

New Bern Amateur Radio Club



foto by W2RLG & WA0ZGL

Volume 31, Issue 12, December, 2008



Logo tnx to Eve, XYL of W2HVX

W4EWN/R

146.610/ 146.010 PL 100 Hz.
444.900 / 449.900 PL 100 Hz.

Website: <http://www.nbarc.org>

Next Meeting -- Thursday, December 4, 2008

6:30 PM at Famous Subs & Pizza, 2210 Neuse Blvd.

Program: The annual Holiday Gala - a gift exchange of \$10.00 or less. Guys bring a guy gift and Gals bring a gal gift. XYL's and families /friends are welcome. 5:30 PM to the end. New club officers will be installed.

Minutes of Meeting

NEW BERN AMATEUR RADIO CLUB

6 November 2008

The regular monthly meeting of the New Bern Amateur Radio Club was held this date and the meeting was called to order at 6:40pm by President Dave Warwick, **K4DJW**. There were 27 names of the roster, one of which is attached to these minutes. Introductions were made from the floor. Dave made a few announcements and then called for committee reports. There was no program since it was time for election of officers. Dave mentioned that the club trailer would be at Howard (**KG4MBD**) Barrett's residence for repairs, and that anyone that wanted to volunteer to help with the repairs please contact Dave. Also mentioned was activity for the past few weeks at the repeater site, which also will require some volunteer repair work. Dave also thanked Bruce Arnold, **N8UTY**, Bill Ash, **N2GAH**, and Bill Reasons, **KI4TDY**, for their service as the nominating committee.

Jim, **KS4O**, mentioned that December 6th will be SkyWarn Appreciation Day at the Newport Weather Station. Jim also suggested that he would check out the two meter emergency station that is in the security room at the hospital. Ken, **K4KDM**, mentioned that there was a problem with the HF antenna at the church and that some work would have to be done there before the HF station would be back up. Bruce gave a report on the recent exam session at the college. One result of the exam session was that Bob Melle, already a member of the club, was now licensed as **KJ4HJH**, and had already begun cranking to pass the General Class test.

The nominating committee announced their slate of officers which were as follows: Dave Warwick for reelection as President, Pete Koonce, **KA4SXX**, reelection for Vice President, and after some shuffling and volunteering, Bob Melle, **KJ4HJH**, for Secretary, and Ray Hemphill, **W7OPH**, for Finance, Billie Morton, **KE4YMA**, reelection to Repeater Trustee. Jim Wright, **KS4O**, will continue for the club as Communications Officer/ARRL Emergency Coordinator for Craven

County, and Bruce will continue on in Charlie's footsteps as the exam coordinator for the club. Since all five candidates for election agreed to another year service, the election resulted in a motion and a second to accept all five positions by acclamation -- a vote which carried unanimously. The Programs Committee was the only committee that needs a chairman. The meeting was adjourned just after Lloyd, **KC2KR**, won the door prize of the Cantenna dummy load; the time was 7:20pm.
Ray Hemphill, **W7OPH**, Secretary

FINANCIAL REPORT

Check next mo.

President's Corner

Check next mo.

HAMFESTS

Jan. 10, 2009 Winston-Salem FirstFest Summit School Parking Lot, [2100 Reynolda Road http://www.w4nc.com](http://www.w4nc.com)
Email: firstfest09@w4nc.org

Jan. 10, 2009 Greenwood (SC) Hamfest Greenwood Civic Center, [1610 Highway 72/221 East http://www.w4gwd.org](http://www.w4gwd.org)
Email: dbmanning@wctel.net

Holiday VE Schedule

NBARC won't host a VE session in December, as our usual 3rd Saturday falls so close to Christmas. Our next test session will be in February. The Morehead City group will test in January as usual.

Bruce, **N8UTY**
VE Liaison

ARES ANGLE

Skywarn Appreciation Day

On Saturday, December 6, the National Weather Service will once again have its annual Skywarn Appreciation Day. It will be at the Newport NWS office, located at 533 Roberts Road in Newport. If you're heading south on Highway 70, there is a tall tower across the street from the Weather. Turn right (West) on Roberts Road for about half a mile and the MHX weather station will be on your left.

Hal Austin, **NC4HA**, is a weather forecaster and a ham. Bill Sanford, **K4VHO**, is the MHS Skywarn District EC. I expect both will be there this year, and if we're lucky, Bill will be cooking a banquet of hamburgers and hot dogs.



While you're there, be sure to take a seat at the well-equipped station and make a few contacts.



Section Net SSB Frequency Changes

Propagation drops off early on 80 meters, as you may have noticed. Consequently, beginning November 25 the National Traffic System (NTS) North Carolina Evening Net (NCEN) will begin at 5:30pm EST on 3.923Mhz. The net will move back to 6:30pm when conditions improve. While ARES members would normally check in to the Tarheel Emergency Net, we are also being asked to check in to the NCEN to make sure there are enough outlets for traffic.

