



The Blue Ridge Echo .. Echo .. Echo..



Official Transmitter of the Blue Ridge Amateur Radio Club - W4YK -

Message from the President, Stan Frady (N1BBS)

We had a great meeting this month on ADSB. I will supply the information next month, but for those who want to know more, you can find a lot online about setting up ADSB using a RTL-SDR and about collinear antennas for 1090 Mhz. We have the yearly NC/SC QSO party coming up this month. Contact Danny if you have time to participate or if you want to stop by the shack and observe.

See everyone next month at our March Meeting.

73's

Stan (N1BBS)

Minutes from February 6, 2017

The meeting opened at 7:04 PM with the Pledge of Allegiance chaired by Stan Frady (N1BBS) our club President.

In Attendance

There were 18 people who signed the attendance sheet.

Visitors

We had two visitors: Gordie Neff (N9FF) and Phil Drake (K4VOK).

Club Business

The minutes from the January meeting were approved by the membership, as was the Treasurer's Report.

Treasurer's Report



January 1 – January 31, 2017

Balance as of 12/31/16	\$1,806.61
Plus: Dep: Dues 10x plus \$8 50/50	\$208.00
Total Income	\$208.00
Sub-Total	\$2,014.61
Less: Exp: Ronnie Parham – (Attenuator)	\$50.00
Total Expense	\$50.00
BALANCE AS OF 01/31/17	\$1,964.61

New Business

2017 dues for the *Blue Ridge Amateur Radio Club* are \$20 and are now due. Either send me a check made out to BRARC or bring a check or cash to the next meeting. My contact information follows. Thanks!

Steve Smith, KC5F, BRARC Treasurer
607 E Blue Ridge Rd
East Flat Rock NC 28726-2205

ID Badges

Members who need badge replacements and new members should contact Stan (N1BBS) to get their badges

Announcements

- *Charlotte Ham Fest* is scheduled for Friday, March 9 to Saturday March 10, 2017.
- Phil (N4HF) asked how many would be interested in going to the Dayton Hamfest (next year) by bus. Four members responded. If you are interested, contact Phil to get on their distribution list.
- David Day formally presented a QSO card to Ernie Hollingsworth (KC4SIT) who was granted his experimental license for 630 meters.

FORMAL PRESENTATION

There was a formal presentation on *Automatic Dependent Surveillance – Broadcast* (ADS-B). ADS-B is a surveillance technology where aircraft can determine it's position by satellite navigation. This system is used by air traffic control as a replacement for secondary radar. The presentation was informative and enjoyed by all.

50/50 Drawing

Burnis Souther won the drawing.

Meeting Ended

The meeting was formally closed at 8:07 PM by a majority vote.

Monthly Article

This month's article:

Zero Bias – A CQ Editorial

"Dit ... Dit ... Dit ... Dah... Ten Years of Code-Free Licensing"

BY RICH MOSESON, W2VU*

Reprinted from CQ Magazine

"Ten years ago this month, on February 22, 2007, a volunteer examiner team somewhere in the United States administered the final code test for an FCC amateur radio license. It was the closing act in a long-running drama that played out over the course of more than three decades, with the Greek tragedy-style chorus each time wailing of the imminent death of ham radio.

The drama began in 1974, when the FCC first proposed eliminating the Morse code exam for the Technician Class license. The computer age was dawning, most VHF/UHF activity was on voice and many of those hams and would-be hams who were interested mostly in the "high-tech" of the times felt the code exam was an impediment to growth in the hobby. The amateur community at large strongly opposed the proposal and the FCC backed down. The U.S. had roughly 350,000 licensed amateurs at the time.

