

# the *Radio Flyer*, a *BRARA* Newsletter

November 2016

## BRARA Calendar:

**19:00-21:00 Tue 01-Nov-16**  
Club Meeting @ Club Shack

**09:00-12:00 Wed 02-Nov-16**  
Ham Shack Work & Radio Day

**20:00 Wed 02-Nov-16 (442.875 [110.9])**  
Red Informativa en Español

**09:00-13:00 Sat 05-Nov-16**  
Ham Shack Work & Radio Day

**02:00 Sun 06-Nov-2016 EST begins**

**19:00 Mon 07-Nov-16 (145.29 [110.9])**  
Monday Night Nets

**Tue 08-Nov-2016 Election Day**

**09:00-12:00 Wed 09-Nov-16**  
Ham Shack Work & Radio Day

**20:00 Wed 09-Nov-16 (442.875 [110.9])**  
Red Informativa en Español

**Tue 11-Nov-2016 Veterans Day**

**09:00-12:00 Sat 12-Nov-16**  
Ham Shack Work & Radio Day

**19:00 Mon 14-Nov-16 (145.29 [110.9])**  
Monday Night Nets

**09:00-12:00 Wed 16-Nov-16**  
Ham Shack Work & Radio Day

**20:00 Wed 16-Nov-16 (442.875 [110.9])**  
Red Informativa en Español

**Thu 17-Nov-2016 NRA Founded 1871**

**09:00-12:00 Sat 19-Nov-16**  
Ham Shack Work & Radio Day

**19:00 Mon 21-Nov-16 (145.29 [110.9])**  
Monday Night Nets

**09:00-12:00 Wed 23-Nov-16**  
Ham Shack Work & Radio Day

**20:00 Wed 23-Nov-16 (442.875 [110.9])**  
Red Informativa en Español

**Thu 24-Nov-2016 Thanksgiving Day**

**Fri 25-Nov-2016 Black Friday**

**09:00-13:00 Sat 26-Nov-16**  
Ham Shack Work & Radio Day

**Sun 27-Nov-2016 Advent Begins**

**12:00 Noon Sun 27-Nov-16**  
Deadline for Newsletter input

**Mon 28-Nov-2016 Cyber Monday**

**19:00 Mon 28-Nov-16 (145.29 [110.9])**  
Monday Night Nets

**09:00-12:00 Wed 30-Nov-16**  
Ham Shack Work & Radio Day

**20:00 Wed 30-Nov-16 (442.875 [110.9])**  
Red Informativa en Español



## This Month's Speaker

This month, our meeting will take place at the Shack (Elections taking precedence over us). After the meeting we concentrating on Shack radios.

Next month, Bob Furtaw, W8IL, will give a presentation on what to do with airplane signals. Synopsis on last page.

We are still looking for a place to hold our annual Holiday Party. Pse Help!



## 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. Art and Lew are spearheading efforts.

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.

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## QSL Report <sup>n4ii</sup>

As we closed out last month, N4BRF has logged in 2,640 QSLs/8,400 QSOs (31.4%) on LoTW.

**DXCC Account Status:** Nothing new this month. New this month Anguilla (VP2E). Awards received: Mixed, CW, Phone, 15m and 10m.

**WAS Account Status:** New this month CT (17m), FL (17m), NV (10m). Also, 5BWAS RI 15 CW. Awards issued: Mixed, 20m, CW, Phone, Digital, Triple Play, RTTY. We still need:

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

We have received the following QSOs from Field Day activities:

- 176 (+0) QSLs from 2012,
- 184 (+2) QSOs from 2013
- 254 (+0) QSOs from 2014
- 278 (+1) QSOs from 2015
- 149 (+3) QSOs from 2016

**VUCC Account Status:** Nothing new this month.

Update at the next Club Meeting.



VETERANS DAY

## Ham Software

Looking for a bazooka calculator? A CW tutor program. This site has lots of links to ham related software for your use. Many programs are free. Be aware that there are some dead links on the page--looks like the webmaster needs to do some updating.

<http://www.w1wc.com/software/>

## Manual Labor

Got a repair job on a radio but no manual? Here's a site that lists sources for manuals--even the old boat anchors. Sites like BAMA have free manuals and schematics, others sell vintage manuals.

<http://ac6v.com/manuals.htm>

## Repeater Finder

Forgot your ARRL repeater directory?

Try this repeater search tool. Enter a city or zip code for near-by repeaters in the box on the upper left of the map. When the results come up click on the individual location flags for full information on the specified repeater.

<http://k5ehx.net/>



## AT&T's New "AirGig" Not Your Father's BPL

Recalling the earlier efforts of the FCC and telecommunications and utility interests to roll out "Broadband over Powerline" (BPL), the Amateur Radio community has been buzzing with questions about AT&T's just-announced "AirGig" BPL plan to make broadband available via apparently similar technology. ARRL's earlier anti-BPL campaign, and market forces, eventually led to the demise of the prior BPL initiative. ARRL Laboratory Manager Ed Hare, W1RFI, who spearheaded the earlier effort to quantify BPL's threat to Amateur Radio's HF spectrum and remains the resident expert on the subject, said this newest BPL incarnation should *not* pose an interference issue for radio amateurs.

