

the Radio Flyer, a BRARA Newsletter

August 2017



BRARA Calendar:

19:00-21:00 Tue 01-Aug 17
Club Meeting @ West Boca Library

09:00-12:00 Wed 02-Aug 17
Ham Shack Work & Radio Day

Fri 05-Aug-17 US Coast Guard B'day

09:00-13:00 Sat 05 Aug 17
Ham Shack Work & Radio Day

20:00 Sun 07 Aug 17(443.300)
DMR-FL-LO Tech Net [TS2 TG2]

Mon 07-Aug-17 Purple Heart Day

19:00 Mon 08 Aug 17 (145.29 [110.9])
Monday Night Nets

09:00-12:00 Wed 09 Aug 17
Ham Shack Work & Radio Day

09:00-12:00 Sat 12 Aug 17
Ham Shack Work & Radio Day

20:00-21:00 Sun 13 Aug17 (443.300)
DMR-FL-LO Tech Net [TS2 2]

Mon 14-Aug-17 V-J Day

19:00 Mon 14 Aug 17(145.29 [110.9])
Monday Night Nets

09:00-12:00 Wed 16 Aug 17
Ham Shack Work & Radio Day

Sat 19-Aug-17 Nat'l Aviation Day

09:00-12:00 Sat 19 Aug 17
Ham Shack Work & Radio Day

20:00-21:00 Sun 20 Aug17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

Mon 21-Aug-17 Senior Citizens Day

19:00 Mon 21 Aug16 (145.29 [110.9])
Monday Night Nets

09:00-12:00 Wed 23 Aug17
Ham Shack Work & Radio Day

09:00-12:00 Sat 26 Aug 17
Ham Shack Work & Radio Day

12:00 Noon Sun 27 Aug 2017
Deadline for Newsletter Input

20:00-21:00 Sun 27 Aug 17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

19:00 Mon 28 Aug17 (145.29 [110.9])
Monday Night Nets

09:00-12:00 Wed 30 Aug 17
Ham Shack Work & Radio Day



This Month's Speaker

This month (1-Aug) Ed Callaway (N4II) will give a presentation entitled "Information for DXing". Ed's Bio-Sketch is on page 7.

In September (5-Sep), Jesse Sheinwald (N2CA) will give a presentation on the Smith Chart.

We have speaker openings for the balance of the year. See Gerry Gawaldo (KG4FUR) if you are interested of know someone who gives a great presentation.



Repeater, HSMM, & Ham Shack News

Even though the new Shack is operational, there are still a lot of areas for innovation and improvement. We still meet every Wednesday and Saturday morning roughly between 09:00 and 13:00.

We have a new inventory control system.

Both analog repeaters are working. Innovation and improvement opportunities are present here too.

Repeater 2m/70cm linking as well as the time stamp are still works in progress.

While the digipeater is operational, the packet repeater is a work in progress.

We have still not solved the limited internet connection and are still dependent on individual hot spots. We are, however, getting closer to resolving the internet link from the Repeater.

QSL Report ⁿ⁴ⁱⁱ

As we closed out the Month, N4BRF has logged in 3,020 QSLs 9,619 QSOs (31.4%) on LoTW.

DXCC Account Status: New this month Macau (XX9). Awards received: Mixed, CW, Phone, 20m, 17m, 15m and 10m. We are now 265 Mixed DXCC.

WAS Account Status: New this month: MA, 20m PSK31; MS, 15m CW; NC, 20m PSK31; NJ, 40m Phone. Awards issued: Mixed, 20m, CW, Phone, Digital, Triple Play, RTTY. We still need:

- AK, ID for 40m
- WV for 15m
- WY for 20m Phone
- NV for 20m CW.
- AK, ID, NV for 40m CW.

We have received the following QSOs from Field Day activities:

- 176 (+0) QSLs from 2012,
- 184 (+0) QSOs from 2013
- 258 (+0) QSOs from 2014
- 283 (+0) QSOs from 2015
- 161 (+3) QSOs from 2016
- 211 (+31) QSO from 2017

VUCC Account Status: New this month: FM09 (50 MHz).

Update at the next Club Meeting.



New BRARA Website/E-mail

Website

E-mail

On 1-August-2017 our new and improved web footprint goes live. The new URL is www.BRARA.org. Please update your links/bookmarks with this address. This new footprint is a baseline for future enhancements and capabilities such as Field Day station reservation, event planning, Net Control logging, etc.

On the home page you will see a new look and feel in content and menu navigation. Over 16 back office administrative tools such as inventory control and census management have been built to support our needs with the goal of improving how our organization and members interact and communicate.

Many folks have contributed to this effort since January 2017, including Jerry Z [W4BFL], Bruce [KO4XL], Jeff [W4AEQ], Gerry G [KG4FUR] and John C [N1QFH].

The most important resource to ensure the success of this new site is you. We need you as a member offering up new and improved ideas and behaviors such as new tools, links, documents or amateur radio news that will benefit us all. We welcome and seek your feedback. If you find any glitch or error in the new site, please let us know ASAP. Please enjoy, kick the tires and light some fires.”

Lastly, we are appreciative for all the work and effort Walt [W4WCD] has contributed over the years as he managed the previous web site. Thanks Walt.

Some of the working enhancements include the following emails:

Directors@BRARA.org
Training@BRARA.org

one email sent to all the current Directors
one email to register for training, questions on future training

KG4FUR@BRARA.org
WA8VSJ@BRARA.org
KE4OBV@BRARA.org
KO4XL@BRARA.org
W4BFL@BRARA.org
W4AEQ@BRARA.org
W4WCD@BRARA.org

new working BRARA forwarding email
new working BRARA forwarding email
new working BRARA forwarding email
new working BRARA forwarding email
new working BRARA forwarding email
new working BRARA forwarding email
new working BRARA forwarding email

Please be advised that the above are the official BRARA websites and emails.

No other website is recognized by BRARA nor authorized to use our name or logo.

narrowband modes – with bandwidths of 150 Hz or less – during nighttime operation. Modes such as AM, SSB, and MCW would not be used at night except during special events, under the plan, but in the event a “wideband” mode were necessary, the signal should be confined to between 476 and 479 kHz. The plan also suggests operating frequencies for WSPR and JT9, as well as for QRSS (very slow-speed CW).

