

# ARC-SHORTS

September 2016

Club Repeaters: 147.315 (PL 107.2), 444.6 (PL107.2), 224.82 (PL107.2), 53.13 (PL107.2) 927.6 (-25Mhz, PL107.2), and 1282.600 (PL 107.2), DSTAR 145.38Mhz, 442.060, and 1284.600 ALL AR UP AND RUNNING – HAM IT UP! Get on the air!

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## **NEXT CLUB MEETING**

Our next meeting is SEPTEMBER 9<sup>th</sup>. Jack, KE7VOU will give us a program and demo on JT65. Jack was sick last month, so we hope to catch up with his presentation and demonstration. N4ASX will set up the OTHER station so we can make a connection on JT65 so Jack can show us what makes JT65 a good mode.

## **President's Corner**

Hello, all. The dog days of summer are lingering on despite the end of August. That also means that a major event, the Marine Corps Marathon, is coming up. This year it's on October 30th. If you want to try out a public service event, you can't fail with the marathon. You can get by on some positions with as little as a dual band analog handheld. The web site is [www.marinemarathon.com](http://www.marinemarathon.com), if you're interested in reading up.

73 DE KI4BXU

## **ELMERS CORNER**

Last issue I went over how to size your power supply. This time I want to talk a little about antennas and feedlines.

Antennas have two elements, one is the radiator and the other is the other half of the dipole. For Vertical antennas the ground or the chassis of the handheld acts as the other element. For your handheld the feed is wired to the connector on the radio and you don't have to worry about it. You can add a tiger tail to a handheld which is a quarterwave length of hookup wire to the ground side of the antenna connector (using a ring connector) and that will give you a match element on the ground side (or tuned counterpoise) and this will improve the efficiency and match of the antenna on the handheld.

For HF antennas, you need to think about the feedline as well. MOST HF radios have a coax connector output. This implies that the output impedance of the radio is 50 ohms. So, you would need 50-ohm coax to go to the antenna. If your feeding a commercial antenna, a vertical antenna or a dipole that's simple and the coax goes to the antenna and your good to go. If you need an antenna hat tunes to all our HF bands they you may find that the G5RV or Carolina Windom are good alternatives. The G5RV is made up of two horizontal elements 51 feet long feed by 34' of twin lead feed line. Twin lead feed line is very efficient, but it is susceptible to interference by close metal objects including the side of your house metal structures and other conducting objects. For the G5RV you want the 34' of twin lead to hang free of any other structures. Most commercial G5RVs have a 4:1 balun (Balanced to Unbalanced) transformer at the end of the twin lead that allows you to use coax to bring the signal into the house. If you want to bring twin lead into the house you need to make up a non-conducting plate with two insulated feeds going into the house. To feed the radio you will again need some balun to go to the radio with coax. TV Twin lead (if you can find it) was 300 ohms, you can still buy 450-ohm ladder line (twin lead) more easily, so a 4:1 balun will cut that down to 112 ohms which can be match with your antenna tuner. For the G5RV the twin lead acts as part of the total antenna and should match easily on the amateur bands. The Carolina Windoms are dipoles with two different length elements where one is close to resonance at some bands and the other at other bands, so a tuner can allow for minor match adjustments.

Antenna basics, balanced antennas like dipoles, G5RVs and Windoms can be fed with either twin lead or coax. If feed with coax a balun (balanced to unbalanced) transformer may help. If you put up a vertical antenna you will need a ground plane made up of wire lengths added on the ground side for each band you wish to operate on. Some have used just one as a 'counterpoise' or the other half of a dipole with the other half being a mobile whip. It works, but if you can put more  $\frac{1}{4}$  wave elements on the ground side your efficiency will increase. Some put as many ground radials as they can under their vertical and put them down for 10 meters, 20 meters, 40/15 meters ( $\frac{1}{4}$  and  $\frac{3}{4}$  wave length) and 75 or 80 meters. So if you put out 16 radials you will have a passable match. The more the better.

Hope this helps.