"This technology uses millimeter-wave RF signals (30 GHz to 300 GHz) coupled onto the surface of power lines to transmit the signal along the line with relatively low losses," Hare explained. "After looking at this technology, it looks nothing like the type of HF and VHF BPL that caused us so many problems years ago. The sky is not falling."

Hare added that it is not likely that the AT&T technology will even use Amateur Radio bands, so there is little reason for concern even among those amateurs who use spectrum above 24 GHz.

According to AT&T's September 20 announcement, the company is "deep in the experimentation phase" of the developing technology, which it says would be "easier to deploy than fiber, can run over license-free spectrum, and can deliver ultra-fast wireless connectivity to any home or handheld wireless device." AT&T said its initial – and continuing – testing at AT&T outdoor facilities "has been positive," and initial field trials are set to begin in 2017.

Hare said the technique of putting RF signals onto the surface of conductors is not new. An article by Glenn Elmore, N6GN, and John Watrous, K6PZB, appeared in the May/June issue of QEX, describing the technique. In January 1953, the *Proceedings of the IRE* featured an article by C. E. Sharp and G. Goubau, "A UHF Surface-Wave Transmission Line," and the *Radio Amateurs VHF Manual 11th edition* introduced the technique to amateurs in 1968.

Hare said the League will keep an eye and ear out for interference problems, but he believes that the frequencies involved and the fact that these signals should not propagate far from the lines will pose little risk the Amateur Radio Service.

"So far, industry has not found a way to reliably put broadband signals on wires intended to carry power frequencies," he said. "The technical difficulties of trying to use wiring not designed to carry RF signals [and] connected to all sorts of noisy loads, other conductors and even splices that are major discontinuities at these frequencies will probably prove to be quite the technical challenge. ARRL is interested in seeing all technology succeed, but its vested interest is in the interference potential of new technologies. Fortunately, in this case, there is little likelihood of interference."

--ARRL



## Red Informativa en Español ha sido Suspendido!

Red Informativa en Español has been temporarily suspended for lack of participation. We hope to revive this net when interest improves.



**With Honor & Gratitude  
We Remember**

## 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](http://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	19:30	Boca/Delray CERT	444.700 MHz
Tue	20:00	IRLP Tech	147.075 MHz
Wed	19:00	PBC ARES	147.450 MHz
Wed	20:00	Red Informativa en Español	442.875 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) NATEch
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 18:00 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

ARES  MARS  CERT

Award Chasing  Ragchewing

Building & Experimenting  DMR

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.

## Link McGarity WV4J Memorial Free Flea

Start Date: 11/05/2016  
End Date: 11/05/2016  
Location: JFCS of Palm Beach County  
5841 Corporate Way  
West Palm Beach, FL 33401  
Website: <http://palmswestradio.org>  
Sponsor: Palms West ARC  
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 561-358-9999  
Email: [ks4ec@att.net](mailto:ks4ec@att.net)

## Cy Harris Memorial Free Flea

Start Date: 11/19/2016  
End Date: 11/19/2016  
Location: Collins Center  
3900 NE 3rd Avenue  
Oakland Park, FL  
Website: <http://browardarc.net/free-flea>  
Sponsor: Broward Amateur Radio Club  
Type: ARRL Hamfest  
Talk-In: 146.91 (PL 110.9)  
Public Contact: Tony Becker ,  
KK4GUU  
3721 West State Road 84, Unit 102  
Davie, FL 33312  
Phone: 954-612-9303  
Email: [kk4guu@arrl.net](mailto:kk4guu@arrl.net)

### Welcome New Members:

KJ4IFG Mark Kaluh

### For more on BRARA:

[www.n4brf.org](http://www.n4brf.org)

## Flamingo Net and UMARC Free Flea

Start Date: 11/12/2016  
End Date: 11/12/2016  
Location: University of Miami  
Physics / Gifford Arboretum Parking  
Lot  
5101 San Amaro Drive  
Coral Gables, FL 33114  
Website: <http://www.FlamigoNet.8m.net>  
Sponsor: Flamingo Net / University  
of Miami Amateur Radio Club  
Type: ARRL Hamfest  
Talk-In: 147.150 +600 (PL 94.8)  
Public Contact: William Moore ,  
WA4TEJ  
1451 NE 102nd Street Miami Shores, FL  
33138  
Phone: 305-751-1874  
Email: [wa4tej@juno.com](mailto:wa4tej@juno.com)

## Okeechobee Hamfest in the Woods

Start Date: 11/26/2016  
End Date: 11/26/2016  
Location: Freedom Ranch  
11655 US 441 South  
Okeechobee, FL 34972  
Website: <http://www.flweather.com/oarc/>  
Sponsor: Okeechobee Amateur Radio Club  
Type: ARRL Hamfest  
Talk-In: 147.195 (PL 100)  
Public Contact: Amos McDaniel ,  
KK4AMK  
7615 NW 86th Court Okeechobee, FL  
34972  
Phone: 863-447-1233  
Email: [kk4amk@yahoo.com](mailto:kk4amk@yahoo.com)

## Free Laurel VEC Testing



Sun 06-Nov2016, 11:00-13:00, Fire  
Station 28, 1040 RPB Blvd, Royal  
Palm Beach [PWARC] (1st Sunday of  
odd months).

