

The Signal Report

A Publication of the Greenwood Amateur Radio Society

VOLUME 14 ISSUE 6

JUNE 2018

[HTTP://WWW.W4GWD.ORG](http://www.w4gwd.org)

W4GWD@ARRL.NET

2018 CLUB OFFICERS

President

David Russ, K4DWR

Vice President

Adam Shirley, WJ4X

Secretary

George Crane, W3RXF

Treasurer

Tedd Davison, AI4WN

Repeater Trustee

Buddy Willis, W4DEW

Activities Manager

Kevan Nason, N4XL

Editor in Chief

Michael Wills, KA4CSM

The W4GWD Repeater Network

147.165+ t107.2

Echolink: 584003

443.900+ t107.2

W4GWM/R

145.420- DV

W4DEW/R

146.910- t123.0

WJ4X/R

442.600+ t107.2 / DV

Infrastructure Update

Analog Repeaters are up.

DMR and D-Star is up.

Fusion is up.

Echolink is down, maybe for an extended time.

APRS iGate is up.

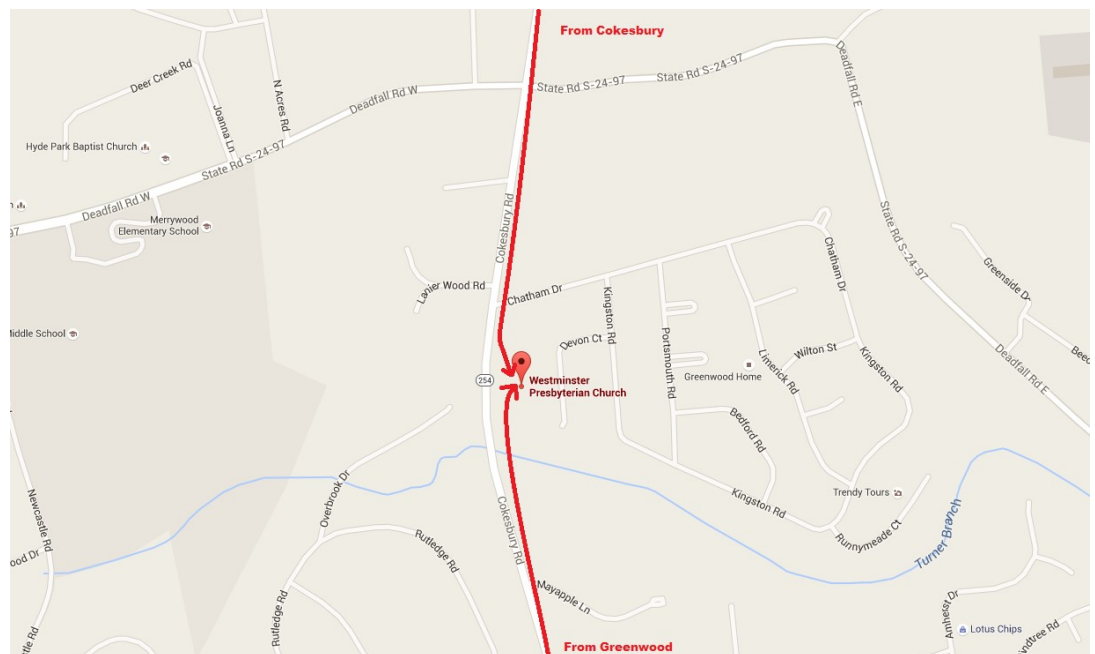
Packet Node is down when up it is connected to the Carolinas Packet System 145.010

Downtown Digi is up and operational

Repeater Linking Project—Linked now (undergoing testing)

June Meeting

Our Club meets at the Westminster Presbyterian Church, located at 2330 Cokesbury Rd, Greenwood, SC. We meet on the 2nd Tuesday of each month which will be the 12th of this month. Meeting starts at 7:30 Sharp.





facebook.com/
GreenwoodARS

If you have any ideas for books you'd
 like to see in the GARS Library,
 Contact Mitch KJ4JGP

Phil's Corner:

Hamisms #364

CQ, CQ,
CQ

...QRL?

