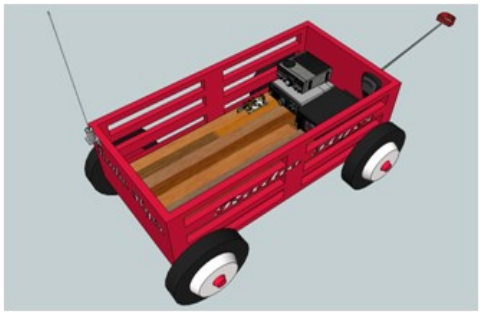


the Radio Flyer, a BRARA Newsletter

February 2017

BRARA Calendar:

09:00-12:00 Wed 01-Feb-17
Ham Shack Work & Radio Day

Thu 02-Feb-2017 Groundhog Day

09:00-13:00 Sat 04-Feb-17
Ham Shack Work & Radio Day

20:00-21:00 Sun 05-Feb-17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

19:00 Mon 06-Feb-17 (145.29 [110.9])
Monday Night Nets

19:00-21:00 Tue 07-Feb-17
Club Meeting @ West Boca Library

09:00-12:00 Wed 08-Feb-17
Ham Shack Work & Radio Day

09:00-13:00 Sat 11-Feb-17
Ham Shack Work & Radio Day

Sun 12-Feb-2017 Lincoln's Day

20:00-21:00 Sun 12-Feb-17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

Mon 13-Feb-2017 World Radio Day

19:00 Mon 13-Feb-17 (145.29 [110.9])
Monday Night Nets

Tue 14-Feb-2017 Valentine's Day

Wed 15-Feb-17 Susan B Anthony Day

09:00-12:00 Wed 15-Feb-17
Ham Shack Work & Radio Day

09:00-12:00 Sat 18-Feb-17
Ham Shack Work & Radio Day

20:00-21:00 Sun 19-Feb-17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

Mon 20-Feb-2017 President's Day

19:00 Mon 20-Feb-17 (145.29 [110.9])
Monday Night Nets

09:00-12:00 Wed 22-Feb-17
Ham Shack Work & Radio Day

09:00-12:00 Sat 25-Feb-17
Ham Shack Work & Radio Day

Noon Sun 26-Feb-17
Deadline for Newsletter Input

20:00-21:00 Sun 19-Feb-17 (443.300)
DMR-FL-LO Tech Net [TS2 TG2]

19:00 Mon 27-Feb-17 (145.29 [110.9])
Monday Night Nets

19:00 Mon 27-Feb-17 (145.29 [110.9])
Monday Night Nets

Tue 28-Feb-2017 Mardi Gras

This Month's Speaker

This month (7-Feb), Jim Talens (N3JT) and John Silva (N3AM) will speak on CWOPS, CW & CW Oprs Club. Synopsis on page 8.

Next month (8-Mar), Marc Wohlschegel, WC3W, will give a presentation on his T$US Cuban Expedition.

Future speakers include Ron Zimmer (KB1MPI): historical Israel trip, Ryan Krenzischek (W4NTR): Army MARS.

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.

Both analog repeaters are working. Innovation and improvement opportunities are present here too. The work on the new 2m antenna and connections are completed

Repeater 2m/70cm linking as well as the time stamp are still works in progress. We are still fund collecting for a new 2m repeater antenna.

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

No report was received by Newsletter deadline-Noon, last Sunday of the previous month.

BRARA Minutes

Starting this month, the Draft Minutes of the previous month's General Meeting will be made available on the BRARA web site.

A copy has been forwarded by the Secretary to the current webmaster for attachment to the BRARA web site. Upon notification of this by the current webmaster, the Secretary will advise all BRARA Mail-Chimp subscribers that they are available for review.

Although the Minutes will not be read at the General Meeting, a copy will be available for review. Corrections, Amendments and a Motion to approve will be considered at the General Meeting.

The above actions were initiated in response to numerous concerns expressed about the timely distribution of the Newsletter and excessive time to read and approve the minutes at General Meetings.

New "Amateur Radio Parity Act" Bill

H.R. 555 introduced in US House of Representatives - 16-Jan-2017

And just 10 days after being introduced, the 2017 Amateur Radio Parity Act legislation, H.R. 555, passed the U.S. House of Representatives this week on unanimous consent under a suspension of House rules. The bill's language is identical to that of the 2015 measure, H.R. 1301, which won House approval late last summer after attracting 126 co-sponsors, but failed to clear the U.S. Senate last fall as the 114th Congress wound down. The new bill, again sponsored by Rep. Adam Kinzinger (R-IL), was introduced on January 13 with initial co-sponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR), who chairs the influential House Committee on Energy and Commerce.

"The grassroots effort of Amateur Radio operators across this nation in support of the Amateur Radio Parity Act has been remarkable, nothing like we have ever seen before," ARRL President Rick Roderick, K5UR, said. "To all hams, keep going! Now is the time to charge forward with that same momentum to the Senate. We can to do it!" The bill arrives in the U.S. Senate with ample time in which to garner its approval through an education campaign.

"We're very encouraged by the speed with which this bill made it through the House. It's amazing that this happened," said ARRL Hudson Division Director Mike Lisenco, N2YBB, who has been at the forefront of the legislative initiative. "With the help of ARRL members, we believe we can get this done," Lisenco continued. "We came within a hair's breadth last time, with 110,000 e-mails to members of both houses of Congress, as well as letters and telephone calls. Member participation in this final push is critical."

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude Amateur Radio communications on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on Amateur Radio communications to accomplish the lawful purposes of homeowners association seeking to enforce the restriction.

