



Rockingham County
Amateur Radio Club, Inc.



N4IV

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The RockingHAMmer News

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President's Corner

Hello again, friends and supporters of the RCARC! August is upon us, and while not expected given the time of year, we are experiencing some relatively mild temperatures for August in these parts. I certainly hope that continues, and I'm sure most of you do as well. Schools are back in session up in southern Virginia, where I work, and they soon will be in our communities as well.

Things at my QTH have been pretty calm, but after a discussion with Paul N4CE I decided to give the new digital mode FT8 – a try. Now, I have found most of the new digital modes in use on HF to be very addicting, but FT8 elevates the situation even more! While it is not as sensitive as JT65 in terms of weak signal performance theoretically, it is VERY narrow banded, so even more signals can occupy the same spectrum with excellent copy. The cycle time of a tx/rx period is only 15 seconds, so a QSO can be completed in about one minute versus 4 minutes on JT65! After my first few contacts, I felt like I was working a RTTY contest in terms of the speed of QSOs, but with a much narrower bandwidth! If you have not been on the air on HF with JT65, FT8, or any other digital mode, I hope you'll seriously consider giving it a try soon. It is simple, the software is free, and if you don't already have the hardware to connect your computer to your rig, it is pretty darn inexpensive. And this digital mode stuff on HF is a lot of fun!

Now, for something very important, The Amateur Radio Parity Act of 2017 has been introduced in the US Senate as bill S1534, and it is identical to the House bill HR555 which passed the House of Representatives back in January. If this is to be passed and made law, it is critical to put on a full-court-press at this time to get the bill to the floor for an actual vote. We all need to make contact with our Senators immediately to let them know our position and to show the strength of the support so it will become a priority! The ARRL had set up a link to a page that will automatically create a message to both of our Senators (for our VA members it will contact yours accordingly). All you have to do is click, then enter only very basic information – the

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ARRL's link will do the rest! Please get on line at <https://arrl.rallycongress.net/ctas/urge-us-senate-to-support-amateur-radio-parity-act> and show your support on this very important legislation!

I wanted to point out that no new pledges for the repeater project have been made since the last meeting. While we have plenty of time to make the replacement of the feed line and antenna a reality, if this is to be done within the next year, we will need to increase support. I have submitted the 501c3 tax-exempt request, and we are awaiting the IRS to grant it, it will be of no use if we cannot raise the funds. Twelve members have made this a priority to date, and we will need more to pull this off. Please consider and contact me ASAP to become involved. The long-term health of the 147.345 MHz repeater is at stake, and it is too important a task to be left to the 12 pledges so far.

Be sure to attend the club meeting on Tuesday, August 15 at 7 pm. Remember that we are now meeting at the Salvation Army building at 708 Barnes Street in Reidsville. Our first meeting there was a big success and they were very welcoming to us. I hope to see you there!

73,
Bill, N8KSG

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About the Newsletter : *This newsletter is published monthly by and for the members of the Rockingham County Amateur Radio Club. Computer/inter-net users should be able to click on the website links that are usually underlined. Please advise me of any change of address or mail preference. Please have all articles to me by the 2nd Tuesday of each month.
73 (KF4LIK) Michael, your editor.*

Events

Breakfasts

Henry Pollock Memorial Breakfast - Tuesday – 7:00 am, The Farmer's Table, Reidsville
Thursday – 7:00 am, Sanitary Cafe, Reidsville

RCARC Meeting

The RCARC meets the 3rd Tuesday night of the month. The August meeting will be 7pm at The Salvation Army facility on 708 Barnes Street in Reidsville, NC.

19th Annual Cape Fear Amateur Radio Society Swapfest

The Cape Fear Amateur Radio Society will sponsor an ARRL Hamfest on Saturday, August the 12th at the Cumberland County Shrine Club located on 7040 Ramsey Street in Fayetteville, NC 28301. Website: <http://www.cfarsnc.org> Talk-In: 146.91 (PL 100) Public Contact: David Cowart, KR4OE, 637 E. Raynor Drive, Fayetteville, NC 28311. Phone: 910-624-1394 Email: kr4oe@nc.rr.com

FreeGate 2017

Qorvo Amateur Radio Club presents a free tailgate swapfest! No admission fee and no space rental! A paved parking lot and indoor toilets will be provided. You provide everything else: tables, canopies, power, drinks, food and merchandise. September 23, 2017 starting 8:00 AM at the Qorvo Headquarters (formerly RFMD) back parking lot only, 7628 Thorndike Rd. Greensboro, NC 27409. This is not a rain or shine event. Check back in the event of inclement weather. Website is <http://kd4rf.org/>. Talk-in is 145.250MHz, PL 88.5Hz. For more information, contact info@kd4rf.org.