Over the next decade-and-a-half, there were more proposals and changes in an effort to increase our ranks and to bring more young people into the hobby (the initial round of baby-boomer "kids" who found a home in ham radio in the 1950s and '60s were beginning to age and grew concerned about competition for technically-oriented young people in the generation that followed). In 1978, Technicians were given Novice HF privileges [they had been limited to 50 MHz and up, despite passing a 5 word-per-minute (WPM) code test and the General Class written exam]. A decade later, Novice Enhancement loosened many of the restrictions on Novices and gave them limited voice privileges on the 10-meter, 220-MHz, and 1296-MHz bands. But there were no changes in code test requirements. At this point, there were just under 430,000 hams in the U.S.¹

The beginning of the end for code testing came in 1990, when the FCC once again proposed eliminating the code requirement for Technicians. Despite loud opposition, the mood of the broader amateur community had shifted and comments generally favored the FCC proposal. Code tests for Techs rode into the sunset on Valentine's Day, 1991. But the so-called No-Code Techs were given only VHF and UHF privileges. Passing a code test to become a "Tech Plus"

licensee was required in order to access those limited HF Novice privileges that Techs had been granted a decade earlier. The amateur radio ranks had grown to just over 530,000 by this point, but handwringing continued about the hobby's future and the chorus wailed that eliminating the Technician code test would turn the VHF and UHF ham bands into CB.

Next came license restructuring in 2000, when the FCC stopped issuing new Novice and Advanced Class licenses, did away with the separate Tech and Tech-Plus distinctions and lowered the code test speed for General and Extra from 13 and 20 WPM, respectively, to 5 WPM for both. In 2003, the International Telecommunication Union dropped the worldwide requirement for hams using HF to have passed a code test. No less than 18 petitions were filed with the FCC to do the same, and in 2005, the Commission issued a Notice of Proposed Rule Making to eliminate code tests for all levels of U.S. amateur licenses. The resulting Report and Order — calling code exams "an unnecessary regulatory burden" — was issued in late December 2006 and took effect on February 23, 2007. It also granted "no-code Techs" the HF spectrum segments they'd previously been denied without passing a code test. The total number of U.S. amateurs at the end of February 2007 was just under 655,500,2 but had been declining steadily since peaking at nearly 688,000 in April 2003. Once again, there were dire predictions for the fate of amateur radio, and especially for CW as an operating mode. Without a mandatory code test, the chorus sang, CW would wither and die.

Our feeling at the time was, as it is today, that CW as an operating mode has enough benefits to thrive on its own, without the need for forcing people to learn it (especially with the bizarre reasoning that you must learn code in order to operate voice). We also felt that, once learning code was perceived as a challenge rather than an obstacle, and was something that could be done at your own pace, interest would not only hold steady but would possibly grow. One manufacturer of keys and keyers told us a certain percentage of hams embrace code as an operating mode without regard to license requirements, and that that same percentage of a higher total number of hams would be just fine for his business.

So ... where are we ten years down the road? Has the ham population continued to decline? Has CW use on the air declined? Let's take a look at some numbers: About three months after the code tests went away, the ham population started to grow again. It hasn't stopped. As of the end of September 2016 (the latest month for which figures were available when this was written), there were just under 741,000 licensed hams in the U.S., an all-time high. The number represents a 13% net increase since 2007, and we generally get between 25,000 and 30,000 new people joining the hobby each year.

Of even greater interest, though, is growth by license class. Technician Class licenses have kept pace with overall growth, showing a 14% increase in the past 10 years (and remaining at roughly half the total of licensed hams today, as in 2007). However, the number of General Class hams has grown by 31% in the same time period and the number of Extra Class hams has risen by 32%. Clearly, the code test had posed an obstacle to upgrading for many thousands of hams. But now that learning code was optional, how many of those new Generals and Extras would actually do it?

It's hard to quantify day-to-day operation with any accuracy, since what you hear on the bands at any given time may vary depending on a multitude of factors. When I took a listen on a recent morning, I heard a fair amount of CW activity on 40, 30, and 20 meters — about what I'd expect on a weekday morning in December on the downward slope of a sunspot cycle. Much of what I heard was relatively slow-speed code, suggesting that a certain number of hams who did not need to pass a code test to earn their operating privileges continue to take up the challenge to learn and use CW regardless. I regularly hear from newer hams that their goal for the near future is to either learn code or improve their skills.

This broad level of continued/growing interest is enhanced by the growth in the past decade of interest in QRP (lowpower operating) and homebrewing/kitbuilding. CW is the mode of choice for low power because it gets through better than voice under marginal band conditions, and CW transmitters are simpler to build, smaller and less powerhungry than phone rigs, ideal for "in-the-field" operating.