Source:ARRL

ARRL Asks the FCC for New 5 MHz Allocation

ARRL has asked the FCC to allocate a new, secondary contiguous band at 5 MHz to the Amateur Radio Service while also retaining our of the current five 60-meter channels and current operating rules, including the 100 W PEP effective radiated power (ERP) limit. The federal government is the primary user of the 5 MHz spectrum. The proposed action would implement a portion of the Final Acts of World Radio Communication Conference 2015 (WRC-15) that provided for a secondary international allocation of 5,351.5 to 5,366.5 kHz to the Amateur Service; that band includes 5,358.5 KHz, one of the existing 5 MHz channels in the US.

Access even to the tiny 15-kHz wide band adopted at WRC-15 would "radically improve the current, very limited capacity of the Amateur Service in the United States to address emergencies and disaster relief," ARRL said. "This is most notably true in the Caribbean Basin, but the same effect will be realized elsewhere as we, at all times of the day and night, and at all times of the sunspot cycle."

In its Petition, ARRL also called upon the FCC to retain the same service rules now governing the five channels for the new band. The WRC-15 Final Acts stipulated a power limit of 15 W effective isotropic radiated power (EIRP), which the League said "completely defeats the entire premise for the allocation in the first place."

"For precisely the same reasons that the Commission consented to a power increase on the five channels as recently as 2011 [from 50 W PEP ERP to 100 W PEP ERP], the Commission should permit a power level of 100 W PEP ERP, assuming use of a 0 dBd gain antenna, in the adopted at WRC-15 for the contiguous band would render the band unsuitable for emergency and public service communications.

Ham Radio Trivia:

From what country was the first European to make a two-way contact with US hams?

See Amateur License Refresher for Answer.

Answer to last Month's Collings Trivia: 1958

A world without radio is a deaf world.

A world without television is a blind world.

A world without telephone is a dumb world.

"A world without communication is indeed a crippled world."

Ernest Agyemang Yeboah

No Smoking

UNLESS YOU'RE A RADIO WITH A SHORTED CAPACITOR.

"Our city's vast and complex communications system, is indebted to the many trained amateur radio volunteers, who are efficient and dependable and lend a much needed hand in times of crisis or disaster. They are an invaluable part of our city's communication network..."

Rudolph Giuliani

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

Tue 20:00 IRLP Tech 147.075 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) NA Tech
Sat	1200	TG-01	(WW)

Local DMR Repeaters

Location	Rx Freq	Color Code
Miami	442.225	1
N Dade	443.1250	10
Dania Bch	442.4000	1
Plantation	442.4250	1
Boca Raton	442.0000	8
Delray Bch	**443.3000**	**1**
Wellington	442.3000	7
Lk Worth	444.4500	10 In Repair
WPB	444.9125	1
PBG	442.1000	10
Jupiter	442.6000	10 Pending

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:

K4LEW (Lew), **KG4FUR** (Gerry), **KO4XL** (Bruce), **WA8VSJ** (Art), **KE4OBV** (Patrick), **W4BFL** (Jerry), and **W4WCD** (Walt)

will hold scheduled monthly meetings at 16:30 on the third Thursday of the month in the McDonalds on Yamato Rd and Technology Way. 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
○ $5 Associate 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:

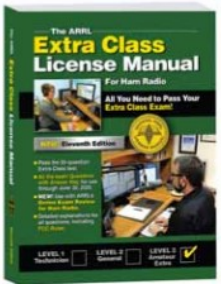
BRARA
P.O. Box 480162
Delray Beach, FL 33448-0162

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. BRARA is planning a Extra Class after the first of the year.



Extra Pool

E5A13

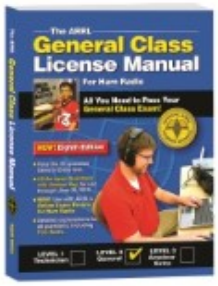
What is an effect of increasing Q in a resonant circuit?

A. Fewer components are needed for the same performance
B. Parasitic effects are minimized
C. Internal voltages and circulating currents increase
D. Phase shift can become uncontrolled

E5A16

What is the resonant frequency of a parallel RLC circuit if R is 33 ohms, L is 50 microhenrys and C is 10 picofarads?

A. 23.5 MHz
B. 23.5 kHz
C. 7.12 kHz
D. 7.12 MHz



General Pool

G7B05

How many states does a 3-bit binary counter have?

A. 3
B. 6
C. 8
D. 16

G7B13

What is the reason for neutralizing the final amplifier stage of a transmitter?

A. To limit the modulation index
B. To eliminate self-oscillations
C. To cut off the final amplifier during standby periods
D. To keep the carrier on frequency

Answers to License Refresher:

E5A13 (C)
E5A16 (D)
G7B05 (C)
G7B13 (B)

Answer to Trivia Question:

France—the station was owned by Leon Deloy, 8AB

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

New Hams Corner WA2NTW

Welcome to what I hope will be a monthly place to pass along tips and operating hints to newer hams. So many people do not have an electronics or electrical background so I hope to pass along things that might seem common to some but a revelation to others. If you have questions or things that you would like to see please drop me an email.

The first topic will be radio systems. All communications equipment is made up of several subsystems that combined allow you to "talk" to others. The major subsystems are: Antenna, Radio and Power. If you have heard another ham talk about how important a good antenna is to them, pay attention. The radio makes the signal, but the antenna puts the signal in the air to be received by others.

Most new hams today will start off with a portable or "Handi-talkie". This small box still has an antenna connected on top. It will work fairly well under most conditions BUT an external antenna will generally work much better. To connect the antenna to the radio you should have a good low loss cable. Signal is lost being transferred thru cable and that loss is measured in decibels (or db). The lower that number the better. Frequency also plays into how much signal is lost. As a general rule, the higher the antenna the better.

