

# Ham Chatter



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August 2017

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## FCC Crackdown on Pirate Broadcasters Targets at Least One More Amateur Licensee

A recent flurry of FCC Enforcement Bureau correspondence to alleged unlicensed broadcasters has targeted at least one more radio amateur — this time in the Greater New York City area. It's not the first time Winston A. Tulloch, KC2ALN, of Paterson, New Jersey, has heard from the FCC, which has had Tulloch in its sights for at least several months regarding a pirate FM station on 90.9 MHz. Last November, the Enforcement Bureau sent Tulloch a Notice of Unlicensed Operation after receiving information that he was operating a radio station. FCC agents used direction-finding techniques to zero in on a signal on 90.9 MHz coming from his residence.

"The field strength of the signal on frequency 90.9 MHz was measured at 105,451 microvolts per meter ( $\mu\text{V}/\text{m}$ ) at 101 meters, which exceeded the maximum permitted level of 250  $\mu\text{V}/\text{m}$  at 3 meters for non-licensed devices," the FCC said at the time.

Tulloch was sent a second Notice of Unlicensed Operation on June 8, after Enforcement Bureau agents from the FCC's New York Office on May 2 responded to a complaint of an unlicensed FM station operating on 90.9 MHz in Paterson. This time the signal, measured at 176,526  $\mu\text{V}/\text{m}$ , was determined to be emanating from another residence about 1 mile from Tulloch's. The FCC said someone at the residence identified Tulloch as the station's operator.

A third Notice of Unlicensed Operation followed on June 30, after Enforcement Bureau agents following up in the unlicensed FM station investigation in Paterson on June 12 confirmed by direction-finding techniques that the signal on 90.9 MHz was continuing to come from the same residence. On that occasion, the agents measured the signal at 5,705  $\mu\text{V}/\text{m}$  at 185 meters, still greatly exceeding the maximum permitted under FCC Part 15 rules for unlicensed devices.

FCC Enforcement Bureau Region 1 Director David C. Dombrowski now has advised Tulloch at least three times that the unlicensed radio operation on 90.9 MHz "must be discontinued immediately." The Commission's enforcement resources are already suffering from last year's closing of FCC field offices and the layoffs of field agents, however, and the current administration's budget allocates less money for the FCC.

In late May, the Enforcement Bureau issued a Notice of Violation (NoV) to Lyle E. Hilden, KD6LUL, of Vista, California, alleging that he had engaged in pirate radio broadcasting on the FM band.

In the past week, the Enforcement Bureau also sent Notices of Unlicensed Operation to other individuals in the Greater New York City area as well as to individuals and couples in Massachusetts and Florida.

Read More - <http://bit.ly/2uPkp10>

## Next Meeting August 8, 2017

The Brightleaf Amateur Radio Club will have its regular meeting at 7:30 PM Tuesday, August 8, at VFW Post 7032 on 1108 Mumford Road in Greenville. The program will be a video titled "The Story of Electricity". It is entertaining, educational and very informative.

All members, families and guests are invited to attend. All members, families and guests are invited to attend.

## BARC Board Meeting

The next board meeting will be Tuesday, August 29 at 7:30 PM at the Offices of Monday & Monday, (CPA), Suite D, East Victoria Court. All members invited.

Eclipse Safety

<https://eclipse2017.nasa.gov/safety>

This is an outstanding site from NASA.GOV. It has great details of the eclipse, suggestions on viewing the eclipse and many great links.

Eclipse Eyeglass Safety: Don't be Blindsided!

ONLY APPROVED GLASSES AND VIEWERS SHOULD BE USED!

Plan ahead to decide if you're going to make use of an indirect viewing method – more information below – or to watch the eclipse directly by using eclipse glasses. If the latter, please check the safety authenticity of viewing glasses to ensure they meet basic proper safety viewing standards.

Eclipse viewing glasses and handheld solar viewers should meet all the following criteria:

- 1. Have certification information with a designated ISO 12312-2 international standard
- 2. Have the manufacturer's name



Happy Birthday

Brightleaf Amateur Radio Club members birthdays in August.