One area in which we do have numbers to take an objective look is contest logs. In 2006, there were roughly 4,600 CW logs submitted for the CQ World Wide DX Contest. In 2016, the number was over 7,300, a 60% increase! For the CQ WPX Contest, there were just under 2,300 CW logs submitted in 2006; just over 4,200 in 2016, an increase of 85%! (Interestingly, this is more representative of a huge increase in overall contest participation than a spike in CW activity — the number of CW logs as a percentage of total logs submitted in each contest has remained steady as overall participation has surged.)

These stats aren't only for CQ contests or hard-core contesters. The number of CW contacts in ARRL's Field Day — which attracts more casual operators than dedicated contesters — increased by 12% over the same time period, and went from 42% of total contacts to 45%.³ Bottom line: Ham radio is alive and well, and CW is alive and well, as we enter the second decade of ham licensing that does not require a code exam. Still worried about CW's future? Get on the air (preferably in the General CW subbands), call - . - . - . (slowly), and be patient with the newbies who will answer your call.”

- 73, Rich, W2VU

Calendar of Events

Here are some notable dates:

Date	Description
March 7, 2017	BRARC Meeting. . This will be held at the Twin Dragons in Brevard, NC starting at 6:00 PM.
March 9 - 10, 2017	Charlotte Hamfest. For complete details refer to their website. https://charlottehamfest.org
March 25 to 26, 2017	NC/SC QSO Party Contest Shack opens at 10:00 AM Saturday to Sunday 8:00 PM. Volunteers needed. Contact Danny (NA4X)
April 15, 2017	Raleigh Amateur Radio Society will hold the 45th Annual RARSfest and 2017 ARRL Roanoke Division Convention Saturday, April 15 at the NC State Fairgrounds-Jim Graham Building, 1025 Blue Ridge Road. Website: < www.rars.org >. Talk-in 146.64. VE exams, DXCC/WAS/WAC/VUCC card checking.

For Sale

Three items from Duke (W3DK);

1) COM IC-91AD 144/440 Mhz MARS, CAP capable
D-STAR
Drop-in Charger // Automobile charger
(2) 7.4v 1300ma batteries
(2) BP-216 "AAA" emergency battery
MANUAL..... Asking \$125

2) KENWOOD TH-D7G 144/440 Mhz MARS, CAP Capable
APRS / PACKET
Drop-in Rapid Charger // Automobile charger
Speaker/Mike
Control/ Packet Cable
Spare 7.2v 2000 MA Batt
(2) BT-11h "AA" emergency battery
MANUAL..... Asking \$150

3) BAOFENG UV-5R+ 144/440 Mhz
Drop-in Charger // Automobile charger

7.4v 1800 ma battery // 7.4v 2400ma battery
Speaker mike
Programming cable
MANUAL..... Asking \$30

Contact: Duke W4DK@arrl.net or 891-4359

DMR Radio from Bob (W4RYF)

Any Tone AT-D858 HT Digital Mobil Radio:



**Any Tone AT-D858 DMR
HT Digital Mobile Radio,**

New Price \$90

Mint Condition !

- Extreme Environment
- Built for dual-mode (Digital+ Analog)
- 1000Channels
- 2000mAH Li ion Battery
- Versatile Voice Call (Private call,group call, all call and emergency call)
- SMS function
- AMBE+2 TM Vocader
- Includes antenna, desk top rapid charger, USB programming cable, manual and box.

Contact Bob Felt, W4RYF@ARRL.NET , Ph (828) 696-4103, o r cell text: (703) 915- 2796

Popular Ham Radio Nets

FM Nets

BRARC Net (W4YK) 146.640 MHz / T91.5
Henderson County ARES Net 146.640 MHz / T91.5

Sunday 8:00 PM
Wednesday 9:00 PM

Oasis Shrine Net	145.190 MHz	Sunday 9:00 PM
Blue Ridge Traffic (SC)	146.610 MHz	Daily 9:00 PM
6600 Net	145.190 MHz	Saturday 9:00 PM
Good Morning Net	146.760 MHz	M-W-F 9:00 AM
WCARS Information Net	146.910 MHz/ T91.5	Monday 9:00 PM
Buncombe ARES Net	146.910 MHz / T91.5	Wednesday 9:00 PM
Transylvania ARC Net	147.135 MHz	Thursday 8:00 PM
WCARS Simplex Net	147.525 MHz	Tuesday 8:30 PM
Anderson Radio Club Net	146.790 MHz	Daily 8:30 PM
Mount Pisgah 220 Net	224.260 MHz	Sunday 9:00 PM
Mount Mitchell 220 Net	224.540 MHz	Monday 8:00 PM
Mount Pisgah 220 Thur Net	224.260 MHz	Thursday 8:00 PM
Mount Spivey 220 Net	224.600/T 98.4	Wednesday 8:00 PM
6 Meter Rag Chew	53.130 MHz/T 100	Friday 9:00 PM

