

## HAM DATES:

**May 15, 16, 17, 2020**  
2020 Dayton Hamvention  
(CANCELLED)

### INDIAN RIVER CO.

**May 4, 11, 18, 25, 2020**  
Vero Beach Emergency Net,  
7:30pm, 146.640 (107.2) repeater

**May 5, 12, 19, 26, 2020**  
Indian River Co. ARES NET  
7:30pm, 145.130 (107.2) repeater

**May 14, 2020**  
Vero Beach ARC Meeting  
7:30pm, ZOOM (request invitation)

**May 28, 2020**  
Indian River Co. ARES  
7:30pm, ZOOM (request invitation)

### ST LUCIE CO.

**May 5, 12, 19, 26, 2020**  
Ft. Pierce ARC Rag chew, Traders, Tech NET 8pm, 147.345 (107.2) repeater Echolink: 2004 (W4AKH-R)

**May 6, 2020**  
St. Lucie Co. ARES NET  
7:30pm, 147.240 MHz (107.2) repeater

**May 7, 14, 21, 28 2020**  
Port St. Lucie ARA Rag chew, Traders, Tech NET 7:30pm, 146.955 MHz (107.2)

**May 13, 2020**  
Ft. Pierce ARC Meeting on the Air, 7:30pm, 147.345 (107.2)

**May 20, 2020**  
St. Lucie Co. ARES Meeting on the Air, 7:30pm, 147.240 repeater (107.2)

**May 27, 2020**  
Port St. Lucie ARA Meeting  
7:30pm (check PSLARA website)

### MARTIN CO.

**May 4, 11, 18, 25, 2020**  
Rag chew, Traders, Tech net,  
8:00pm, 145.150 MHz (107.2)

**May 14, 2020**  
Martin Co. ARES Meeting,  
7:00pm (check MCARA website)

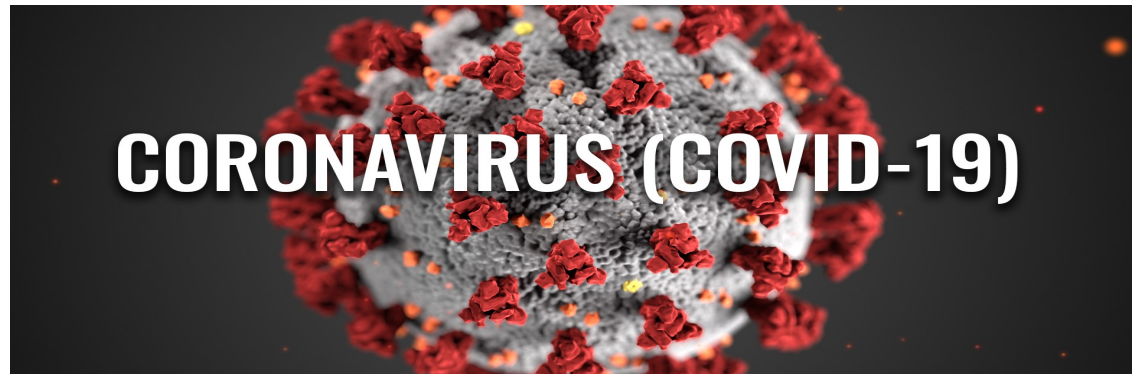
**May 28, 2020**  
Martin Co. ARA Meeting,  
7:00pm (check MCARA website)

# Treasure Coast Ham News

VOLUME 1, ISSUE 3

MAY 2020

## COVID-19 Continues to Impact Amateur Radio Activities



At the time this article is being prepared, government directives against social gatherings remain in place, as do stay-at-home orders.

It is still unknown how long these directives will last, although the light at the end of the tunnel is beginning to come into view as officials hint toward the beginning of a return toward normalcy in the not too distant future.

They caution, however, that any easing of restrictions will be done in a slow, methodical process and that it may take several months or longer for life to fully return to normal. Watch your local news sources for the latest updates.