- 01 KG4GVJ Mark Raysin
- 15 KB4JOE Joe Jeansonne
- 18 W4TSH Bobby Pace
- 19 KS4YF Paul Fletcher
- 20 KV4CN Dave LeMoine
- 25 K4GOE Al Mullis
- 26 N2BVN Elizabetha Schultz

Additions or corrections to KB4JOE

and address printed somewhere on the product

- 3. Not be used if they are older than three years, or have scratched or wrinkled lenses
- 4. Not use homemade filters or be substituted for with ordinary sunglasses -- not even very dark ones -- because they are not safe for looking directly at the Sun

The American Astronomical Society has verified that these five manufacturers are making eclipse glasses and handheld solar viewers that meet the ISO 12312-2 international standard for such products: American Paper Optics, Baader Planetarium (AstroSolar Silver/Gold film only), Rainbow Symphony, Thousand Oaks Optical, and TSE 17.

The above is from the NASA web site. There is much more information and many links at Eclipse 101 <<https://eclipse2017.nasa.gov/safety>>.

- W4YDY

Well Wishes

Thoughts and Prayers go out to the following:

Please inform Joe Jeansonne, KB4JOE, of any changes.

Next VE Session

Exams will be held on Tuesday, August 15, 2017 at VFW Post 7032 on 1108 Mumford Road in Greenville, NC. Exams will start promptly at 6:30 PM. For more info email Gary, KE5ACR at [ve@w4amc.com](mailto:ve@w4amc.com). (remove spaces) Study material at <http://www.arrl.org/coursestraining>. Walk-ins welcome.

Please bring the following required:

- Photo ID (drivers license)
- Original Amateur Radio License
- Copy of Amateur Radio License
- Original CSCE's
- Copy of CSCE
- Test fee is \$15.00 .
- Proof of Tech Plus if before 3/21/87 and doing paper upgrade to General.
- SS Number will be needed if you
- don't have an FRN number. \*

\* More info at <<http://bit.ly/1FOhE1S>>.

NC ARES Internet

<http://www.ncarrl.org/ares/>

Pitt County ARES EC needed!



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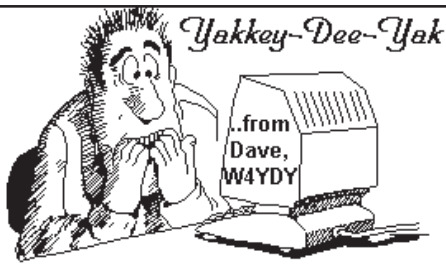
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**Field Day Link Correction**

When the link for the Field Day article in The Daily Reflector was printed in this column in the July issue, it split the word ‘radio’ and carried the last 3 letters in the next line. A dash was added in the middle of ‘radio’ so that caused a ‘page not found’ error in your browser. The correct link is <<http://www.reflector.com/News/2017/06/26/On-the-same-wavelength-Amateur-radio-bridges-the-gap.htm>>. The link has 8 ‘dashes’. If it shows up as more than that, check if for unusual splits in words.

**Senate bill, S. 1534**

All Amateur Radio operators should urge their US Senators to support the Amateur Radio Parity Act of 2017, S. 1534. ARRL has opened a RallyCongress page to simplify the task. The Rally Congress page is at <<https://arrl.rallycongress.net/ctas/urge-us-senate-to-support-amateur-radio-parity-act>>. (8 dashes in link).. On this and the next page, you just fill in a few blanks and you can send emals to your 2 senators. It took me less than 5 minutes and I received a thank you email for one the next day. A full text of H.R.555 - Amateur Radio Parity Act of 2017 below. <<https://www.congress.gov/bill/115th-congress/house-bill/555/text?q=%7B%22search>

<http://www.w4amc.com>  
%22%3A%5B%22hr+555%22%5D%7D&r=> (2 dashes in link).