All radios have a similar function, create a signal to be transmitted or receive a signal and transform it back to something we understand. The output of the radio is measured in watts of power. Most hand held radios are lower power, 3-8 watts. Mobile radios typically will be of much higher power (5-80 watts) and a true full power (base) radio might be 20-100 watts.

In order to make that radio function it requires power. That power can come from a battery, power supply or straight from an AC outlet. HT's use batteries that can range from 5-15 volts. Care for your battery properly and it will last you a few years. Don't leave It in the charger, Take it out and use it or just leave it on the table. If you use it a lot recharge when needed. There are 3 basic types of batteries: alkaline, ni-cad and lithium ion. Alkaline batteries are used until they die, then dispose of properly. Ni-cad and lithium batteries can be recharged many times and reused. The newer Li-on batteries do not have a memory so they can be recharged when you are done using them. Ni-cads should be run down and then recharged.

This quick look just scrapes the surface on a LOT of things. Read articles on all of the subjects so you gain more knowledge! More importantly, ask questions. Most hams are more than willing to share information on a variety of subjects. Find the right person who knows a lot about what you want to learn!

73's

Ham Humor

Ham Sets Up Beer Night on DX Cluster

by K5KVN, on the scene

LEXINGTON, KY *— Raymond Sutler and friends had a "heck of a time" last night thanks to a website meant for posting reception of distant amateur radio stations. Sutler and his radio buddies weren't concerned with radio propagation, though.*

"One time, I saw Indonesia spotted on 20 meters but I needed him on 40," said Sutler. "So, I spotted him on the cluster and added a message asking him to please move to 40. And he did!"

That was the inspiration for what happened yesterday. "I mean, if that station in Indonesia saw the message, I figured my friends would see messages, too," he said.

Ham Hijinks obtained a screenshot of the messages, confirming that a beer night was, indeed, arranged on the DX Cluster:

Time	Info	Country
15:31	Can U bring corn dogs	United States
15:32	Yes. Who got beer?	United States
15:32	59 back of beam. Thx	Aruba
15:34	Hey Joe - I'll get beer	United States
15:34	Your the man.	United States
15:35	Heard in PA	Oman
15:35	Game is on tonight, too	United States
15:35	Ok - 1830 at my QTH!	United States

HamHijinks.com

New Ham Radio Movie Causes Controversy

By K5KAC, on the scene

HOLLYWOOD, Calif. *— "50 Shades of Grey Line Propagation," a film based off of the now famous book of similar name, is raising cries of both outrage and pride in the amateur radio community. The book, written by Earl Glenn in 2007, was an overnight success.*

"Hell, I don't know. I just write what I feel. It's very organic. If you've never gently probed the ionosphere with a QRP signal or wound your own ferrite by hand, you wouldn't get it," Glenn said before slamming his phone down.

The reclusive author is famously secretive of his process and has a P.O. Box listed on the ULS, making eyeball QSOs very difficult.

"It reminds me of my YL days in the college club back in '62. I couldn't tell you why," said ham radio operator Vernard Rather of Skiatook, Oklahoma, adding, "it's tame compared to last year's club Christmas party!"

An excerpt from the book may give some insight to the controversy around the movie (used with author's permission):

"Earl slowly pulled the dipole legs apart, each length gently quaking as it submitted. He studied his solid length of coax up and down. He marveled at the intersection of the dipole. Moisture barrier? Check. 1:1? Check. Now he had to feed it."

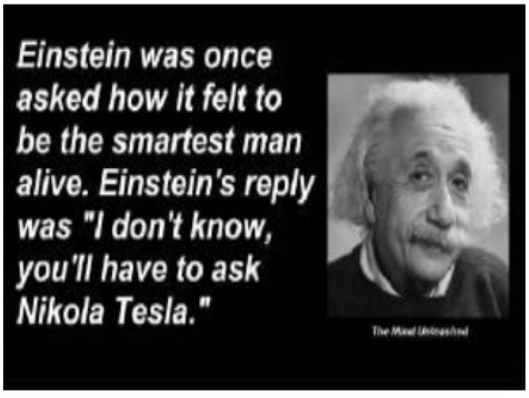
The faint red neon light from his Astron RS-35A flickered on and maintained itself. His rig came to life, moaning muffled static from the tempestuous afternoon sun. Out of his shack window he could see the lusty orb lowering itself to the horizon. Grey Line would be here soon. And with it would come DX."

It is rumored that Glenn is currently working on his second work, "Power in the Shack," an exploration of power relationships between exciter and operator.

Bowl of Corn-Cob Pipe Holds Radio Set

THE most compact radio receiving set that has made its appearance is built on the bowl of a corn-cob pipe. It is the work of F. E. Wilson, of Detroit, who can fill his pipe at the close of day and settle back for a smoke while he tunes in the radio stations that are "in the air."

For an aerial, Mr. Wilson uses a small loop attached to the headband of his 2000-ohm phone. The tuning coil is made of 100 turns of enameled wire—No. 26—wound around the bowl of the pipe. A piece of galena is balanced on the pipe stem, while the catwhisker is arranged to pivot on the stem. This small set has been remarkably successful in picking up concerts within 10 miles of the broadcasting stations.

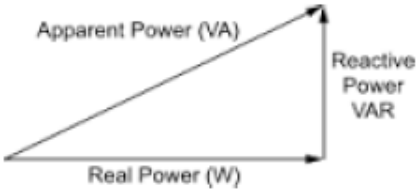


j Numbers - Part III

KD8NZF

So far we have talked about using j numbers to write a number representing a circuit, related circuit values to the sides of a triangle, and calculated the phase and impedance for the circuit. A lot of work, but what can it do for us?

