

The Signal Report

A Publication of the Greenwood Amateur Radio Society

VOLUME 14 ISSUE 2

FEBRUARY 2018

HTTP://WWW.W4GWD.ORG

W4GWD@ARRL.NET

2018 CLUB

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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.

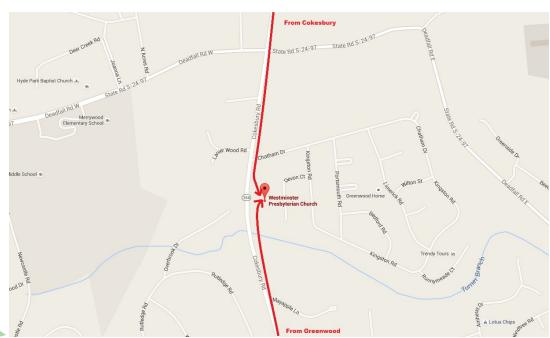
Packet Node is down when up it is connected to the Carolinas Packet System 145.010

Downtown Digi is up and operational

Repeater Linking Project—Linked now (undergoing testing)

February 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 13th 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, like to see in Mitch KJ4JGP

Phil's Corner:

Hamisms #362

The new Technician study guide is effective 1 July 2018. It contains 428 questions and will be used through 2022. If you are studying for the exam now be sure you are using the right study guide.

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, February 6 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! Happy Anniversary

David McCall	W4MCC	Feb. 20	Kevan and Elizabeth
Ronald Miller	KJ4OBY	Feb. 21	Feb. 14
Dan Curry	KM4AJ	Feb. 22	Buddy and Theaster Willis
			Feb. 25

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





Expect the Unexpected Kevan Nason

Kevan Nason N4XL

That's such a silly phrase. How can you possibly do that? What brought that to mind is an article in the December 20, 2017 edition of the ARRL's ARES E-letter. They talked about the Ham response to the still ongoing fires in California. Those good people set up an Amateur Radio Digital Network (ARDN) and used MESH networks to transmit video of the mess they are coping with. As the fires raged it cutoff power to their repeaters. Not to worry, this is sunny California and we have a backup solar power system charging batteries. Unfortunately, the heavy smoke blocked the sun and there wasn't enough juice to keep them charged.

The 'lesson learned' there for me is if something is critical you need at least one and preferably two or more backups ready. That got me to thinking about my own equipment status in regard to emergency preparedness. I'm thinking of my home station here. I can't expect the unexpected, but it doesn't feel like I'm in in as bad a shape as I feared. There are some issues with a lack of DMR and no backup DSTAR, but for local FM and state wide HF I am in reasonably good shape.

Antennas. A 440 vertical and a six element beam. One 220 mag mount. Two 2 meter verticals and a 13 element beam. Several UHF/VHF mobile mag mounts. HF antennas are at least two per each band 10 through 80 and one for 160.

Radios. Two 440/144 and one 220/144 dual bander mobiles. One each 440 and 144 MHz single band rigs. Two dual band HT's one with DSTAR. Two functioning HF rigs.

Power. Commercial AC. A propane powered generator with enough propane to last several days of continuous operation. A portable 150 watt Solar panel system with a backup solar charging unit. Two or three deep cycle and gel cell batteries.

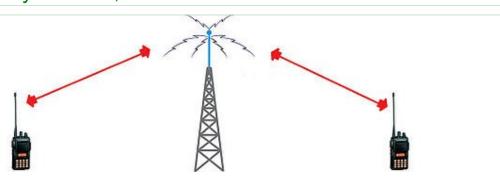
There is also enough coax, wire, connectors, fuses, fiberglass mast, rope, deep cycle batteries and such to rig up a portable station on short notice.

For my main Ham passion of contesting I have begun to look at a backup for each critical component there too. Setting up a SO2R station so I can continue if one rig dies. Two computers. Multiple monitors. Spare headset. Multiple antennas per band. And so on. Are you set up to handle things in emergencies? Do you have enough junk laying around and backup plans to handle most of whatever unexpected things come up?



Your dues are important to your radio Club. According to the by-laws of our Club, annual dues are due by April 1 of the year. We appreciate that most members meet the deadline for their

annual dues. Members not making the dues deadline will be dropped from the active membership. Reinstatement will require a resubmission of our Club application and an affirmative vote by Club members. We need your attention to this matter in order to maintain our meeting areas, field day activities, Club equipment, Club insurance, ARRL Club affiliation, annual Hamfest, maintenance of our local repeaters and much more. Please support your Club and submit your dues on time. If you need any additional information please contact any of our club officers. Thank you. Tedd, Al4WN



The GARS 2m (147.165) and 70cm (443.900) repeaters were successfully linked on February 21, 2018. Testing is underway to workout any problems and audio levels. During this time you can be on either 2m or 70 cm and both transmit and receive simultaneously on both repeaters. It has been well received by those using them. In the future other repeaters may be added including the Saluda repeater (146.910.) It is to be determined just how long they will stay linked. A big thank you to those involved in making this possible. Richard Donald N4LRD, Buddy Willis W4DEW, Adam Shirley WJ4X, Darrell Manning AF4E, Jeremy Manning KI4CCZ