“Those desiring to operate continuously transmitting CW propagation beacons or to use wideband modes are encouraged to obtain experimental licenses and to operate either below 472 kHz or above 479 kHz,” Raab said in his quarterly report. “This will ensure they are easily monitored but will not use up the limited 7 kHz of the amateur band.”

Raab’s report notes that the Japan Amateur Radio League (JARL) has issued its first 472-10 award to JH3XCU. Brazilian radio amateurs now have access to 630 and 2,200 meters, while some other South American countries allow access by special permit, the report noted. Amateurs in these countries now have access to 630 meters: Germany, Greece, Malta, Monaco, Norway, Philippines, Czech Republic, Ireland, Switzerland, New Zealand, Finland, Spain, France, Poland, Bulgaria, Canada, Vietnam, Japan, Cayman Islands, La Reunion Island, Hungary, and Brazil.

“It appears that there are now over 100 DXCC entities that have permission to operate on 630 meters,” Raab pointed out in his report.

Band Plan Proposed for Eventual 472-479 kHz Use

ARRL 630-Meter Experiment

Coordinator Fritz Raab, W1FR, has proposed an informal band plan for the pending 472-479 kHz band. Raab said that once US radio amateurs are granted access to 630 meters, he would move stations operating under the blanket WD2XSH FCC Experimental (Part 5) license to 461-472 kHz.

“This will clear the amateur frequencies, while allowing the experimenters to run unattended propagation beacons without using the limited bandwidth that will be available to amateurs,” Raab explained in his spring 630-Meter Experiment Project Status quarterly report. “The new 630-meter band will have a very limited amount of spectrum (7 kHz).”

On March 28, the FCC adopted rules that will allow secondary Amateur

Radio access to 472-479 kHz and to 135.7-137.8 kHz (2,200 meters), with minor conditions. One of these involves a requirement to notify the Utilities Telecoms Council (UTC) of proposed Amateur Radio operation on either new band. The FCC says the Office of Management and Budget (under the Paperwork Reduction Act) must first approve the information-collection requirements in §97.303(g) (2). Procedures to meet the requirements are said to be still under development by UTC, which says it wants to avoid Amateur Radio interference to power line communication (PLC) systems used to manage the electrical power grid. No such interference has been reported during the extensive Experimental operation on 630 meters as well as on 2,200 meters.

Raab and LF/VLF enthusiast John Langridge, KB5NJD, prepared the 630-meter band plan “based upon established patterns, separates different modes of operation, and harmonizes US amateur operations with those in Europe.” The plan, which has not been endorsed or adopted by ARRL, calls for using only

Electroboom

To all crazy engineers out there, you are not alone! Medhi Sadaghdar is one of you.

According to Sadaghdar, engineering is partly fun and mostly boring stuff like testing and documentation. It only takes a healthy dose of craziness to make everything fun and you also learn more---sometimes!

Just don’t forget, he’s a professional and knows what he’s doing most of the time! But if you try what’s shown in the videos, you may get badly injured or even die! So don’t try to do what he does at home. Just learn by watching.

<http://www.electroboom.com/>

Monday Night Nets

KG4FUR

BRARA now runs three Monday Night Nets on the 145.290 MHz -0.600 [110.9] repeater:

- ⇒ New HAMs Net: 19:00-19:30.
- ⇒ BRARA Informational Net: 19:30-20:00. Out-of-Area Amateurs may check-in via EchoLink. Our Node is 826953.
- ⇒ South County NBEMS Net 20:00-20:30. Analog Voice and FLDigi/FLMsg mixed mode.

NBEMS KG4FUR

For more information and the latest Guide and Troubleshooting, go to www.qsl.net/k4wrc/PBC-BASIC-NBEMS.html or simply Google "Palm Beach NBEMS"

Scheduled Nets

Mon	20:00	S County
		145.290 -0.6 110.9
Tue	19:30	PBC NBEMS
		147.285 +0.6 103.5

Other Local HAM

Analog Repeater Nets

Daily	18:00	SEFL Traffic	146.61 MHz
Tue	19:00	Boynton CERT	443.1 MHz
Fri	09:00	SARNet:	
		PBC	443.975 MHz
		FTL	442.850 MHz

Scheduled DMR Nets

Day	EDST	Talk Group
Sun	2000	TG-2 (LO) FL Tech
Mon	1600	TG-13 (EN) UK Tech
Wed	2100	TG-03 (NA) NAtch
Sat	1200	TG-01 (WW)

Local DMR Repeaters

Location	Rx Freq	Color Code
Miami	444.9875	1 SEFL
Miami	442.2250	1 dmr-fl
N Dade	443.1250	10 ipse2
Dania Bch	442.4000	1 dmr.mar
Plantation	442.4250	1 dmr.mar
Boca Raton	442.0000	8
Delray Bch	443.3000	1 SEFL
Wellington	442.3000	7 dmr.fl
Lk Worth	443.2500	7 BMR
WPB	444.9125	1 SEFL
PBG	442.1000	10 dmr.fl
Stuart	440.7000	1 dmr.mar
PSL 1	440.0000	1 dmr.mar
PSL 2	440.750	10 nj.trbo
Naples	444.9850	1 DMR+
Marco Island	444.8125	1 DMR+

Social Media Committee

A committee was formed to update, simplify and modernize BRARA social media: W4BFL (Jerry), KO4XL (Bruce), NE4LS (Nelson), N1QFH (John C)

Club Repeaters

144.390 APRS Repeater
 145.070 Packet Repeater
 145.290 -0.600 [PL 110.9] EC-826953
 442.875 +5.000 [PL 110.9]

Location: 26.39724 -80.09485
 145.290 & 442.875 linking planned

Club Ham Shack

West Delray Regional Park
 10875 West Atlantic Avenue
 Delray Beach, FL 33446

Board of Directors

Scheduled Meetings

The BRARA Board of Directors:

KE4OBV (Patrick), KG4FUR (Gerry), KO4XL (Bruce), W4AEQ (Jeff), W4BFL (Jerry), W4WCD (Walt), and WA8VJSJ (Art)

will hold scheduled monthly meetings at 11:00 at the shack on the Saturday preceding the next General Meeting. Additional impromptu meetings may be held at the Shack on Wednesday and Saturday mornings.

