

# ACARC

## Azalea Coast Amateur Radio Club

April 2015  
Newsletter

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### ACARC Organization

#### President

Charlie Vaughan  
(K4UWH)

#### Vice President

Harvey Hutchison  
(NKOS)

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### Azalea Festival Special Event Update

The AC4RC Azalea Festival Special Event Station came and went on April 9th – 12th . As of the writing of this newsletter, the club had logged close to 600 contacts! A fantastic number seeing how this was an inaugural event for our club. A couple hours were logged from the Battleship North Carolina (BB-55) station (N14BK) giving some lucky contacts a two-fer. All around it was a good event, band conditions notwithstanding. Stats from Hutch so far (awaiting more log submissions):

Total QSO:	594			
Countries:	MIX: 37	PHO: 24	CW: 03	DIG: 22
Zones:	MIX: 21	PHO: 16	CW: 04	DIG: 13
States:	MIX: 46	PHO: 43	CW: 18	DIG: 28
Prefixes:	MIX: 236	PHO: 179	CW: 32	DIG: 102

A big tip of the hat to Linwood Todd (NT4F) for creating and implementing the special event station and all of the operators who participated. Another thanks to Harvey Hutchison (NKOS) who is collecting the log files for submission.



### Upcoming Events

April 21<sup>st</sup> – ACARC Monthly Meeting 7:00PM  
Topic: Antennas used in South America

May 19<sup>th</sup> – ACARC Monthly Meeting 7:00PM  
Topic: TBA

June 6<sup>th</sup> – Museum Ships Weekend

## 6 Meter Extended Double Zepp

The Six Meter Extended Double Zepp is a very easy and inexpensive antenna for the 6 meter buff to build in about an hour or less and will add about 3 db to your signal from it's broadside bi-directional pattern when installed about a half wave up from the ground. You might call it a dipole with gain!

The wire for the main two halves of the antenna can be any strong wire size such as #14 stranded copper. The lead-in to the tuner can be 300 ohm "twin lead", regular lamp cord split in half or 450 ohm ladder line.

Keep the antenna and all of its parts including the line going to the tuner as far away from metal objects as possible to prevent pattern distortion, detuning, and swr problems. Support the antenna from ropes or cord of the proper length to trees, buildings, etc from the end insulators and as high as possible. Standard "egg" insulators or any other type of insulator (non-conductive) can be used on the ends and in the center.

NOTE: Cut the lengths for the horizontal sections about one foot longer than the actual lengths shown in the picture below so you will have enough wire to wrap thru the insulators and then back on itself and tied tightly.

Solder the connections at the center insulator and seal well with electrical tape and some kind of sealer appropriate for outdoor use. (you want to make the connections water tight if possible).

Attach the ends of the down lead to the "balanced" terminals of your tuner, fire up your 6 meter rig on 50.200mhz AM, using just enough power to check swr per normal procedures and trim antenna as needed for lowest swr as with any antenna project.

Since this is an Extended Double Zepp design, each half of the antenna is 5/8 wavelength long. If you remember, a half wave dipole length is calculated using the formula  $468/\text{freq in mhz} = \text{total length in feet}$ . A half wave when converted to decimals = .5 and a full wave = 1.0. Therefore we can determine what 5/8's wave length long would be by first converting the formula above to a full wave length,  $468 \times 2 = 936$ . SO,  $936/\text{our freq in mhz}$  would give us the total length of a full wave length antenna, but we are looking for 5/8's of one wave length for each side so we have to determine what 1/8 of one wave length is and then multiply by 5.

Example:

Divide 936 by 8 (number of 8ths in one wavelength) = 117 for 1/8 wave length.

We're looking for the 5/8's formula so:

if  $117 = 1/8$  then  $5 \times 117 = 585$  (our magic number!)

So using this new found number substituted in the formula we have:  $585/50.2\text{mhz} = 11.65$  feet per side. Since we have decimals in use, .65 is the same as saying 65%. Simply multiply 12 inches  $\times .65 = 7.8$  inches! Our length for one half of the antenna is = 11 feet + 7.8 inches = 11 feet 7.8 inches per side or rounded off.....11 feet 8 inches!

Courtesy of N4UJW

