



*Rockingham County
Amateur Radio Club, Inc.*



N4IV

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The RockingHAMmer News

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President's Corner

Happy June to my RCARC friends, and welcome to Summer in Carolina! It has been a busy June so far, and I have been “under the weather” with stomach bugs twice in the last months, and it has hindered by ability to get stuff done around the house. I’ve heard a few others talking about having similar ailments, and I hope that each of you is staying healthy and not bitten by any bugs!

By the time you read this the 147.345 repeater upgrade will be complete. I am actually writing this article from the equipment building at the site on the morning of day #2, and by the time you read this we should be back in business with a repeater in solid condition, ready for reliable service for many years to come. I plan to do a presentation on the job soon, but for now, let’s just say that our feedline has been acting more like a plumbing pipe than an electron pipe! The installation is being performed by Gene West and crew from Dimensional Tower Service out of Oxford, NC.

I am really amazed at the attention to detail these guys put in on the ground before ever starting to climb! Of course, that makes sense – no one wants to go 800 feet up to find they don’t have a necessary tool or supply, or that they’ve run something the wrong way, making it more difficult to accomplish the work. But even more important than the work is their focus on working safely. Gene oversees all the action to make sure no one is taking any chances with their health and welfare! Yesterday Gene and I were talking, and he told us about a family tower business who were doing a job at a tower site in Statesville a few years back. A completely preventable accident took the lives of several family members who fell as they were ascending the tower. I have a vague recollection of this event being reported by the news, but it clearly left a mark with Gene that reflects in his commitment to his team to this day! It is no wonder that our site engineer recommended Dimensional Tower, having no concern about their capability and safe work habits.

I look forward to hearing you all on the restored 147.345 Madison repeater very soon! We will have a regular club meeting the third Tuesday in July, so please mark it down on your calendar.
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 usually meets on the 3rd Tuesday night of the month. The July 17th, 2018 meeting will be 7pm at the Salvation Army facility on 708 Barnes Street in Reidsville, NC.

33rd Annual 2018 Firecracker Hamfest

On July the 7th, 2018 the Rowan Amateur Radio Society will sponsor an ARRL Hamfest at the Salisbury Civic Center on 315 Martin Luther King Avenue South Salisbury, NC 28144.

Website: <http://www.rowanars.org/firecracker-hamfest/> **Talk-In:** 145.41 (PL 136.5)

Public Contact: Douglas Spriggs , W4DCS 155 Waterford Drive Salisbury, NC 28147

Phone: 704-762-0192 **Email:** d.spriggs@carolina.rr.com

Mid-Summer Swapfest

On July the 21, 2018 the Cary Amateur Radio Club will host an ARRL Hamfest at Ritter Park located on 301 West Lochmere Drive in Cary, NC 27511. **Website:** <http://www.qsl.net/n4nc/>

Talk-In: 146.88 -0.6 (no PL tone) **Public Contact:** Herb Lacey , W3HL 1022 Medlin Drive

Cary, NC 27511. Phone: 919-467-9608 **Email:** infoman@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 919-326-1052. The Blacksburg, Virginia area number is 540-552-0497.

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
7:30pm	Piedmont Triad Traffic Net	145.150, 100Hz

THOUSANDS FLOCK TO HAM RADIO FRIEDRICHSHAFEN

As most will know, Ham Radio Friedrichshafen is the largest Hamfest in Europe. This year's theme was radio scouting of course, with lots of fun, that was the combined scout troops from several European countries who were attending Ham Radio Friedrichshafen this year. The theme extended into other youth orientated events including the hand-over of Youngsters on-the-air from the UK Organizers to the South African organizers. Attendance at the event was probably about 10% reduced due to the unfortunate coincidence that the date clashed with the IARU CW field day.

There were several new dealers with new products, with Magnetic loop antennas practical for portable use to enormous, high power home station ones. One young Spanish company Komunika are designing and building HF and VHF mobile antennas in Europe, with new antennas due out in September. It's good to see not everything is being produced in the far east. SDR radios were very much in presence with several different companies displaying new or extended models. Of course, the "big 5" were there and this was a chance to see the new Kenwood TS-890S and talk with its designer. As well as get a look at the Yaesu FTDX101D FT-818ND and the software update to the FT-2D Fusion handy to make it into a hot-spot.

In general the slightly reduced numbers in the very large halls made it easier to get around. Only in the flea market was it as busy as ever. The addition of the Maker Faire with their Cosplay dressed people walking around added some flair and fun. Despite dire weather predictions, not one drop of rain fell over the three days of the event. Rather it was sunny and in the high twenties Centigrade the whole time.