South Carolina Section Convention

On Saturday, October the 7th, the York County Amateur Radio Society (YCARS) will sponsor an ARRL Convention at New Kirk Baptist Church located on 175 Museum Road, Rock Hill, SC 29730. Website: <http://www.ycars.org> Talk-In: 147.030- (PL 88.5). Public Contact: Andy Kunik , AE8J, 1625 Restless One Lane, Rock Hill, SC 29730. Phone: 803-324-4024. Email: Akunik@bellsouth.net



Skywarn Weather Spotters (and all amateur radio operators) encountering severe weather, are encouraged to monitor and make reports. The Skywarn website is: <http://www.skywarn.org> . For a guide to reporting weather, see the website: <http://www.wx4rnk.org/guide.html> .



NOAA WEATHER RADIO BANDS

CHANNELS-FREQUENCIES-S.A.M.E. Codes

162.400 MHz WXL42 WINSTON-SALEM NWS PIEDMONT AREA
Rockingham County, N.C. SAME code: 037157

162.475 MHz WXL60 BLACKSBURG NWS ROCKINGHAM COUNTY
Rockingham County, N.C. SAME code: 037157

162.550 MHz WXL58 RALEIGH NWS PIEDMONT & CENTRAL N.C.

All stations listed for travel (in MHz):

162.400	162.425	162.450	162.475	162.500	162.525	162.550
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A nation-wide network of radio stations broadcast continuous weather information from nearby National Weather Service (NWS) offices. You can get weather 24 hours a day. NOAA weather radios are the best way to receive warnings from the NWS. It is best to have a battery back-up and Specific Area Message Encoder (SAME) that will alert you when a watch or warning is issued for Rockingham County, N.C. (037157). Complete information is at NOAA's website: nws.noaa.gov/nwr . For current weather forecasts on the inter-net, go to NOAA's National Weather Service website: weather.gov . Your weather forecast on a mobile device: mobile.weather.gov or cell.weather.gov

Dial-A-Forecast is 919-515-8209 (option 2) for the Triad area including Greensboro, Winston, Salem, and High Point. The Virginia area number is 540-552-0497.

NWS Blacksburg WSR-88D Doppler Radar Down Through The End of August

The KFCX WSR-88D Doppler radar operated by the NOAA National Weather Service in Blacksburg, VA will be down through the end of August for the repair a major mechanical component.

An engineering team from the Radar Operations Center (ROC) in Norman, Oklahoma, determined today that the bull gear, the primary gear for turning the radar antenna, is failing. This repair will require 12,000 to 15,000 pounds of equipment and a six-person team from the ROC to restore the radar. Due to a radar outage at Wilmington, OH requiring the team's assistance, work on the Blacksburg radar will tentatively begin around August 16th with an anticipated restoration of service by August 30th.

The NWS Blacksburg WSR-88D can be used ONLY when absolutely necessary to address an imminent significant and widespread severe weather and/or hydrologic event. Even then, running the radar for any period of time risks causing an even more egregious system failure which would further extend system down time.

During the outage, radar coverage is available from adjacent radar sites including ([Raleigh, NC \(KRAX\)](#); [Wakefield, VA \(KAKQ\)](#); [Sterling, VA \(KLWX\)](#); [Charleston, WV \(KRLX\)](#); [Morristown, TN \(KMRX\)](#); and [Greenville-Spartanburg, SC \(KGSP\)](#) .

The Blacksburg, VA WSR-88D is 22 years old and part of a network of 159 operational radars. The radars are supported by three federal agencies: NOAA National Weather Service, United States Air Force, and the Federal Aviation Administration. The Radar Operations Center provides life-cycle management and support for all WSR-88Ds.

For a radar mosaic loop for the region:

<https://radar.weather.gov/ridge/Conus/centgrtlakes.php>

<https://www.weather.gov/crh/radar>

The National Weather Service's Blacksburg Forecast Office is the primary source of weather data, forecast and warnings for about 1.7 million people in parts of southeast West Virginia, western Virginia and northwest North Carolina.