Understanding how triangles can be used in AC circuit calculations opens some interesting doors. Perhaps you have heard of the Power Factor, especially with respect to industries that use a lot of large motors.



Power Factor ultimately impacts your electric bill. The triangle on the right is known as the power triangle, but it has a lot in common with the triangle we used for our R-L circuit. For instance, the bottom side of the power triangle is labeled Real Power. Real power is the power in a resistive circuit. The right side of the triangle is labeled Reactive Power and is the power in a component that has reactance, like the inductor in our circuit.

In the previous triangle, the longest side was labeled impedance and we calculated its value. On this triangle its labeled the Apparent Power. There are several reasons for the label Apparent which we can talk about another time. The interesting thing is that the Apparent Power side is what the Electric Company charges us for, but the Real Power side is the amount of work we get from the power. Obviously they are charging us for the longest side, hence the highest bill.

If you remember last month we looked at the angle Φ and called it the phase angle. Although it is not labeled on this triangle, it is in the same place as last time, the angle on the left side of the triangle. This angle determines how long the Apparent Power side will be, the smaller the angle the shorter the Apparent side. (And the lower your bill)

The good news is we can control some parts of the triangle to reduce the bill. Specifically, we can reduce the reactive side and make the angle smaller. Smaller angle equals smaller bill.

To reduce the reactive side, we can return to j numbers. You may recall the j number for our R-L circuit was Z=1000+j1000. The first 1000 was the value of the resistor and the second 1000 was the value of the Inductive Reactance. We didn't make a big deal of the plus in the middle, but now we will. Inductive circuits are written with a +j and capacitive circuits are written with a -j. Check the RCL circuit here. Suppose this started as the same circuit we had last month that just had a resistor and an inductor. Now we have added a third part, the capacitor, labeled C. And suppose the capacitor has a Capacitive Reactance of 900 ohms. The j number would be: Z=1000+j1000 -j900. We normally would not write it like this because +j and -j cancel each other. So we would actually write: Z=1000+j100. The j factor which represents the vertical side of the triangle has been reduced from 1000 to only 100. Since this side is now shorter the angle has been reduced and so has the bill.

This is usually referred to as controlling the Power Factor. Technically the Power Factor is: PF = COS (θ). θ is the Greek Symbol Theta and is again just used to label an angle. Don't panic – the math guys throw these labels around all the time, it's just a label. One guy will call it Φ and the next will call it θ. COS stands for Cosine and is a math function. I only mention this formula in case you look up Power Factor and see the formula. The important thing is if we grab a capacitor and add it to the circuit, we reduce the bill.

In industry there are usually lots of big motors. Motors are created using coils of wire, and coils of wire are inductors, so motors are inductive. If industry didn't do something to offset the Inductive Reactance they would be throwing away money, so there are devices available to automatically adjust the power factor by adding or removing capacitance. (Did I hear you say Auto-Tuner?)

OK, this is all interesting, but what's it got to do with Ham Radio. The same principle applies to what we see on an antenna. The smaller we can make the reactance of the antenna; the more power we can get to the antenna. Check out the two photos from antenna analyzers. In photo A (below) the SWR is 2.7:1. But look closer, this analyzer is displaying R of 33Ω and X of 42Ω. For a 1:1 reading the resistance would be 50 ohms and the reactance would be 0 ohms. Suppose we put an antenna tuner in line and used the tuner to dial up some capacitance. We could cancel out the X. That would reduce the swr. If we could dial in enough to completely cancel the X, the swr would be the ratio between the R and 50Ω. 50/33 = about 1.5:1. Not bad.

Now check photo B. This analyzer shows an R of 52Ω, an X of 8Ω, and a swr of 1.1:1. With close to 50 ohms of R and almost no X, the SWR is close to perfect.

Well this has been a long road, hopefully worth the ride. See you on the bands.

Learning Morse Code Without Trying

Researchers have developed a system that teaches people Morse code within four hours using a series of vibrations felt near the ear. Participants wearing Google Glass learned it without paying attention to the signals -- they played games while feeling the taps and hearing the corresponding letters.

https://www.sciencedaily.com/releases/2016/10/ 161028115427.htm

"When radio keeps silent, our ears shall never hear the real details!"

Ernest Agyemang Yeboa

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.