CW Nets

Hit and Bounce Net	7.042 MHz (CW)	Daily 8:30 AM
Carolinas Slow Net	3.571 MHz (CW 5-8 wpm)	Daily 8:00 PM
Carolinas Net (Early)	3.573 MHz (CW 20-22 wpm)	Daily 7:00 PM
Carolinas Net (Late)	3.573 MHz (CW 15 18 wpm)	Daily 10:00 PM

HF Nets

K4UUQ Morning Net	7.225.5 MHz (SSB)	Mon-Sat 7:00 AM
QCWA Chapter 76	3.636 MHz (SSB)	Saturday 8:45 AM
NC Evening Net	3.923 MHz (SSB)	Daily 6:30 PM
Tarheel ARES Net	3.923 MHz (SSB)	Daily 7:30 PM
NC Morning Net	3.927 MHz (SSB)	Daily 7:45 AM
Get Up and Go Net	28.350/28.360 MHZ	Sunday 9:00 PM
SATURN Net	14.265 MHz (SSB)	Daily 10:00 AM

Simplex Nets

2 Meter Simplex Net	146.640 / 146.580 Simplex	Thursday 9:00 PM
6 Meter Simplex Net	52.5700 MHZ FM	Thursday 9:00 PM
10 Meter Simplex Net	28.420 MHZ	Thursday 9:00 PM
440 Simplex Net	446.000 MHz	Thursday 9:00 PM

Digital Mobil Radio Nets

DMR Net	WNC TalkGroup	Thursday 8:30 PM
DMR Net	TAC310 TalkGroup	Sunday 8:00 PM

Club Information

Blue Ridge Amateur Radio Club (BRARC)

Radio operators come from all walks of life. Some are students, teachers, pilots, technicians, police officers, doctors, executives, retired military, engineers, you name it.

The *Blue Ridge Amateur Radio Club (BRARC)* is all of these things. Another key benefit it that they give-back in many ways back to their community. Amateur radio operators at BRARC donate time and equipment to participate with the *Department of Emergency Management*, the *Red Cross*, and *FEMA*. Radio operators practice using their equipment without power from the grid. So during REAL emergencies they can supply the necessary communication to first responders so they can provide help to those who need it. *Hurricane Sandy* was a perfect example. Ham radio operators helped FEMA direct needed supplies and medical attention.

BRARC also provides volunteer community support in a variety of community activities including, parades including the 4th of July, and Christmas parades, walk-a-thons, bike-a-thons, and the Fletcher Flier.

The *Blue Ridge Amateur Radio Club* also provides daily and weekly forums via what they call "Nets." You don't need a ham license to listen to a net - just a radio. These forums include informal sessions or "rag chews" that discuss local events or just about any topic.

Blue Ridge Echo Submissions

If you have timely information that you would like to publish in the *Echo*, all submissions must be received by the first 6-7 days of each month in order to meet publication deadlines. Please send your copy to Doug (KJ4WWN) at themtns@yahoo.com.

Blue Ridge Amateur Radio Club Officers

Title	Name	Call Sign	Phone	Email
President	Stan Frady	N1BBS	910-366-2133	skfrady@gmail.com
Vice President	James Reed	KK4JFO	828-698-3609	jsreed@bellsouth.net
Treas./Member.	Steve Smith	KC5F	489-6637	kc4f@arrl.net
Secretary	Doug Davis	KJ4WWN	828-685-1291	themtns@yahoo.com
Member @ Large	David Day	N1DAY	203-450-0053	davidday@yahoo.com
Public Info/test.	Dick Smith	W4RSS	828-687-9531	w4rss@radioclub.org