

ACARC

Azalea Coast Amateur Radio Club

September 2015
Newsletter



ACARC

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Pete Long
(WB3FYR)

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Newsletter

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Azalea Coast Amateur Radio Club

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www.ac4rc.org

From The Top



During the club meeting introductions, attendees were asked what they think of a topic they would like to see discussed during a future club meeting program. The topics suggested included: County Hunting, JT65, EMP (electromagnetic pulse), Satellite Tracking Software, Internet linking (Echolink, Allstar, existing nets), Club History, Grounding, Artificial Grounds, Mesh Networks and Antennas.

Since some club members are already dedicated county hunters perhaps we can ask them to discuss exactly what is county hunting, what organizations have county awards, why/how they got interested in this and their particular way they go about county hunting (like bands, times, etc). Other topics may have to be researched and a presentation made on what the presenter found out. During the meeting some members may have a piece of info that may clarify a point but all may leave the meeting at least with knowledge of a new amateur radio area – for me Mesh Networks (I know more of what I don't know).

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If you have an idea for a topic...or would be willing to present a topic, let me know! Thanks.
– Pete (WB3FYR)

Upcoming Important Events

Sep 5 th -6 th	Shelby Hamfest/ARRL Roanoke Division Convention
Sep 12 th	Virginia Beach Hamfest
Sep 15 th	ACARC Monthly Meeting 7:00PM CFCC North Campus
Oct 10 th	VE Test Session 10:00AM CFCC North Campus
Oct 17 th	Beach2Battleship Triathlon
Oct 20 th	ACARC Monthly Meeting 7:00PM CFCC North Campus

In Our Thoughts...

Norman (KI4YSY) – spouse had surgery and is recovering well.

Allan (KX2H) – our condolences on the death of his son.

Birthdays

September 1 st	Mary Anne KK4QMZ
September 5 th	Tammy KK4QNA
September 18 th	George KM4DSI

Bravo Zulu



Bravo Zulu is a naval signal, typically conveyed by flaghoist or voice radio, meaning "Well Done"

VE Testing conducted August 8th produced 1 new Technician, 2 new Generals and 2 new Extras. Congratulations to all and a thanks to the VE's for being there.

Jack (WD4OIN) surpassed the 100 mark in the number of VE test sessions he has participated in. Way to go Jack and thank you for your diligence!

Portable Operations

by Linwood Todd (NT4F)

Field day is over for this year. But the idea of setting up a portable (emergency station) can go on for as long as you like. Jeff (W4BIX) and I have recently been talking about portable operations in and or around Wilmington. What a great way to enhance your Ham radio experience. Grab your HF radio, a power source (generator, battery... etc.), and a portable antenna and on a Saturday or Sunday (or weekday if you can) take off and go somewhere, set-up and operate. As the weather gets cooler the more fun you can have. I have listed a couple of ideas below that you might find interesting.

Since we live on the coast, **Islands On The Air (IOTA)** would be a good fit for us, but if you like to travel a few miles and really see the leaves start to change, **Summits On The Air (SOTA)** might be for you and your significant other for a weekend get-away. For Six Meters, Two Meters and 432 MHz, don't forget that FM13 is a rare grid square and is located from the traffic light at Kure Beach south to just past the ferry terminal. The ferry terminal on the Southport side is also in FM13, but just barely.

Don't forget how easy it is to do digital portable operations also. Low power and not much of an antenna will get you a lot of contacts on JT-65/JT-9 PSK-31 and many of the other digital modes. So get up out of the easy chair and let's go portable!

IOTA: Islands On The Air

The "Islands On The Air" award, started by Geoff Watts and now run by the RSGB, is a popular award for Amateur Radio operators, where the objective is to contact Ham Radio operators transmitting from offshore islands throughout the world. There

is also an associated contest each July, where operators make a special effort to put as many islands as possible on the air, often with the use of portable and battery-powered equipment.

<http://www.usislands.org/directory/directory.html>
#NC

Summits On The Air (SOTA)

SOTA is an amateur radio operating award program. Its aim is to encourage operation from mountainous locations. Licensed amateur radio operators combine mountain climbing or hiking with operating their radios from the summits of hills and mountains.

Those who set up a station on a summit are known as activators and those who work, or contact, summit stations are known as chasers. Similarly, there are two types of award that can be received: One for the activator of the summit and one for the chaser (the operator in contact with the summit).