Contest and Special Event	Date Time Group
+ QRP Fox Hunt	0200Z-0330Z, Feb 1
+ Phone Fray	0230Z-0300Z, Feb 1
+ CWops Mini-CWT Test	1300Z-1400Z, Feb 1 and 1900Z-2000Z, Feb 1 and 0300Z-0400Z, Feb 2
+ UKEICC 80m Contest	2000Z-2100Z, Feb 1
_	0145Z-0215Z, Feb 3
+ QRP Fox Hunt	0200Z-0330Z, Feb 3
+ NCCC Sprint Ladder	0230Z-0300Z, Feb 3
+ YLRL YL-OM Contest	1400Z, Feb 3 to 0200Z, Feb 5
+ Triathlon DX Contest	0000Z-0759Z, Feb 4 (CW) and 0800Z-1559Z, Feb 4 (SSB) and 1600Z-2359Z, Feb 4 (RTTY)
+ Vermont QSO Party	0000Z, Feb 4 to 2400Z, Feb 5
+ 10-10 Int. Winter Contest, SSB	0001Z, Feb 4 to 2359Z, Feb 5
+ F9AA Cup, CW	1200Z, Feb 4 to 1200Z, Feb 5
+ Black Sea Cup International	1200Z, Feb 4 to 1159Z, Feb 5
+ FYBO Winter QRP Sprint	1400Z-2400Z, Feb 4
+ Minnesota QSO Party	1400Z-2400Z, Feb 4
+ British Columbia QSO Party	1600Z, Feb 4 to 0400Z, Feb 5
+ AGCW Straight Key Party	1600Z-1900Z, Feb 4
+ FISTS Winter Slow Speed Sprint	1700Z-2100Z, Feb 4
+ Mexico RTTY International Contest	1800Z, Feb 4 to 1759Z, Feb 5
+ North American Sprint, CW	0000Z-0400Z, Feb 5
+ ARS Spartan Sprint	0200Z-0400Z, Feb 7
+ QRP Fox Hunt	0200Z-0330Z, Feb 8
+ Phone Fray	0230Z-0300Z, Feb 8
+ CWops Mini-CWT Test	1300Z-1400Z, Feb 8 and 1900Z-2000Z, Feb 8 and 0300Z-0400Z, Feb 9
NCCC RTTY Sprint	0145Z-0215Z, Feb 10
+ QRP Fox Hunt	0200Z-0330Z, Feb 10
+ NCCC Sprint Ladder	0230Z-0300Z, Feb 10
+ CQ WW RTTY WPX Contest	**0000Z, Feb 11 to 2359Z, Feb 12**
+ SARL Field Day Contest	1000Z, Feb 11 to 1000Z, Feb 12
+ Asia-Pacific Spring Sprint, CW	1100Z-1300Z, Feb 11
+ Dutch PACC Contest	1200Z, Feb 11 to 1200Z, Feb 12
+ KCJ Topband Contest	1200Z, Feb 11 to 1200Z, Feb 12
+ SKCC Weekend Sprintathon	1200Z, Feb 11 to 2400Z, Feb 12
+ OMISS QSO Party	1500Z, Feb 11 to 1500Z, Feb 12
+ New Hampshire QSO Party	1600Z, Feb 11 to 2200Z, Feb 12
+ FISTS Winter Unlimited Sprint	1700Z-2100Z, Feb 11

QST fm de Prez:

Next Meeting:
Tuesday
February 7, 2017
19:00-20:45
West Boca Library

2017 Membership Renewal:

Renew your membership with BRARA. In addition to sending your check to our P.O. Box, you can renew your membership at the next meeting or at our weekly meetings. Renewals for 2017 are now past due.

Along with your renewal, please consider a donation to the Repeater Antenna Fund. We need your help!

Orlando Hamcation is coming up. Remember to mark you calendars for 10-12 Feb 2017 and pre-order your tickets.

Due to Library scheduling conflict the March Meeting moved to
Wednesday
March 8, 2017
19:00-2045
West Boca Library

2016 Tax Donation Letters

Tax Donation letters will be emailed for all the 2016 donations. Please turn in your receipts by January 15 to take advantage of this.

+ Balkan HF Contest	1200Z-1800Z, Feb 12
+ CQC Winter QSO Party	0100Z-0259Z, Feb 13
+ ARRL School Club Roundup	1300Z, Feb 13 to 2359Z, Feb 17
+ PODXS 070 Club Valentine Sprint	0000Z-2359Z, Feb 14
+ QRP Fox Hunt	0200Z-0330Z, Feb 15
+ Phone Fray	0230Z-0300Z, Feb 15
+ CWops Mini-CWT Test	1300Z-1400Z, Feb 15 and 1900Z-2000Z, Feb 15 and 0300Z-0400Z, Feb 16
+ AGCW Semi-Automatic Key Evening	1900Z-2030Z, Feb 15
+ NCCC RTTY Sprint	0145Z-0215Z, Feb 17
+ QRP Fox Hunt	0200Z-0330Z, Feb 17
+ NCCC Sprint Ladder	0230Z-0300Z, Feb 17
+ ARRL Inter. DX Contest, CW	**0000Z, Feb 18 to 2400Z, Feb 19**
+ Novice Rig Roundup	0000Z, Feb 18 to 2400Z, Feb 26
+ SARL Youth Day Sprint	0800Z-1000Z, Feb 18
+ Russian PSK WW Contest	1200Z, Feb 18 to 1159Z, Feb 19
+ Feld Hell Sprint	1900Z-2059Z, Feb 18
+ Run for the Bacon QRP Contest	0200Z-0400Z, Feb 20
+ SKCC Sprint	0000Z-0200Z, Feb 22
+ NAQCC CW Sprint	0130Z-0330Z, Feb 22
+ QRP Fox Hunt	0200Z-0330Z, Feb 22
+ Phone Fray	0230Z-0300Z, Feb 22
+ CWops Mini-CWT Test	1300Z-1400Z, Feb 22 and 1900Z-2000Z, Feb 22 and 0300Z-0400Z, Feb 23
+ UKEICC 80m Contest	2000Z-2100Z, Feb 22
+ NCCC RTTY Sprint	0145Z-0215Z, Feb 24
+ QRP Fox Hunt	0200Z-0330Z, Feb 24
+ NCCC Sprint Ladder	0230Z-0300Z, Feb 24
+ CQ 160-Meter Contest, SSB	**2200Z, Feb 24 to 2200Z, Feb 26**
+ REF Contest, SSB	0600Z, Feb 25 to 1800Z, Feb 26
+ UBA DX Contest, CW	1300Z, Feb 25 to 1300Z, Feb 26
+ South Carolina QSO Party	1500Z, Feb 25 to 0159Z, Feb 26
+ North American QSO Party, RTTY	1800Z, Feb 25 to 0559Z, Feb 26
+ High Speed Club CW Contest	0900Z-1100Z, Feb 26 and 1500Z-1700Z, Feb 26
+ SARL Digital Contest	1300Z-1600Z, Feb 26
+ North Carolina QSO Party	1500Z, Feb 26 to 0059Z, Feb 27

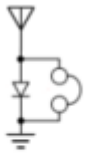
February 2017 Presentation:

CW Operations

Our meeting Tuesday Night will cover CW (Morse Code), the earliest and still the "basic" mode of our hobby. Today, knowing Morse code is not required to get a ham license, but there are thousands of hams around the world who use it instead of voice or data. Why?