COVID-19 impacts on amateur radio have been far reaching. Hamfests have been cancelled, including the national gathering in Dayton. Locally, club meetings, VE license examination sessions, social gatherings and most special events have also been cancelled for the duration of the crisis. About the only events continuing on a regular basis are club nets.

Some clubs are experimenting with using Zoom or another video conferencing software package to hold meetings remotely. Other clubs are holding meetings over the air in a net format, with officers and committees giving their reports over the radio and members providing input when called upon by the meeting leader. Check with your local club for the latest updates.

**INSIDE THIS ISSUE:** VE AMATEUR RADIO LICENSE TESTING ● TECHNOLOGY AND DATA HACKING ● ARES-RACES-CERT ● NEW HAMS CORNER: CALLSIGNS ● NEEDED:TREASURE COAST HAM DOCTORS ● HAM RADIO TRIVIA ● NEW ARRL DIGITAL OFFERINGS ● LET'S BUILD SOMETHING ● CARTOON CHALLENGE ● DX NEWS ● BEYOND THE HAM BANDS ● FOR SALE ● FINAL THOUGHTS



“National  
Conference of  
Volunteer  
Examiner  
Coordinators”

## VE Amateur Radio License Testing

### VE Examination Sessions Suspended

COVID-19 has impacted VE license examination sessions in a big way. To the best of our knowledge all scheduled exam sessions in the Treasure Coast area have been suspended until further notice.

If you are studying for a new license or an upgrade to your current license, don't despair. Keep on studying and stay in touch with your local club for updates on plans to resume testing.

### New License Issued

Since no exam sessions were held in the past month, we have just one update to report this month from the Port St. Lucie ARA. The license for new technician Derek Allie of Port Saint Lucie was finally issued on April 15<sup>th</sup>, a full month and a day after Derek passed the examination. The PSLARA VE team sends their congratulations to Derek, KO4DAD.

### VE Program Updates

(The following comments apply only to the ARRL VEC program.)

Participants in other VEC programs should disregard them.)

Delays in the processing of some VE exam session paperwork were experienced beginning in late March. The cause was a problem at the FCC that blocked file transfers from ARRL to the FCC. Normal operation was restored by mid-April.

*If your club is testing, please let us know the results.....*

As a result of COVID-19 restrictions, there have been some recent discussions about utilizing video conferencing or similar technology to administer remote VE examination sessions.

Please note the ARRL VEC has no policies or procedures in place to allow remote testing. Results from any exam session not carried out in full compliance with ARRL VEC guidelines will most likely be rejected by the VEC. As a result, the Port Saint Lucie VE team liaison has

chosen not to participate in, or attempt, any remote testing sessions at this time.

If you have special circumstances that necessitate conducting a VE exam session outside standard VEC guidelines, please discuss your plans with the VEC before conducting the session. The ARRL VEC can be reached at 860-594-0300.

At press time, we do not have reports from Martin and Indian River Counties. If you intend to test with one of these groups, please check with the local club for updates.

For further information on VE license testing please contact:

#### **Vero Beach ARC**

Bud L. Holman  
(772) 559-3342  
[budholman@earthlink.net](mailto:budholman@earthlink.net)

#### **Ft. Pierce ARC**

Jess Porter  
[w4dns@arrl.net](mailto:w4dns@arrl.net)

#### **Port St. Lucie ARA**

Robert Brown  
(772) 201-5485  
[brownpsl@comcast.net](mailto:brownpsl@comcast.net)

## Technology and Data Hacking

One thing we can count on is that cybercriminals will be many steps ahead of us, hacking our technology and trying to steal our personal information.

Experian identified some key technology and data scams that consumers should watch out for in 2020.

### Drone Hacking

Hackers use drones equipped with mobile hacking devices to steal information from con-

sumers who use unsecured public Wi-Fi systems. **AVOID** using unsecured public Wi-Fi for sensitive tasks. Adopt two-factor authentication and password protection.

### Smishing

Smishing is a scam via text message. Texts may “appear” to be from someone raising money for a social issue or political candidate that you also support.

Don't let your guard down and

**NEVER** provide the sender with your credit card or bank account information. **DELETE** suspicious texts and ignore those from unknown senders.