Greenwood Amateur Society Events:

Chat 'N' Chew

Every Friday at 11:30am the members of the Greenwood Amateur Radio society meet at a local restaurant. Please check in to our Thursday radio net weekly, as locations change. Everyone is welcome to have lunch or sip your favorite beverage

Weekly Nets

The Greenwood Amateur Radio Society holds our weekly 2 meter net each Thursday night at 9 p.m. on 147.165 with a plus .6 mhz offset

Our UHF net is on 443.900 with a + 5 mhz offset is held Mondays at 8pm

Help spread the word for everyone to check-in to our net. If you would like to fill in or be a backup net control please contact Tedd Davison ai4wn@arrl.net

VE Exam Session

The GARS ARRL Volunteer Examiners (VE) Team will have an exam session 7:00pm Tuesday, June 5th at the Westminster Presbyterian Church. The address is 2330 Cokesbury Rd Greenwood SC 29649-9515 We hope to see you there. Please contact Buddy Willis W4DEW w4dew@arrl.net

Congratulations!!

Happy Birthday!

Jim Cox	W3COX	6-1
Kevan Nason	N4XL	6-5
David Russ	K4DWR	6-9
Adam Shirley	WJ4X	6-15
Amy Bagwell	Family member	6-20
George Crane	W3RFX	6-20
Diantha Litwer	N4DLL	6-24

Happy Anniversary!

Mike & Sherree Wills
6-2
Earl & Betty Jean Powell
6-5
Tedd & Gail Davison
6-15

Are you an ARRL Member? Joining ARRL helps protect our rights as Amateur Radio Operators as well as providing education, QSL Bureau, technical advise, and the ARRL VEC. <http://www.arrl.org>



Given the recent popularity of FT8, I'm sure that there are those who think it would adapt well to emergency communications due to its forward error correction and low power requirements. The truth though is that due to its dependency on precise internet time synchronization, its 13 character message limitation and its inability to operate a net, it's not currently well suited for emergency communications.

D-Star has been a popular technology for digital HAM communications since its development in the 90's. D-Star radio networks are used to support ARES and RACES operations. If there is a D-Star repeater in your area and there are other HAM's with Icom radios that you need to communicate with, it could be a good option in a disaster.

A new development over the past few years in HAM radio has been the development of HAM Mesh networks which use wireless router devices connected to computers to use HAM frequencies to create ad hoc Mesh Networks between computers. Two popular types of HAM Mesh networks are the Broadband-Hamnet (www.broadband-hamnet.org) and the Amateur Radio Emergency Data Network (<https://www.aredn.org>). These HAM Mesh networks allow HAM's within a local area to send text messages, transfer files and even setup Voice over IP (VOIP) telephone connections. HAM Mesh networks are becoming more popular due to the availability of wireless internet router devices that can be reprogrammed to support HAM Mesh networks.

The last communication method between HAMS that we'll look at is good old fashioned HF phone communications. HAMS can use their HF radios to communicate from within an affected disaster area directly. In order to do so, the HAMS should establish ahead of time a list of frequencies and times to attempt contact. Given the fact that band conditions are always subject to change, the list should include fallback times on other bands in case you fail to make contact at the first time. Your frequency list could also include pass phrase challenges and responses. The challenge and response phrases can be used in order to verify that you are talking to the correct HAM if you need to communicate through a relay station. These frequencies should be shared ahead of time with all HAM's who are in your communications plan and should be tested regularly in order to make sure that you aren't using frequencies that may be used by nets or other regular communications.

Now that we've looked at ways that HAMS could communicate with other HAMS, let's now look at the need for an individual HAM to communicate with non-HAMS.

While HAM radio is very popular, not everyone has a HAM license. So you will probably have friends and family who you would like to communicate with in an emergency who won't have access to the same communication systems that you do. A part of your communications planning should be to have access to methods to communicate with non-HAMS. For your local community or neighborhood, the people who live around you could be the first responders to those in need. You should talk to your neighbors ahead of a disaster or weather event in order to establish a plan for handling local communications. This is normally done through the use of hand held radios which operate over publicly accessible frequencies. These types of radios include Family Radio Service (FRS) radios, General Mobile Radio Service (GMRS), Citizens Band (CB) and Multi-Use Radio Service (MURS) radios. These types of radios can be purchased cheaply over the internet and used by anyone without the need for an FCC license to operate. As a HAM, many VHF/UHF radios that we can be programmed to use these frequencies along with HAM frequencies. Using these radios, neighborhood nets can be activated on designated channels and can be used to check on your neighbors to see if anyone needs assistance.

Emergency Communication Planning Part 2 (Continued)

Dan Curry KM4AJ



As a HAM, you should participate in these neighborhood nets in order to relay communications from non-HAMs to emergency services or to send radiograms to their friends and families who may want to know if they are ok. You may also be able to relay information that you receive over shortwave radio broadcasts or HF nets to your neighbors. Given HAMs expertise in radio communications, it may be up to you to organize the neighborhood nets and to help your neighbors get the radios that they need to participate.