Donations & Contributions

Contributions to BRARA—a 501(c)(3) organization—are tax deductible as charitable donations. As you complete your membership renewal or begin your year-end tax planning, please consider making a donation to BRARA.

Planned Giving—Please also consider BRARA when updating or initiating planned giving (including charitable gift annuities, bequests and gifts or retirement plan assets) and other assets.

Apparel Donations

\$10 donation-BRARA Name Plate with your Call Sign.
 \$30 donation-BRARA Polo Shirt with your Call Sign.
 \$40 donation-BRARA button down red cotton/poly shirt (short sleeve)

Membership Application & Renewal

- + \$25 Full Membership
- + \$10 Assoc Membership
- + \$5/Family Mbr w/License

Name: _____

Call Sign: _____

Address: _____

Phone: _____

Email: _____

ARRL Member: + Yes + No

Birthday: Month: _____ Year: _____

License Grade: _____ Exp Date: _____

Interests: + Field Day + Ham Fest

+ HF + Digital + DXing

+ VHF + Packet + CW

+ UHF + Voice + Contesting

+ EmComm + Skywarn + Public Svc

+ DMR + MARS + CERT

+ Award Chasing + Ragchewing

+ Building & Experimenting + Satellite

Other: _____

Signature: _____

Return with dues to BRARA at either:

BRARA
 P.O. Box 480162
 Delray Beach, FL 33448-0162

Or

to a director at the Shack on Wednesday or Saturday morning radio days.

Amateur License Refresher

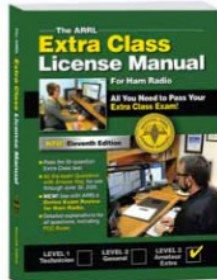
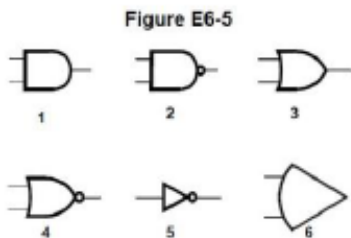
It's probably been awhile since you took your Amateur License exam. Here are a few sample questions just to keep those synapses firing.

Extra Pool

E6C11

In Figure E6-5, what is the schematic symbol for the NOT operation (inverter)?

- A. 2
- B. 4
- C. 5
- D. 6



E6C14

What is the primary advantage of using a Programmable Gate Array (PGA) in a logic circuit?

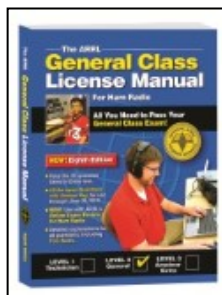
- A. Many similar gates are less expensive than a mixture of gate types
- B. Complex logic functions can be created in a single integrated circuit
- C. A PGA contains its own internal power supply
- D. All of these choices are correct

General Pool

G9C03

Which statement about a three-element, single-band Yagi antenna is true?

- A. The reflector is normally the shortest parasitic element
- B. The director is normally the shortest parasitic element
- C. The driven element is the longest parasitic element
- D. Low feed-point impedance increases bandwidth



G9C18

What happens when the feed point of a quad antenna is changed from the center of either horizontal wire to the center of either vertical wire?

- A. The polarization of the radiated signal changes from horizontal to vertical
- B. The polarization of the radiated signal changes from vertical to horizontal
- C. The direction of the main lobe is reversed
- D. The radiated signal changes to an omnidirectional pattern

Answers to License Refresher:

- E6C11 (C)
- E6C14 (B)
- G9C03 (B)
- G9C18 (A)

Newsletter Guidelines *kg4fur*

Thanks for all who submitted articles and I hope you continue to do so. We're also looking for new writers as well. Here are some guidelines for article submissions.

- Text should be in MS Word or equivalent, saved as a .DOC file. ASCII text written in an email works too.
- Write your best stuff, but don't sweat the grammar. That's why there's an editor.
- Please submit pictures/illustrations as separate files, don't embed them in the text.
- Be sure to submit clear, in-focus photos

Got an idea for an article? Or constructive critique? Want to share club news and events? How about writing a short 30-minute project idea? Your submissions to the Red Flyer are needed to help keep this one of the best club newsletters in South Florida.

Please send articles to
KG4FUR@yahoo.com



New Hams Corner *WA2NFW*

Antenna selecting

Most technicians start off with a HT so they don't think about the most important part of the transmit system...the antenna. You can use an external antenna to get: more gain, a better line of sight to the station you are transmitting to or simply for better reception.

Remember the 3db gain rule. If you have a 5 watt radio and a 3 db gain antenna you have 10 watts Effective Radiated Power! (We are not going to count losses of cable and connectors) This can make the difference between having a noisy signal into a repeater and being full quieting.

On the receive side, if you are operating inside of a vehicle it is like being in a can. Yes signal will get in but not a lot. Putting the antenna on the roof of the vehicle will give you some height gain, clear path signal gain and antenna gain.

If you are at home and use an antenna on the roof you will have a noticeable change. Even a simple J Pole will be like night and day. For those who cannot put an antenna outside, put it in the attic. For those who like covert things there are ways of disguising antennae on vent pipes and other places. The best place to put something is right out in the open where no one would suspect it is an antenna!

Buy good cable for connecting your antenna to your radio. One of the best right now for minimal signal loss on VHF/UHF is RG-8. The most popular for premade mount is RG58. If you buy the cable assembly you are good to go. Those who want to make their own cables, please get the correct connector adapters that will fit the cable you select.

Last note- most HTs do not have a normal connector on them. (BNC) so you will need an adapter. Make sure you get the correct one. I have already seen one radio mangled by a user who forced the wrong adapter onto the antenna connector.

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LMR-240 K4BK

A difference of opinion...

RG-8X is actually pretty lousy above 50 MHz The best choice (a little more expensive, but worth it) is LMR-240. Same size as RG-8-8X but loss is nearly the same as RG-213

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A Cup Of Joe For Your Radio

By WBØRUR, on the scene

PETALUMA, CA — Ham radio operator Arthur Martin says he can't explain it, but he's happy about it all the same.