So if you've never been to Ham Radio in Friedrichshafen, why not plan a visit for next year when it moves back to its usual weekend, which is June 21st to the 23rd, 2019.

AR Newsline

Reverse Beacon Network Beta Testing Separate Spot Stream for FT8

As a beta test, the popular Reverse Beacon Network ([RBN](#)) [has announced](#) that it's now offering a separate telnet feed for FT8 spots (telnet.reversebeacon.net port 7001), in addition to the current spot feed (telnet.reversebeacon.net port 7000), which will be repurposed to handle only CW and RTTY spots. In addition, a beta version of *Aggregator* Version 5 that can handle FT8 spots received from *WSJT-X* will be available on the RBN website, with instructions on how RBN node operators can configure their nodes to spot FT8 call signs on one or more bands; this will not interfere with the ability to spot CW and RTTY call signs, the RBN team assured in its announcement, explaining its reasoning for the move. The beta test follows a limited alpha test aimed at getting a feel for the spot load and other implications of carrying FT8 spots on the RBN.

"The most striking characteristic of FT8 spots is their sheer quantity," the RBN announcement said, citing weekday statistics from May 23 and 24 when FT8 spots represented 86% and 87% of all spots, respectively, while CW spots were 13% and 14%, respectively, and RTTY spots were below 1%. Throughput on both days totaled some 30,000 spots.

"Whether due to the startling popularity of the new mode, or to the ability to spot stations at 22 dB below the noise level, it seems obvious that adding FT8 spots to our spot flow could have a huge impact on the infrastructure of the RBN," the RBN announcement said. "These numbers suggest that if only 20 – 30 RBN nodes added FT8 spots, those spots could outnumber the total CW and RTTY spots being delivered by the 140 – 150 nodes currently active on the network, doubling the total required throughput."

The RBN team said it wanted to find out whether RBN servers would be up to the task before the fall contest season. "Operators of 'retail' DX clusters are encouraged to offer the option of RBN spots with and without FT8 spots, as they now often give users a choice between spot streams with and without *Skimmer* spots, and to advertise when they begin to carry FT8 spots," the announcement said.

A beta version of *Aggregator* Version 5 that can handle FT8 spots received from *WSJT-X* will be available on the RBN website, along with instructions on how RBN node operators can configure their nodes to spot FT8 signals on one or more bands.

"We will closely monitor how the RBN servers handle this new load, as more and more nodes begin sending FT8 spots," the announcement said, adding that the RBN reserves the right to take any necessary steps to protect the core mission of the RBN, including shutting off the FT8 stream on major CW and RTTY contest weekends or discontinuing FT8 spotting altogether. Even then, *PSKReporter* would continue to carry FT8 spots, the announcement pointed out.

"We hope we're not doing this in a vacuum," the RBN team said, noting that it's been collecting the views of contesters and DXers, "and we think that we're headed in the right direction."

The RBN team consists of KM3T, N4ZR, PY1NB, SV3SJ, and W3OA.

ARLL Website

Baker Island KH1/KH7Z DXpedition Team Bracing for “Grim” Propagation

The 2018 KH1/KH7Z [Baker Island DXpedition](#), set to get under way on June 27 and continue until July 7, is preparing for less-than-ideal conditions. The sponsoring Dateline DX Association (DDXA) said this week that its 15 operators are planning to maximize the times they will be available to work into propagation-challenged regions of the world. Their effort will include round-the-clock operation on 20 meters. DDXA has permission from the Pacific Islands Refuges & Monuments Office of the US Fish and Wildlife Service to pursue an Amateur Radio expedition to Baker Island National Wildlife Refuge (KH1).

“The 2018 DXpedition to Baker Island occurs during the declining side of the solar cycle where propagation is usually much, much worse, nearing the bottom,” a Baker Island DXpedition news release pointed out this week. “In addition, there are limited hours of darkness in some Northern Hemisphere locations.”

The DXpedition has [embedded tools on its website](#) that DXers can use to run propagation forecasts specific to grid square and “station properties.”

“We have also run these forecasts by geographic area to know when we should be listening for you,” the DXpedition organizers said this week. “The forecasts are grim.” The DXpedition said operators “don’t expect to hear any signals” at noontime on Baker Island, and will use those occasions to take a meal break.

“Our network of worldwide pilots will also report how well we are being heard in your area to keep us abreast of propagation,” the news release added. Operation is planned on SSB, CW, RTTY, and FT8.