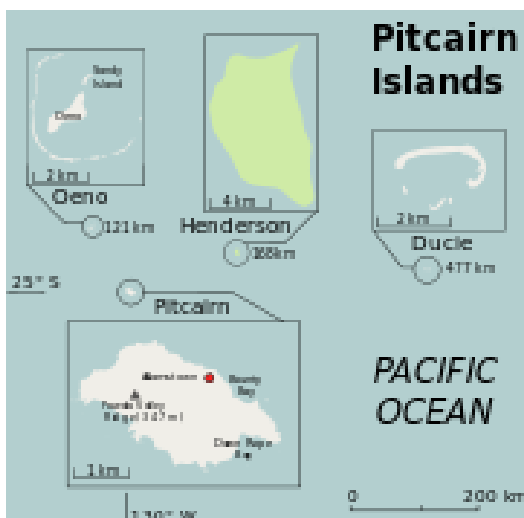
For digital communications the Winlink system (www.winlink.org) may be a good method of communicating with friends and family outside of the affected disaster area. Winlink is an array of radios connected to computers who relay email messages to email servers on the internet. In order to use this system, you need a computer connected to a radio running the Winlink software. The software uses the computer's sound card interface to send a digital signal to a gateway node, which receives the radio signal and relays the message to the main Winlink email server. Using this method, you can send email from your computer to anyone in the world, even if your local internet service is down. As long as you can power your computer and radio, you can send and receive email. Since the person who receives the email on the other end does not need a radio, this can be a good way to send information about your situation to non-HAMs. Since the email is transmitted over the air, bandwidth is limited, so you can't send lengthy emails with file attachments. It is limited to text only. Winlink can be a finicky system to use, so this is something you are going to want to setup and test well ahead of any disaster where you think this may be used. As your neighborhood HAM, the winlink system could be a great way to relay messages from neighbors to their friends and family.

Mesh networks are becoming more and more popular as means to communicate without infrastructure. For non-HAMs new technologies such as the goTenna Mesh devices allow people to use their cell phones when cell towers are down to text message with other goTenna users. The goTenna devices build adhoc mesh networks that allow text messages to relay through nodes to extend the range of the ad hoc network. While these devices aren't cheap, they can be used to allow text messaging within a neighborhood or community in a disaster.

So as you can see, there are many aspects of emergency communications that are available to the individual HAM beyond ARES, RACES and MARS. The main thing to think about is what your needs will be in a disaster situation, organize with others and practice these methods so that you will be ready to use radio communications to benefit you and your family in an emergency situation.



GARS newsletters all the way back to January 2015 are available on the clubs webpage <http://W4GWD.org>. They can be a great source of information, check them out!



TRUE DUCIE ISLAND STORY

The scenario -- VP6DI has been on the air for a few days and being a new DXCC entity, the whole world (plus a couple of other worlds) is trying for a contact. Its early morning (1630Z) and Ducie has not made an appearance, the frequency at 21.295 MHz is dead quiet.

- ▶ Hello CQ CQ CQ here is W4OLDTIMER, calling CQ and tuning
- ▶ W4OLDTIMER Here is VP6DI
- ▶ VP6 didn't get the rest of the call -- guess you are in Bermuda, I'll turn the beam -- Handle here is Frank
- ▶ Well Frank good to contact you - very good morning -- we are not on Bermuda, we are a DXpedition on Ducie Island
- ▶ HMM Where is Ducie Island
- ▶ BABBLE GROUSE WHAT'S HE DOING ETC -- From The Anxious Mob Wanting Ducie
- ▶ Ducie is in The Pitcarin Group we are on a DXpedition
- ▶ Oh You are on Pitcarin -- let me turn the beam
- ▶ MORE GENTLE ROUTINE QSO FOLLOWS -- GROUSE SCREAMS THE WAITING MOB.
- ▶ Well Frank, I need to get on with today's DXpedition, with your kind permission, -- can I use the frequency?
- ▶ OH Sure Thing Jim, I used to DX a bit
- ▶ SIGNOFF VP6DI sez QRZ 300 to 310! The band explodes!

WELL DONE DUCIE -- A heart warming story as W4OLDTIMER is 96 Years old and after all it was his frequency!

Don Chamberlain

W9DC

Ham Radio Awards



Below is a handout titled, “Ham Radio Talks,” used by permission by Dr. Don Chamberlain www.w9dc.com who was a speaker at the Anderson Radio Club (ARC) on March 22, 2018 . He discussed the various amateur radio awards a ham can chase.