Martin says he accidentally spilled a cup of General Foods International Gourmet Café Vienna instant coffee onto the top of his Hallicrafters HT-37A transmitter

The 62 year old retired maintenance engineer says he was holding the cup of instant java when he leaned over to connect a RG8 patch cable in the back. He tipped a bit too far, spilling all but a drop.

The ventilation holes in the vintage HF transmitter quickly allowed the scalding hot, sickeningly sweet liquid to seep onto the chassis, into the final PA cage, the band switch and the VFO mechanism.

Knowing it was ruined but hoping for the best, Martin says he fired up the rig and was quite surprised when the device showed a full 1250 watts PEP output - far above manufacturer's specifications.

Leaning back in his desk chair while monitoring an 80 meter SSB net, Martin adds there is a downside.

After the heat generated by the tube finals burned off the liquid, the sticky residue left behind by the coffee mishap has gummed up the VFO and band switch, making it impossible to change frequencies.

"But I'm KING of the 80 meter Cialis net!" he declares triumphantly.

You can work Arthur almost any evening on 3.668 MHz.



So I bought a new transceiver and she asked...



"Are you going to sell any of your old ones?"

Guys, I just updated my mobile setup. What do ya think?



Guys:

What antenna is he running?

Are those loading coils beneath the radio?

Is the driver/operator a QCWA member in "Good Standing"?

What frequency is he on: 7251 kHz or 145.290 MHz?



No Smoking

UNLESS YOU'RE A RADIO WITH A SHORTED CAPACITOR.

Contest and Special Event Operating News and Information

Data below as well as more information courtesy of the following website:
<http://www.hornucopia.com/contestcal/index.html>.

+ Phone Fray	0230Z-0300Z, Aug 2
+ CWops Mini-CWT Test	1300Z-1400Z, Aug 2 and 1900Z-2000Z, Aug 2 and 0300Z-0400Z, Aug 3
+ NRAU 10m Activity Contest	1700Z-1800Z, Aug 3 (CW) and 1800Z-1900Z, Aug 3 (SSB) and 1900Z-2000Z, Aug 3 (FM) and 2000Z-2100Z, Aug 3 (Dig)
+ QRP Fox Hunt	0100Z-0230Z, Aug 4
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 4
+ NCCC Sprint	0230Z-0300Z, Aug 4
+ 10-10 Int. Summer Contest, SSB	0001Z, Aug 5 to 2359Z, Aug 6
+ European HF Championship	1200Z-2359Z, Aug 5
+ WAB 144 MHz Low Power Phone	1400Z-1800Z, Aug 5
+ ARRL 222 MHz and Up Distance Contest	1800Z, Aug 5 to 1800Z, Aug 6
+ North American QSO Party, CW	1800Z, Aug 5 to 0559Z, Aug 6
+ SARL HF Phone Contest	1300Z-1630Z, Aug 6
+ ARS Spartan Sprint	0100Z-0300Z, Aug 8
+ NAQCC CW Sprint	0030Z-0230Z, Aug 9
+ Phone Fray	0230Z-0300Z, Aug 9
+ CWops Mini-CWT Test	1300Z-1400Z, Aug 9 and 1900Z-2000Z, Aug 9 and 0300Z-0400Z, Aug 10
+ QRP Fox Hunt	0100Z-0230Z, Aug 11
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 11
+ NCCC Sprint	0230Z-0300Z, Aug 11
+ MMonVHF/DUBUS 144 MHz Meteorscatter Sprint Contest	2200Z, Aug 11 to 2200Z, Aug 13
+ WAE DX Contest, CW	0000Z, Aug 12 to 2359Z, Aug 13
+ SKCC Weekend Sprintathon	1200Z, Aug 12 to 2400Z, Aug 13
+ Maryland-DC QSO Party	1600Z, Aug 12 to 0400Z, Aug 13 and 1600Z-2400Z, Aug 13
+ Phone Fray	0230Z-0300Z, Aug 16
+ CWops Mini-CWT Test	1300Z-1400Z, Aug 16 and 1900Z-2000Z, Aug 16 and 0300Z-0400Z, Aug 17
+ QRP Fox Hunt	0100Z-0230Z, Aug 18
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 18
+ NCCC Sprint	0230Z-0300Z, Aug 18
+ SARTG WW RTTY Contest	0000Z-0800Z, Aug 19 and 1600Z-2400Z, Aug 19 and 0800Z-1600Z, Aug 20
+ ARRL 10 GHz and Up Contest	0600 local, Aug 19 to 2400 local, Aug 20
+ Russian District Award Contest	0800Z, Aug 19 to 0800Z, Aug 20

Da Prez Sez:

Next Meeting:

Tuesday
1-Aug-2017
19:00-20:45
West Boca Library

See our new Website:
www.BRARA.org

We will be offering Tech Class Training and Laurel testing the first weekend in August at the Shack.

We will also offer free Laurel Ham License testing Thursday Evening Aug 10.

August is also the start of Hamfest Season with the first in Ft Pierce on Saturday Aug 12, 2017.

Thanks to John (N1QFH) for taking on BRARA Inventory Management. There have been significant change in the Shack and Shed. More work is needed in the Fall.

Also, I believe that our first DMR Intro Class was a success. Special thanks to Jeff (W4AEQ) and the assistance of John (N1QFH) and Steve (N8IFQ)

Solar Eclipse QSO Party-Are You Ready?

The objective of the Solar Eclipse QSO Party (SEQP) is to flood the airwaves with contacts, all measured by the automated receiver networks of the Reverse Beacon Network, PSKReporter, and WSPERNet. When those observations are combined with thelogs from individual stations, the result will be one of the largest ionospheric experiments ever preformed.