**Eclipse - August 21, 2017**

Many will remember 8/21/17 for years to come. That’s when a solar eclipse will occur across the United States mainland. It will pass over Western NC and on down to Charleston, SC. About 92% of the sun’s rays will be covered here in Pitt County. You will need CERTIFIED solar eclipse glasses to look at the sun. I saw on Amazon that they had lots of brands. I understand many may not be certified. Only five manufacturers are making certified viewers, American Paper Optics, Baader Planetarium (AstroSolar Silver/Gold film only), Rainbow Symphony, Thousand Oaks Optical, and TSE 17. You will damage your eyes if you look at it without solar eclipse glasses. Sun glasses are no help at all. The dangerous rays will pass right through them. The Internet has info on making a simple projector for viewing. Go to this NASA site for eclipse safety: <<https://eclipse2017.nasa.gov/safety>> (No dashes)

An excellent web site showing the 2017 path is at <[http://eclipse-maps.com/Eclipse-Maps/Gallery/Pages/Total\\_solar\\_eclipse\\_of\\_2017\\_August\\_21\\_files/Media/TSE2017\\_stereographic/TSE2017\\_stereographic.jpg](http://eclipse-maps.com/Eclipse-Maps/Gallery/Pages/Total_solar_eclipse_of_2017_August_21_files/Media/TSE2017_stereographic/TSE2017_stereographic.jpg)>. (2 dashes)

On March 7, 1970, a solar eclipse passed right over Greenville. You can see the path it took over Greenville at <<https://eclipse.gsfc.nasa.gov/SEgoogle/SEgoogle1951/SE1970Mar07Tgoogle>

[html](#)>. (No dashes). The total eclipse came up from the Gulf of Mexico and covered most of Eastern North Carolina. The center passed near what is now the hospital emergency room parking lots at 1:33:16.7 EST and on up to the South end of the airport runway 02 about 3 seconds later! We lived in Raleigh but you could drive about 20 to 30 miles SE and be in the total eclipse. The picture is of Susan, future WA4AKB, looking at the eclipse with her homemade “pin-hole projector” in our back yard in Raleigh. BTW, the eclipse this year is on her birthday! Happy Birthday Susan!! - **W4YDY**



“W4YDY daughter Susan, future WA4AKB, viewing 1970 eclipse on homemade projector”

## Amateur Radio Parity Act is Introduced in US Senate

The Amateur Radio Parity Act of 2017 was introduced in the US Senate on July 12, marking another step forward for this landmark legislation. Senators Roger Wicker (R-MS) and Richard Blumenthal (D-CT) are the Senate sponsors. The measure will, for the first time, guarantee all radio amateurs living in deed-restricted communities governed by a homeowner's association (HOA) or subject to any private land use regulations, the right to erect and maintain effective outdoor antennas at their homes. The Senate bill, S. 1534, is identical to H.R. 555, which passed the US House of Representatives in January.

"Amateur Radio continues to be a critical part of our emergency communications operations," Wicker said. "Mississippians learned firsthand after Hurricane Katrina how Amateur Radio operators can provide a resilient, distributed network to first responders and disaster relief organizations when other communications tools fail."

"Amateur Radio operators provide an invaluable service to their communities by assisting local emergency communication efforts when disasters occur and main lines are down," Blumenthal said. "This bipartisan measure ensures that operators have access to the tools they need to support our first responders when lives are at stake."

FCC Chairman Ajit Pai applauded the bill in late January, saying that it would "help Amateur Radio operators, and take several steps to promote public safety."

ARRL President Rick Roderick, K5UR, expressed the League's appreciation to the Senate sponsors. "ARRL is grateful for the support of Senators Wicker and Blumenthal for sponsoring this important piece of legislation, and for advocating this bill for the past 3 years," he said. "Their continuing support is critical to the success of our efforts." President Roderick also thanked Senator John Thune (R-SD), who chairs the Senate Commerce Committee, for "championing

the Parity Act in the Senate since the beginning of our effort."