There are many attractions to Amateur Radio and each ham identifies a particular interest. My particular interest is in operating. I enjoy the challenge which started out seeing how many countries I could work with a poor man’s setup. This is difficult when your station is limited in receiving capability, power and antennas. The rarer countries seem to have hundreds or 1000’s of stations calling. Those who enjoy the chase and are willing to research the details, can manage to sneak a QSO even at very low power. There are a number of tricks and information to make this contact but once you succeed, it is very satisfying.

ARRL Awards- WAS (Work All States) is one of the first awards most hams achieve. It can be a problem finding and working those last couple of states. www.arrl.org/was

DXCC-work all countries is the premier ham award and can be achieved with low power and a limited antenna but to work the rare ones, a big station is really needed. There are presently 340 countries on the Honor Roll list but also a # of deleted countries for various reasons. The latest country is The Republic of Kosovo with the prefix Z6 and have been working everyone the past 5 weeks. www.arrl.org/dxcc **Work all US Counties** – Little power and a dipole and lots of patience as well as some research will help you work all 3077 counties. CQ Magazine requires confirmation with QSL cards but that may change soon either by CQ or MARAC. This is a chance to test your station during the SC QSO party. If you can run mobile, you will find lots of willing takers. www.marac.org You can find active Counties by using the W6RK website. Most mobiles list their activity by the minute. You must act immediately or they could have moved to a new county. Sometimes, parks are also listed along with their county. ch.w6rk.com Another good source of County Hunting information such as needs, trips, frequencies to use is www.countyhunterweb.org.

IOTA-Islands on the Air –IOTA is the second most popular award internationally. The award was created by English SWL Geof Watts in 1964 and then sponsored by the RSGB in 1985. It has just been passed to a group of hams that have upgraded the application process using Club Log and contest QSOs to decrease the need for QSL cards. There are 1200 island groups valid for the award and about 1125 have been activated at least once. The pileups are not as great as DXCC thus allowing weaker stations to make QSOs. The website has all details, valid islands in each group and a way to store your data on the website without charge. All you have to do is register at www.iota-world.org. Or get details at www.w9dc.com **Parks on the Air** (Worldwide Flora and Fauna)- A popular award that anyone could easily participate in either by working the many stations active on the air or actually going to the nearest park and being your own expedition. This is a wonderful opportunity for your club or individual to put out some local parks and work a lot of stations. You not only put out the park but also the county. Such an activity might attract additional members and give your club an added purpose. Check out Wwff.co on the internet.

Arctic and Antarctic Awards- Challenging but very interesting award that identifies the many bases and islands above and below 60 degrees latitude. Activity is limited but do not miss operations. www.french-polar-team.fr and www.waponline.it For example, there have been 31 different countries operate from bases in Antarctica.

Don Chamberlain

W9DC

Ham Radio Awards (Continued)

Lighthouse Awards- There are many lighthouses around the world that are fun to locate and make a QSO. I was one of the directors of the initial award but opted out once abuses by the originator occurred. Best site is www.arlhs.com

Award Sources – The best site for a list of awards is K1BV DX Awards Directory. www.dxawards.com. I have a number of island awards listed on my webpage and DX Zone is also an excellent source for many different awards. www.dxzone.com/catalog/dx_resources/ham_radio_awards/

News Alerts – I use 425 DX Newsletter which emails a weekly activity calendar and news info at no charge. www.425dxn.org Another excellent news source is the Ohio/Penn DX Bulletin. <http://www.papays.com/opdx.html>

Frequency Monitoring- VE3SUN DX Monitor is a versatile site providing needed information on currently active stations as well as providing DX alerts on needed stations. www.ve3sun.com One of the standard ones is DX Summit. www.dxsummit.fi/#/

Suggested sites to be used by every DX chaser to confirm QSOs and obtain credits or QSLs. <http://clublog.org/expeditions.php> and Logbook of the World at <https://lotw.arrl.org>.

Operating Suggestions – First, expand your info on www.QRZ.com including email, website, QSL practices, photos and other PR items. Identify goal or goals (awards) as example: focus on DX but pick up lighthouses, islands, etc when they are found. Read the Award website to know the rules. Review the station website or QRZ data, get info from the Newsletters including planned modes and frequencies. Find band openings when you are available to search and check sites that list active stations. Once found, determine operator's habits such as listening simplex or up and if he listens on one frequency or gradually scans up and back, etc. Does he answer stations that send slow or fast on CW or long calls versus 1 call. Once worked, identify method and time of confirmation and QSL manager, bureau, direct, Club Log, etc. E-QSLs are nice but not accepted by some awards.