The SEQSO runs 1400-2200 UTC on 21-August-2017 (0900-1700 EDST). Exchange a signal report and your six-character grid locator on 160-6 m (but not 60, 30, 17, 12 m)

If you are interested in more information, see the subject article on page 94 of the August 2017 QST. Also, www.hamsci.org/seqp

Contest and Special Event	Date Time Group
+ Keyman's Club of Japan Contest	1200Z, Aug 19 to 1200Z, Aug 20
+ Feld Hell Sprint	1600Z-1759Z, Aug 19
+ North American QSO Party, SSB	1800Z, Aug 19 to 0559Z, Aug 20
+ CVA DX Contest, CW	2100Z, Aug 19 to 2100Z, Aug 20
+ SARL HF Digital Contest	1300Z-1630Z, Aug 20
+ ARRL Rookie Roundup, RTTY	1800Z-2359Z, Aug 20
+ Run for the Bacon QRP Contest	0100Z-0300Z, Aug 21
+ Solar Eclipse QSO Party	1400Z-2200Z, Aug 21
+ SKCC Sprint	0000Z-0200Z, Aug 23
+ Phone Fray	0230Z-0300Z, Aug 23
+ CWops Mini-CWT Test	1300Z-1400Z, Aug 23 and 1900Z-2000Z, Aug 23 and 0300Z-0400Z, Aug 24
+ QRP Fox Hunt	0100Z-0230Z, Aug 25
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 25
+ NCCC Sprint	0230Z-0300Z, Aug 25
+ Hawaii QSO Party	0400Z, Aug 26 to 0400Z, Aug 28
+ ALARA Contest	0600Z Aug 26 to 0559Z, Aug 27
+ W/VE Islands QSO Party	1200Z, Aug 26 to 0300Z, Aug 27
+ SCC RTTY Championship	1200Z, Aug 26 to 1159Z, Aug 27
+ YO DX HF Contest	1200Z, Aug 26 to 1200Z, Aug 27
+ Kansas QSO Party	1400Z, Aug 26 to 0200Z, Aug 27 and 1400Z-2000Z, Aug 27
+ Ohio QSO Party	1600Z, Aug 26 to 0400Z, Aug 27
+ CVA DX Contest, SSB	2100Z, Aug 26 to 2100Z, Aug 27
+ SARL HF CW Contest	1300Z-1630Z, Aug 27
+ Phone Fray	0230Z-0300Z, Aug 30
+ CWops Mini-CWT Test	1300Z-1400Z, Aug 30 and 1900Z-2000Z, Aug 30 and 0300Z-0400Z, Aug 31

What is DMR?

DMR is an affordable, low-complexity digital standard to replace analog radio. The ETSI DMR Standard defines three different tiers on www.dmrassociation.org:

□ **Tier I** (unlicensed): DMR equipment works in Direct Mode (unit-to-unit) on public frequencies. Tier 1 DMR devices are best for individuals, recreation, small retail, or other situations that do not require wide area coverage.

□ **Tier II** (licensed conventional): This Tier is aimed to be a direct replacement for the analog conventional radio system. These DMR systems operate under individual licenses working in Direct Mode (unit-to-unit) or using a Base Station (BS) for repeating. It has a degree of wide-area coverage and is targeted at users "who need spectral efficiency, advanced voice features and integrated IP data services in licensed

bands for high-power communications."

□ **Tier III** (licensed trunked): DMR trunking systems operate under individual licenses with a controller function that automatically regulates the communications. It also supports packet data services in a variety of formats, including support for IPv4 and IPv6. It is ideal for organizations looking to migrate from MPT-1327/EADS/LTR (logic trunked radio) systems or who want the full benefits of managed trunking, voice and data solution.

The DMR standard also specifies the use of TDMA technology. TDMA stands for Time Division Multiple Access. TDMA provides two logical channels and each 12.5-kilohertz channel space. This provides a useful doubling of capacity within the same analog channel space.

Speaker Bio-Synopsis:

Bio Sketch: Ed Callaway, N4II, received the B.S. degree in mathematics and the M.S.E.E. degree from the University of Florida in 1979 and 1983, respectively, the M.B.A. degree from Nova (now Nova-Southeastern) University in 1987, and the Ph.D. degree in computer engineering from Florida Atlantic University in 2002. He holds 65 issued US patents, and is the author of several books, book chapters, and papers. Dr. Callaway is a Registered Professional Engineer and was named an IEEE Fellow in 2010.

After 25 years with Motorola, in 2009 Dr. Callaway co-founded Sunrise Micro Devices, where he was CTO. In 2015 the company was sold to ARM Ltd., where he is now Director of Radio Standards.

Dr. Callaway has been a licensed amateur since 1972. He holds an Amateur Extra Class license and is a Life Member of the ARRL. He is an avid DXer, and is fascinated by ionospheric propagation of all types.

Synopsis: Information for DXing

The program for August, "Information for DXing". Information = Power and Ed will cover sources of information useful to DXers, from basic textbook references to real-time information sources like the packet cluster system and DX chat rooms, including a selection of DX web sites, videos, DX bulletins, magazines, and email reflectors. These sources will help the DXer be more productive, and make the search for that "rare one" more enjoyable and rewarding.

DX Operating News and Information

Credit for the below information and further information on these operations and others can be found at the following website:
<http://www.ng3k.com>