73 Rick  
N4ASX

### **AUGUST MEETING MINUTES.**

Jack was scheduled to give us a JT65 program and demonstration but he was sick, so we imposed upon Mark KM4GML to provide us some insights into the raspberry pie computer. Mark out did himself and it was a very good program with lots of club interest. We will have to revisit this as more. The raspberry pie computer is inexpensive and had ports for USBs, Bluetooth, WIFI, camera and memory is a memory card like that used in your cell phone or digital camera. It has a free operating system and you program it in a form of Unix.

### **Hamfests –**

The Virginia Beach Hamfest is on September 10, 2016. Location is the VA Beach Convention Center, right off I-264 in the heart of VA Beach. They have an arrangement with a hotel right next to the convention center for special room rates if you need one. Talk-in on the 146.970 (PL 141.3) MHz repeater.

As you may have seen on ARRL, Eham, QRZ and other ham radio related websites, as well as the club email reflector, the Hara Arena, home of the Dayton Hamvention since 1964, closed at the end of August.

The folks at Dayton Amateur Radio Association announced the new location for Hamvention 2017 is the Greene County Fairgrounds in Xenia, OH. If you have been following the discussions on the ham radio websites, there have been some naysayers that have decided the new venue will doom Hamvention. Time will tell. If you haven't seen it, ARRL posted a video tour of the new venue on their website.

The Columbia Amateur Radio Association CARAfest comes up on October 9 at the Howard County Fairgrounds in West Friendship, MD.. It's a short drive from Alexandria and it's right off Maryland Route 32 and 144 and I-70. Talk-in on 147.39 repeater (PL 156.7 Hz).

### **Training -**

Our next class is scheduled to start September 27 and end December 6, 2016. If you know of somebody who has wanted to be ham, let them know about our class. The cost is still just \$50, which includes the book, test fee and class materials.

We are signing up students, but there are still plenty of spaces available.

### **Contests -**

September 10 through 12 – ARRL VHF Contest. All VHF bands above 50 MHz. Exchange is 4-character grid square. Most of us are in FM18.

September 17 and 18 – New Jersey QSO Party. Exchange is RST and state.

September 17 and 18 – New Hampshire QSO Party. Exchange is RST and state.

September 17 and 18 – Washington State Salmon Run. Exchange is RST and state.

September 24 and 25 – Maine QSO Party. Exchange is RST and state.

September 24 and 25 – Texas QSO Party. Exchange is RST and state.

October 1 and 2 – California QSO Party. Exchange is serial number and state.

October 8 and 9 – Pennsylvania QSO Party. Exchange is serial number and ARRL section

October 8 and 9 – Arizona QSO Party. Exchange is serial number and state.

October 9 – North American SSB Sprint. Exchange is the other station's call, your call, serial number, your name and your state.

As always, ham it up and get on the air.

73,

Rich, KA4GFY

### **MARINE CORPS MARATHON**

Marine Corps Marathon is in October, but the volunteer website is up. It's an ALL DAY event, MCM needs over 130 volunteers. If you can, sign up. If you work on the Virginia side of the course you will need to be checked in before 4AM. For those on the DC side, you may be able to check in as late as 6AM. When the race passes your post you will be able to leave. Assignments are based on your equipment, experience and your request. When you fill out the volunteer form you can request your assignment. This is the last month to volunteer. Go to [WWW.MARINEMARATHON.COM](http://WWW.MARINEMARATHON.COM) and go to volunteer and there is a menu that allows you to select HAM and that will walk you through the process. If you only have a handheld they can find you an assignment where that is all you need..

73 Rick

### **Future Programs**

September - JT65 and other digital HF operations (see Jack's notes above)

October – ARES ops and City interface

November - Club Elections

December – Club Party

January – Direction Finding (tent.)

February – VHF Contesting (tent.)

March – Antenna modeling (tent.)

April - ??

May – Field Day Planning

June - ??

July - ??

August - ??

Sept. \_ ??

Let me know what you want to hear about. HELP!!!! If you have an idea for a program, please let Rick know and he will try to find someone to provide the program.

### **Social Events**

Monday Night Burgers – There is a group that gets together at 6:15 PM on Mondays at a local burger joint. Mark up on the 147.315 repeater and join them for the fun. Mark up on the repeater about 6PM and join the group. The location does change! IF you have a good spot, you might make a suggestion.