From the National Weather Service: <http://www.weather.gov/mk/WeatherRadarDown>

AREA NETS

Monday 8:30PM RCARC 2-meter net 147.345 MHz 103.5

This club net is a weekly meeting for announcements, business, and comments. Check-ins will be taken in analog (FM) mode. Please make it a priority to check into our net.

Thursday 8:15PM RCARC - DIGITAL 147.345 MHz YSF C4FM

Digital stations are invited each Thursday to participate in a round table group rag-chew session. This is not a formal net with a net control station. Any and all stations are invited to this digital group with the Yaesu System Fusion in the C4FM digital mode.

OTHER AREA NETS

Sunday 8:00pm	Sherrills Ford, NC	50.150, no tone
Sunday 8:30pm	Southern Alamance Net	146.670, no tone
Sunday 9:00pm	Greensboro News & Info Net	145.150, 100 Hz
Sunday 9:00pm	Southeastern D-Star Weather Net	REF002A
Sunday 9:30pm	Central NC Traffic Net	146.820, no tone
Monday 8:00pm	Randolph County Net	147.255, 82.5 Hz
Monday 9:00pm	Lynchburg, VA	50.400, no tone
Tuesday 8:00pm	Sandlappers, Lexington, SC	50.250, no tone
Tuesday 8:00pm	Burlington ARES Net	146.670, no tone
Tuesday 8:30pm	Triad Skywarn Net	147.255, 82.5 Hz
Tuesday 9:00pm	N.C. D-Star Net (W4GSO) REF054C	442.86250
Wednesday 8:00pm	Roanoke Amateur Club Net	146.985, 107.5Hz
Wednesday 8:30pm	Forsyth County ARES Net	145.470, 100 Hz
Wednesday 8:45pm	Greensboro Amateur Society Net	145.250, 88.5 Hz
Thursday 8:00pm	Pink Hill, NC	50.200, no tone
Thursday 9:00pm	Guilford County ARES Net	145.150, 100 Hz
Saturday 8:00am	Wake Forest, NC	50.200, no tone

Daily Nets

5:30am	Possum Trot Net	147.225, 82.5 Hz
8:00am	Richmond 6 Meter Net	50.215, no tone
2:30pm	Vag-A-Bon Net	145.470, 100 Hz
7:30pm	Tarheel Emergency Net (ARES)	3.923 LSB

VEC TESTING

The regularly scheduled VEC testing is held on the last Saturday of each odd-numbered month at the Eden branch of the Rockingham County Library located at: 598 S. Pierce St., Eden, NC. Registration begins at 9am, testing starts at 9:30am. Effective September 1, 2015 the Rockingham County VE Testing will be conducted on a "Preregistration Only" basis. The preregistration must be received by the Monday prior to the scheduled test date. Applicants should call Dal Williams, W4YQY at 336-627-7076 for preregistration info and details.

In Memory of RCARC Silent Key (Things I Remember, K4RVJ)

Henry Pollock

Henry, K4UUM, S K, 5-2-13, I could write a book on him: a dear friend, a retired Methodist Minister, a retired Army Chaplain, and our clubs honorable "man of the cloth". He was our first President of the RCARC (formally RATTs). In his latter years he had problems operating his radios and computers calling on me, Paul and others for help; I think mostly to have visitors.

SUN CAN'T ECLIPSE EMERGENCY SERVICES

Here comes the sun - or rather, there goes the sun as an eclipse moves in on Aug. 21. So what happens to emergency communications? As the saying goes, "when all else fails, ham radio." In this case, with the coming of a total solar eclipse, what's going to fail - in a manner of speaking - is the sun itself, at least for a short while.

Emergency dispatch centers around central Oregon aren't taking any chances. Oregon is expected to have a 70-mile-wide zone of totality when the eclipse happens. According to a report in the Central Oregon Bulletin, a number of emergency services personnel are already making plans that include area amateur radio operators so that emergency calls still get through.

Nathan Garibay, a sergeant with the Deschutes County sheriff's office and emergency services manager for the county has coordinated with Don Shurtleff WB0DVS, information officer for the Deschutes County Amateur Radio Emergency Service and the High Desert Amateur Radio Group. Shurtleff's team will staff a joint-information center throughout the eclipse, joining others from emergency response teams from around the region. If necessary, hams will be sent to locations, such as busy highways, to make sure emergencies are noted and reported.