Start	End	DXCC	Call	QSL via	Reported by	Information
2017 Jun28	2017 Aug14	Bolivia	CP1XRM	LotW	TDDX	By EA5RM; SSB + digital; spare time operation; QSL also OK via EA5RM direct
2017 Jul08	2017 Aug04	Nicaragua	YN2RP	LotW	TDDX	By NN3RP; 40-10m; CW PSK31 RTTY SSB + satellite; QSL NN3RP and eQSL
2017 Jul12	2017 Aug05	St Kitts & Nevis	V47JA	LotW	W5JON	By W5JON fm Calypso Bay, St Kitts; 160-6m, incl 60m; SSB; yagi on 6m, verticals, dipole; QRV for RSGB IOTA; QSL also OK via W5JON direct
2017 Jul18	2017 Aug01	Maldives	8Q7PW	G4PWO	DXW.Net	By G4PWO fm Fonimagoodhoo I (IOTA AS-013); likely, 40 20 17 15m; SSB + digital
2017 Jul23	2017 Aug07	Antigua	V29SH	LotW	TDDX	By VE6SH; mainly 30 17m; Buddipole and wires; holiday style operation
RSGB IOTA Contest (Jul 29-30, 2017)						
2017 Jul29	2017 Aug06	Marquesas	TX5EG	LotW	TDDX	By F6BCW F6DTZ F1TCV K3EL fm Hiva Oa (IOTA OC-027); 80-12m; CW SSB; QSL also OK via F6BCW (Buro or direct), Club Log, eQSL
2017 Aug01	2017 Aug31	Galapagos	HC8	LotW	<u>TDDX</u>	By G8OFQ as TBA Isabela I (IOTA SA-004, EI49mb); 160-6m; SSB; QSL also OK via G8OFQ direct or Club Log; operation to continue until Oct 31
2017 Aug03	2017 Aug13	Georgia	4L0GF	LotW	<u>TDDX</u>	By UR5EAW F5RAB F5RAV 4L6QC 4L6DL fm Zeda Tkhlilnari, Batumi; 160-10m; CW SSB RTTY; 1kw; AV680 and Delta Loop; QSL also OK via F5RAV direct or Club Log
2017 Aug07	2017 Aug25	South Cook Is	E51GHS	F4GHS	<u>DXW.Net</u>	By F4GHS fm Aitutaki I (IOTA OC-083) 8/7-16 and Rarotonga I (IOTA OC-013) 8/16-25; HF; holiday style operation
2017 Aug09	2017 Aug28	Alaska	KL7	LotW	<u>DXNews</u>	By VE7ACN as AL3/VE7ACN fm Hinchinbrook I (IOTA NA-042, 8/9-15) and as NL6/VE7ACN fm Kayak I (IOTA NA-157, 8/18-28); 160-10m; CW SSB; QSL also OK via VE7ACN
2017 Aug15	2017 Sep05	French Polynesia	TX5EG	LotW	<u>TDDX</u>	By F6BCW F6DTZ F1TCV fm Moorea I (IOTA OC-046); 80-12m; CW SSB; QSL also OK via F6BCW (Buro or direct), Club Log, eQSL
2017 Aug17	2017 Aug22	Samoa	A35JP/p	LotW	<u>DXW.Net</u>	By JA0RQV fm Niuatoputapu I (IOTA OC-191); 80-6m; CW SSB; QSL also OK via Club Log; contingent on flight availability
2017 Aug28	2017 Sep04	Micronesia	<u>V63KS</u>	LotW	<u>TDDX</u>	By JA6REX fm Chuuk I (IOTA OC-011); 160-6m; CW SSB RTTY

BRARA TECH CLASS TRAINING



9:00am – 5:00pm Sat/Sun

5/6 Aug 2017



At the Ham Shack in West Delray Park

10875 W Atlantic Ave, Delray Beach, FL 33446



FREE LAUREL HAM LICENSE TESTING

7:00pm – 9:00pm Thu

10 Aug 2017

James A Rutherford Comm Ctr, Patch Reef Pk

2000 Yamato Rd, Boca Raton, FL 33431

Requirements:

- Enthusiasm for the Hobby and Willingness to Learn & Study
- Note Pad and Two No.2 Pencils with Erasers
- For Testing: Current License (if you have one), Picture ID, SSN or FRN

Talk-In Repeaters: Analog 145.290 MHz (PL 110.9) or DMR 443.300 TS2 TG2

Contacts:

- Bruce Ratoff 561-862-8198 KO4XL@yahoo.com for Training
- Jerry Zaza 305-706-8338 W4BFL@arrl.org for Testing

Dale's Tales

ARRL Great Lakes Division Director,
Dale R Williams, WA8EFK
wa8efk@arrl.org

I have always felt that radio clubs are the life blood of Amateur Radio. They are the go-to resource for getting started in the hobby. They are the go-to resource for help with antennas. They are the go-to resource for help with rig problems. They are the go-to resource for learning how to be a good operator and for absolutely everything one needs to be a ham. Triggered by Tom Delaney's reference to clubs that follows in his commentary, I did some research to see how the Great Lakes Division was doing in its efforts to generate more interest in ARRL Affiliation for our local radio clubs. I find that in the past 12 months, we have had more 8 radio clubs join the ranks of ARRL Affiliation. Congratulations to all.

For the clubs themselves, affiliation with ARRL offers some nice benefits: Referrals of new area hams as potential club members, Mailing Lists for special mailings and advertising hamfests, Club Commission program for recruiting new ARRL members, Club Liability insurance, Ham Equipment insurance, assistance with filing for club Licenses, Club E-mail forwarding service as well as a number of others free services to clubs. And, importantly, the cost to a club for ARRL Affiliation is only the time you take to complete the on-line application. ARRL is also a frequent contributor of prizes for our Affiliated Club's hamfests. If your club is not already affiliated, please consider it.

By the way, if YOU personally are not affiliated, not an ARRL member, please consider joining. Your benefits are great as well: our journal QST, Members-only Web Services (this include Digital QST, Access to the QST Archives, free e-newsletters, Product Review Archives, E-Mail forwarding Service and the ARRL Member Directory). Plus members have access to the Technical Information Service, Member Discounts, Ham Radio Insurance Plans, ARRL Visa Signature Card, Outgoing QSL Service, Operating Awards, to name a few. Plus your continued support advocates for Amateur Radio locally, nationally and world-wide. Thanks.

TOM'S COMMENTS: Comments from our Vice Director Tom Delaney W8WTD

June's big event is always Field Day. Hope you had fun! The essence of Field Day is working together. Yes, there are lots of other great things that happen on Field Day, but the teamwork and cooperation are the best. You didn't get your start in ham radio without someone telling you about it, or showing you how it works.

Now that may not have happened at Field Day, but it often is a good starting point. Some people get their licenses by going it alone, working the books exclusively. Many, though, find that classes, or at the very least, an understanding ham who is willing to explain the harder parts, make passing that test an easier task.

Some people who get their license on their own don't know what to do next, and don't know who to turn to. Those who worked with a club may find someone who will show them how to get a station set up.

And operating? A few people at Field Day like to be by themselves. But often, logging for someone, or having someone log for you while you make contacts, is an enjoyable experience. In between contacts you talk about band conditions, antennas, stations you've worked... and you learn something, both about ham radio and also about that other individual.