### Deepfake Technology

Criminals use deepfake video and audio technology to manipulate the appearance and voice of corporate and government leaders to disrupt politics and financial markets. **LOOK** for signs of videos blurring individual faces and irregular blinking of images.



*During a practice exercise I had one new ham who did not KNOW his callsign!*

*I asked three times before the person got it right.*

# ARES - RACES - CERT

Many new hams join the hobby because they want to become involved with an Emergency Response Organization. We thank you for wanting to help out during times of crisis!

New hams will have a lot to learn before they become effective.

Some key learning points are:

- Ability to function under pressure
- Knowing good radio procedure
- Knowledge of the served agencies we work with
- Knowing how to use your equipment

The last one is most important because under pressure you will make mistakes. The fewer and more minor they are, the less the impact will be. I have seen new hams forget how to change frequency when pushed a little outside their comfort zone. I can only imagine how they might react in a life threatening event.

PRACTICE, PRACTICE, then

practice some more. Listen to the various nets. When you understand how they operate, check in. Do so on a regular basis. If the net holds on air drills, participate! Your nervousness will diminish over time and you will gain confidence that you can pass traffic.

**ARES** is one of the larger groups serving agencies such as the Red Cross. As an ARES member you should know the types of traffic you may be expected to pass and in what format. A lot of ARES groups assist with events like marathons and bike rides. This is a great way to get practice for a real world situation.

**RACES** is a parallel group but their only served agencies are governmental. A lot of hams actually belong to both groups, but you can commit to only one for a call out! RACES will handle traffic for Emergency Management, Police, Fire, EMS, Roads and other services. If you are

going to join this group get to know the folks you will work with before your services are needed.

**CERT** is a neighborhood group. It is very strong in some areas. It's a grassroots effort training people to handle emergencies on their own when professional help is unavailable. CERT is often used for traffic control, and special events. As a ham you are valuable because you can pass traffic to other teams and the controlling agency.

Because of the nature of the work, members of all groups must often be vetted. You may need to be fingerprinted and have a background check. Costs for these services are often borne by the group, but check to determine if you are required to pay for them.

No matter which group you participate in, be ready to serve at a moments notice. You might be part of a life saving team!

73, Dolph WA2NTW

## New Hams Corner: Callsigns

The FCC issues callsigns in sequential order. If you take your license exam with other people, all will be issued similar calls. For example: KA4AAA, KA4AAB, etc.

Calls can get confused on the air as many sound similar. I use phonetics to improve the chance of having my call copied correctly on the first pass. November-Tango-Whiskey is easier to copy than NTW. I often get called MTW!

Vanity callsigns: Some hams want a call that is easier to remember or has a special meaning. Hams often try to get their initials. For a Technician you will need a middle initial, because tech calls have a 3-letter suffix. Making the process easier is that you can apply for a callsign outside your local call area. Let's say you want

K4LEW, but it is taken. If K1LEW or K2LEW is available you may apply for one of them even though you are located in 4-land (the Southeast).

Many old timers keep the same call for years, mainly because others know them by it. I've had my call for over 40 years now.

Vanity rules also allow you to obtain the call of a deceased family member. A friend's son got his dad's call. Funny part is they had the same name so I was confused when I saw the call.

Some clubs will obtain a vanity call to honor a silent key who was a longtime club member.

Even as a Technician you may hear calls issued in other countries. Along our northern border you may hear Canadian calls

beginning with C. In the southwest, Mexican calls begin with X. And along the Florida coast you can hear the islands.

Use an online lookup service to determine where a particular call is located. Foreign calls can be looked up at [hamcall.net/call](http://hamcall.net/call). U.S. calls at [www.fcc.gov/uls](http://www.fcc.gov/uls).

Hams are urged to keep a log of stations contacted. This makes it easy to remember details about the QSO. With today's software it is easier than ever to log contacts. You can then sort the log by any number of variables.