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Meanwhile, to the north in Jefferson County, Mark Carman KI7MRC, the emergency management coordinator there, will staff a communications center where eight hams will be checking in from their designated patrol areas. Their job will be to give real-time traffic reports either by foot patrol, golf cart or any other means that doesn't involve an automobile.

Mark Carman told the Bulletin newspaper "We are going to have hams up and down the Highway 97 corridor."

The Bulletin of Central Oregon

ECLIPSE EXPERIMENT SHOULD SHED SOME LIGHT

This month's eclipse is also turning into an amateur radio project for a college team based in Virginia. A senior at Virginia Tech is using her Blacksburg, Virginia backyard as a kind of propagation laboratory. Magda Moses KM4EGE is part of a team of students and faculty who - like so many others - are eagerly awaiting the solar eclipse on Aug. 21. The team's backyard experiment is focused on a different kind of special effects that involve measuring - not viewing. The group is hoping to study changes that occur in the ionosphere during the total solar eclipse. It is the first such eclipse to be visible from the U.S. since 1979.

The team is being led by Greg Earle W4GDE, a professor of electrical engineering at Virginia Tech. Faculty and students will be monitoring radio waves from locations in Oregon, where the eclipse will begin, Kansas, the eclipse's mid-point and South Carolina, as the eclipse departs.

Magda's backyard has been outfitted with four pole-mounted antennas. The team will analyze data they collect about how radio waves behave when the moon blocks the sun's radiation from entering the ionosphere - exactly what will be happening as the eclipse occurs.

Those few moments are the students' only chance to be doing this as undergraduates: the next such eclipse won't be happening until 2024.

The Roanoke Times

What is an Eclipse?

An eclipse occurs when the Sun, Earth, and Moon move into alignment with each other. One of the bodies blocks the view of another and creates a shadow. There are 2 different types of eclipses: solar and lunar. A lunar eclipse happens at nighttime and occurs when the Earth passes between the Sun and the Moon creating a shadow on the Moon. These types of eclipses occur roughly 2 to 4 times per year. A lunar eclipse will generally last for a few hours.

2017 Total Solar Eclipse

Local Information from the Weather Forecast Office in Blacksburg, VA
Eclipse Details for Locations in the Path of Partial Eclipse

<u>Location</u>	<u>Eclipse Begins</u>	<u>Maximum</u>	<u>Ends</u>	<u>Obscuration</u>
Reidsville, NC	1:14 PM	2:42 PM	4:03 PM EDT	93%
Danville, VA	1:14 PM	2:42 PM	4:03 PM EDT	92%

For more information: <http://www.weather.gov/source/crh/eclipse.html?sid=rnk>

Safety Information

Looking directly at the Sun is unsafe except during the brief total phase of a solar eclipse (totality), when the Moon entirely blocks the Sun's bright face, which will happen only within the narrow path of totality.

The only safe way to look directly at the uneclipsed or partially eclipsed Sun is through special-purpose solar filters, such as eclipse glasses or hand-held solar viewers. Homemade filters or ordinary sunglasses, even very dark ones, are not safe for looking at the Sun. To date four manufacturers have certified that their eclipse glasses and hand-held solar viewers meet the ISO 12312-2 international standard for such products: Rainbow Symphony, American Paper Optics, Thousand Oaks Optical, and TSE 17.

Always inspect your solar filter before use; if scratched or damaged, discard it. Read and follow any instructions printed on or packaged with the filter. Always supervise children using solar filters.

- Stand still and cover your eyes with your eclipse glasses or solar viewer before looking up at the bright Sun. After glancing at the Sun, turn away and remove your filter — do not remove it while looking at the Sun.
- Do not look at the uneclipsed or partially eclipsed Sun through an unfiltered camera, telescope, binoculars, or other optical device. Similarly, do not look at the Sun through a camera, a telescope, binoculars, or any other optical device while using your eclipse glasses or hand-held solar viewer — the concentrated solar rays will damage the filter and enter your eye(s), causing serious injury. Seek expert advice from an astronomer before using a solar filter with a camera, a telescope, binoculars, or any other optical device.
- If you are within the path of totality, remove your solar filter only when the Moon completely covers the Sun's bright face and it suddenly gets quite dark. Experience totality, then, as soon as the bright Sun begins to reappear, replace your solar viewer to glance at the remaining partial phases.