Points are awarded for operating from a summit or for working a station on a summit. The higher the mountain is, the more points the operator receives.

Go to this website to find the registered NC summits:

<http://sotadata.org.uk/summits.aspx>

As of July 2015, over 73,500 summits have been registered and been given point values in the SOTA program. Various Awards and Certificates are available to record achievements within the SOTA program:

- Certificates are available for gaining 100, 250, 500, 1000 points (Activators and Chasers);
- At 1,000 points Activators achieve Mountain Goat status and Chasers/SWLs are Shack Sloths;
- SOTA Uniques Awards - the SOTA Uniques is a count of the number of different summits in an activator's, chaser's or SWL's record;

- Mountain Explorer Award - the essence of the award is to recognize the activation and qualification of Summits in a number of different associations;
- Mountain Hunter Award - chaser should contact (or hear for the SWL award) at least 2 different summits in each of 5 associations.

The Summits on the Air amateur radio award program was the idea of John Linford (G3WGV). Although he had the idea many years ago, it was not until he ran across the European Adventure Radio website run by Richard Newstead (G3CWI) to which he put the idea down on paper. They collaborated over a period of nine months to launch the award. Many aspects of the original idea were refined (and often changed completely). One key factor that had to be clarified was the definition of a "summit". This problem was eventually solved when Richard ran across the Marilyn's hill list issued by Alan Dawson. This list is based on the concept of topographic prominence which gave an objective basis for the SOTA award scheme.

Early drafts of the rules for the award were discussed and dissected on a public internet group. The award was forward-looking in using the internet as a platform and was one of the first amateur radio awards to be entirely online. The success of the award is in no small part due to the work done by Gary Bleads G0HJQ in developing the underlying database. Gary was one of several people who made significant contributions to getting the award started.

The award program launched on 2 March 2002. England and Wales launched first, soon to be followed by the Isle of Man and Scotland.

For more information, go to:

<http://www.sota.org.uk/FAQs>

My Vacation

by Jack Jacobs (WD4OIN)

I just had a great vacation! I combined vacation and Ham Radio. I drove to Branson, Mo. to see some good shows of all kinds. On the drive out I took I-40 to Tennessee and then up to Kentucky and across the bottom of Missouri to Branson. On the drive back, I left Branson and went south to Arkansas and travelled across the top of Arkansas and came back to I-40 at a different location in Tennessee. This is known as the county hunter route. I was able to see a lot of the country, put out 50 counties along the way and make 600 qso's with bad band conditions. I think we stopped at every quilt and fabric store along the route. I had a good time, the ladies had a good time and all returned in good spirits!



1990 Field Day

NC MOUNTAIN STATE FAIR AND SPECIAL EVENT STATION, N4F

The following report was received from Philip Jenkins, N4HF: "It's time (again) to come to the NC Mountain State Fair – N4F! Yes, once again, those rascally rapsclions of The Road Show ARC – and at least four other area/regional ham clubs: Lenoir ARC, Blue Ridge ARC, Haywood County ARC, and Cleveland County ARS – are spearheading a Special Event Station AND a visitor's tent to introduce ham radio to the general public at the NC Mountain

State Fair, **Sept 11th – 20th**, near Asheville. And we're inviting other clubs/individuals to join us in getting out the word about amateur radio. (P.S. It isn't THAT far to travel; the president of the Atlanta Radio Club has, for the past two years, driven 200 miles to help out!)

In 2013, we had a large tent for the general public with information and demonstrations, including: D-STAR; Echolink; IRLP; APRS; WinLink; MARS; an SDR receiver (paired with a Drake tube transmitter!); a MESH (Broadband- Hamnet) network with cameras linked to the internet; videos on the history and contributions of ham radio, and the facets of ham radio; and, a quite popular 2 meter GOTA station. Behind the tent, there was a smaller operations trailer where the Special Event Station contacts were made. Icom generously loaned the Road Show ARC two high-end HF rigs, a D-STAR mobile rig, and a D-STAR HT. In 2014, we dropped a couple of displays in the tent but added a kit-building/rig-repair desk to show we can and do build some of our equipment (like a kit we got from TenTec). Icom generously loaned us the same radios as the previous year for the Special Event station, but Elecraft upped the ante by letting us operate a K3/100 in the visitor's tent.