Thu 10-Nov-2016, 19:00-21:00,  
Rutherford Com Ctr, 2000 Yamato  
Rd, Boca Raton, FL 33498 [BRARA]  
(Quarterly: Feb, May, Aug, Nov)

Tue 14-Nov-2016, 18:00-19:30,  
Broward Gen MC, 1600 S Andrews  
Ave, Ft Lauderdale [BARC] (2nd Tue  
of every month).

## BRARA Ham Shack Key Rules <sup>K4LEW</sup>

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).

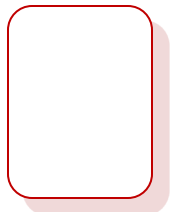
## the Radio Flyer's Purpose

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



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



## 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

#### E4C15

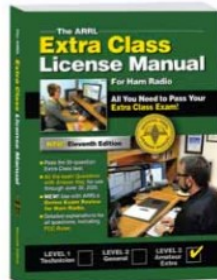
What is usually the primary source of noise that is heard from an HF receiver with an antenna connected?

- A. Detector noise
- B. Induction motor noise
- C. Receiver front-end noise
- D. Atmospheric noise

#### E4C13

How does a narrow-band roofing filter affect receiver performance?

- A. It improves sensitivity by reducing front end noise
- B. It improves intelligibility by using low Q circuitry to reduce ringing
- C. It improves dynamic range by attenuating strong signals near the receive frequency
- D. All of these choices are correct



### General Pool

#### G6B11

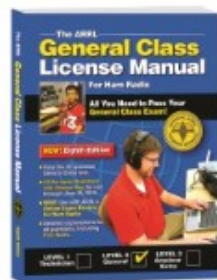
Which of the following solid state devices is most like a vacuum tube in its general operating characteristics?

- A. A bipolar transistor
- B. A Field Effect Transistor
- C. A tunnel diode
- D. A varistor

#### G6B14

What is the minimum allowable discharge voltage for maximum life of a standard 12 volt lead acid battery?

- A. 6 volts
- B. 8.5 volts
- C. 10.5 volts



### Answers to License Refresher:

- E4C15 (D)
- E4C13 (C)
- G6B11 (B)
- G6B14 (C)
- G5C13 (C)

*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.

## Articles for the Newsletter *KG4FUR*

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.

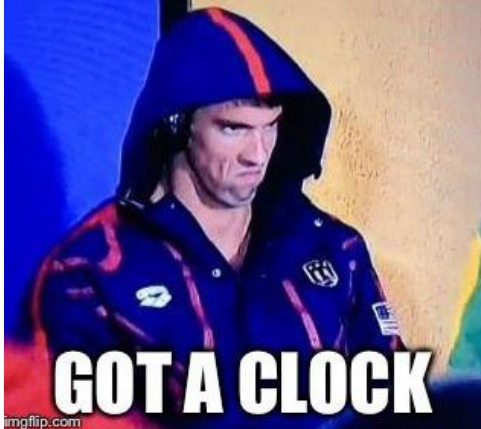
Please send articles to [KG4FUR@yahoo.com](mailto:KG4FUR@yahoo.com)



*“When radio keeps silent, our ears shall never hear the real details!” — Ernest Agyemang Yeboah*



ORDERED A HEATHKIT



GOT A CLOCK

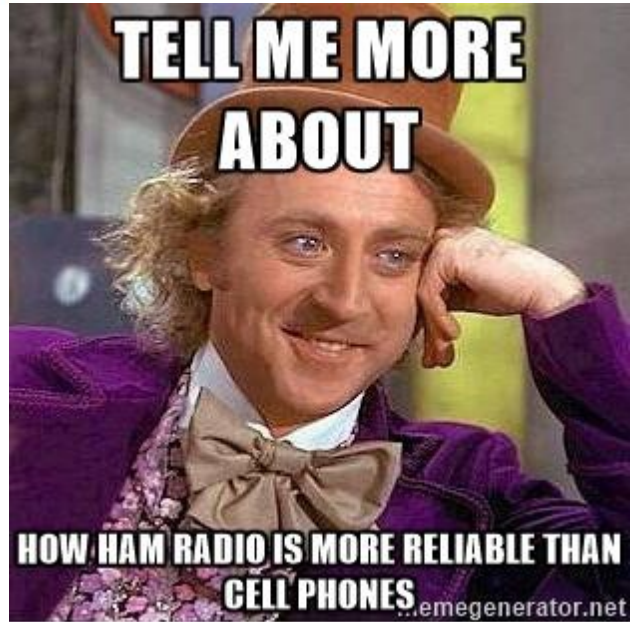


SPRING



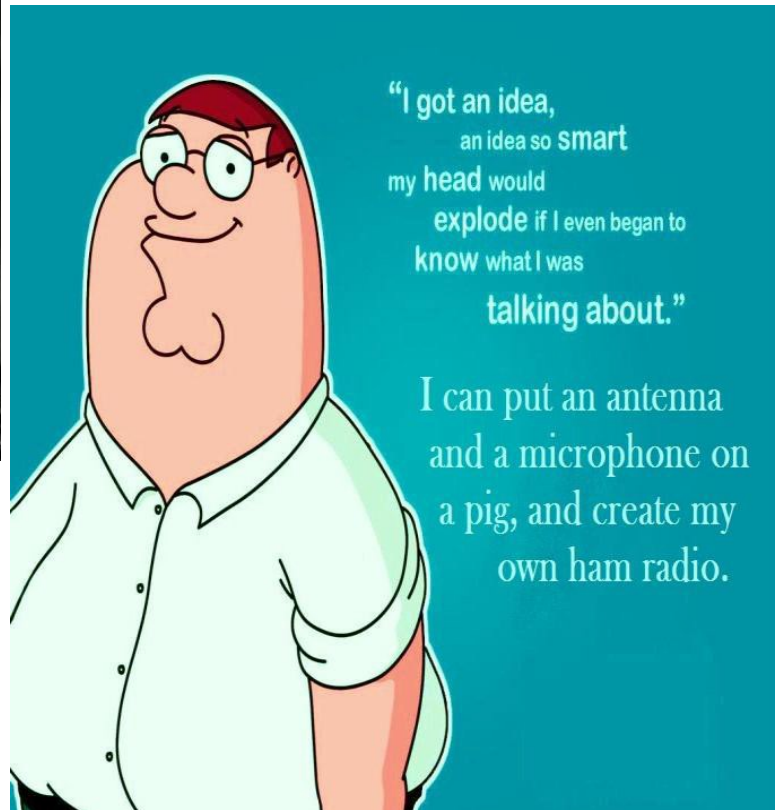
FALL

It's time to "Fall Back!"  
Daylight Savings Time  
Ends Sunday at 2am



TELL ME MORE ABOUT

HOW HAM RADIO IS MORE RELIABLE THAN CELL PHONES



"I got an idea,  
an idea so smart  
my head would  
explode if I even began to  
know what I was  
talking about."

I can put an antenna  
and a microphone on  
a pig, and create my  
own ham radio.



VOTE for  
**NOBODY**

- \* NOBODY WILL KEEP ELECTION PROMISES
  - \* NOBODY WILL LISTEN TO YOUR CONCERNS
  - \* NOBODY WILL HELP THE POOR & DESTITUTE
  - \* NOBODY CARES ABOUT YOU & YOUR FAMILY
- NOBODY TELLS THE TRUTH.**

## *Kit Producer Information*

The era of electronic kits started (with a few minor exceptions like Stancor) after the end of WWII. In 1947, Heath offered its first kit, a 5 inch oscilloscope. Heath rapidly grew and after a while, other companies embraced the kit business. None were as successful as Heath but they still played an important role in the industry. Perhaps, like me, you built some of those kits. The availability of inexpensive electronic kits and the learning process of building, troubleshooting and using them quite likely encouraged many to pursue a career in electronics. For others, it contributed to a hobby that had a lasting character. For all, there was a common bond of construction brotherhood. It was a wonderful time when we saved our money, bought and then built amazing electronic devices on kitchen or dining room tables, garage or basement workshops or wherever a safe space for all of those beautiful parts could be found.

Not every kit worked the first time it was turned on. Many were built by those who had never used a soldering iron before. Evidence of this still exists today in some kits that have been sold on the used market. Some builders lost interest due to a mismatch between kit complexity and builder skills. Many others learned from their mistakes and went on to build many more kits.. What follows are brief descriptions of the companies represented here.

**Heathkit** was a well known supplier of electronic kits from 1947 through the early 1990's (although no new kits were developed after 1986). An incredible number of kits were offered including test equipment, amateur and SWL radio, audio, televisions, computers, robotics, automotive and other items difficult to categorize. Not all of their product offerings were kits. In their later years, many items were offered as either kits or assembled. Some items were only available assembled.

In their last few years they focused on selling educational products to schools and were known as Heathkit Educational Systems. A decline in funding from federal and state sources had a serious impact on their revenues. An [article](#) on the ARRL website discusses this matter in more detail. When discussing electronic kit providers of the 20th century, Heathkit was the big Kahuna and is by far the largest part of this site. The best place to learn about the history of the company is in Chuck Penson's excellent books "Heathkit: A Guide to the Amateur Radio Products" and "Heathkit Test Equipment Products".

There are a number of good Internet based information sources as well (see the [Heathkit Resources](#) page).

There were others who were perhaps a little less known. Among them were Allied Radio, EICO, EMC, Precise, Paco, Dynaco and Stancor. The goal of this site is to attempt to document the kits produced by all of these companies via product tables containing pictures, specifications, block diagrams, calibration info and clean schematics when available. Where available, the product tables will include links to other off site information resources.

**Allied Radio** (now known as **Allied Electronics**) is a company with a long eight decade history. It was founded in Chicago, IL. in 1928. Its purpose was to distribute radio parts for Columbia Radio Corp. By 1932, Allied was selling electronic parts by catalog. Storefront sales operations were established with the goal of selling to amateur radio operators and electronics experimenters. During WWII, Allied devoted itself to the war effort by handling government contracts and high-priority industrial needs. This was Allied's first real experience in industrial electronics.

After the war, Allied continued to sell to the consumer and industrial markets. Sometime around 1962, Allied Electronics was created as a subsidiary of Allied Radio. In 1971, Allied was acquired by Tandy (now **Radio Shack Corp.**) and moved its headquarters to Fort Worth, Texas.

Around 1981, **Spartan Manufacturing** acquired the company. In 1997, Avnet took over ownership. In 1999, Allied Electronics was acquired by **Electrocomponents plc** of the United Kingdom. Allied Electronics continues to sell electronic components by catalog and Internet ordering.

Allied Radio produced a line of kits under the Knight label. They were called Knight-Kits. Although not as extensive a line as Heathkit, they had many offerings in test equipment. Amateur radio, SWL, audio, entertainment and educational/experimenter kits rounded out their product line.

**EICO**, or Electronic Instrument Company, started life around 1945 in Brooklyn New York. Like Allied Radio, most of their kit products were test equipment although audio and some ham and CB products became another important part of their line. Their products were sold direct, through distributors, dealers and even through the Allied catalog. At some point in their history, they dropped out of the electronics business and got into the selling and mortgaging of commercial real estate.

**EMC**, which stands for Electronic Measurements Corporation, was a supplier of test equipment in both kit and assembled form. They were based in Westbury, L.I., New York. Their products were generally lower end technology with lower prices. Their slogan was "EMC gives more measurement value per dollar". EMC products were marketed through electronics magazines and some electronics stores. Their line was never as extensive as the other kit providers but they did fill a need.

**Precise Electronics & Development Corp.** was a company that marketed test equipment. At different times they were based in Mineola and Oceanside, N.Y. Their product line was small compared to their competition. In order to differentiate themselves, they added features not commonly found. Their oscilloscopes featured larger screens. Some of their products were listed in the 1962 Allied catalog.

**PACO** was a division of Precision Apparatus Co. (a subsidiary of Pacotronics). Later they became a division of Dynascan Corp. They were a relatively small player in the kit market. They only sold test equipment and Hi-Fi kits. Like EMC, they sold products in both kit and assembled form. They were based at 70-31 84th St., Glendale 27, Long Island, N.Y

**Dynaco** was a provider of quality audio kits. The company was formed by David Hafler and Ed Laurent in Philadelphia in 1954. It lasted until 1980. In 1990, a British company and affiliate of **Panor Corp.** called Marlborough Enterprises Ltd, acquired the name. An excellent history of the company is available [here](#). Dynaco products were very good with regards to price/performance.

**Stancor** was a pre-WWII manufacturer of electronic components. They had an extensive line of transformers and chokes. In addition, they offered a series of amateur transmitter kits. I believe that their kit products were available from the 1930's through the late 1940's. As such, this company predates the other companies listed here.

**Conar Instruments Company** was part of the National Radio Institute (NRI). NRI was a private correspondence school based in Washington, D.C. The name CONAR is derived from the first letters of "Company, National Radio". Their role was to supply test equipment to NRI students and graduates. Their first kit went to market in 1962. The main focus of their offerings was radio and TV service test equipment but they offered other devices as well. They added Ham items over time. NRI ceased operations in 1999.

[www.nostalgickitscentral.com/](http://www.nostalgickitscentral.com/)

## *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
2016 Nov01	2016 Nov11	<b>Bonaire</b>	<b>PJ4L</b>	LotW	<a href="#">DXW.Net</a> 20160929	By ON7TQ ON6KX; SSB CW + digital; QSL also OK via ON3CQ (Buro or direct)
2016 Nov02	2016 Nov08	<b>Palau</b>	<b>T88AB</b>	JR1UBR	<a href="#">TDDX</a> 20160913	By JR1UBR fm Koror I; 40-6m; SSB; 1kw; QSL OK via JARL Buro or direct
2016 Nov03	2016 Nov09	<b>Barbados</b>	<b>8P</b>	JH4IFF Direct	<a href="#">DXNews</a> 20160901	By JH4IFF as 8P9JH and JH4CES as 8P9IP fm NA-021; 80-10m; CW SSB RTTY; 8P9IP QRV for IPARC Contest; QSL: Mitsumasa Uto, 681 Tatsukawa, Akaiwa, Okayama 709-0815, Japan
2016 Nov04	2016 Nov12	<b>St Lucia</b>	<b>J6</b>	LotW	<a href="#">OPDX</a> 20160502	By AA4OC as J68OC, N7BF as J68BF, WT4BT as J68MT, W6ABM as J6/W6ABM, AK5SD as J6/AK5SD, NX8G as J6/NX8G; 80-10m; CW SSB + digital; QSL also OK via home_calls
2016 Nov04	2016 Nov14	<b>Cambodia</b>	<a href="#">XU7MDC</a>	LotW	MDXC 20160420	By IZ8CCW I2VGV + 20 op team fm Sihanoukville; focus on low bands; focus on digital; 5 stations; 24x24 hours; QSL also OK via IK2VUC (Buro or direct)
2016 Nov05	2016 Nov12	<b>St Lucia</b>	<b>J6</b>		<a href="#">DXW.Net</a> 20160812	By N7BF as J6/N7BF, WT4BT AA4OC W6ABM AK5SD NX8G likewise fm Chateau Devaux, Cap Estate (island north tip); 80-10m; all modes
2016 Nov06	2016 Nov13	<b>Bonaire</b>	<b>PJ4</b>	LotW	<a href="#">DXW.Net</a> 20161014	By N5JR as PJ4/N5JR, NT5V K5JP likewise; 160-10m; CW SSB RTTY; QSL also OK via home_call (Buro or direct)
2016 Nov06	2016 Nov16	<b>Micronesia</b>	<b>V63AJ</b>	DF8AN	<a href="#">DXNews</a> 20160715	By DF8AN fm Yap I (OC-012); HF; CW, some RTTY PSK
2016 Nov06	2016 Nov16	<b>Senegal</b>	<a href="#">6V1IS</a>	Club Log	IK7JWX 20160617	By IK7JWX IS0AGY IS0BWM IS0FQK IZ7ATN IS0FFR IW7EGQ fm Isole Ngor e Goree (AF-045); 160-6m; SSB CW PSK31-63-125 RTTY, perhaps SSTV; QSL also OK via IK7JWX direct and eQSL
2016 Nov07	2016 Dec02	<b>Tanzania</b>	<b>5H3MB</b>	LotW	<a href="#">DXNews</a> 20160927	By IK2GZU; 80-10m; SSB CW RTTY; dipoles + ground plane; QSL also OK via IK2GZU (Buro or direct), Club Log, and eQSL
2016 Nov09	2016 Dec06	<b>Mauritius</b>	<a href="#">3B8</a>	DJ7RJ Direct	AA1M 20161017	By DJ7RJ as 3B8/DJ7RJ; 160-10m, focus on 160m; 500w



2016 Nov10	2016 Nov16	<b>West Kiribati</b>	<b>T30</b>	Home Call	<a href="#">TDDX</a> 20161020	By JA1KJW as T30KJ, JA3MCA as T30MA, JA8VA as T30VE, JA1JQY as T30JY fm Tarawa I (OC-017); 160-10m; SSB CW RTTY
2016 Nov10	2016 Nov22	<b>Central African Rep</b>	<a href="#">TL8AO</a>	LotW	<a href="#">DXW.Net</a> 20160728	By LA7GIA fm Bangui; 80-10m; mainly CW; QSL also OK via LA7GIA
2016 Nov10	<b>NEW</b> 2016 Nov22	<b>Curacao</b>	<b>PJ2</b>	Club Log	<a href="#">DXW.Net</a> 20161026	By PA3EYC as PJ2/PA3EYC; 160-10m; mainly CW; holiday style operation
2016 Nov11	2016 Nov18	<b>Saba &amp; St Eustatius</b>	<b>PJ6M</b>	K2HVN	<a href="#">DXNews</a> 20160911	By K2HVN fm Saba I (NA-145); 40-10m; CW SSB; may use PJ6/K2HVN
2016 Nov15	2016 Nov17	<b>Palau</b>	<b>T88QR</b>	JJ1DQR	<a href="#">DXW.Net</a> 20160915	By JJ1DQR fm Koror I; 80-6m; SSB
2016 Nov15	2016 Dec15	<b>St Kitts &amp; Nevis</b>	<b>V47JA</b>	LotW	W5JON 20160117	By W5JON fm Calypso Bay, St Kitts; 160-6m, incl 60m; SSB; yagi on 6m, verticals, dipole; QSL also OK via W5JON direct
2016 Nov16	2016 Nov30	<b>Kenya</b>	<b>5Z4</b>	Home Call	DJ6TF 20161019	By DJ6TF as 5Z4/DJ6TF and DL7KL as 5Z4/ DL7KL fm Diani Beach; 80-10m; CW SSB; 500w; R7 + wire on 80m
2016 Nov16	2016 Dec05	<b>Cambodia</b>	<b>XU7AEZ</b>	LotW	<a href="#">OPDX</a> 20160905	By Russian team fm Koh Rong Samloem I (AS- 133); HF; various modes; QSL also OK via RC3C
2016 Nov17	2016 Nov20	<b>Guam</b>	<b>KH2</b>	DF8AN	<a href="#">TDDX</a> 20160722	By DF8AN as KH2/DF8AN; HF; CW, some RTTY PSK
2016 Nov18	2016 Nov21	<b>Fernando de Noronha</b>	<b>PY0F</b>	PT7WA Direct	<a href="#">DXNews</a> 20161014	By PV8IG as PY0F/PV8IG fm SA-003; HF; QSL: Luciano Sampaio de Souza, PO Box 825 - AC Monte Castelo, 60325-970 Fortaleza - CE, Brazil
2016 Nov18	2016 Nov25	<b>St Barthelemy</b>	<b>TO2EE</b>	K2HVN	<a href="#">DXNews</a> 20160911	By K2HVN fm NA-146; 40-10m; CW SSB; may use PJ6/K2HVN
2016 Nov19	2016 Nov26	<b>St Barthelemy</b>	<a href="#">FJ</a>	LotW	KO8SCA 20160913	By KO8SCA as FJ/KO8SCA; 160-10m; CW SSB + digital; 500w; BigIR vertical; holiday style operation; QSL also OK via Club Log

2016 Nov20 <b>NEW</b>	2016 Dec03	<b>Maldives</b>	<a href="#">8Q7SP</a>	LotW	<a href="#">DXNews</a> 20160711	By SP6EQZ SP2FAX SP3CYY SP3FZN SP6FX Y SP6JIU SP9FOW SP3SLA fm Dhiffushi I (AS- 013); 160-10m; CW SSB RTTY; QSL also OK via SP6FX Y Buro and Club Log
2016 Nov20	2016 Nov23	<b>Nepal</b>	<b>9N7NZ</b>	JA6GWX Direct	JA6GWX 20161016	By JA6GWX; HF; SSB CW
2016 Nov20	2016 Dec25	<b>DR Congo</b>	<b>9Q0HQ/3</b>	Club Log	<a href="#">TDDX</a> 20160916	By IS0BWM; all bands; SSB; QSL also OK via IS0BWM direct w/ 2USD
2016 Nov21	2016 Nov29	<b>Curacao</b>	<b>PJ2</b>	LotW	<a href="#">DXNews</a> 20160810	By VE7ACN as PJ2/VE7ACN fm SA-099; 40-10m, perhaps 80m; mainly CW, some SSB; holiday style operation; QSL also OK via VE7ACN
2016 Nov21	2016 Nov30	<b>Turks &amp; Caicos</b>	<b>VP5</b>	AA4NC Direct	AA4NC 20161026	By AA4NC as VP5/AA4NC; 160-10m; CW SSB RTTY; holiday style operation
2016 Nov21	2016 Dec01	<b>Ascension I</b>	<b>ZD8V</b>	LotW	<a href="#">TDDX</a> 20160929	By K0AV; 160-10m; mainly CW; QSL also OK via K0AV and Club Log
2016 Nov22	2016 Nov30	<b>Honduras</b>	<b>HR2</b>	LotW	AJ9C 20160825	By AJ9C as HR2/AJ9C; 160-10m; CW SSB RTTY; QSL also OK via AJ9C direct
2016 Nov24	2016 Dec01	<b>Chatham Is</b>	<a href="#">ZL7</a>	LotW	<a href="#">OPDX</a> 20160516	By JA1XGI as ZL7/JA1XGI fm OC-038; 160-10m; mainly CW, some RTTY JT65 PSK; verticals; QSL also OK via JA1XGI, Buro or direct
2016 Nov24	2016 Dec02	<b>Easter I</b>	<b>CE0Y</b>	Home Call	<a href="#">DXNews</a> 20160202	By RZ3FW as CE0Y/RZ3FW and R4WAA as CE0Y/R4WAA fm SA-001; 160-10m; mainly CW, some SSB + digital; QSL via Club Log preferred
2016 Nov25	2016 Nov30	<b>Micronesia</b>	<b>V63DX</b>	JA7HMZ	JA7HMZ 20160904	By JA7HMZ fm Pohnpei; QRV for CQWW DX CW
<a href="#">CQ Worldwide DX Contest, CW (Nov 26-27, 2016) Check for pericontest activity too.</a>						
2016 Nov30	2016 Dec08	<b>Grenada</b>	<b>J3</b>	LotW	<a href="#">DXNews</a> 20160810	By VE7ACN as J3/VE7ACN fm Carriacou I (NA- 147, FK92gm); 40-10m, perhaps 80m; mainly CW, some SSB; holiday style operation; QSL also OK via VE7ACN

## 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>.

Date Time Group	Contest and Special Event
0230Z-0300Z, Nov 2	Phone Fray
1300Z-1400Z, Nov 2 and 1900Z-2000Z, Nov 2 and 0300Z-0400Z, Nov 3	+ CWops Mini-CWT Test
2000Z-2100Z, Nov 2	+ UKEICC 80m Contest
1800Z-1900Z, Nov 3 (CW) and 1900Z-2000Z, Nov 3 (SSB) and 2000Z-2100Z, Nov 3 (FM) and 2100Z-2200Z, Nov 3 (Dig)	+ NRAU 10m Activity Contest
0145Z-0215Z, Nov 4	+ NCCC RTTY Sprint
0230Z-0300Z, Nov 4	+ NCCC Sprint
0600Z-1000Z, Nov 5 and 1400Z-1800Z, Nov 5	+ IPARC Contest, CW
1200Z, Nov 5 to 1200Z, Nov 6	+ Ukrainian DX Contest
1700Z-2100Z, Nov 5	+ RSGB International Sprint Contest, SSB
2100Z, Nov 5 to 0300Z, Nov 7	+ ARRL Sweepstakes Contest, CW
0600Z-1000Z, Nov 6 and 1400Z-1800Z, Nov 6	+ IPARC Contest, SSB
0800Z-1200Z, Nov 6	+ EANET Sprint
0900Z-1100Z, Nov 6 and 1500Z-1700Z, Nov 6	+ High Speed Club CW Contest
1100Z-1700Z, Nov 6	+ DARC 10-Meter Digital Contest
0200Z-0400Z, Nov 8	+ ARS Spartan Sprint
0230Z-0300Z, Nov 9	+ Phone Fray
1300Z-1400Z, Nov 9 and 1900Z-2000Z, Nov 9 and 0300Z-0400Z, Nov 10	+ CWops Mini-CWT Test
2000Z-2100Z, Nov 9	+ RSGB 80m Club Sprint, SSB
0145Z-0215Z, Nov 11	+ NCCC RTTY Sprint
0230Z-0300Z, Nov 11	+ NCCC Sprint
0000Z, Nov 12 to 2359Z, Nov 13	+ WAE DX Contest, RTTY
0001Z, Nov 12 to 2359Z, Nov 13	+ 10-10 Int. Fall Contest, Digital
0700Z, Nov 12 to 1300Z, Nov 13	+ JIDX Phone Contest
1200Z, Nov 12 to 2400Z, Nov 13	+ SKCC Weekend Sprintathon
1200Z, Nov 12 to 1200Z, Nov 13	+ OK/OM DX Contest, CW
1400Z, Nov 12 to 0200Z, Nov 13	+ Kentucky QSO Party
1900Z-2300Z, Nov 12 (CW/Digital) and 0100Z-0500Z, Nov 13 (Phone) and 1900Z-2300Z, Nov 13 (Phone) and 0100Z-0500Z, Nov 14 (CW/Digital)	+ CQ-WE Contest
0230Z-0300Z, Nov 16	+ Phone Fray
1300Z-1400Z, Nov 16 and 1900Z-2000Z, Nov 16 and 0300Z-0400Z, Nov 17	+ CWops Mini-CWT Test

### Reminders fm da Prez:

#### Next Meeting:

**Monday  
December 6, 2016  
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 begin October 1 and are due by January 31.**

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



### 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.

0130Z-0330Z, Nov 17	+ NAQCC CW Sprint
0145Z-0215Z, Nov 18	+ NCCC RTTY Sprint
0230Z-0300Z, Nov 18	+ NCCC Sprint
1600Z-2200Z, Nov 18	+ YO International PSK31 Contest
0000Z, Nov 19 to 2359Z, Nov 20	+ ARRL EME Contest
1000Z, Nov 19 to 1000Z, Nov 20	+ SARL Field Day Contest
1200Z, Nov 19 to 1200Z, Nov 20	+ LZ DX Contest
1600Z, Nov 19 to 0700Z, Nov 20	+ All Austrian 160-Meter Contest
1700Z-1859Z, Nov 19	+ Feld Hell Sprint
1900Z-2300Z, Nov 19	+ RSGB 2nd 1.8 MHz Contest, CW
2100Z, Nov 19 to 0300Z, Nov 21	+ ARRL Sweepstakes Contest, SSB
1300-1500Z, Nov 20 (40m) and 1500-1700Z, Nov 20 (80m)	+ Homebrew and Old-time Equipment Party
0200Z-0400Z, Nov 21	+ Run for the Bacon QRP Contest
0000Z-0200Z, Nov 23	+ SKCC Sprint
0230Z-0300Z, Nov 23	+ Phone Fray
1300Z-1400Z, Nov 23 and 1900Z-2000Z, Nov 23 and 0300Z-0400Z, Nov 24	+ CWops Mini-CWT Test
2000Z-2100Z, Nov 24	+ RSGB 80m Club Sprint, CW
0145Z-0215Z, Nov 25	+ NCCC RTTY Sprint
0230Z-0300Z, Nov 25	+ NCCC Sprint
0000Z, Nov 26 to 2400Z, Nov 27	+ CQ Worldwide DX Contest, CW
0230Z-0300Z, Nov 30	+ Phone Fray
1300Z-1400Z, Nov 30 and 1900Z-2000Z, Nov 30 and 0300Z-0400Z, Dec 1	+ CWops Mini-CWT Test
2000Z-2100Z, Nov 30	+ UKEICC 80m Contest

*December 2016*

*Presentation:*

*Airplane Signals*

There are approximately 300,000 private, commercial or airline transport pilots registered in the U.S. and on any day there could be 50,000 flying. This is approximately the same amount of amateur radio licensed operators that there are registered in the US.

Today, a pilot only needs to be licensed to operate a radio if he uses an HF radio or conducts flight internationally. All aircraft are required to be individual or fleet station licensed, even if they carry only an emergency locator beacon.

Today's modern aircraft radiates, and is susceptible to lots of EMF as they say "from DC to blue light".

This presentation will help understand the systems, spectrum, diversity of protocols, power levels and safety issues associated with these emissions so that you can understand and avoid signals, in the hopes of avoiding interference and have some fun listening in on some of these signals.

**TALARC Monthly Nets**

EchoLink, 20-Meter, and IRLP Nets meet the 2nd Saturday of each month.

40-Meter Net meets the 3rd Sunday of each month.

D-Star Nets meet the 1st and 3rd Mondays of each month.

Note: Access to the \*FMCA-ARC\* EchoLink Conference Node cannot be made via a Repeater.

Mode	Day	Date	Time [Zulu]	Band	Where to find the Net
EchoLink	Saturday	June 11	12 Noon ET [1600Z]		*FMCA-ARC* Conference
HF	Saturday	June 11	1:00 PM ET [1700Z]	20 meters	14.275 MHz [ +/- 5 KHz]
IRLP	Saturday	June 11	2:00 PM ET [1800Z]	2 meters	Node 9735 [K9DC-Indy]
HF	Sunday	June 19	6:00 PM ET [2200Z]	40 meters	7.243 MHz [ +/- 5 KHz]
D-Star	Monday	June 20	9:00 PM ET [0100Z]		REF 026A
D-Star	Monday	July 4	9:00 PM ET [0100Z]		REF 026A

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**