At this meeting, we'll see what CW (Morse Code) is all about, its advantages, how and where to learn it and equipment that sends it.

We'll also hear about the premier CW club, CWops, and its CW academy, on -air activities and membership.



Jim, N3JT
John, N3AM

You know it's bad when...you start hearing CW all the time, and there really isn't any...
Clinton Herbert [AB7RG]

The difference between involvement and commitment is like ham and eggs. The chicken is involved; the pig is committed.
Martina Navratilova

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

Feb-17						
Start	**End**	**DXCC**	**Call**	**QSL via**	**Reported by**	NEW **Information**
2017 Feb01	2017 Feb14	**Central African Rep**	**TL8TT**	LotW	IK7JWY	By I1HJT I2YSB IK2CIO IK2CKR IK2DIA IK2HKT JA3USA; 160-6m; CW SSB, RTTY on 1 band; 3 stations; 24hr/day; QSL also OK via OQRS (no card required)
2017 Feb03	2017 Mar11	**Rwanda**	**9X2AW**	DF2WO Direct	TDDX	By DF2WO fm Kigali; QSL also OK via M0OXO
2017 Feb08	2017 Feb18	**South Cook Is**	**E51AMF**	LotW	DXW.Net	By K7ADD fm Rarotonga I (IOTA OC-013); 80-10m, perhaps 160m; SSB + digital; 1.5kw; verticals and wires near salt water; QSL also OK via K7ADD direct, Club Log, eQSL
2017 Feb10	2017 Feb22	**Panama**	**HP**	LotW	AA1M	By W1USN as HP/W1USN and AA1M as HP/AA1M; HF; SSB CW + digital; QSL also OK via home_call (Buro or direct)
2017 Feb13	2017 Feb26	**Macao**	**XX9D**	LotW	TDDX	By XX9LT DJ9KH DL2AWG DL2HWA DL2RNS DL3HRH DL4SVA DL5CW DM2AUJ DM2AYO DL7VEE; 80-10m; CW SSB RTTY; 3 stations 24/7; focus on NA; QSL also OK via DL4SVA (DARC Buro or direct)
2017 FEB 13	2017 FEB 27	**San Andres & Providencia**	**5J0NA**	LW9EOC	LW9EOC	By LW9EOC; 160-6m, focus on low and WARC bands; CW SSB RTTY; QRV for ARRL DX CW
2017 Feb13	2017 Mar07	**Austral Isl**	**FO/a**	TBA	TDDX	By VE7KW VA7DX W5RF fm IOTA OC-114; 160-10m; CW SSB RTTY; hexbeams and spiderpoles
2017 Feb15	2017 Feb21	**Fernando de Noronha**	**PY0F**	PY2QI Direct	DXW.Net	By PY2QI as PY2QI/PY0F fm IOTA SA-003; 40-10m; CW
2017 Feb 16	2017 Mar 05	**Pitcairn Isl**	**VP6EU**	LotW	PA3EWP	By DJ9HX DK2AMM DL6JGN PA3EWP fm IOTA OC-044; 160-10m; CW SSB RTTY; 2 stations, at least 1 QRV 24 hours/day; 600w; beam + verticals; QSL also OK via DK2AMM and Club Log
2017 Feb 17	2017 Feb 24	**Micronesia**	**V63DX**	JA7HMZ Direct	JA7HMZ 20161222	By JA7HMZ; 160-6m; will look for EU on 160m outside contest; QRV for ARRL DX CW using V6A
2017 Feb 17	2017 Mar 07	**Sint Maarten**	**PJ7**	LotW	TDDX	By OH2IS as PJ7/OH2IS fm Philipsburg; 80-10m; mainly CW, perhaps some SSB RTTY; 1kw; vertical, dipoles
2017 Feb 18	2017 Feb 19	**ARRL Intl DX CW**			-	
2017 FEB 22	2017 Mar 07	**Barbados**	8P9AL	LotW	DXNews	By KG9N fm IOTA NA-021; HF; wire verticals, dipoles, long wires; QSL also OK via KG9N (for this operation only - reissued call sign)

SFC Section Convention (Tropical Hamboree®)

Start Date: 02/03/2017
End Date: 02/04/2017
Location: War Memorial Auditorium
800 NE 8th Street
Ft. Lauderdale, FL
Website: http://hamboree.org
Sponsor: Dade Radio Club of Miami
Type: ARRL Convention
Talk-In: 147.000 (PL 94.8)
Public Contact: Lloyd Kurtzman , N4LJK
8266 Mills Drive PO Box 835367 Miami, FL 33283
Phone: 305-332-9142
Email: LLOYD0703@gmail.com

SE Division Convention (Orlando Ham Cation®)

See info on following 2-page flyer

Welcome New Members:

N2ZRI	Joe Antonelli
KB1K	Bob Snyder
W5JYK	Stanley Pulitzer
N2CA	Jesse Sheinwald
W4AEQ	Jeff Ronner
AA4FL	Jay Garlitz