An alternative method for safe viewing of the partially eclipsed Sun is pinhole projection. For example, cross the outstretched, slightly open fingers of one hand over the outstretched, slightly open fingers of the other. With your back to the Sun, look at your hands' shadow on the ground. The little spaces between your fingers will project a grid of small images on the ground, showing the Sun as a crescent during the partial phases of the eclipse.

A solar eclipse is one of nature's grandest spectacles. By following these simple rules, you can safely enjoy the view and be rewarded with memories to last a lifetime.

[Safety information courtesy of NASA](#)

WORLD OF DX

In the world of DX, be listening for Koji JI1LET who will be operating as JD1BOI from the Ogasawara Islands from August 3rd to the 12th. Listen for him on all the HF bands operating on SSB, RTTY and CW. QSLs can be sent to his home call.

You'll have plenty of time to listen for Alan KE4TA. Starting in another week or two, he'll be operating from Rwanda as 9X0TA for the next three years. You are most likely to find him on 20m and 17m. Send cards to his QSL manager N4GNR.

Until August 6th, you have a chance to contact the TX5EG team. They are in the Marquesas Islands and the group counts as a separate entity for the DXCC Award. Send QSL cards to the team's manager F6BCW.

Finally, here's a call sign to listen for - HD086QRC. It belongs to the Quito Radio Club HC1QRC in Ecuador, which is marking its 86th Anniversary. Catch them on the HF bands whenever you can - members are using the occasion to run this celebration as a special event.

AR Newsline

Group Selected to Pursue DXpedition to Baker Island National Wildlife Refuge

The Pacific Islands Refuges and Monuments Office of the US Fish and Wildlife Service (**FWS**) has selected the Dateline DX Association (**DDXA**) — the DXpedition group that activated Howland Island in 2009 and Wake Island in 1998 — to pursue a DXpedition to Baker Island. Dates have not yet been determined. Baker and Howland Islands (KH1) are part of the Pacific Remote Islands Marine National Monument (**PRIMNM**), created by former President George W. Bush in 2009. Baker and Howland is the fourth most-wanted DXCC entity on Club Log's **DXCC Most Wanted List**.

The group will announce planned activation dates and other details once a vessel has been selected and the FWS has approved the vessel and dates. DDXA co-leaders are Don Greenbaum, N1DG; Tom Harrell, N4XP, and Kevin Rowett, K6TD.

The FWS in early June agreed that a DXpedition to Baker Island would be an acceptable use of the Baker Island National Wildlife Refuge but detailed strict conditions under which it would issue a special use permit (SUP) to allow such use. Earlier this year, the FWS conducted a [Compatibility Determination](#) for Amateur Radio operation on the ecologically sensitive island refuge. Baker Island is 1,830 nautical miles southwest of Honolulu — an 8-day voyage.

"While...not a wildlife dependent public use according to National Wildlife Refuge Administration Act of 1966, as amended, Amateur Radio operation is a use that assists in the management of the resources indirectly," the FWS said in its Compatibility Determination, released on June 8. A DXpedition to the Refuge may last up to 14 days, with only 12 days of radio operation and allowing time for setup and breakdown on each end of the visit.

ARRL Website

07-18-17

RCARC Minutes

Bill N8KSG called the meeting to order at 7pm
Michael KF4LIK read the treasury report. Motion made and seconded

***No Committee Reports were read due to time constraints.**

New Business

Repeater fund - Bill presented an updated quote on labor for the antenna and feedline replacement, approximately \$6200 total. Material cost has been reduced to \$3652. It's possible that the clubs antenna work could piggyback when other tower work is underway and reduce our price.

501C Status - Our Articles of Incorporation will have to be updated with the State of North Carolina. For the by-laws the Club's State of Purpose was updated, the location of the monthly meeting was removed, dues requirement were also changed that in November each member will vote to continue, and removed the multiple \$25 references. References to the Program committee and the Emergency preparation committee were also removed.
A suggestion was made to not publish changes in the by-laws in the next months Club's newsletter before voting. Motion made and seconded to make these changes. Motion carried

Program

David Macchiarolo AJ4TF - Gave a great presentation on kit building the Elecraft K2 radio

Motion to Adjourn

Motion made at 8:25pm