This year, we welcome ham visitors from wherever – not just western NC, or even NC – to come and visit, to help with logistics (set up, breakdown) and operating, and especially, to answer questions from our non-ham visitors and explain the demonstrations of various facets of ham radio. We had visitors in 2013 and 2014 who had been inactive, but are now on the air again; visitors who had never heard of ham radio, but are now licensed; and, visitors who had always wanted to get into ham radio, but had been putting it off or didn't know any hams, etc. Our goal for the Fair each year was to license 50 new hams. We know of at least 25 individuals who got their license, either directly or indirectly, because of the Fair in 2013, and we did even better in 2014. So we're soliciting your help and expertise to expose even more people to our great hobby. Want to see what we did last year? Check out ww.HamRadioNow.tv - episode 171. Want to read details about what we did and how to do it in your own radio club? Check

out the upcoming September 2015 QST. Want more info, or want to help out? Contact Philip Jenkins via email at n4hf@arrl.net or check out:

www.theroadshowarc.com

Thanks to Philip Jenkins, N4HF, an ARRL-trained Public Information Officer for providing this report! For further information on the NC Mountain State Fair, see:

<http://www.wncagcenter.org/p/mountainstatefair>

Presentation

By Pete Long (WB3FYR)

During the meeting I talked about have a short presentation that may take a just few minutes. As an example I mentioned a battery test with a VOM (everybody has battery so this is a general topic). I was going to access and show a YouTube video but access was not available that night. So I'll give you the links now and let you see for yourself.

Battery Test

Short video with couple batteries:

https://www.youtube.com/watch?v=Y_m6p99I6ME

Shorter video with lots of batteries:

<https://www.youtube.com/watch?v=ZywsCbWEun8>

If you find something that would interest you as a ham probably it would be of interest to other members of the club. Why don't you type something up and send it to the Club Newsletter via Jeff (acarcnews@gmail.com) – Word or text file would be appreciated. If it will take some discussion let me or Hutch know that you have a topic and we'll put it on the schedule.

I also mentioned during the meeting about much deeper topic that may take several club meetings to present even just the briefest overview. The example was Twisted Radio Waves or OAM Communications/Multiplexing or just Orbital

Angular Momentum – changes to a physical attribute of radio waves. I heard about this from a news article some years ago that said a professor send and received two signals on the same frequency. Bo Thide was his name and he is, coincidentally, an amateur radio operator – that caught my eye.

If you are interested I found a 20+ plus minute YouTube presentation that is an introduction to this topic. See

<https://www.youtube.com/watch?v=D40gKUWwx7A>

There are other video web presentations on OAM but there isn't a "Dummies" yet – this is leading edge stuff. There are also presentations stating that this is a bunch of baloney. Nevertheless this is a topic that I (or someone else) could present over one or two meetings even while not understanding it, but everyone leaving the meeting will at least know the topic exists and it may sometime in the future impact amateur radio.

Health And Wellness

By George Morse (KM4DSI)

Hello Fellow Hams,

I have accepted the Committee Coordinator of Health and Wellness for the ACARC. What that means is that I will be responsible for sending Birthday, Get Well and Sympathy Cards to members and sometimes the family of members.

Here's The Procedure

Send the following information to ACARC Health and Wellness, George Morse at :

morsegm@gmail.com

- Your birthday date (month and day only)
- As it occurs, the name of any member or members family who is not well
- As it occurs, the name of any member who has lost a loved one

I will mail appropriate cards to all.

Your birthday will also appear in a new section in the Newsletter of your Birth Month

73

George

Your Ham Radio Go Kit

Would you be ready if a call came from your local emergency communications (emcomm) group to provide some ham radio expertise for a day or so? Items in the following list are the basics of what should be in your radio go kit. Now is a good time to check your supplies and be prepared! Don't forget to put together a personal go kit, too.