If this article has generated any interest in operating, one thought is having your club activate a State or National Park/ County. Put on Club operation by activating 1 or 2 Parks and a rare county in a 1 day activity. Be the Fox rather than the Hound. It is easy to do, not as intense as Field Day and everyone can participate. It could be a picnic with some operating at the same time. There are a lot of rare counties adjacent to Anderson both in SC and Georgia. Portable operation running 100 watts and a vertical antenna using multiple bands and SSB, CW and Digital operation could generate a lot of QSOs including some DX. You need to get a park kff number and then list it on the web so hunters can be alerted. You should list your live activity on a DX and County activity website such as DX Summit and W6RK each time you change bands. If bad weather is predicted, cancel and go another time. Some of the parks have tables that can be used for the operation. Mobile or fixed operation is permitted. Part of the fun is in the research and planning as well as the enjoyment generated in a new event. You are only limited by your interest and imagination.

If you try it and folks have a good time, consider doing it again at a different location. If you do this a few times, you could have a member generate a certificate for working 3 different parks or counties etc. You could ask one of the high schools to identify a few kids to participate which could generate a lot of PR and perhaps some new hams. Local newspapers are always searching for interesting stories. It could generate more interest in the club.



Growing our Club

Everyone welcome back former member Carlis Myers KG4RIT, You can catch him on our 2 meter repeater most mornings between 6:30 and 7:30. And a big **Welcome** to Thomas Keadle, KN4IXH as the newest member our club. He recently upgraded to a “General” License with the Greenwood VE team.



All those who volunteer at Self Regional Hospital. Your last opportunity to recertify is coming up fast. You can meet this annual requirement by attending the last scheduled session at 1100 a.m. on June 19, 2018 in the Nesbit Auditorium. See Tedd Davison AI4WN for details.

Field Day

Repost Field Day Activities

The Greenwood Amateur Radio Society will hold its annual Field Day on June 23, 2018. It will be held at the Coronaca Baptist church, located at 300 Highway 246 N. Greenwood, SC. The day will begin at 0800 with an introduction to the operation of the Clubs radio trailer. This will be a great opportunity to get to learn how to use it and its capabilities. Shortly after that rigs will be set up, and antennas erected/strung up. Later in the day club members will be offering classes on soldering and how to construct a simple antenna. Chef Adam WJ4X will be barbecuing hotdogs and sausages. Marsha KD4AYF, has volunteered to make her famous chili. Lunch will start around 1130 – 1200. Rigs will be operated and participate in field Day contacts.

Field day is an opportunity to showcase amateur radio to the public. Put it on your calendar, invite your family, friends and all your neighbors. Review the origin of Field Day that Tedd AI4WN wrote in the April newsletter.

See you there!

HAMFESTS and EVENTS:

Georgia State Convention/Atlanta Hamfest June 2, 2018
Cobb County Civic Center
[Http://.atlantahamfest.com](http://.atlantahamfest.com)

ARRL Field Day
June 24-25, 2018
Arri.org/field day

CQWW VHF Contest
July 21
www.cqww-vhf.com/

ARRL Kids Day Contest
June 16
Www.arri.org/kids-day

- * **The American Radio Relay League protects our rights as Amateur Radio Operators** <http://www.arri.org>
- * **Support for SERA supports proper coordination!** <http://www.sera.org>
- * **Remember your local and regional interest clubs!**
- * **Southeast DX Club** <http://.sedxc.org>
- * **Spread The Word! 147.165 2m Net Thurs. 9pm**
- * **Callsign info** <http://www.ae7q.com>
- * **Track us on APRS:** <http://aprs.fi>
- * **South Carolina DX Association** <http://scdxa.org/>
- * **Swamp Fox Contest Group** <http://swampfoxcontestgroup.com>

Classifieds:

Price reduced & component added

Hy-Gain TH7DX 10-15-20 M beam. Verified SWR 1.5 to 2.5 on all bands at 13' off ground. New plastic parts i.e. end caps and trap covers. Including an **Alliance Rotor** (has pitted bearings but races are smooth) Can be mounted inside tower or attached to mast . The connector and controller need to be replaced. Retail \$900, asking **\$300.00** Teddy AE4TJ myemail122060@yahoo.com

Large black power supply, belonged to my Dad. Unmarked as to type, model, watts etc. Very heavy box of QST magazines. Best offer. Stephen Lyda, KA4PQA, stephenlyda@yahoo.com

Hope you have enjoyed reading our newsletter. Please contact me with any ideas/suggestions etc. Submit articles, including where you got it, for inclusion in future editions to me at Mike31406@gmail.com

Mike