Young people are particularly enthusiastic about Field Day. The thrill of making more contacts in an hour than they've (probably) made in a month really gets to them. And they learn about propagation, antennas, and all sorts of other stuff.

So Field Day is a good measure of what it means to be a ham. Not everyone wants to go outside in less than ideal conditions and struggle over putting an antenna up where it doesn't want to go. But whatever you did on Field Day, or in Field Days past, you probably learned something else about ham radio, and maybe even passed along some of the things you learned.

Field Day comes along once a year. But the teamwork can persist into the next club meeting, the next class, or the next opportunity to help a new ham. Take what you've learned, and pass it on.

WWV 25 MHz Signal Swapped to Circular Polarization, Reception Reports Invited

The resurrected 25-MHz signal of time and frequency standard station WWV is now emanating from a circularly polarized turnstile antenna. WWV had used a vertically polarized antenna on 25 MHz in the 1970s. Silent since 1977, the 25-MHz signal returned to the air on an "experimental basis" in April 2014, and it's been transmitting ever since – initially on a broadband discone until August 2015, when it switched back to a vertical, which it used until the July 7 switch to circular polarization.

"[W]e are broadcasting with 2 kW from a circularly polarized turnstile antenna," WWV lead electrical engineer Matt Deutch, N0RGT, told ARRL this week. "It is just your standard plain-vanilla turnstile – two horizontal orthogonal dipoles with a quarter-wave phase-shifting coax linking them."

Deutch has explained that when the 25-MHz transmitter was shut down in 1977, the antenna's radiating element was "tossed in the bone yard, and a new longer section put on the tower to make it a 15 MHz stand-by antenna," Deutch recounted. When WWV first reintroduced the 25-MHz broadcast some 37 years later in response to requests, it used a broadband monopole. But, it was later decided to use that antenna for WWV's 2.5-MHz stand-by transmitter and to rebuild the 25-MHz antenna. The old radiating section was retrieved and the antenna rebuilt, so that it looked like what was being used in 1977.

Deutch said it's hoped that the latest antenna change to circular polarization might be helpful to anyone studying propagation during next month's total solar eclipse, which will be visible across the US. "My effort right now is focused on getting the word out, just to make people are aware that [the 25-MHz signal] is available, if it can be useful to them." Before the change, Deutch said WWV had received reports on the 25 MHz signal from across the Atlantic. The 25 MHz broadcast includes the same information transmitted on all other WWV frequencies and at the same level of accuracy.

Located in Fort Collins, Colorado, WWV is operated by the National Institute of Standards and Technology (NIST). WWV has invited listeners' comments and reports on its 25-MHz signal.



Something Else N4JJ

Our own Larry, K4KGG with Lou, W9IL; Stan, WD2B; Shakeera, KJ4RVL; and George WA2VNV scored tenth in the USA in the Multiple Operator/Single Transmitter/High Power category of the 2017 CQ WW WPX RTTY Contest. They made 1,064 QSOs and had 532 multipliers, for a total score of 1,391,712 points.

See latest CQ for all results.

How to Copy CW in Your Head

By Dan Romanchik, KB6NU

The second most common question that I get about CW is, "How do I learn to copy in my head?" When I get this question, I give, what to some, is a very unsatisfying answer. One day, I just went cold turkey. I put down the pencil and paper and never copied letter-by-letter ever again.

Carlo Consoli, IK0YGG, author of Zen and the Art of Radiotelegraphy (http://www.qsl.net/ik0ygg/enu/ZART_r20101008m.pdf), says that what operators need to do is to program themselves to copy in their heads. He counsels operators to practice relaxation and visualization exercises. Visualize yourself as a high-speed operator, and maybe one day you will be one.

This approach seems to have worked for Consoli. He is a member of the Very High Speed Club (VHSC), First Class Operator's Club (FOC), and has been clocked at copying over 70 wpm. I'm not sure that this is really going to work for everyone, though.

Another approach is touted by Carl, N7AGK. On his website, Carl writes, "I have created a program to assist you in learning to copy Morse code in your head. Everything you need will be contained on a single USB flash drive that I will provide to you. In the program there are audio Morse code presentations followed by a visual display. The visual display shows the information in large print and upper case letters. The visual display verifies that you have received the Morse code correctly." Carl's program costs \$20 and is available from n7agk.com.

Zeb, HB9FXW, has created a free web application called Seiuchy (<http://www.kb6nu.com/let-walrus-help-copy-head/>) to help people learn head copying. Seiuchy, which Zeb says is Japanese for walrus, simulates on-air contacts. The trick to using this app is that instead of copying exactly what's sent, you only copy the most important bit of information. The idea is that if you train yourself to do this, then you can concentrate on what's important rather than getting bogged down in copying what's not important.

A different take on head copy was sent in by one of my blog readers, Bill, W3MSH. He wrote, "I was a CW op for many years and discovered something fascinating. I first began to hear "dots and dashes", then letters, words, sentences and at 35+ wpm, thoughts in my head."

I think Bill may have hit the nail on the head with this comment. I like the idea that copying code in your head is more akin to generating thoughts than it is to copying individual characters or words.

Everybody talks about how getting faster is about moving from copying individual characters to copying words to copying entire sentences. I've never thought of it that way, although I was at a loss as to how to describe how I do it. I think the idea that when copying in your head, the code creates thoughts directly is a beautiful way to put it.

Shouldn't we approach head copy in the same way? Instead of thinking about head copy as the process of writing down the characters on an internal blackboard to be read later, it should be about translating the sound of the Morse Code directly into concepts. The sounds "dah di dit...dah dah....dah dah dit," should conjure up the image of a poodle or a pitbull, not the letters "D O G."

How that translates into a program or a method for learning to copy the code in one's head is another matter. It might be worth thinking about, though.

Isn't that what's happening when you talk to someone? When someone talks to me, I don't consciously parse the sentences and then analyze them to see what was just said. It's more of an unconscious process. The sounds being uttered are creating ideas in my head.

YOU DON'T HAVE TO SHOUT!