VOLUME 14 ISSUE 2 PAGE 5



2017 Net stats.

2m net total check ins =1185

sessions = 52

70 cm total check ins = 499

Sessions = 50

2017 average 2m check-ins per session = 23

2016 average 2m check-ins per session = 23 (interestingly)

2017 average 70 cm check-ins per session = 10

2016 average 70 cm check-ins per session = 8

You have all done a great job and are continuing to do so. <u>It is time to recruit more net controllers</u>. If each current Net Controller can find one new Net Controller we will have all the nets nicely covered. Contact me or any Net Controller if interested.

Remember, it is important to keep the nets rolling along. If we are ever challenged for not using our repeaters the official ARRL net summaries are solid evidence of the use of our coordinated frequency pairs.

Thank you all again for your participation. 73 Tedd Al4WN

Backup Radio Station Power, the basics

(Part 1, look for part 2 next month) Dan Curry KM4AJ

One of the things that makes HAM Radio great for emergency communications is that it is not dependent on communications infrastructure. If there is a telecommunications outage affecting telephone, cellular or internet communications, HAM Radio is unaffected. HAM Radio is however affected by power disruptions. In order to keep our radios going in the event of a disaster, such as a hurricane, we need to have a backup power source that is not dependent on the power grid. In this article, we'll discuss several of the more popular types of backup power available to HAMs.

Your Car - Almost everyone has a backup power generator parked in their driveway. An average car can produce about 50 amps of 13.8 volt power at idle. This is more than enough to run a normal HF station. The difficult thing here is how to deliver the power from your car to your station. Ideally you have a window in your shack that you can pull your car up to. Be sure to have plenty of ventilation outside to keep exhaust from entering your shack. The only thing you really need is a cable to run from the battery of the car to your shack's power distribution system. A lot of HAM's have adopted power-pole connectors and power-pole PDU's (Power Distribution Unit's). If that is the case, then you'll need a cable with alligator clips at one end to connect to the car's battery and a power-pole connector at the other to your PDU. If you've lost power, be sure that your power supply is switched off so it is not running when the power comes back on. Given that a small 4 cylinder car burns about ½ gallon of gas per hour at idle speed, a car with 10 gallons of gas in the tank can run your station for about 20 hours. There are several problems with this approach though. The car will need to be parked very close to your house which may not be possible in some situations. 12 volt power also requires increasingly larger gauge wire the longer you go, so depending on how long your cable is, it may require heavy gauge wire, which can be expensive and harder to work with. You may also not want to have cables ran from outside of your house during a weather event as you may not be able to make a good seal on your window with the cable running through.

Gas Generators - A lot of households have a gas generator for backup power. These range is size greatly and can be connected to your house in a variety of ways. That is a topic that is too extensive to cover here, so I'll focus on the connection of your station to the gas generator. When connecting your station to the generator, this can be done in one of two ways. You can either connect your station's 12 volt power supply to the AC connection on the generator or you can utilize a 12 volt connection on the generator. An advantage of using the AC connection is that you can run longer extension cables from your generator to your shack so the generator can be more conveniently placed. One potential drawback is that depending on your generator you may get unstable power or noise introduced into your radio from the generator. Some newer generators now come with 12 volt connections as well. These 12 volt connections normally are limited in capacity as they aren't designed to run HAM stations and will only put out 5-7 amps of power. Since this isn't enough current to run your HF station, you would need to add a power booster with a capacitor to store up excess power when you're not transmitting and boost the current when you are. These power boosters can be expensive and finicky to get working, so using the generators AC connection with your power supply is probably your best bet.

HAMFESTS and EVENTS:

Dalton Amateur Radio Club

Hamfest 2018 Dalton, Georgia February 24, 2018 http://w4drc.com

Charlotte Hamfest

March 9 & 10 2018 http://charlottehamfest.org

SC QSO Party

February 24, 2018 @ 1500Z http://scqso.com

Blue Ridge Amateur Radio Society

Upstate South Carolina Hamfest May 5, 2018 http://brars.cc

Dayton Hamvention

May 18-20, 2018 120 Fairground Rd. Xenia, Ohio 45385 Www.hamvention.org

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

Mike

- * The American Radio Relay League protects our rights as Amateur Radio Operators http://www.arrl.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:

Yaesu vx170, modified with charger and manual, works great, \$100.00 Robert Gillian, KN4IXE, 864-314-9593

Price reduced

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. Retail \$900, asking \$300.00 Teddy AE4TJ myemail122060@yahoo.com

If anyone has any Ham radio items to sell or trade... list it in this column by contacting Buddy, <u>w4dew@arrl.net</u>, 864-445-7574