The bill has enjoyed widespread, bipartisan support. In the 114th Congress, nearly 130 cosponsors signed onto the legislation in the House and the Senate. The legislation, which strikes a carefully crafted balance for all concerned parties, is the result of months of work culminating in the accord reached by ARRL and the Community Associations Institute (CAI). The measure provides for the guarantee of an effective outdoor antenna while protecting the aesthetic concerns of HOAs.

In a statement, ARRL said it looks forward to working with the bipartisan leadership of the Senate and the Commerce Committee to help move the Wicker-Blumenthal legislation through the Senate and to the President's desk.

**-Read More** <http://bit.ly/2tMSUoK>

## June 2017 BARC VE Session Results

On the June 20, 2017 BARC VE session, five candidates passed Amateur Radio exams.

James Copeland, **N4BYY**, Roanoke Rapids, NC, upgraded from Advanced to Amateur Extra. Daniel Gurnee, **KN4BKQ**, Greenville upgraded to General. Glenn Spain, Mesic, NC, **KN4EES**, upgraded to General. He passed the Technician exam 3 days earlier in New Bern and received his call sign 2 days after he upgraded in Greenville. Brian Edmondson, **KN4EFZ**, Williamston, NC and Lucas Gomez, **KN4EGA**, Morehead City, NC passed the Technician exams. Also, Brian

joined the Brightleaf Amateur Radio Club. Welcome to the club Brian. The new call signs were posted by the FCC on June 26, 2017.

BARC congratulates all for their accomplishments.

The VE's that attended were VE Liaison Gary Coriell, **KK4GC** (16), Morris Lewis, **AK4MU**, (24), Al Mullis, **K4GOE**, (6), Gary Faust, **N4PIR**, (2) and Dave Langley, **W4YDY**, (124). (Note new call sign for Gary, ex-**KE5ACR**.)

The numbers after the VE list are the number of ARRL sessions attended by each including this session. Counts are at <http://www.arrl.org/ve-session-counts?state=NC>.

The next  
BARC VE  
session is  
scheduled for  
Aug 15, 2017

# Ham Ads

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**Ham Ads will be run, free of charge in Ham Chatter for three months for each renewal. Ads must be received by the last week of the month to be included in the following issue.**

**Send ads to:**

**Ham Chatter, PO Box 8387,  
Greenville, NC 27835, ATTN: Joe Jeansonne  
or email to: [hamchatter@w4amc.com](mailto:hamchatter@w4amc.com)(no spaces)**



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Greenville, NC 27834  
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[www.batteriesplus.com](http://www.batteriesplus.com)

## ARRL Board Explores Entry-Level License Options

Meeting July 21-22 in Farmington, Connecticut, the ARRL Board of Directors took steps to chart a firmer future for Amateur Radio by enhancing the value of the entry-level license and by providing ongoing support for new licensees. The Board also conferred several annual awards, including the prestigious Hiram Percy Maxim Memorial Award, the League's top honor for a young radio amateur. ARRL President Rick Roderrick, K5UR, chaired the second regular meeting of 2017.

ARRL New England Division Director Tom Frenaye, K1KI, presented the report of the Ad Hoc Entry-Level License Committee. He said the committee's initial, informal survey attracted nearly 7,900 responses. A second random survey drew another 375 responses. "A clear majority favored a revision to the Technician rather than a new entry-level license," the committee's report said, noting that this would require no change to the Technician examination, which already covers more material than necessary for an entry-level examination. "This choice requires the simplest revision to FCC rules," the committee report said. The committee suggested expanded digital access on 80, 40, and 15 meters, where Technicians already have CW access, as well as the addition of Technician phone privileges on those bands. Frenaye pointed out that

while the Amateur Radio population is growing, the annual rate of growth has stagnated at about 1%. "There is a general consensus...that 'something needs to happen,'" the committee's report said, noting a generally favorable attitude toward attracting newcomers.

"The general goal here is to have an entry level license that offers a way for a newcomer to experience multiple facets of Amateur Radio," the committee's report said, "encouraging them to get on the air, meet other licensees, and engage in a lifetime of learning while using Amateur Radio."