For more on BRARA:

www.n4brf.org

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

Palms West ARC Flea

Start Date: 03/04/2017
End Date: 03/04/2017
Location: JFCS Center
5841 Corporate Way
West Palm Beach, FL 33401
Website: http://palmswestradio.org
Sponsor: Palms West Amateur Radio Club, Inc.
Type: ARRL Hamfest
Talk-In: 147.045 (PL 110.9)
Public Contact: Robert Pease , KS4EC
11894 Briarpatch Court Wellington, FL 33414
Phone: 561-358-9999

Stuart Hamfest

Start Date: 03/18/2017
End Date: 03/18/2017
Location: Martin County Fairgrounds
2616 SE Dixie Highway (A1A)
Stuart, FL 34994
Website: http://www.stuarthamfest.com
Sponsor: Martin County Amateur Radio Association
Type: ARRL Hamfest
Talk-In: 147.060 (PL 107.2)
Public Contact: Doug Shields , W4DAS
1450 SE 11th Street Stuart, FL 34996
Phone: 772-349-7820
Email: w4das@comcast.net

Free Laurel VEC Testing

Thu 9-Feb-2017, 19:00-21:00, Rutherford Com Ctr, 2000 Yamato Rd, Boca Raton, FL 33498 [BRARA] (Quarterly: Feb, May, Aug, Nov)

Tue **14-Feb-2017**, 18:00-19:30, Broward Gen MC, 1600 S Andrews Ave, Ft Lauderdale [BARC] (2nd Tue of every month).

Sun **05-Mar-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), W4WCD (Walt) or N4CGC (Max).

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

Tax-Deductible 501 (c) (3) Donations Accepted

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

ORLANDO HamCation SM 2017

Ham Radio & Electronics Show

INFORMATION Quick Reference Guide

HamCation Hotline 24/7 call 407 841 0874
or call 800 214 7541 E-mail: info@hamcation.com
Website: **www.hamcation.com**

Dates-
February 10, 11 & 12, 2017

Times-
Friday February 10, **9:00 am to 6:00 PM**
Saturday February 11, **9:00 am to 5:00 PM**
Sunday February 12, **9:00 am to 2:00 PM**

Talk In -
KB4UT 146.760 (-600/no PL)
(Backup on 145.015 (-600/no PL)
D-star K1XC 146.820 (-600)

Tickets -
$15.00 for all three days at the gate.
$ 13.00 purchased before December 31 2016

Where -
Central Florida Fairgrounds
4603 West Colonial Drive
Orlando, Florida 32808

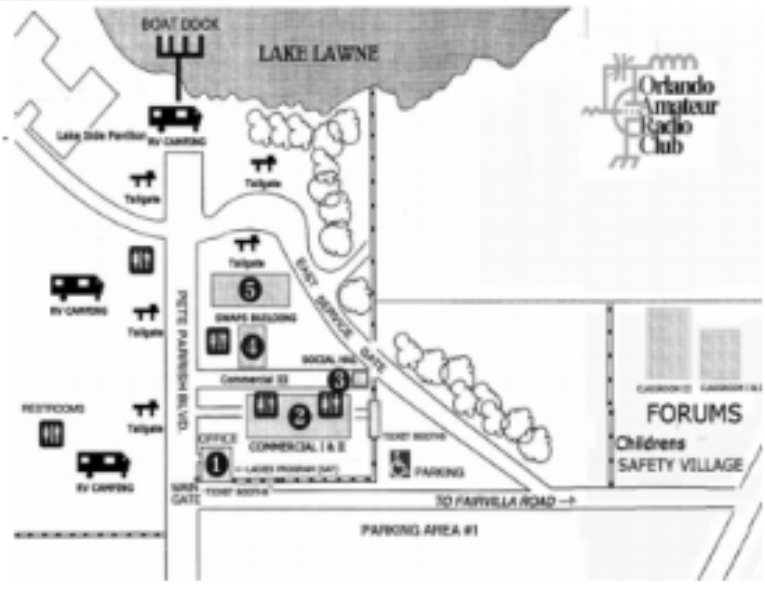
Coordinates -
- 81.438338, 28.55671,0

RV Info -
Check-in Wednesday February 8, 2017, 2:00 PM till 8:00 PM. Then Thursday Check-in is 7:00 am - 8:00 PM
RV is $30.00 per night
All guests need tickets for the show.
Enter through **SOUTH gate** - Main Entrance. No camping outside gates!

Swaps info -
Set-up time for Swaps Tables Thursday February 9, 2017, 7:00 am to 7:00 PM. Check in Friday February 10, 2017 7:00 am to 9:00 am.
Swaps tables $ 55.00. All need tickets
Enter through **EAST gate.**

Tailgate Info -
Tailgate admission Thursday February 9, 2017 2:00 PM to 8:00 PM.
Friday February 10, 2017, 7:00 am 9:00 am. **First come first served.** Tailgate per spot $45.00. All need tickets
Enter through **SOUTH** gate.

