work the rare stations hard when they are on the air.

Multi-band, Multi-mode

If you are chasing DXCC awards take advantage of DXpeditions by contacting them on as many bands, and in as many modes, as possible. All the sample cards are confirming QSOs on multiple bands and in multiple modes, a distinctive advantage over individual cards.

Tip #2 - Combining multiple QSOs on one card saves money. Besides, as mentioned previously no one knows when the DXCC entity will next be on the air. So grab them when you can and work them hard.

QSL Cards without Signatures

In previous articles we discussed the importance of signatures on QSL cards. Look at the red arrows on the sample cards. None have a signature. Instead, all have been

MORE DXING WITH BRUCE, W8HW

(continued from page 12)

stamped. DXpeditions and high traffic DX stations often stamp cards. A stamped card is acceptable to the ARRL DXCC program.

Tip #3 – Validation stamps on QSL cards meet the signature requirement of the ARRL DXCC program.

QSL Managers

Some DXers and DXpeditions use “QSL Managers.” Managers handle the QSL process for the station or DXpedition, making things easier for all of us. QSL managers are often located stateside, meaning postage both ways is low. If the QSL manager is overseas, there is a good chance he/she manages multiple DX stations. M0URX is one such example. Always check the manager’s web or QRZ page. With a little planning you may be able to confirm multiple stations be sending multiple cards in one mailing.

Tip #4 – Check a QSL manager’s web page before sending a card. You may be able to combine QSLs, thus further reducing postage costs.

Use OQRS for QSLing

Many DX stations offer OQRS as a convenient way for stations to electronically request a confirmation QSL. Club Log is probably the most popular OQRS site. There are others. Look for a list of some common OQRS sites at the end of this article.

To use Club Log, simply locate the DX station’s page on Club Log. Then look up your QSO and fill in the requested information. Finally, you will be directed to PayPal to make a small payment to the DX station to cover postage, typically between \$3 and \$5. PayPal will also provide an opportunity to make a small additional donation to the DX station, but this is not necessary to obtain a QSL.

Tip #5 – The OQRS process is straightforward and offers a low cost way to obtain QSLs.

DXpeditions and Logbook of The World

Many DXpeditions will refrain from loading QSOs to LoTW for 6 months or more unless you send them a contribution, usually via OQRS. They are not holding your QSO “hostage,” and they are not being “gold diggers.” Rather, they are trying to recover some costs.

These days, DXpeditions can cost \$100,000 to \$200,000, or more. The DXpeditions do not make a profit. I often add an additional contribution for them. I recommend you do the same. The contribution is only a few dollars, but it helps. DXpeditions are important to all of us.

Tip #6 – Support DXpeditions and DX stations in general by adding a small contribution when using an OQRS service.

ARRL DX Entity List

There are 340 unique entities/countries on the ARRL DXCC list, but only about 250 of them have active hams. DXpeditions are needed to the 90 or so entities without resident hams, and they need our support. Watch for them. A good web site for **DX news** is <https://www.425dxn.org/index.php?op=wcal>.

Tip #7 – Always read DX news articles carefully. Specific QSL instructions are usually provided for every listing.

That’s all for now. Next month we will begin exploring the science of HF and DX. We will start by discussing the where, when and how of finding and working DX, including the rare ones.

73, Bruce, W8HW
DX and Ham Radio, America’s best ambassador

(Got an operating or technical question? Email me at W8HW@comcast.net. I will answer your question directly and possibly discuss it in a future article. DX is both science and art. You will never stop learning. If you have a question in mind, don’t lose it, ask it.)

Here is a brief list of QSL manager and OQRS service web sites:

<https://clublog.org/charts/?c=C21WW>

<http://www.m0oxo.com/oqrs/>

<http://dx.qsl.net/>

<http://www.m0urx.com/oqrs/>

<https://secure.clublog.org/expeditions.php>

<http://dx.qsl.net/logs/index.html>

<http://www.ik2duw.it/oqrs.html>

Domestic Special Event Stations

Apr 18-Apr 19, 1300Z-0400Z, W7W - World Amateur Radio Day

W2JLD/Special event coordinator. Echolink *ROC-HAM* CONFERENCE 531091 Allstar 2585, 47620, 53130. QSL: John Derycke, W2JLD, 85 Amherst St #2, Rochester, NY 14607. This will be our 6th annual WORLD AMATEUR RADIO DAY celebration on the VOIP Echolink system. We have a 16 hr net with net controllers from all over the world. A special event QSL card will be available. Join us again for one of the LARGEST special events on Echolink @ 9AM EST TILL 12 MIDNIGHT EST. We will have Allstar, DMR as well.
w2jld2@gmail.com

Apr 10-Apr 11, 0001Z-2359Z, KN0WCW - Annual Nancy Kott Memorial KN0WCW Event

FISTS North America. 10.058 7.058 10.118 3.558. Certificate: Cody Codianni, 413 Martin Court, Leonardo, NJ 07737. Nancy worked tirelessly to promote Morse Code, showing kindness to all and exemplifying our mottos of "courtesy at all times" and "accuracy transcends speed." She is deeply missed by all, but not forgotten.

Apr 10-Apr 11, 1200Z-2359Z, W4E - Celebration of the 155th Anniversary of Auburn Uni-

versity, Auburn University. 7.060 7.074 and 7.047.5 14.074 and 14.080 7.070. QSL: Stew Schneller, 1869 Hillton Court, Auburn, AL 36830-2693. www.qrz.com/db/k4jop

Apr 10, 1700Z-2100Z, W4D - Spring has Sprung

Sevier County Emergency Radio Service. 14.280 +/- .020 USB 7.200 +/- .020 LSB 14.070 +/- .020 PSK31 7.070 +/- .020 PSK31 CW only on 7.060 +/- .010. QSL: Thomas P. Baxter, W9TPB, 2054 James Rd., Sevierville, TN 37876. For additional information, please go to:

www.eventqsl.webs.com

Apr 10, 1600Z-2300Z, NI6IW - USS Midway Museum Ship: Doolittle Raid, USS Midway (CV-41) Museum Ship. 7.250 14.320 14.070 (PSK31) DSTAR via PapaSystem repeaters. QSL: USS Midway CV-41 COMEDTRA NI6IW, 910 N Harbor Dr, San Diego, CA 92101. Please include SASE. www.qrz.com/db/ni6iw

Apr 14-Apr 22, 1200Z-2200Z - Maritime Radio Day 2021

Event will be CW only. Certificate & QSL: Rolf Marschner, Narzissenweg 10, 53359 Rheinbach, GERMANY. This is an operating event. Please see website for rules.

mrd.sfk-bremen.com

Apr 17-Apr 24, 0000Z-

2359Z, W5L - Celebrating the Louisiana Purchase

NorthEast Louisiana Amateur Radio Club. 14.250 21.250 7.250 3.850. QSL: Jim Ragsdale, W5LA, 111 Eagle Lake Drive, West Monroe, LA 71291. <https://www.qrz.com/db/W5L>

Apr 17-Apr 19, 1400Z-0200Z, K5LRK - Texas State Parks On the Air (TSPOTA)

Lake Area Amateur Radio Club. CW Phone VHF. QSL: See website for information. Times are daily. K5LRK is on as a special event station. Contest: Activate as many Texas parks as possible. www.k5lrk.com or www.tspota.org

Apr 24, 1500Z-2100Z, W5S - 156th Anniversary of Sultana Disaster

AG5QY. 14.240. QSL: Marc Gwin, 1402 Stratford Drive, West Memphis, AR 72301. <https://ag5qy9.wixsite.com/ag5qy>

Apr 24, 1600Z-2200Z, W7VW - OC&E Woods Line Last Train 31st Anniversary

Klamath Basin Amateur Radio Society. 14.074. Certificate & QSL: Jim English, 2602 Wiard Street, Klamath Falls, OR 97603. The Oregon, California, and Eastern Railway (OC&E) was a 64-mile (103 km) rail line between Klamath Falls and Bly in the US state of Oregon. After 70 years of bringing logs from nearby forests to local

sawmills, the former railroad right of way was converted to the OC&E Woods Line State Trail. The last OC&E log train to Bly ran on Sunday, 29 April 1990. wo7v@arrl.net or <https://www.facebook.com/kfalls.radio>

Apr 24-Apr 25, 1400Z-2359Z, K5T - San Jacinto Day Special Event

Nacogdoches Amateur Radio Club. 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>

Apr 24, 1400Z-1930Z, WIBSA - Birthday of Scouting

The USTNR group will be activating on the USS Massachusetts this year. 14.259. QSL: Rick Emord, 135 Wareham St., Middleboro, MA 02346. Please visit us at ne1pl.org for more information.

Apr 24, 1300Z-1900Z, W1M - Woronoko Heights Outdoor Adventure

14.290 14.060 10.115 7.190. QSL: Tom Barker, 329 Faraway Road, Whitefield, NH 03598. SES operating from the Horace Moses Scout Reservation in western Mass. SASE for QSL.

(Know of a Domestic Special Event? Please submit info to:

tchamnews@gmail.com)

Ham Humor

It's a Dog's Life

Driving around the Texas back woods, a ham saw a sign in front of a broken down shanty, "Talking Dog for Sale."

He stopped and walked up to a nice looking Labrador retriever.

"You talk?" He asked.

"Yep," the Lab replied.

After getting over the shock of hearing a dog talk, he asked, "So, what's your story?"

"Ah, shucks," the Lab replied, "there ain't much to tell. I'm just an old ham radio operator who likes to work CW."

"Wow! If I buy you, you can help me work CW in the Texas QSO party."

"How much for the Lab?" He asks the owner.

"Ten dollars," was the owner's reply.

"Ten dollars! Why so cheap?"

"Because the dog is a liar. He ain't never seen a ham radio in his life."

Junk Yard Cat?

Last issue we showed you this pile of electronic junk and asked you to find the cat hidden in the picture. Did you find him? He is located about midway between top and bottom, slightly in from the left edge. He is mostly white, with a grey back and head.



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.

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

Want to be published? Treasure Coast Ham News invites you to write about your ham radio activities, kit building, DX operations, or any other amateur radio subject. You don't need to be a polished writer or a writer at all. We will 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.

HOW TO SAVE YOUR MARRIAGE... WITH DX

Sounds like an “over sell?” Well I will let you decide if this is an over sell or something that is real. I can only tell you what happened with me and you decide if it will work for you. I think it will. In this article we will discuss, what is in DX for you; and, what is in DX for your wife? And also how DXing can improve your financial situation. You are the judge. All I ask is that you to hear me out before judging. Fair enough?

What is in DX for you? DXing is almost like hunting with a gun, except in DXing when you “bag one” both sides win and are happy. It is a win-win situation. And as you will soon learn, it can be a Win-Win-Win situation. The thrill of the hunt is very real in DXing. Learning where they (DX) rest or hide is just as intriguing as any other kind of hunting. The skill of positioning yourself (frequency wise) is one that you will keep on learning and experiencing the thrill every time you catch something new. The thrill of a win in a huge “Pile-up” will make you shout Yes! Yes! DXing is both a science and an art with a Yes-Yes attached.

What is in DX for your wife? You may want your wife to read this part. But husbands, remember it is not just for you. You must consider your wife’s needs as well. My wife and I have been married for over a half century. Our 51 anniversary will be April 9, 2021. When she sees me working the HF radio, she is happy. Why? When I put up

my 45 ft tower she said, “That looks very nice.” Why did she say that? When I was young many of my friends visited the local bars and chased the thrill of every skirt in the bar. My wife, who is a very smart lady, did not want that kind of life for the two of us. She learned that the best hobbies are the ones done at home. What a smart lady she was then and is now. DXing is a home sport with many victories in store for both of you.

DXing is addictive. But it is a good addiction. You will learn and enjoy at the same time. The more you learn, the more excited you will become. Has Ham radio become boring to you? If so, then take up DXing and watch the excitement build. Every time you get a victory in a big pile-up, after saying yes-yes, go out and give your wife a kiss and tell her thank you. You may just get lucky twice.

Economics of DXing. Unlike your other hobbies where you keep pouring money down the drain, with DXing you buy the equipment once and use it - and use it - and use it. DX will make you more excited tomorrow and all the tomorrows after that. You don’t need to buy bullets, or spend money on travel and lodging, or to keep your boat afloat or whatever else. Just turn the HF radio on and hunt DX. And when you find DX, learn how to say “Thank you wife” and get lucky twice.

73, Bruce, W8HW YES - YES - YES

Ham Radio Gear For Sale

ORIGINAL NON-SMOKING OWNER - YAESU FT1000 HF XCVR 160-10M. 200 WATTS with factory options (DVS-2 voice keyer, MHI-B8 hand microphone) and service manual. Has factory shipping box. \$795.00 or OBO.

ORIGINAL OWNER - Create Extra Heavy Duty Antenna Rotator – Model RC5A-3 and preset control box. Includes mounting hardware and factory manual. Rated for antenna up to 20 sq. ft. Test/Demo cable included. See EHAM.NET Reviews for info. \$495.00 or OBO.

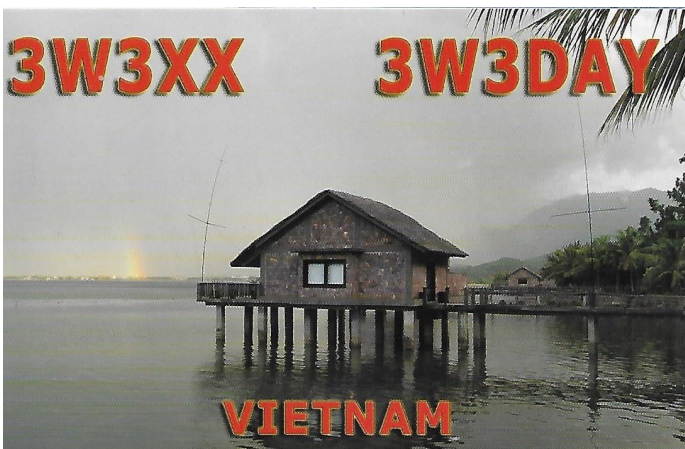
For both items, contact BOB, W7MAE, (772) 444-5845, or email w7mae@aol.com

* * * * *

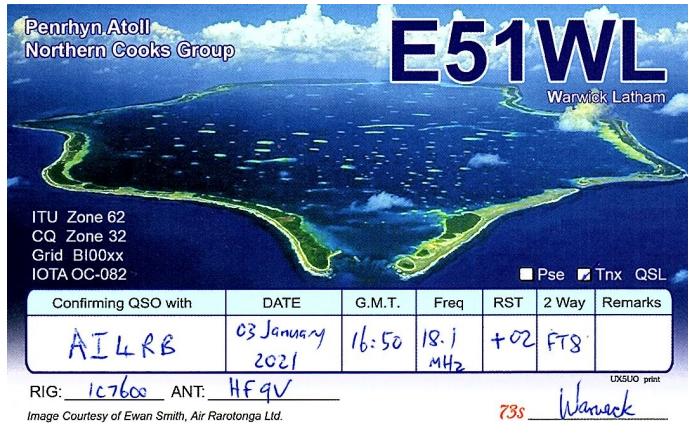
REPEATER — 220 Mhz. repeater system, rack mounted. Consists of VHF Engineering repeater, Mirage amplifier, microwave cavity and 50 amp power supply. Asking \$1,200 OBO. For details contact Andrew Jarrett,

phone 305-505-5461, email serrano_51@icloud.com.





(Above two cards courtesy Bruce, W8HW)



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 Fabrice directly at fertron@bftechnicarts.com. Phone 604-729-6454.

QSL Concept Get **10% OFF** Use Coupon Code **TCHAM10** at checkout

www.qslconcept.com/usa

K3EUI Antenna Quiz answers. Surprisingly, all are TRUE. So how did you do?

TCHamNews wants to publish QSL cards received by our local amateur radio community. If you have an interesting QSL card to share with your fellow hams, 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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WE CAN BE REACHED AT: TCHAMNEWS@GMAIL.COM