Later in the meeting, the Board charged the ARRL Executive Committee with developing a plan to implement the ad hoc committee's recommendation to make the current Technician class license more attractive and useful by expanding its operating privileges on HF to include phone and digital modes. The Board asked the Ad Hoc Entry-Level License Committee to further research and develop the details of a second recommendation to improve successful outreach to prospective radio amateurs and help them through the licensing process.

ARRL Ad Hoc Legislative Advocacy Committee Chair and Hudson Division Director Mike Lisenco, N2YBB, discussed the status of the US Senate version

of the Amateur Radio Parity Act of 2017. Lisenco said Senate leadership is supportive of the bill, which should be scheduled for mark-up in the Senate Commerce Committee.

ARRL Chief Executive Officer Tom Gallagher, NY2RF, presented the report of six Headquarters staffers who had been tasked with identifying the challenges facing ARRL and devising feasible solutions. Specifically, the committee addressed market research findings that have continued to reveal that only a small percentage of new hams join the League, and only about one-half of new hams actually get on the air.

The committee began with the premise that ARRL must act in order to remain relevant going forward. It proposed instituting a Lifelong Learning Program to focus on developing a clear developmental path for all radio amateurs, from newcomers to established radio amateurs. The committee recommended the creation of new programs and services to increase the knowledge base of newcomers in order to get them active, as well as programs to keep experienced amateurs up to date with changing technology and practice.

Read More - <http://bit.ly/2uSgLSH>

**EclipseMob Low Frequency Effort**

Since 1912 there have been many efforts to collect and analyze data during a solar eclipse to help understand the ionosphere. These efforts have been conducted in frequencies ranging from VLF to VHF. In most cases, individuals or small teams have collected data from disparate transmitters.

EclipseMob is an effort to crowd-source collection of data from a single transmitter at hundreds of spatially diverse receivers, resulting in the largest-ever measurement campaign of ionospheric effects on radio wave propagation during a solar eclipse. This allows us to compare the collections using both geolocation and time.

The main focus of EclipseMob is collecting amplitude variation data from WWVB, which operates at 60 kHz. A secondary focus is on the U.S. Navy's VLF and LF transmitters.

In studying past collections at VLF and LF frequencies, several interesting behaviors were observed. For example, some reports showed an increase in signal strength, some reported a decrease in signal strength, and some reported a "W"-like pattern with first a decrease, then an increase, then a decrease, then back to the same amplitude as before the eclipse. It is worth noting that all of these experiments were conducted at different receive locations for different transmitters during different eclipses. We hope that, that with enough spatially diverse collection sites relative to a single fixed transmitter, we can answer the question of why results have varied so significantly in prior experiments.

Another result that shows up in the literature is the shape of the waveform before, during, and after the

eclipse. Most reports show a slow rise in amplitude followed by a much quicker decrease. This could be explained by the time constants associated with recombination in the D layer followed by re-ionization of the D layer. However, not all reports show that shape. We also hope to address the reason for this discrepancy based upon the spatially diverse collection.

There are multiple ways to collect the time amplitude data required for these studies. One can simply use a VLF/LF receiver in which amplitude can be digitized or is already digitized. One can purchase a SuperSid receiver from <http://radio-astronomy.org/node/210> (\$48).

Or one can build the receiver shown on the EclipseMob website (EclipseMob.org). This is a simple receiver, composed of only one chip and a few other components. The output is fed into the microphone jack of an Android smartphone that runs an app to digitize the signals and add location and time information.

Since this effort is a passive collection, folks can collect this data while still taking part in other solar eclipse activities such as the Eclipse QSO Party. Additionally, an amateur radio license is not required for collecting EclipseMob data.