By Dave Brett, KD8NZP

If you do texts, you probably know that TYPING IN ALL CAPS is considered to be shouting. If you play with the digital modes such as PSK31, you will see some folks do their messages in caps and some in lower case. You may also have heard that you should limit the upper-case letters in a digital message as it will take longer to transmit.

Oh c'mon, how can that be? If you look at the most common computer code for letters, the ASCII codes, you won't find big differences between the codes for lower case and upper case letters. For instance, the ascii for the letter A is binary 1000001 (Hex 41) and the binary for the letter a is 1100001 (Hex 61). Although they are different codes they have the same number of bits (digits) and it would seem they would take the same time to transmit.

The rub is that PSK31 and some other modes don't use standard computer codes to represent the letters, they use VARICODE. Varicode is a code developed specifically for use with PSK31. PSK31 was created by Peter Martinez, G3PLX, who also was involved in the creation of AMTOR. His work on PSK31 was an attempt to improve on RTTY by decreasing the bandwidth and improving the speed.

What Peter did was look at the most commonly used letters in the alphabet and create shorter codes to represent them and longer codes for the letters less likely to be used. One way to think of it is if we used the numbers 1 to 26 to represent each of the 26 letters. Then the binary for the first letter would simply be the number 1 since that is binary for 1. But the binary for the 26th letter would be 11010 since that is the binary for 26.

It's obvious it would take less time to transmit the single digit 1 than the five digit 11010. Now what if we rearranged the order of the letters so the most commonly used came first in the alphabet and had the shortest binary. We would use less time sending the most common letters.

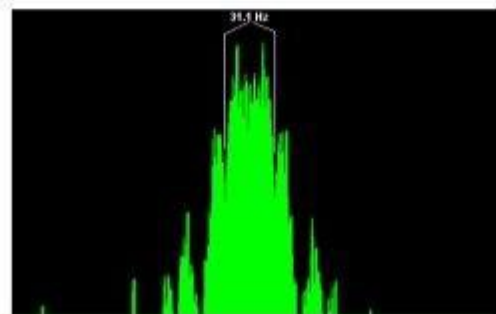
It's a little more complicated than that example since we have to accommodate both upper and lower case as well as the numbers 0-9 and some other special characters, but it's essentially what Peter did. To give a real example, in Varicode the letter e, a very frequently used letter, is represented by the binary 11. On the other hand the upper case E is represented by 1110111. If you check the Varicode table you will see that upper case letters frequently use a longer code than lower case letters, hence if you use all upper case for your messages it will take longer to transmit - noticeably longer.

If you are interested in reading more about Peter Martinez and PSK31, the ARRL archives his original article introducing his work on Varicode and PSK31 here:

<http://www.arrl.org/files/file/Technology/tis/info/pdf/x9907003.pdf>

(Editor's note: If this article reminded you of the Isley Brothers song, here's another link:

<https://www.youtube.com/watch?v=nEjLFpU2pJ4>)



Fort Pierce Hamfest

Start Date: 08/12/2017

End Date: 08/12/2017

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

Website: <http://FPARC.org>

Sponsor: Fort Pierce Amateur Radio Club

Type: ARRL Hamfest

Talk-In: 147.345 (PL 107.2)

Public Contact: John Sweigart, KK4SHF
4103 Smokey Pines Court Fort Pierce, FL
34951

Phone: 772-905-3552

Email: johnsails@hotmail.com

Welcome New Members:

W4LNA	Fred LeBlanc
WA2KFS	Steve Kimmel
K4WZV	Robert Bretzman
W4HI	Bruce Marron
KN4DED	Eric Small
AK4Q	Risto Siikarla

For more on BRARA:

www.BRARA.org

Join us on Twitter BRARA@N4BRF
and on Instagram #BRARA_N4BRF
as well as on Facebook.



S.1534-The Amateur Radio Parity Act

I am writing you today because we are at a crossroad in our efforts to obtain passage of The Amateur Radio Parity Act.

Our legislative efforts scored a major victory in our campaign when the Amateur Radio Parity Act, S.1534 now moves to the Senate, where we need every Senator to approve the bill. This is a companion Bill to HR 555, which passed the House in January.

NOW is the time for all Hams to get involved in the process!

- If you want to have effective outdoor antennas but live in deed-restricted community, **send these E-mails today.**
- If you already have outdoor antennas, but want to support your fellow Hams, **send these E-mails today.**
- If you want to preserve your ability to install effective outdoor antennas on your property, **send these E-mails today.**

We need you to reach out to your US Senator TODAY! Right away.

Help us in the effort. Please go to this website and follow the prompts.

<https://arrl.rallycongress.net/ctas/urge-us-senate-to-support-amateur-radio-parity-act>

Thank you.

73

Rick Roderick, K5UR
President
ARRL-The National Association for
Amateur Radio

Free Laurel VEC Testing



Tue 8-AUG-2017, 18:00-19:30,
Broward Gen MC, 1600 S Andrews
Ave, Ft Lauderdale [BARC] (2nd Tue
of every month).

Thu 10-AUG-2017, 19:00-21:00,
Rutherford Com Ctr, 2000 Yamato
Rd, Boca Raton, FL 33498 [BRARA]
(Quarterly: Feb, May, Aug, Nov)

Sun 3-SEP-2017, 11:00-13:00, Fire
Station 28, 1040 RPB Blvd, Royal
Palm Beach [PWARC] (1st Sunday of
odd months).

BRARA Ham Shack

Key Rules ^{K4Lew}

To obtain a key for our ham shack you must be a member in good standing for a minimum of a continuous year and hold a general class license or above and go through a short training session with K4LEW (Lew), W4BFL (Jerry), WA8VSJ (Art), W4WCD (Walt) or

the Radio Flyer's Purpose

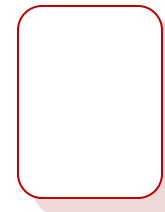
The purpose of this newsletter is to keep club members and other interested hams updated on club events and ham activities in the Greater Boca Raton Area. We hope you enjoy this month's *the RF* as much as we did publishing it!



the Radio Flyer

P.O. Box 480162

Delray Beach, FL 33448-0162



BRARA Club Member Name
Call Sign
Street Address
City, State Zip Code