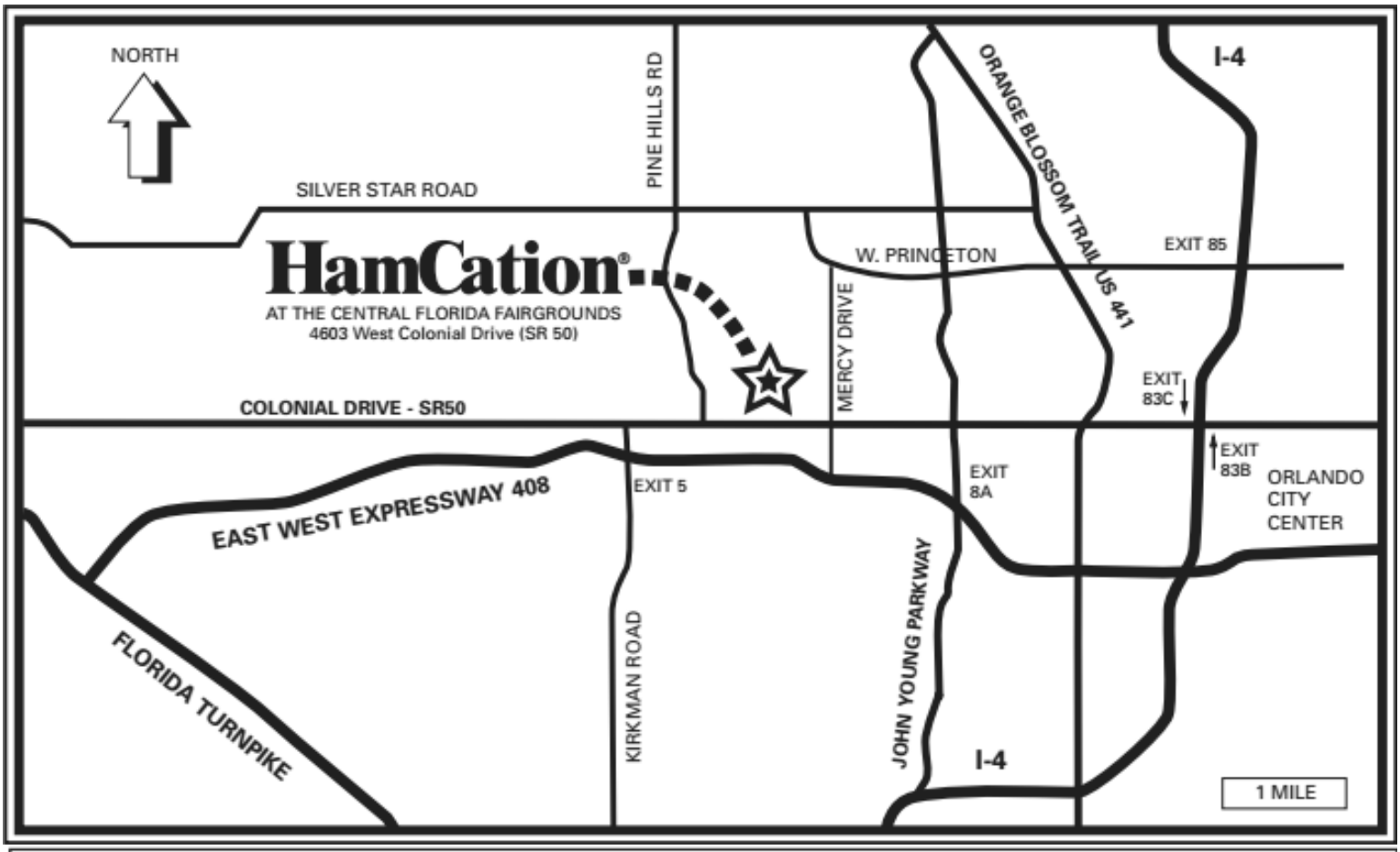
To order Commercial Spaces, Tickets, RV Spots, Swaps Tables, and Tailgate Spots. Go to www.hamcation.com.



Testing info -
Friday February 10, 3:00 PM
Saturday February 11, 9:00 AM and 1:00 PM
Must be **pre-registered,**
mail: testing@hamcation.com.
Testing fee $15.00

Forums-Friday February 10, Saturday February 11, 2017.
Children Safety Village and Lake side pavilion
9:00 AM - 5:00 PM

Hotels info - HamCation®
Specials! Holiday Inn Express & Suites. Drury Inn Suites, Rosen Inn at Pointe Orlando, The Rosen Inn International and International Palms Resort & Conference Center.
See accommodations tab on the web site. Early reservation is strongly recommended.



2017 HamCation® Reservation Form

(Pre-registration ends December 31, 2016)
Reservations after this date will hold for **will call**

Name _____ Call _____

Street _____

City _____ St— Zip _____

E-Mail: _____

Phone: _____

Make check or money order payable to:
Orlando HamCation.

Mail to: Orlando HamCation®
P.O. Box 574962
Orlando, FL 32857-4962

Tickets (___)@ $13 = $ _____

Swap Tables (___)@ $55 = $ _____

Swap Table Electricity Needed?: Yes ❑ No ❑

Swap Table Day of Arrival: Thur. ❑ Fri. ❑ Sat. ❑

Tailgate (3 days) (___)@ $45 = $ _____

RV per Night (___)@ $30 = $ _____

RV day of arrival: **Wed. Thur. Fri. Sat.**
PLEASE CIRCLE

Total Due: $ _____

CHECK # _____

Please include a **self addressed-stamped envelope,** #10 – business size, for all reservations. Reservations not including the business size s.a.s.e. will be held at the **Will Call** window. This may cause some delay.

Orlando HamCation® organization has a standing refund policy. No refunds unless all the paperwork has been received by USPS mail **10 days** before the show starts. It is at the discretion of the HamCation® chairman to execute a refund. No food and drinks sales allowed at the site by the HamCation® vendors. Weapons are not allowed at the Fairgrounds. No dogs allowed in all the buildings, social hall and Forums, except service animals.

To order Tickets, RV Reservations, Swap Tables, and Tailgate spots On Line go to

www.hamcation.com