The DXpedition’s permit restricts antennas to 43-foot verticals. “We will be using SteppIR [verticals] and special-design antennas to take advantage of the saltwater ground,” the release said. KH1/KH7Z also will use FT8 to find openings that may not be all that obvious and to serve as a beacon. “When we find an opening, we will put as many radios/modes/ops on as we can,” the organizers pledged. The DXpedition will use the latest version of [WSJT-X](#) software to incorporate the FT8 “DXpedition Mode,” and the DXpedition has been working with developers for the past several months to smooth out the wrinkles in that operating protocol.

The team has also published its [planned operating frequencies](#). The KH1/KH7Z DXpedition will field seven operating positions.

Baker/Howland Islands (KH1) is the fifth most-wanted DXCC entity, and the DXpedition will focus on providing “all-time new one” (ATNO) contacts.

ARRL News

WORLD OF DX

In the World of DX, listen for Thomas, F4HPX operating as FR/F4HPX from Reunion Island through the 15th of June. He is operating on SSB, digital modes and a little CW on 40 through 15 meters. QSL via LoTW, Club Log's OQRS or via home call (direct or bureau).

The EIDX Group is preparing to activate ALL Irish IOTA Groups. Using the 'Echo Juliet' prefix, EJ0DXG will be active from IOTAs EU-006, EU-007, EU-103 and EU-121 this summer. The first activation will be "Little Saltee Island" which is EU-103 between June 15th and 18th. The group will be active on the HF and 6m bands using CW, SSB and the Digital modes. QSL via M0OXO.

DX WORLD, OHIO PENN DX

YELLOWSTONE ARES STEPS IN DURING MONTANA STORM

While most of the U.S. concentrated on their holiday celebrations over Memorial Day weekend, hams in two parts of the country dealt with crisis conditions. We begin in Montana with the Yellowstone Amateur Radio Emergency Service.

Amateur radio operators in the Billings, Montana area mobilized over the Memorial Day holiday weekend as a "perfect storm" brought massive flooding to the region brought on by melting mountain snowpack, heavy rain and an anticipated crest of the Yellowstone River. There were concerns too that the region's complex canal system that feeds local farms could further complicate the scenario. As the holiday weekend began on Friday, May 25th, Brad Shoemaker, Disaster and Emergency Services Director turned to YARES, the Yellowstone Amateur Radio Emergency Services. Ron Glass WN7Y, the ARRL's Emergency Coordinator for Yellowstone County, activated a net, 23 hams checked in and staffing got under way. Five hams went the next morning to sandbag centers where they helped manage traffic and ensure that no one ran out of bags or sand. In some cases, said Ron, the hams even helped residents load the sandbags into their vehicles. Others staffed the Emergency Operations Center and Net Control while still others served as "loggers" tracking callouts. The weekend operation brought logistics challenges and long work shifts, Ron told Newsline, but the hams kept their duties covered. By Monday, as the anticipated rainstorm began to hit hard, hams were dispatched for River Watch Duty and at roadway locations to identify any threatened bridges, flooded roads and other trouble spots identified by the county. The damage ultimately turned out to be less than predicted. Ron told Newsline: "Even though the storm dropped over an inch of rain in the first 15 minutes and we were driving through flooded streets the rest of the day, the event was NOT as large as expected." By 3 p.m. that same afternoon, the flood warning was dropped and the EOC went into standby mode, said Ron. He told Newsline that YARES was officially deactivated within the hour.

AR Newsline, from Ron Glass, WN7Y

RCARC family - I got this email and wanted to pass along to all who may be interested. COMET is an excellent, free source of weather training. This new course below, "Radio Wave Propagation", is perfect for the ham community. I am passing along in case you find it something you'd like to check out. Again, it's free, so why not learn something new? MetEd » Resource Description: Radio Wave PropagationUCAR/COMETMetEd: Teaching and Training Resources for the Geoscience Community.

73,
Bill

Radio Wave Propagation

Greetings,

The COMET Program is pleased to announce the publication of the new lesson, "Radio Wave Propagation". As a society we have become dependent on satellite communications, but satellites fail with alarming frequency. Before the advent of satellites, long distance communications were carried out with high frequency (HF) radio transmissions. This 1-hour lesson examines the factors that control long-distance radio communications, with an emphasis on refraction in the ionosphere, frequency selection, and the effects of solar radiation.

The intended audience for Radio Wave Propagation is any potential radio operator who communicates across long distances using HF frequencies. This can include members of the U.S. DoD, emergency management, and amateur radio operators.

We welcome any comments or questions you may have regarding the content, instructional approach, or use of this lesson. Please e-mail your comments or questions to Alan Bol (alanbol AT ucar.edu). For technical support, please visit our Registration and Support FAQs.

Sincerely,
The COMET Program