*Your callsign is your identity and you should proudly let people know who you are and in which organizations you hold membership.*

73, Dolph WA2NTW

# Needed: Treasure Coast Ham Doctors



**Treasure Coast Ham News** staff often receives assistance requests for a variety of radio related issues.

The subject of these requests run the gauntlet, ranging from new licensee requests for assistance selecting and programming handheld transceivers, to experienced hams who relocated to our area and are requesting assistance with antenna choices, particularly in

gated communities. We reply to these requests and questions as best we can. If a question is beyond our knowledge base we attempt to forward it to a product expert for a reply.

To make knowledge easier to share with hams experiencing challenges, we want to develop a list of "experts" in various subjects that the ham community can reach out to directly for assistance.

Our intent is to develop a comprehensive list of subject matter experts (known as Elmers in the ham

community) and publish the list in a future issue of **Treasure Coast Ham News**. When we get our web site up and running we will also include the list there. For starters, Elmers are needed for HF questions, mobile & handheld radio selection, antennas & antenna tuners, amplifiers, DMR, code plugs, Chinese radios and more.

If you are willing to become a *Treasure Coast Ham Doctor* for any ham related subject, please let us know by emailing [tchamnews@gmail.com](mailto:tchamnews@gmail.com).

Be sure to identify the topic or topics you can help with.

**"TC Ham News is emailed to almost 200 local hams and shared with a number more."**

**"We know many readers have knowledge that can help others, so please send that email today."**

## Ham Radio Trivia

**Answer to last month's question:**

**Question E9F09:** What is the approximate physical length of a foam polyethylene dielectric coaxial transmission line that is electrically 1/4 wavelength long at 7.2 MHz?

- The answer choices were:
- A. 10.4 meters
  - B. 8.3 meters
  - C. 6.9 meters
  - D. 5.2 meters

The correct answer: "B, 8.3 meters." Refer to the new 2020-2024 Extra

Class License Study Manual for details.

\*\*\*\*\*

For his month's Trivia Challenge we are showing you a QSL card with the country name blanked out.



This African country no longer exists, having been absorbed into Tanzania (prefix 5H and 5I) in 1974. What was the name of this country that once held amateur prefix VQ1?

- A. Tangier
- B. Ifni
- C. Zanzibar
- D. Farquhar

Answer will be revealed in the next issue.

(Thanks Bob, W7MAE for suggesting this question)

**"Brush up on your radio knowledge and skills."**

## New Digital Benefit for ARRL Members

If you are not an ARRL member you may want to consider joining after reading about their new digital benefit.

ARRL Members now have digital access to all four magazines!

No matter your level of experience in ham radio, you'll find articles and stories of interest. ARRL members will now receive digital access to four ARRL magazines beginning

with their latest issues. Joining **QST** and **On the Air** in a digital platform will be the bimonthly editions of **QEX**, The Forum for Communications Experimenters and **NCJ**, National Contest Journal.

**QEX** includes articles, columns, and features ranging from construction projects to more advanced technical information in radio theory and practice. **NCJ** targets amateurs active in radiosport, and includes

scores, technical articles, contributions from top contesters, and advice for radiosport enthusiasts.

"All members can enjoy specialized content and a high-quality reading experience whether at their desk or on the go. Offering this suite of digital magazines is an opportunity for us to give members more of what they want while adding value to ARRL membership," said ARRL Publications Manager Steve Ford, WB8IMY.

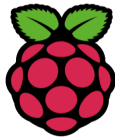


**ARRL**  
The national association for  
AMATEUR RADIO™

For more information visit [www.arrl.org/arrl-magazines](http://www.arrl.org/arrl-magazines)

## Let's Build Something!

Have you built a piece of ham radio equipment or an accessory recently? Even with the plethora of small companies producing kits, building is becoming a lost art or maybe a "never more" art. What are hams to do?



Raspberry Pi

Well, take heart. The art of building no longer mean stuffing through-the-hole parts or holding those tiny SMTs on a circuit board, or winding toroids and smelling solder smoke in the shack. Enter an enterprising ham, KM4ACK and his "Build-a-Pi" for ham radio.

I know you are thinking "Why do I need yet another computer?" Well, for one thing the Raspberry Pi does not require an advanced computer science degree to install, program applications and use. Secondly, it is ultra-portable and great for field use or in the shack.

Will WSJT-X work with the Raspberry Pi? Yup. How about FLRIG, FLDIGI, DIREWOLF, HAMLIB, CHIRP, PYQSO, GRIDTRACKER, VOACAP, CQRLOG, GPS, ROTOR CONTROL, WSPR, APRS I-GATE, etc? Ditto to all.

Want to try a Digital Voice WiFi HOTSPOT? Chances are its brain will be a Raspberry Pi. How about a Retro Game Controller or a Media Center? The list goes on!

The [Raspberry Pi](#) is a low cost, **credit-card sized computer** that plugs into a standard monitor or TV, and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing and learn programming in languages such as Scratch and Python. It is capable of doing everything a desktop computer can do, from browsing the internet and playing HD video, to spreadsheets, word processing, and playing games.

YouTube offers many videos to explore.



There are different models and clones of the Raspberry Pi. Prices range from \$15 to \$50 (depending on the model).

An interesting ham radio kit is the uBITx from [HF Signals](#). For \$150 you get a General Coverage HF transceiver kit. **NO SOLDERING REQUIRED.**



You can assemble the  $\mu$ BITX transceiver in an hour with just a screwdriver! The general coverage 10 watt HF SSB/CW transceiver kit features operating ease, convenience and versatility. It covers 3 MHz to 30 MHz, with up to 10 watts on SSB and 5 on CW. It has a very sensitive receiver and features digital tuning, dual VFOs, RIT, CW Keyer, and more.



The uBITx's 6-1/2 x 6 inch board and minimum wires and controls means you can drop it into any box and wire it up in a couple of

hours. Add batteries and its low current consumption will make it an ideal travel companion or a great home station rig.



The  $\mu$ BITX has a sparkingly clear receiver, a roofing filter at 45 MHz and an 11.059 MHz QER SSB filter with a whopping 8 crystals. Powered by the Si5351 oscillator, it gives you rock solid performance at all frequencies.

Work that PSK31 or FT8 pile up or just ragchew the local gang. It sports a push-pull output and driver stage for low distortion, big station sound. It uses cheap IRF510s for PA, so don't worry about blowing up your finals, they are cheap to replace.

The  $\mu$ BITX is Arduino Nano powered and features a bright 2.8 inch, 320x240 TFT display, 6 analog ports, three oscillators and six digital lines.

India is locked down at present, so shipping may be slow. [Click here](#) for more information.

## Cartoon Caption Challenge



Last month we included the cartoon above right and challenged you to come up with an appropriate caption for it.

We received several suggestions. Read and enjoy them. Then cast a vote for your favorite. It's easy to do. Just click on the Vote link after each entry to send us an email with your choice. The winning caption will be announced in the next issue.

Here in no particular order are the

candidates:

- 1) "This is much more fun than mowing the grass." [Vote for #1](#)
- 2) "Wow! My first DX! I just had a QSO with Canada!" [Vote for #2](#)
- 3) "I just heard tonight's Powerball jackpot is up to 275 rolls of Angel Soft toilet paper." [Vote for #3](#)
- 4) "Calling CQ North Korea, CQ North Korea.... I figure if I keep

calling long enough someone is bound to respond. Calling CQ North Korea, CQ North Korea." [Vote for #4](#)

5) "Be quiet. I'm holding a séance. Hear the warbling howl of the atmospheric noise? I think I'm close to tuning in my long deceased uncle." [Vote for #5](#)

6) "The artist who drew this cartoon forgot to include a power outlet for my radio." [Vote for #6](#)

7 - "I wish QSO's with my wife were this much fun." [Vote for #7](#)

Be sure to cast your vote. We will announce the winner in the next issue of **Treasure Coast Ham News**.

Send radio-related cartoons to [tchamnews@gmail.com](mailto:tchamnews@gmail.com). We will include them in a future caption challenge.



# DX News

## DX OPPORTUNITIES

**MALDIVES, 8Q.** DL2SBY as 8Q7BK from Meedhupparu Island in the Maldives May 4 – 12, SSB, CW & digital modes, 3.5 – 50 MHz. QSL via LoTW & direct to DL2SBY.

**BOTSWANA, A2.** Dave, VE7VR, as A25VR, May 1–22. QSL via VE7VR.

**CAMBODIA, XU.** Chenxing, BG9XD as XU7AMG from Phnom Penh until June 14. Activity on 80, 40, 20, 15 & 10 meters using CW, SSB and RTTY. QSL via BG9XD.

## SPECIAL EVENTS

**AZERBAIJAN, 4J0/4K0.** Fed. Radio-sport has activated 4J0STAYHOME

& 4K0STAYHOME, during the COVID-19 crisis. QSL to DC9RI via DARC or direct.

**BRAZIL, ZW8.** ZW8THANKS tribute to health care professionals fighting COVID-19. Activity on all bands and modes including the satellites. QSL via direct, eQSL or LoTW.

**ENGLAND, G.** GB9WYH Bury Radio Society urges everyone to "Wash Your Hands" until May 11, SSB, FM, FT4, FT8 & CW.

**ITALY, I.** IO3RT & IO3AF QRV until end of May to commemorate 100th anniversary of Arturo Ferrarin's first flight from Rome to Tokyo. Activity on 80 to 6

meters using CW, SSB & various digital modes. QSL both calls to IQ3BM.

## FUTURE DX

**ALASKA, KL7.** KL7RRC/p Russian Robinson Club planning activation of Kiska Island (NA-070), June 17 to 19. CW, SSB & FT8. QSL via N7RO.

**EASTER ISLAND, XR0.** XR0YSP, September 15 - 30. 160 to 10 meters, CW, SSB & FT8. QSL via SP6IXF, ClubLog's OQRS, LoTW or via the Bureau.

Please send DX info to: [tchamnews@gmail.com](mailto:tchamnews@gmail.com)

(From *ARRL DX Newsletter*)

## Beyond the Ham bands



### Shortwave Listener

As society continues to endure social distancing and stay-at-home directives, we find we have more than the usual amount of free time on our hands.

If you have some down time, are bored or just looking for something to do, may we suggest you turn on your radio and spend some time exploring beyond the confines of the amateur radio bands you normally listen to.

As we all know, amateur licensees can only transmit on the FCC designated ham bands. But if you have a relatively modern radio you probably can tune outside the ham bands and hear lots of other interesting transmissions.

The paragraphs that follow discuss some options available in the HF frequency range for your listening pleasure.

### Shortwave Broadcasts

Shortwave broadcasting is very similar to our AM radio broadcasting, but with a couple of differences.

First, the majority of shortwave stations are located in foreign countries and operated by a government agency, rather than by a commercial business as is the case in the United States. There are some exceptions to this generalization, including a few commercial shortwave broadcasters

located in the United States. WRMI, Radio Miami International, broadcasts all over the world from their station in Okeechobee, Florida.

Second, shortwave stations generally broadcast using much higher power than typical AM radio stations. 100,000 watts or higher power is not unusual. The reason for the high power is because the stations are beaming their broadcasts to targeted audiences in distant lands. Here in southeast Florida we can easily receive shortwave stations from Europe, the Middle East and South America.

Just as amateur radio has been allocated frequency ranges or bands to operate in, shortwave broadcasters are also assigned bands. Shortwave bands are scattered across the HF spectrum. A few of the busier ones are in the 6 MHz, 9 MHz and 11 MHz frequency ranges.

Most shortwave stations broadcast in AM mode. Shortwave reception in the United States is generally best in the evening and at night.

Find station frequencies [here](#).

### Marine Broadcasts

When marine radio is mentioned everyone thinks of the VHF marine band, which HF radios are unable to monitor. But there are also marine bands on HF. They are used for ship-to-ship communication

while at sea and for long range ship-to-shore communications.

There are also designated emergency frequencies and a few frequencies where the Coast Guard periodically broadcasts marine weather information.

Because at any given time atmospheric conditions can play havoc with certain HF frequencies, dedicated marine frequencies are assigned throughout the HF spectrum, so that a ship at sea has a good chance of reaching a distant shore station regardless of atmospheric conditions. USB mode is most commonly used for maritime HF communications.

Some suggested frequencies for listening include the Maritime Mobile Net on 14.300 MHz. The net is monitored from 12 noon until 9 PM EDT daily. Also listen for periodic Coast Guard weather broadcasts on 8.764 MHz. Both these frequencies and most other HF marine frequencies experience sparse communications and lots of dead air time, so be patient when trying to hear them.

Much additional marine telecommunications information is available on this [Coast Guard](#) web site. Another good reference source for marine frequencies is available [here](#).

(to be continued next issue)



**Ham Items For Sale** – Have something to sell or trade? Send us a description and/or picture to have it listed. Looking to buy something? Provide a description.

**COMPLETE DX ANTENNA SYSTEM FOR SALE AT 1/3 OF COST**

W2FKF (Fred) is moving to an Assisted Living Community, hence the sale.

**TOWER:** 33 foot heavy duty galvanized steel, U.S. Tower, Model TMM433 HD, with a 7 ft. galvanized reinforced steel mast. No guying necessary. Cranks down to 12 ft. Wrench for anchor bolts and special lube for wire rope included.

**Rotator:** Ham III, professionally updated & refitted with new HD parts to HAM IV specifications. **Controller:** Has "quick connect" feature for control connections. CDE direction control with 1 touch button to preset direction. All documentation included. Coax and rotor cable included if wanted by buyer (\$400 value).

Tower: **\$1,950**. Rotator, & Controller: **\$400**. Complete Tower, Rotator & Controller package: **\$2,200**.

**ANTENNA:** Hygain, Model 204 BAS, 4 element 20M monobander with Y1-5K high power 5KW current-type balun. Used to work and confirm 339 countries (all but North Korea). This antenna system has also been used to work over 220 countries on each of 10, 12, 15 and 17 meters by using the antenna turner in my Yaesu 1000D, barefoot (200W).

Antenna: **\$350**

**LINEAR:** Clean Heath SB220 with all Harbach modifications and a new-old stock extra 3-500G tube. Also FRB 757 YAESU Relay Box needed between transceiver and SB220 linear is included. Output easily exceeds legal limit. One 5-inch muffin fan (whisper quiet) also included.

Linear: **\$1100**

**SPECIAL - ALL ITEMS - PACKAGE DEAL: \$2900.00 (PRICE FIRM)**

Notes:

- ◆ All equipment bought new by me & is in excellent condition except standoff guides which are adequate.
- ◆ All instructions and information included, as well as installation directions.
- ◆ Raising fixture available for use.
- ◆ You take it down and transport it.

STOP BY AND SEE STATION IN ACTION WITH DX AND HAVE YOUR QUESTIONS ANSWERED. BEST TIME FOR PROPAGATION IS 9 AM TO NOON. PLEASE, SERIOUS PROSPECTIVE BUYERS ONLY.

**CALL FOR APPOINTMENT.**

FRED, W2FKF  
Palm City, Florida  
772-286-2822

FOR SALE

The editors reserve the last page of **Treasure Coast Ham News** for use by the readers. With your help this page will include:

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

**QSL Card Section** –

Most 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.

**Station Photos** – Send us a photo of your station or antenna farm. If possible, include yourself in the photo. We will include photos

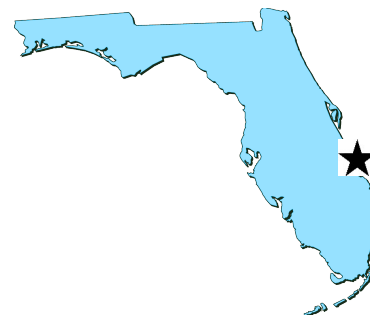
each month as space permits.

Send your submissions for the Reader Page to [tchamnews@gmail.com](mailto:tchamnews@gmail.com).

This is your page. Help make it a success by submitting your photos, QSL cards and "For Sale" listings.

That's all for now. See you next issue!

73, The Editors.



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