- Dual-band (VHF/UHF) handheld radio and mini manual
- Full-size flexible whip antenna
- Copy of your Federal Communications Commission (FCC) license and any emcomm IDs
- Mag-mount antenna with necessary adapters for connecting to various connectors
- Extra battery packs and charger
- AA-cell battery pack if available and fresh batteries
- AC power supply and cigarette-plug cord with spare fuses
- Headset with microphone (preferred) or speaker-mic
- Copy of your local emcomm frequencies, phone numbers, and procedures
- Pocket knife and/or multipurpose tool
- Flashlight or headlamp and spare batteries
- Pencil and notebook, clipboard, and permanent marker
- Duct tape, electrical tape, and a few small cable ties
- Cash for food, gas (about \$40 in small bills and change – power may be out and businesses may be on a cash-basis only)

Virginia Beach Hamfest & Electronics Show

Saturday, Sept 12 2015

VB Convention Center

9am til 4 pm, Early tickets entrance at 8:30am

Tickets \$10 at the door

The annual VB Hamfest and Electronics Show is coming in less than 1 month. Please put the date on your calendar and come visit us. The show is 5 blocks from the ocean and our weather is perfect this time of the year. We have motel info on the attached flyer. Come down for the weekend and spend Saturday with us.

There will be forums (ARRL, QCWA, PVRC and VADXCC) and ARRL Testing in the morning for all licenses. Visit our website (www.vbhamfest.com) for the up to date info on events and vendors.

There will be a dinner on Saturday night in which you need to make a reservation for. At 6pm that evening we will have a VADXCC BANQUET at the Providence Square Grill, 941 Profair Way, (Providence Square Shopping Center), Virginia Beach, Va. 23465. Our featured speaker will be Bob Eshleman, W4DR, with a super presentation on his 1950's DX-pedition to NAVASSA. It will be order from the menu and enjoy some great company. We are asking for a nose count as seating is limited. Right now we have 13 signed up. So please contact Charlie, W1WTG, at 757-681-4190 w1wtg@arrl.net or Ed, KN4KL, at kn4kl@arrl.net to make your reservation.

A MAJOR change this year is NO TAILGAITING. We had to move to a different location at the Convention Center and there is no outside parking near us to have the outside stuff.

You can rent a table indoors and unload Saturday morning early and enjoy the air conditioning.

Letters to the Editor

Opinions expressed here are not necessarily that of the newsletter or the Azalea Coast Amateur Radio Club as a whole. We welcome all opinions and encourage members to add to the discussion...whatever it may be. The newsletter reserves the right whether to publish letters or not.

Let's Revisit the Purpose of the Azalea Coast Amateur Radio Club

by Charlie Vaughan (K4UWH)

It seems that it is time to collectively review and become grounded in the founding documents of ACARC found on the club's web page (<http://www.ac4rc.org>). I repeat a key portion here:

It shall be our purpose to further the exchange of information and cooperation among members, to promote radio knowledge, fraternalism and individual operating efficiency, to promote and provide service to the community at large, and to so conduct club programs and activities as to advance the general interest and welfare of Amateur Radio in the community.

We are not a financial organization and therefore asking the question "how much money do we have to spend" is totally inappropriate unless the question is associated with a well-defined project within the bounds of the club constitution. The question has been asked inappropriately lately. Further a number of the proposed projects seem to involve things that the individual club members would take care of as individuals.

It is the responsibility of the club officers to see that the activities of the club are conducted and maintained within the scope of the constitution. The constitution and By-laws define the process for conducting business in support of the club objectives.

For those that are concerned, the club treasury has remained fairly constant over the years. This means that the expenses for the club on an annual basis are offset by the member dues. The Treasurer prepares a budget for the upcoming year; it is presented to the membership and approved.

Get connected with your club and if you have a good idea for the club, flesh it out and by all means bring it up for consideration.

Test Preparation

by Jeff Bixby (W4BIX)

Some took exception to the test preparation article presented in last month's newsletter as the wrong way to prepare for the exams. Too much stock placed in memorizing test questions and answers they say. There are many ways to prepare for the exams and that was just one of the common and (like it or not) widely accepted ways of preparation.

In an effort to project a fair and balanced opinion, I offer a different way to prepare. One perhaps a better way to understand the material you are studying for the exam.

ARRL produces excellent test preparation manuals, The ARRL Ham Radio License Manual series which can be obtained directly from the ARRL or from dealers such as Amazon, Barnes & Noble or many ham radio equipment dealers. There is also a Kindle edition available! Each manual is geared towards studying for a specific test – the Technician, General, and Extra license exams. In addition to the written manual, ARRL offers on its website a review section for the exam as well as practice tests. These manuals cover all of the exam areas in great detail giving the student in-depth knowledge of each subject – a lot more than just memorizing test questions as other manuals present. Go to the ARRL website for more information – www.arrl.org