The EclipseMob project is a joint effort of many people. The leadership team includes:

Laura Lukes, KK4FYT, George Mason University  
 Jill Nelson, George Mason University  
 KC Kerby-Patel, University of Mass at Boston  
 Bill Liles, NQ6Z  
 With support from

Morris Cohen, Georgia Tech  
 John Rockway, U.S. Navy SPAWAR

-Read More - <http://bit.ly/2hiDft7>

**NETS  
 VHF/UHF**

- ◆ BARC Net, Mondays, 2000 on 147.09 MHz, W4GDF Repeater.
- ◆ Newport SkyWarn Tues. nights 2100E Grifton-146.685-88.5 tone
- ◆ Newport-145.450..... IRLP 8561 links to Columbia
- ◆ Jacksonville-147.000- 88.5 tone
- ◆ Oriental-147.210-151.4 tone
- ◆ 444 Newport-444.825- 88.5 tone
- ◆ Swansboro-146.760- 88.5 tone
- ◆ Grantsboro-145 230 - 85.4 tone.
- ◆ Kinston Amateur Radio Society Net, 1,3,4 Tuesdays, 2000 hrs. on 145.47 MHz., W4OIX repeater in Kinston.
- ◆ Eastern North Carolina Traffic Net, Every night, 2030 on 146.685 MHz.
- ◆ Wilson Amateur Radio Club Net, Thursdays @ 2000 on 146.76 MHz.
- ◆ Piedmont Coastal Traffic Net, Nightly 2030 on 146.88 MHz.
- ◆ Carteret County ARS (CCARS) Emergency Net, Tuesdays, 1930 on the Newport 145.45 (-) MHz.
- ◆ Coastal Emergency Linking Net, Wednesday, 2100 ET on Ahoskie 145.13, Buxton 145.15, Columbia 146.835 & 443.30, Elizabeth City 146.655, Greenville, 145.35, Hertford 147.33, Williamston 145.41 & 444.25

**HF**

- ◆ Tar Heel Emergency Communications Net on 3923 kHz Nightly 1930.

**NTS CW Nets**

- ◆ 3.571 2000 hours, slow speed (5-8 wpm) Carolinas Slow Net
- ◆ 3.573 1900 hours, high speed (20wpm)
- ◆ 3.573 2200 hours, slow speed (12-14 wpm), South Carolina/ North Carolina

**Greenville repeaters**

147.09/69 - 145.35/144.75  
 444.8/449.8  
 All use 131.8 tone

## BARC CALENDAR OF EVENTS

August 8..... Regular Meeting	Nov 4/5 ..... ARRL CW Sweepstakes
August 12 .....SOS Show Off Shack #5	Nov 14 ..... Regular Meeting
August 15 .....BARC VE Session	Nov 18/19 ..... ARRL SSB Sweepstakes
August 29..... Board Meeting	Nov 19 ?..... Benson Hamfest
Sept 1/2/3 ..... Shelby Hamfest	Nov 25/26 .....CQ WW CW DX Contest
Sept 12..... Regular Meeting	Nov 28.....Board Meeting
Sept 23/24 ..... CQ WW RTTY DX Contest	Dec 2/3 ..... ARRL 160 Meter Contest
Sept 6 ..... Board Meeting	Dec 9/10 ..... ARRL 10 Meter Contest
Oct 10 ..... Regular Meeting	Dec 12 ..... BARC Christmas Party
Oct 17 .....BARC VE Session	Dec 19 .....BARC VE Session
Oct 28/29..... CQ WW SSB DX Contest	Dec 26 ..... Board Meeting
Oct 31 ..... Board Meeting	Jan 1 ..... BARC Dues DUE

**Regular Meeting - 2nd Tuesday @ 7:30 PM**  
**Board Meeting - Last Tuesday**

BARC 2 METER NET - MONDAY NIGHTS AT 8:00 PM - 147.09 W4GDF REPEATER - 131.8 Tone  
BRIGHTLEAF AMATEUR RADIO CLUB STATIONS  
**W 1 V O A - W 4 A M C - W 4 U H S**



**Next Meeting**  
**August 8, 2017**  
**AUGUST 2017**



**Ham Chatter**  
Brightleaf Amateur Radio Club  
PO Box 8387  
Greenville, NC 27835

To: