

HAM DATES:

INDIAN RIVER CO.

Oct 5, 12, 19, 26, 2020
Emergency Net, 7:30pm
146.640 (107.2) repeater

Oct 6, 13, 20, 27, 2020
Indian River Co. ARES NET
7:30pm, 145.130 (107.2) repeater

Oct 8, 2020
Vero Beach ARC Meeting,
7:30pm ZOOM (request invitation)

Oct 22, 2020
Indian River Co. ARES, meeting
7:00pm 145.130 repeater

ST LUCIE CO.

Oct 1, 8, 15, 22, 29 2020
Port St. Lucie ARA Rag chew,
Traders, Tech NET 7:30pm,
146.955 MHz (107.2)

Oct 6, 13, 20, 27, 2020
Ft. Pierce ARC Rag chew, Traders,
Tech NET 8pm, 147.345
(107.2) repeater Echolink: 2004
(W4AKH-R)

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

Oct 14, 2020
Ft. Pierce ARC, 7:30pm, ZOOM
(request invitation if not member)

Oct 21, 2020
St. Lucie Co. ARES Meeting on
the Air, 7:30pm, 147.240 repeater
(107.2)

Oct 22, 2020
Port St. Lucie ARA Meeting
7:30pm ZOOM (request invitation
if not member)

MARTIN CO.

Oct 5, 12, 19, 26, 2020
Rag chew net 7:30pm, 145.150
MHz (107.2) ; 7/27 & 8/31 only
147.060 (107.2)

Oct 8, 2020
Martin Co. ARES Meeting on the
Air 8:00pm 145.150 MHz (107.2)

Oct 22, 2020
Martin Co. ARA Meeting
7:00pm (check MCARA website)

Treasure Coast Ham News

VOLUME 1, ISSUE 8

OCTOBER 2020

Melbourne Hamfest: IT'S A GO!

SPECIAL COVID-19 INFORMATION

The City of Melbourne controls the site of the Hamfest. They may establish requirements for entry to the auditorium related to the COVID-19 pandemic or, if the situation warrants, the City could cancel the event.

Currently, the City limits how many people are allowed inside at the same time, but PCARS has the green light to proceed with Hamfest planning and arrangements. You will be required to wear a face mask / covering while attending the Hamfest. Attendees must bring their own face coverings and will need to have a mask to buy a ticket.

The table layout and aisle spacing is specifically designed to enhance social distancing, and attendees will be encouraged to avoid crowding together.

INSIDE THIS ISSUE: MELBOURNE HAMFEST * VE AMATEUR RADIO LICENSE TESTING * LARRY COOK, W4QH (SK) * NEW HAMS CORNER: GROUNDING * QRP ARCI * NEEDED: TREASURE COAST HAM DOCTORS * HAM RADIO TRIVIA * LISTEN TO HAM RADIO LIVE * ARES * HAM HUMOR * RAMBLINGS OF AN ANTENNA ALCHEMIST * DX NEWS & SPECIAL EVENTS * ABOUT 1x1 CALLS * CROSSWORD PUZZLE ANSWER * INTRODUCTION TO MAIDENHEAD GRID SQUARES * STRESS RELIEF * SHORT TAKES * QSL CARDS

VE Amateur Radio License Testing Update



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

PSLARA License Exam Session Held

A license exam session was held on Saturday, September 12, 2020. Two candidates were tested, and both earned their amateur licenses.

Eric LaFlam of Port Saint Lucie passed both technician and general exams and was awarded General Class license KO4HQQ.

Kenneth Cisneros, also from Port Saint Lucie, passed the technician exam and earned Technician Class license KO4HQR.

Congratulations to Eric and Kenneth on their accomplishments. We look forward to hearing them on the air real soon.

Thanks Examiners

A Thank You is due to the Volunteer Examiners who gave up part of their Saturday morning in support of Amateur Radio. Without

their participation this session would not have been possible. Thanks to Paul - W4ISZ, Scott – A14TT and Bob - W4RJP.

Can't Forget Our Host

We also owe a big Thank You to Debbie Butel, owner of the Buffalo Chop-house restaurant, for allowing us to use her facility to hold the exam session. Debbie also provided coffee and water for the VEs and candidates. Thanks, Debbie.

Next Exam Session

No addition exam sessions are scheduled at this time due to the COVID-19 situation and the lack of a permanent facility to hold the sessions. We will make an email announcement when the date, time and place for the next session have been finalized. Anyone interested in taking an exam should email their contact information to testing@pslara.com.

We will add you to our waiting list and notify you when the next session is scheduled.

(Attention Club VEs – Please keep us posted on your VE activities. Advise us of sessions your club schedules and keep us apprised of the results of those sessions. Send your information to tchamnews@gmail.com.

73,
Bob, A14RB
VE liaison, PSLARA

For further information on VE testing please contact:

Vero Beach ARC

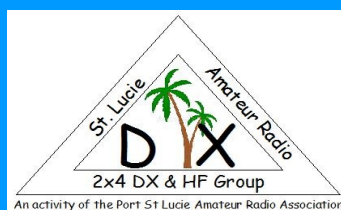
Bud L. Holman
(772) 559-3342
budholman@earthlink.net

Ft. Pierce ARC

Jess Porter
w4dns@arrl.net

Port St. Lucie ARA

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



Larry Cook, W4QH (SK)

It is with deep sorrow that we report the passing of Larry Cook, W4QH.

Larry was a great friend to amateur radio. He served the Port St. Lucie Amateur Radio Assn for many years as president and in various capacities on the board of directors.

Larry was a prolific DXer and is listed on the



Larry Cook, W4QH

ARRL's DXCC Honor Roll with 341 countries and entities to his credit.

Larry founded the 2x4 DX Group, which is a group of hams interested in DX communications.

Please keep Larry's family in your prayers.

New Hams Corner: Elmers

New licensees often have a whole host of questions they cannot find answers to.

Hams have traditionally been very willing to help each other out. The hobby has a name for those hams willing to help other hams, especially newcomers. We call them **Elmers**.

Elmers tend to be hams that have been in the hobby for a number of years. Elmers could also be career professionals working in the communications industry, or folks with radio repair or servicing experience. What they all have in common is a willingness to share their knowledge.

If you have a question, ask it at a club meeting. You will usually find

an Elmer there who can provide the answer.

The great part about being an Elmer is the fun of helping new hams “learn the ropes.” Knowledge sharing is a great thing and there are lots of subject matter experts out there willing to help others. There are even online Elmers who can answer questions and point you toward additional information on the world-wide web.

I had a mentor for a course I took online. We would exchange emails about the course work and my reports. While different from traditional learning, online is a great way to interact with someone who has a lot of information that can help!

Skills are another great area where Elmers can help. Soldering, assembling connectors, mounting antennas, wiring and honing operating skills are just a few areas where Elmers can assist.

Often new hams are hesitant to get on the air. Working with an Elmer can help one learn operating skills and feel more comfortable making that first contact.

Elmers have one thing in common: A love of the hobby and a willingness to help others. Reach out if you need help. There are plenty of Elmers out there who are willing to give you a hand!

73, Dolph, WA2NTW

QRP ARCI

QRP ARCI is a club for low power enthusiasts worldwide. They promote QRP and sponsor various QRP contests and awards. Members enjoy kit building, antenna experimentation, backpacking and portable operation.

QRP ARCI Contests

Some of their most popular contests are just around the corner. Be sure to check out <http://qrparci.org/contest> for the details!

October 10th - Fall QSO Party - **0000Z to 2359Z**

December 3rd - Top Band Sprint - **0000Z to 0300Z**

December 13th - Holiday Spirits Sprint - **2000Z to 2300Z**

Do you have interest in SSB, digital modes (FT4/FT8/RTTY/Others), shorter contests, longer contests?

Send your ideas and contest feedback to contest@qrparci.org.

QRP-ARCI Has Its Own Email Reflector

The qrparci.groups.io reflector was brought online in 2019 and now has over 670 members. It's a good place to ask questions about the club, to find out what's happening in QRP contesting, and to find a few ideas to help your QRP operating. To join, just send an email to: qrparci+subscribe@groups.io. If your email address does not have your call sign embedded in it, send the call sign in a separate email to Jim, grp@w4qo.com. Jim, W4QO, is our principal reflector moderator. All posts to the group are public. You can check them out by going to qrparci.groups.io. And then, why not sign up?

Peanut Power Sprint by NOGAQRP

Date: October 4, 2020

Time: 2200z -2359z

Mode: CW, SSB

Bands: 80, 40, 20 meters

Peanut Power Sprint Categories:

Goober: 1W CW/2W SSB Portable

Salted: 5W CW/10W SSB Portable

Boiled: 1W CW/2W SSB Home

Roasted: 5W CW/10W SSB Home

Raw: >5W CW/>10W SSB Home or Portable

Exchange: RS(T) + (state/province/country) + (peanut no./power output)

Work stations: Once per band per mode

Find rules at:

<http://www.nogaqrp.org/PeanutPower/rules.pdf>. (Rules updated 9/9/2020)

Treasure Coast Ham Doctors



Treasure Coast Ham News staff receives questions on a variety of radio related issues.

Two recent questions concerned FT8 and the WSJT-X waterfall.

Waterfall size (in Hertz) is displayed across the top of the waterfall. The range displayed depends on the resolution of your monitor or display device. You can adjust the size as necessary.

Waterfall behavior is somewhat different from the typical Windows application. Resizing the waterfall by clicking and dragging the left

or right side margin will result in an increase or decrease in the size of the window, but will not shrink or stretch the actual frequency range displayed within.

You will probably want to stretch the waterfall window so it fills the full width of your monitor.

The amount of bandwidth displayed on the waterfall is controlled by a setting within the WSJT-X application. To allow the waterfall to increase the range of frequencies it displays, increase the Bins/Pixel value. To decrease the range, reduce the Bins/Pixel value. The Bins/Pixel setting can be found in the waterfall window, immediately below the actual waterfall display and toward the

left side. Do some experimenting and you are sure to find the optimal setting for your display. A reminder, before changing any settings remember to always record your starting values so you can reset them if things don't go as planned.

In conclusion, start by sizing the waterfall window to fit your monitor. Then, adjust the Bins/Pixel value to display the frequency range you want to view. You may need to try various combinations of settings & size to find the optimum settings for your display device.

This doctor uses a Bins/Pixel setting of 4, and sizes the window on his laptop computer to display a bandwidth of 0 to 3,000 Hz.

If you are willing to become a *Treasure Coast Ham Doctor* for a particular ham related subject, please let us know be sending an email to tchamnews@gmail.com. Be sure to identify the topic or topics you can help with.

* * *

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

Ham Radio Trivia

Answer to last month's questions

Last month's Trivia Challenge asked you two questions, one each from the technician and amateur extra question pools. Let's find out how well you did.

- Technician Question T3C05
Which of the following effects might cause radio signals to be heard despite obstructions between the transmitting and receiving stations?
- A. Knife-edge diffraction
 - B. Faraday rotation
 - C. Quantum tunneling
 - D. Doppler shift

The correct answer is:
A. Knife-edge diffraction

- Amateur Extra Question E1C09
What is the highest modulation index permitted at the highest modulation frequency for angle modulation below 29.0 MHz?
- A. 0.5
 - B. 1.0
 - C. 2.0
 - D. 3.0

The correct answer is: A. 0.5

So how did you do? Most everyone probably answered the technician question correctly. I wonder how many hams were able to answer the amateur extra question correctly without going to the book.

October Trivia Challenge

This month's question should be a cinch for serious DXers. Give it a try.

We all know that North Korea, prefix P5, is #1 on everyone's DXCC most wanted list.

Only one other of the DXCC countries / entities listed below can be found on [Club Log's](#) top 10 most wanted list. Which is it? (Call sign prefixes are shown.)

- A. Mellish Reef (VK9M)
- B. Johnston Island (KH3)
- C. Banaba Island (T33)
- D. Aves Island (YV0)

Answer will be revealed in the next issue. Can't wait that long? The Internet awaits your search.

"Brush up on your radio knowledge and skills."

Listen To Ham Radio Online "Live"

As hams we love to communicate via our radios and computers, but what if you are out shopping with the XYL. How about listening via your smart phone and an Internet connection to a website?

Websites allow you to listen to amateur radio operators communicating with each other around the world.

Many modes of communication are available such as SSB, FM and AM voice, RTTY, SSTV. The list of modes is nearly endless because new ones are experimented with regularly.

There are two main "flavors" of technology offering this free service:

The [WebSDR](#) users interface (UI) allows many listeners simultaneously.

A typical HF WebSDR website would be [K3FEF/W3TKP](#) in Milford, PA. Frequency coverage is 0 to 18.624 MHz.

Are you are interested in listening to satellites. If so try [IS0GRB OO-100](#) (Es'Hail-2) Geostationary SAT 26Est.

Another good site is [NA5B](#) in Washington DC. HF frequency coverage is very robust covering 0 to 29.009 MHz.

The [OpenWebRX](#) user interface allows up to a *maximum of 4* listeners simultaneously. OpenWebRX can be operated from any web browser without the need for any additional client software.

The [OpenWebRx Receiverbook](#) includes a very large list of worldwide and US sites.

If you want to go further with SDR, try one of the many USB dongles available. The price can run from \$25 to many hundreds of dollars. A cheap and easy start is the RTL-SDR dongle. Check it out: [RTL-SDR.com](#). (Note: SDR sites may require Java enabled.)

ARES

The ARRL Simulated Emergency Test (SET) weekend this year is October 3 and 4, and a Red Cross event is scheduled for November 14. Messages generated from earlier SET activity should qualify for handling in this drill. Be ready to be a part of a pair of the most significant exercises in the country this year. Further information is available from the liaison committee: [Wayne Robertson, K4WK](#), Team Lead; [Rosty Slabicky, W2ROS](#), Red Cross Disaster Services; and [Mike Walters, W8ZY](#), ARES Liaison.

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. Become a part of ARES.

Ham Humor

For this month's attempt at humor, let's go with a couple of radio related jokes. (And be sure to look elsewhere in this issue for some additional stress relief.)

It Pays to Listen

A ham is driving up a steep, narrow mountain road, his antennas swinging in the breeze and flopping into the other lane. A YL is driving down the same road in the opposite direction.

As they pass each other, the YL narrowly misses the antennas. She leans out of the window and yells, "PIG!" The ham immediately leans out of his window and replies, "WITCH!"

They each continue on their way, and as the man rounds the next corner, he crashes into a pig in the middle of the road.

If hams would only listen!

Fun with Ham Radio Acronyms

An OM will pay \$2 for a \$1 item he needs.

An XYL will pay \$1 for a \$2 item that she doesn't need.

A YL worries about the future until she gets an OM.

An OM never worries about the future until he gets an XYL.

A successful OM is one who makes more money than his XYL can spend.

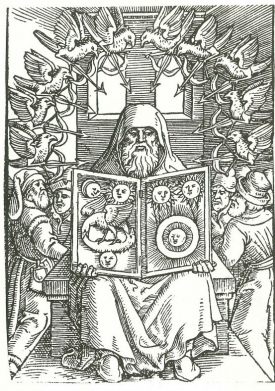
A successful YL is one who can find such a man!

Heard any good jokes involving radio? Share them with the ham community. Send your jokes or other humor ideas to:

tchamnews@gmail.com.

(Jokes are from the [Hamuniverse.com](#) web site.)

Ramblings of an Antenna Alchemist



We hope our readers will participate in submitting their practical experience with antenna alchemy.

Last year while perusing eBay I spied the W2LI portable magnetic loop from the Tri-County RA in New Jersey. The loop cost \$160 dollars, with all proceeds going to support club activities.

I own several commercially made units (AEA IsoLoop and MFJ), but these are heavy units designed for fixed use. So I wondered could a portable loop be built that did not use expensive capacitors and motorized tuning. How would it perform?

Magnetic loops work differently than other antennas.

Radio waves have an electric (E) field and a magnetic (H) field. The waves travel 90 degrees to each other. Whereas a dipole antenna works by using the electric field portion of the radio wave, magnetic loops work by using the magnetic portion of the radio wave.

Magnetic loops are very efficient with a high Q. However this comes at a cost of very narrow bandwidth. An important feature of magnetic loops is that they are quiet because they are not affected by electrical interference. Magnetic loops can be mounted very close to the

ground, perhaps as low as 4 feet. In a horizontal orientation they can be directional. All are performance positives.

So what are the negatives? Loop construction requires extra care to minimize loss resistance. This means large welded capacitor plates. High voltage vacuum variable capacitors are an even better choice, but can be expensive. Tuning is usually accomplished using a motorized tuning unit.

What interested me about the W2LI magnetic loop antenna was portability and frequency coverage (7 to 14 MHz), which includes 40 meters, my favorite FT-8 band. Both my commercial loops start at 30 meters (10MHz). That is not an impediment for home use, as I have other antennas that get me on 40 meters. The loop's 20 watt maximum would not be a problem for FT-8, either.

The Tri-County RA sells their loops in batches, so checking eBay frequently was important. Eventually, I got one on order and waited. The loop arrived via USPS several weeks later. I anxiously opened the package and found a tuning box, a length of LMR400 coax with a tuning loop and PL259s attached, and 3 pieces of PVC pipe with couplers. The W2LI loop went together quickly. No complicated assembly.

Since a magnetic loop is essentially an LC circuit, antenna tuners are not good for tuning. I used my MFJ antenna analyzer to get it resonating on 7.074. A Fox Delta SNA or NanoVNA would also work.

Like all loops you don't want to be too close to it while transmitting. 10 feet is a good distance. I also decided to use good quality RG-8X coax. This coax is light enough to be carried into the field and is much better than RG-58, even on 40 meters.

I was anxious to open up the tuning box to get a look inside. What I found was a stout Taiwanese variable capacitor. While I doubt it would work at 100 watts, at 20 it should do just fine. A reduction drive was attached to the capacitor to provide improved fine tuning.

Once everything was in place and the antenna was tuned, I turned on the radio and fired up WSJT-X.

Would I see signals come through? Yes indeed! I started receiving FT-8 stations from across the country. That's a good sign.

Next month we will look at transmitting.



DX News

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

DX OPPORTUNITIES

BALEARIC ISLANDS, EA6.

Philippe, EA4NF, QRV as EA6/EA4NF, Formentera Island, IOTA EU-004, until Feb 21. Activity on the LEO Satellites. QSL via LoTW.

JAN MAYEN, JX. Erik, LA2US is QRV as JX2US, Olonkinbyen, Oct 2020 to Mar 2021. Activity in spare time on 160, 80, 40, 30, and 20 meters using CW & FT8 in DXpedition mode. QSL via LoTW.

CAMBODIA, XU7. Tad, JAIDFK active as XU7AKU and XU7AKV, Phnom Penh. Activity on 160 to 6 meters using mostly CW & SSB. QSL via JAIDX or ClubLog's OQRS.

ANTARCTICA, RII. Alexander, RX3ABI QRV as RIIANM, Mirny Antarctica Base Station, IOTA AN-016 until early 2021. Activity limited to spare time on various HF bands, most likely 40 and 20 meters using FT8 between 0200 to 1530z.

CORSICA, TK. Max, DL8UW is QRV as TK4VQO from Olmeto. Expects to be there for the next few years. Activity on 160 to 6 meters using CW and SSB.

CHATHAM ISLANDS, ZL7. Stuart, ZL3STU has moved to Canterbury on the Chatham Islands (OC-038) and now uses call sign ZL7STU on 80 to 6 meters using SSB and FT8. QSL for both calls via M0OXO.

SPECIAL EVENTS
BELGIUM, ON. Members of

the Pajottenlandse Radio Amateur Club QRV with special call sign OT5ABI from Sept 19 - Oct 18 to raise awareness of work done by the NAH Liga for Acquired Brain Injury. QSL direct to ON6LC.

BONAIRE, PJ4. PJ4TEN during Oct. for the 10th anniversary of 10-10-10, date Netherlands Antilles was dissolved and Bonaire became a special municipality of Netherlands and new DXCC entity. QSL via M0URX direct, OQRS, or LoTW.

CHILE, CB33. Radio Club Eternautas (CE3ETR) now active as CB33M until Oct. 13. Activity commemorates 10th anniversary of Aug. 2010 landslide in a mine in north part of Chile where 33 miners were trapped for 3 months until rescued. Operations on 80 meters through 70 cm using CW, SSB and digital modes FT8/FT4, JS8, RTTY, PSK31 and SSTV. QSL via PO BOX 12096, Santiago, Chile

DENMARK, OZ. OZ200EM on the air until end of the year, honoring memory of Hans Christian Orsted, who discovered the principle of electromagnetism 200 years ago. QSL via OZ1ACB.

AUSTRALIA, VK. VI75WW2 is QRV until November 11 to commemorate the end of World War II. QSL via operators' instructions.

UK, Various. Royal Signals Amateur Radio Society QRV as GB100RS, June 28 to end of Oct to mark the society's 100th anniversary.

FEDERAL REPUBLIC OF GERMANY, DA. DK70DARC active until end

of Dec. to celebrate the 70th anniversary of the Deutscher Amateur Radio Club. QSL via the bureau.

INDONESIA, YB. 8A343CJR active to draw attention to the 343rd anniversary of the Cianjur District on Java.

HONG KONG, VR. Hong Kong Amateur Radio Transmitting Society (HARTS) active as VR2HK90 in celebration of 90th anniversary of their Society. Operations on 20 meter SSB. QSL via VR2HK direct or by the Bureau.

JAPAN, JA. Yoneyama HF Club (JR0YHF) as 8J0K in celebration of the 80th anniversary of Kashiwazaki city in Niigata Japan. Will be QRV until March 31, 2021, on 1.8 MHz through 5.7 GHz.

CZECH REPUBLIC, OK. OL700DKA, OL700CO and OL700LTV QRV during 2020 to commemorate 700 years since the first written mention of the town of Dobruska. Activity is on the HF bands.

SOUTH AFRICA, ZS. Throughout 2020 ZS1820S will celebrate the arrival of the first British settlers at the South African Cape 200 years ago.

IOTA OPPORTUNITY
OGASAWARA, JDI. Makoto, JI5RPT will be active as JD1BLY from Chichijima Island (AS-031) from Oct 3 to 6. Schedule may change depending on status of COVID-19. Activity on 630 to 6 meters using CW, SSB & digital modes (No 6 meter EME). Will focus on 630 meter band, 160 meter SSB, the RS-44 satellite and FT8 on the HF bands. 630 meter activity mainly on JT9. QSL via his home call sign.

Good Luck with your DXing!

More Special Event Stations

(Extracted from **ARRL Listings** and other sources.)

Oct 2-Oct 12, N6D, Healdsburg, CA. Will Pattullo, AE6YB. 14.265, 7.265. QSL Will Pattullo, 161 Presidential Circle, Healdsburg, CA 95448. Special Event commemorating the dedication anniversary of Mission Dolores, San Francisco, CA, October 9, 1776. <https://www.qrz.com/db/AE6YB>

Oct 2-Oct 3 1500Z-2300Z, W0D, Macon, MO. Macon County Amateur Radio Club. 14.270 7.200 3.950. The Macon County Amateur Radio Club will operate the Lester Dent - Doc Savage Mystery Station W0D, in Macon, MO to honor the accomplishments of Lester Dent, world class adventurer, pilot, creator of the Dent Master Fiction Plot Formula and an Amateur Radio Operator. Commemorates the 87th "Birthday" of Doc Savage the first modern superhero, a Lester Dent creation. A colorful certificate will be provided to those who contact the Special Event Station. Send a QSL including a #10 SASE to the Macon County Amateur Radio Club, PO Box 13, Macon, MO 63552. dbagley@cvalley.net or <https://www.maconcountymissouriarc.org>

Oct 3, 1300Z-2000Z, N1EPJ, East Greenwich, RI. Massie Wireless Club. 3.558 14.058 7.25 14.258. QSL. The Massie Wireless Club will activate call sign N1EPJ to commemorate Steam-Up Day, an annual event for over 50 years. For QSL, send a SASE to: Massie Wireless Club

N1EPJ, P.O. Box 883, East Greenwich, RI 02818. Suggested CW frequencies: 3.558, 7.058, and 14.058. Suggested SSB frequencies: 3.825, 7.25, and 14.258. Operating from morning to late afternoon (13:00 - 20:00 UTC). Check the museum [website](#) and [QRZ page](#) for updated details.

Oct 10-Oct 18, 0000Z-2359Z, W5I/W5K/W5E, Sherman, TX. Grayson County ARC. 14.250 7.250 14.040 7.040. QSL. Grayson County ARC, PO Box 642, Sherman, TX 75091. Help us celebrate the birthday of Dwight D. Eisenhower, the 34th president of the United States by contacting each of the call signs we'll be using this year: W5I, W5K & W5E. Contact all 3 and you'll spell IKE. IKE was born on October 14, 1890 in Denison, Texas. Please visit qrz.com/db/w5i for additional information about Ike. For QSL information see <https://graysoncountync.org>.

Oct 10, 1600Z-2300Z, N16IW, San Diego, CA. USS Midway (CV-41) Museum Ship. 14.320, 7.250, 14.070 (PSK31). D-STAR on various reflectors. QSL: USS Midway Museum Ship (COMEDTRA), 910 N Harbor Drive, San Diego, CA 92101.

Oct 17, 1300Z-1900Z, W1M, Russell, MA. Western Mass. Council--BSA. 14.290, 14.060, 10.115, 7.190. QSL Tom Barker, 329 Faraway Road, Whitefield, NH 03598. Due to JOTA/JOTI, W1M will also operate on BrandMeister TG 907 and its affiliated TAC talk groups.

All logging is done by paper. QSL card available on eQSL

Oct 17, 1400Z-2000Z, K4RC, Yorktown, VA. Williamsburg Area Amateur Radio Club. 14.265, 7.265. QSL Manager, K4RC, P.O. Box 1470, Williamsburg, VA 23187. 239th anniversary of British surrender to end the Revolutionary War. Info at www.k4rc.net.

Oct 18-Oct 20, 1400Z-2300Z, N4U, Benton, KY. United States Coast Guard Auxiliary. 14.070, 14.250, 7.070, 7.250. QSL Mary Husfield, 4156 Barge Island Road, Benton, KY 42025-6039. 80th Anniversary of United States Coast Guard Auxiliary. QSL to KC4TIE. Special Card returned with SASE. Mainly digital modes.

Oct 31, 1500Z-2300Z, WW1USA, Kansas City, MO. National World War I Museum and Memorial. 14.225 SSB, 7.250 SSB, 14.060 CW, 7.060 CW. Certificate available. WW1USA Amateur Radio Station, World War I Museum and Memorial, 2 Memorial Drive, Kansas City, MO 64108. We will be commemorating the 102nd anniversary of the Armistice, which ended the fighting in World War I. Our operation will be inside the Museum, in the Postcard Gallery. All local and visiting hams are invited to come visit. ww1usa@theworldwar.org or www.qrz.com/db/ww1usa

About 1x1 Calls

Did you know.... The FCC reserves 1x1 call signs for special event stations.

Any amateur license holder can apply for a special event call sign.

Almost any type of event is eligible for a 1 x 1 call sign.

Recent examples I've seen include: centennial celebrations of cities, state fairs, rodeos, ship christenings, monument dedications, holiday celebrations, birthdays, anniversaries, space missions and just about anything else you can imagine.

Last month, special event stations in a number of states celebrated Route 66, "America's Mother Road." Here are the ones I was able to successfully QSO with:

- W6H Rio Rancho, NM
- W6P St Charles, MO
- W6B Los Angeles, CA
- W6C San Bernadino, CA
- W6N Joplin, MO
- W6I Amarillo, TX

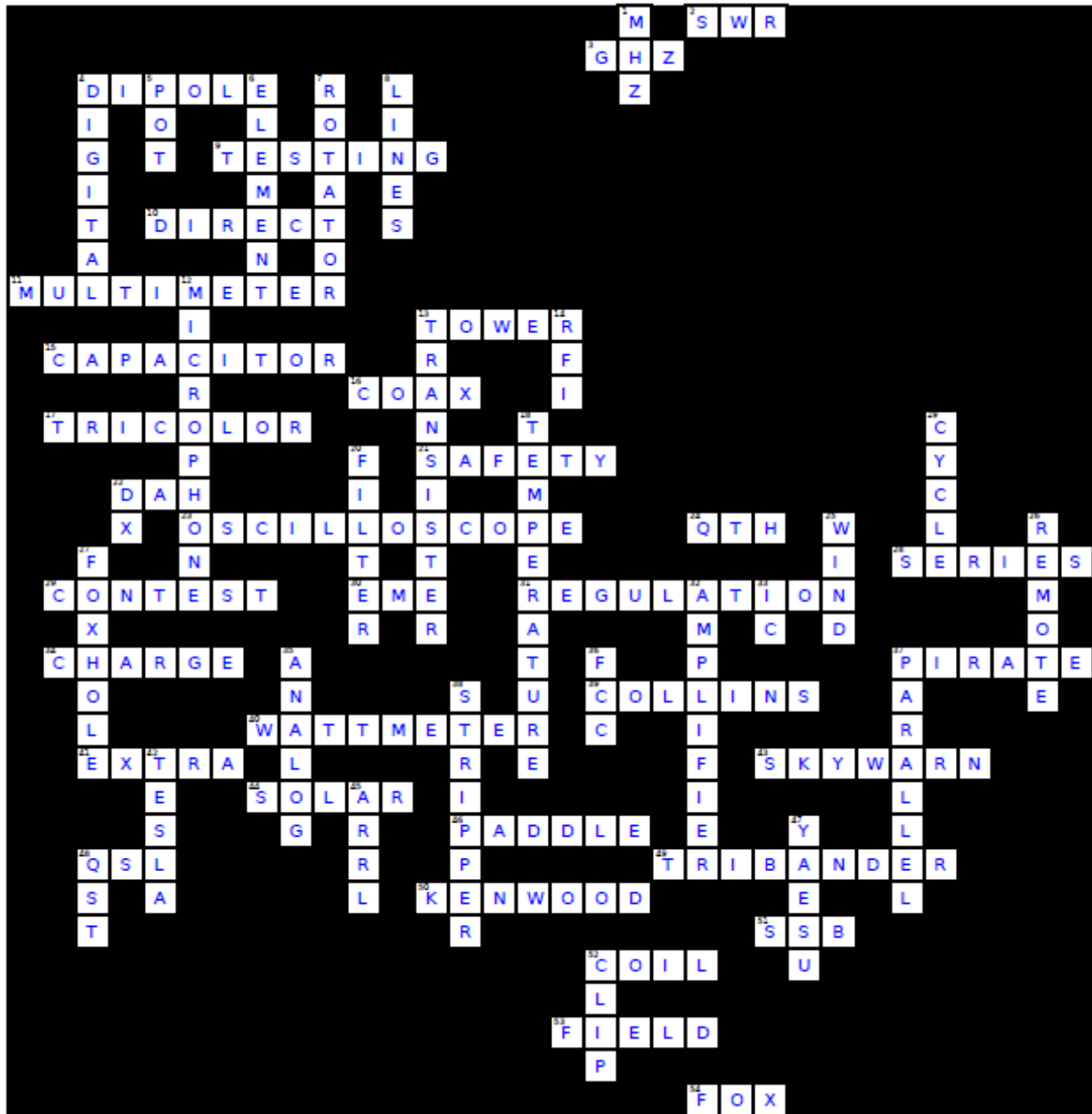
And here are a few other recent special event QSOs:

- W3L – Saving of the Liberty Bell from capture by the British
- W0F – Southeast Kansas Radio Fun Week
- W7Y – SHY-WY, "Come and Get Wyoming" celebration
- K9A – Auburn, Cord, Dusenbergs Festival in Auburn, IN.

Be sure to check out a special event's QRZ.com page. Many offer colorful certificates to confirm QSOs.

Solution to Last Month's Amateur Radio Crossword Puzzle

by Jeff, KA0UPA



Introduction to Maidenhead Grid Squares

If you are an FT-8er you know that a grid square is sent along with your CQ. But what are grid squares and how are they determined? Read on....

"WIAW this is N4EGA and my grid square is Echo Mike Seven Six X-ray Bravo (EM76xb)."

As Amateur Radio operators, many of us have used or heard this type of exchange before. A great number of us even know what our "Maidenhead" grid square is. But how many of us really know what it means? This is a question that I am asked by hams and non-hams alike. When hams new to Amateur Radio see a Maidenhead map, their first question is usually about all the grid squares, letters and numbers.

Before I began designing maps for hams, I too was aware of Maidenhead but not really the how and why. Developing the Maidenhead Grid square layer in the Geographic Information System/Software (GIS), a few things became very apparent that I had never thought of.

As Earth is an ellipsoid (squished sphere), representing a system of grid squares requires the Earth to be flattened (also known as a projection) in order to understand the system. Thinking back to high school geometry, Maidenhead is much like the

typical Cartesian coordinates that are represented on a +/- quadrant graph. As we only want to think in terms of positive, this flattened projection of Earth is placed into the +/+ quadrant.

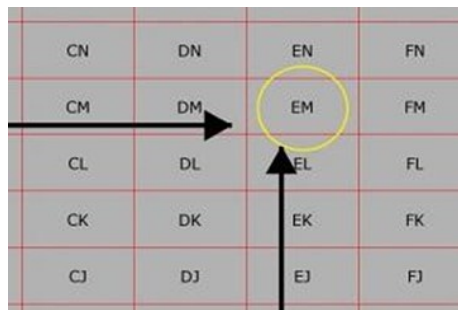
Typically, when we speak of coordinates, we speak of latitude and longitude which begins at 0 degrees north or south and 0 degrees east or west. This is a location just off the coast of the central Western Africa. In the case of Maidenhead, our origin is at 180 (or 0) degrees West and 90 degrees South which is the South Pole. This was done to ensure that all grid squares only advance up the alphabet, which is a positive direction on a graph.

As such, all grid squares designations from west to east start with "A" and end in "R." Each grid square from South to North also begins with the letter "A" and ends in "R." West to east boundaries of the grid square are 20 degrees wide while South to North boundaries are 10 degrees. Therefore, the origin grid square has a designation of "AA" (lower left) and the last grid square is "RR" (upper right). See figures below.

apart at the equator and converge at the poles. Latitude lines are evenly spaced from pole to pole. This actually causes the grid squares to be shaped as trapezoids. When viewed on a globe or any map projection that causes curvature, this becomes very apparent. Also keep in mind that there are 360 degrees of longitude while there are only 180 total degrees of latitude.

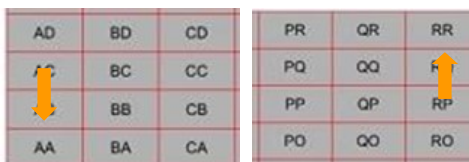
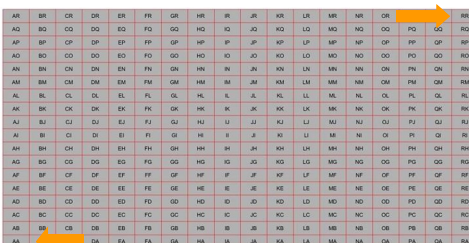
Reading the grid.

A very simple way to remember how to read these grids is that each letter is a direction to read. The first letter is read from left to right and the second is up. So if a ham tells you "EM", then you would read on your map from left to right until you find "E" and then you would read up until "M". Right then up. For you military members out there familiar with the Military Grid Reference System (MGRS), it is the same concept.

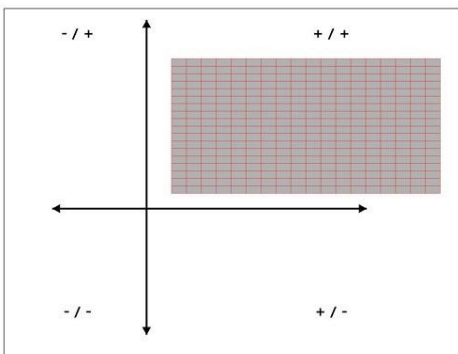


Now that the largest grid squares have been laid out it's time to work on the sub grids, the "Numbers." These are created almost identically to the larger grid squares in that they are placed in a positive ascending manner from west to east and south to north. However, the sub grids are only 2 degrees wide from west to east and 1 degree from south to north for a total of 100 sub grids per grid square.

(continued on next page)



The grid squares are not really squares, but rectangles. Yes, because of the way Earth is shaped. As an ellipsoid, lines of longitude are spaced far



Introduction to Maidenhead Grid squares *(continued)*

(continued from page 10)

Keeping with the same logic as the main grid squares, these sub grids are also read from west to east and then south to north, but this time with ascending numbers beginning with "00" and ending with "99."

So now you have a Maidenhead grid of "EM76" and you want to find it on the map. You will read to the right to E and then up to M. Now that you are in grid square EM, start at 00 and read to the right until see 7 and then read up until you find 6. Right then up and you will land on EM76!

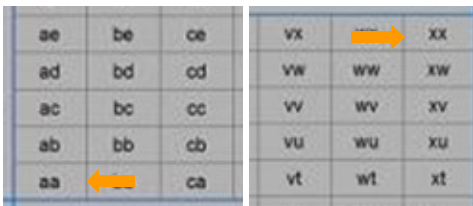
The last part of EX76xb is a little bit different in that the smaller sub grids represent 5 minutes from west to east and 2.5 minutes (2 minutes and 30 seconds) south to north. So now we are back to letters but this time we use lower case.

Why are these sub grids using 5 minutes by 2.5 minutes? One degree is made up of 60 minutes. If the units were divided by the same base 10

EN										FN
09	19	29	39	49	59	69	79	89	99	FM
08	18	28	38	48	58	68	78	88	98	
07	17	27	37	47	57	67	77	87	97	
06	16	26	36	46	56	66	76	86	96	
05	15	25	35	45	55	65	75	85	95	
04	14	24	34	44	54	64	74	84	94	
03	13	23	33	43	53	63	73	83	93	
02	12	22	32	42	52	62	72	82	92	
01	11	21	31	41	51	61	71	81	91	
00	10	20	30	40	50	60	70	80	90	
EL										FL

09	19	29	39	49	59	69	79	89	99
08	18	28	38	48	58	68	78	88	98
07	17	27	37	47	57	67	77	87	97
06	16	26	36	46	56	66	76	86	96
05	15	25	35	45	55	65	75	85	95
04	14	24	34	44	54	64	74	84	94
03	13	23	33	43	53	63	73	83	93
02	12	22	32	42	52	62	72	82	92
01	11	21	31	41	51	61	71	81	91
00	10	20	30	40	50	60	70	80	90

unit, our grids would be 12 minutes wide and 6 minutes tall. Making the grids 5 minutes by 2.5 minutes allows for a greater number of grid squares which in turn gives us a greater precision for location. Therefore, these sub grids are divided into a 24x24 letter pattern. The result is range beginning with "aa" and ending in "xx."



Looking at your map again, you are now ready to find EM76xb. Each first character in the grouping is read from west to east and then the second character is read from south to north. Right then Up. Read right to "E" and then Up to "M." Now read Right to "7" and then Up to "6." Lastly, read Right to "x" and up to "b." There you have it, the QTH of N4EGA!

With a 6 character grid square, a location can be found to within a 5' (minute) by 2.5' (minute) square. What does that mean? A couple of things:

1) in the continental US, based on an Equal Albers Conic Projection (a projection is the Earth intended for view on a flat surface), each 6 character grid square covers about 12 square miles, or about 4 miles by 3 miles. This is fine for chasing grids, but too coarse if you wish to locate a street address. For that, you will need to resolve

further, into fourth and fifth character groups.

2) As these are grid squares, you should really think of them as two dimensional boundaries and not singular points as with traditional Latitude and Longitude. Each six character grid square encloses an area that is 5' by 2.5'. Your position could be at any location inside that grid square, which is about 12 square miles in the continental US. Even increasing your precision to a 4 or 5 character grouping still places you within an area, not a point. It would be as if telling someone you are in a specific park, but not which part of the park. And then you tell them you are in a specific building, but not which room and so on. With latitude and longitude, you tell someone that you are sitting in a chair, in a room, in a house, in a city, in a state in a country on Earth.

Obtaining your Maidenhead grid square is fairly easy now. There are online resources for direct conversion from latitude and longitude. As web addresses change often, simply do an online search for "Maidenhead Converter" which will result in many good sites.

QRZ.com has a database of nearly every Amateur license in the US and DX. Look up your callsign or one you hear on the air. You will find the Grid Square listed along with other information on the profile's detail tab.

For you rovers out there, numerous Global Positioning System (GPS) devices will provide Maidenhead grid squares to a high degree of precision. Just be sure to set your map datum to the official WGS84. That's it!

73! DE N4EGA
[Axles And Antennas](#)

Stress Relief

Modern Update to an Old Favorite

Remember Bud Abbott and Lou Costello? If they were alive today, their infamous sketch, 'Who's on First?' might have turned out something like this:

(Costello is calling a store to buy a computer from Abbott)

ABBOTT: Super Duper computer store. Can I help you?

COSTELLO: Thanks. I'm setting up an office in my den and I'm thinking about buying a computer.

ABBOTT: Mac?

COSTELLO: No, the name's Lou.

ABBOTT: Your computer?

COSTELLO: I don't own a computer. I want to buy one.

ABBOTT: Mac?

COSTELLO: I told you, my name's Lou.

ABBOTT: What about Windows?

COSTELLO: Why? Will it get stuffy in here?

ABBOTT: Do you want a computer with Windows?

COSTELLO: I don't know. What will I see when I look at the windows?

ABBOTT: Wallpaper.

COSTELLO: Never mind the windows. I need a computer and software.

ABBOTT: Software for Windows?

COSTELLO: No. On the computer! I need something I can use to write proposals, track expenses and run my business. What do you have?

ABBOTT: Office.

COSTELLO: Yeah, for my office. Can you recommend anything?

ABBOTT: I just did.

COSTELLO: You just did what?

ABBOTT: Recommend something.

COSTELLO: You recommended something?

ABBOTT: Yes.

COSTELLO: For my office?

ABBOTT: Yes.

COSTELLO: OK, what did you recommend for my office?

ABBOTT: Office.

COSTELLO: Yes, for my office!

ABBOTT: I recommended Office with Windows.

COSTELLO: I already have an office with windows! OK, let's just say I'm sitting at my computer and I want to type a proposal. What do I need?

ABBOTT: Word.

COSTELLO: What word?

ABBOTT: Word in Office.

COSTELLO: The only word in office is office.

ABBOTT: The Word in Office for Windows.

COSTELLO: Which word in office for windows?

ABBOTT: The Word you get when you click the blue 'W'.

COSTELLO: I'm going to click your blue 'W' if you don't start giving me some straight answers. What about financial bookkeeping? Do you have anything I can track my money with?

ABBOTT: Money.

COSTELLO: That's right. What do you have?

ABBOTT: Money.

COSTELLO: I need money to track my money?

ABBOTT: It comes bundled with your computer.

COSTELLO: What's bundled with my computer?

ABBOTT: Money.

COSTELLO: Money comes with my computer?

ABBOTT: Yes. No extra charge.

COSTELLO: I get a bundle of money with my computer? How much?

ABBOTT: One copy.

COSTELLO: Isn't it illegal to copy money?

ABBOTT: Microsoft gave us a license to copy Money.

COSTELLO: They can give you a license to copy money?

ABBOTT: Why not? THEY OWN IT!

(A few days later)

ABBOTT: Super Duper computer store. Can I help you?

COSTELLO: How do I turn my computer off?

ABBOTT: Click on 'START'....

(Author unknown)

Short Takes

If you are looking to buy a NanoVNA: **NanoVNA vs. MFJ-259B Antenna Analyzer | SWR Comparison** <https://www.youtube.com/watch?v=diuYJ3lz3oU>

*

NanoVNA: a \$50-\$70 Amateur Radio Antenna Analyzer? <https://www.youtube.com/watch?v=tLMAStiaAxU>

*

NanoVNA Presentation by David Houser, KG5RDF <https://www.youtube.com/watch?v=y7PEDRNIPpY>

*

Proposed FCC's fee structure for amateur licenses: https://www.fcc.gov/ecfs/search/filings?proceedings_name=20-270

TREASURE COAST HAM NEWS

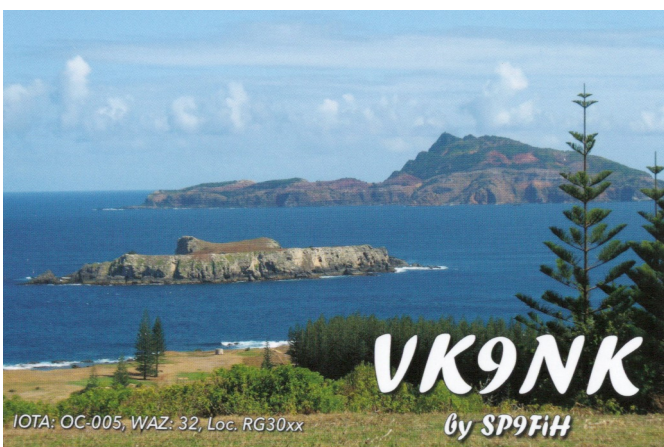
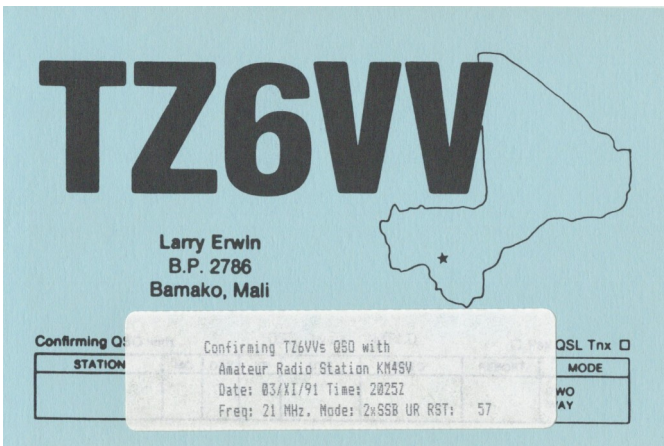
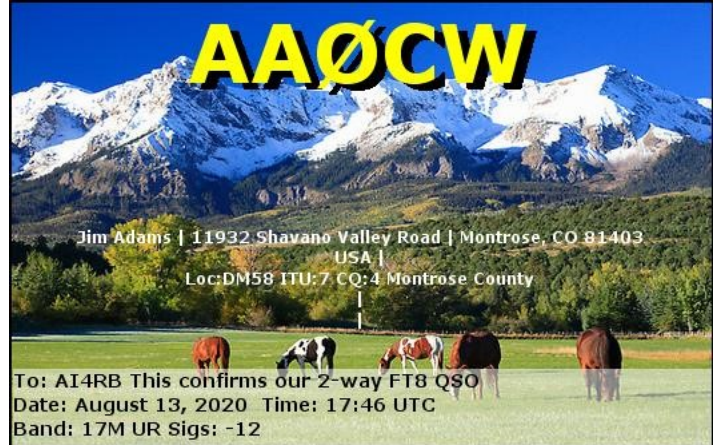
The editors like to reserve the last couple of pages of **Treasure Coast Ham News** for the readers. With your help these pages will include:

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.

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!



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

TREASURE COAST HAM NEWS
IS PUBLISHED BY
B&B PARTNERS

WE CAN BE REACHED AT:
TCHAMNEWS@GMAIL.COM