Similarly, the Tarheel Emergency Net will move to 1.945Mhz at its usual time, 7:30pm EST, on every night except Monday night. On Monday's we'll attempt to use the "old standard" 80m frequency of 3.923Mhz.

Many of you don't think you're set up for 160 meters. Please give it a try... you may be able to load up what you have adequately for the Tarheel Net, and you'll have one more tool available for the next emergency.

That's it for November, 2008.

73,

Jim, **KS4O**, Craven County EC

Amateurs on 600 Metres

RAC Bulletin 2008-029E: November 10, 2008

Industry Canada has accepted an RAC proposal whereby selected Canadian radio amateurs would be permitted to operate in the vicinity of 500 kHz.

These amateur operations would support Canada's efforts to action a proposal on the agenda of the 2011 World Radio Conference (WRC2011) which, if adopted, would create an amateur allocation in the 600-meter band.

Industry Canada have authorized RAC to recommend amateurs who would be licensed to operate in the 504 to 509 kHz band with a maximum power of 20 watts ERP and bandwidth up to 1 kHz. Stations operating in this band would be technically operating under Special Developmental Licenses although they would all be radio amateurs. Distinct call signs would be used and the licenses would be renewable annually subject to the amateur demonstrating the research he has carried out.

Vernon Erle Ikeda - **VE2MBS**
RAC News Bulletin Editor

"Hashafisti Scratchi" a Silent Key

<http://newsvc.cq-amateur-radio.com/>

Posted: Nov 25, 2008

The man who wrote "Scratchi" for CQ magazine is a Silent Key. George H. Floyd, Jr., **WA4DGA** (ex-**W2RYT**), of Lynchburg, Virginia, entertained thousands of his fellow hams for more than two decades -- between 1947 and 1971 -- writing as a politically-incorrect (by today's standards) Japanese-American ham with fractured English and contorted spelling. He wrote from "Feenix, Ariz.," began each column with "Deer Hon. Ed.," and regularly skewered the pomposity and poor operating practices he encountered on the air. He passed away November 22 at the age of 91.

In real life, George Floyd was an engineer and executive with General Electric, working in Schenectady and Syracuse, New York, before moving to Lynchburg, Virginia in the late 1950s. GE alumni will also remember George -- pseudonymously as well -- as "Lighthouse Larry" in GE employee publications.

Scratchi first appeared in CQ in June, 1947. The column became a regular feature between 1948 and 1960, then returned from 1966 to 1971. For many CQ readers in that time period, Scratchi was the first item they read when the magazine arrived each month. CQ Publisher Dick Ross, **K2MGA**, writing in the magazine's 50th anniversary issue in

January, 1995, said: "For many years the name Hashafisti Scratchi has been almost synonymous with confusion and consternation in amateur radio. It seems, too, that whenever the unusual or impossible is happening, Scratchi is there helping it happen."

Upon receiving news of George's passing, Ross noted, "As saddened as I am to learn of George's death, the mere mention of his name brings a smile to my face, knowing how his good humor and wonderfully creative imagination entertained so many of us for so many years."

D-STAR Growth Spurt in North Carolina

By Gary Pearce, **KN4AQ**

A whole bunch of new D-STAR repeaters appeared in North Carolina as summer drew to a close. We now have D-STAR machines in Raleigh, Durham, Burlington, Greensboro and Charlotte, with overlapping coverage from Raleigh to Charlotte along the I-40/85 corridor. That mirrors the growth of D-STAR nationwide, even worldwide. You can get a look at how D-STAR is growing by looking at the users and repeater directory at www.dstarusers.com.

With that growth comes a change in my recommendation about buying a D-STAR radio. Previously, I said that only those willing to risk being on a leading edge that could break off into nowhere should consider D-STAR. Now, there are enough repeaters that I'd recommend D-STAR to any ham interested in the new technology.

There is still some risk. ICOM is still the only manufacturer making D-STAR equipment (though there is one non-ICOM product, the DVDongle, that gets you onto the worldwide D-STAR network through your computer and Internet connection -- see the sidebar). ICOM's D-STAR radios are still on the expensive side, but prices are coming down. You can get a D-STAR-ready IC-91AD handheld for under \$400 now, and the mono-band radios are even less expensive. More downside: I spoke to a Kenwood sales manager at the TAPR conference in Chicago recently, and he was adamant that Kenwood is not getting into D-STAR.

So you should go into D-STAR (or stay away) with your eyes wide open. My article Operating D-STAR (September, 2007 QST) is still a good primer, and you can download a pdf of it on my web site: www.arvideonews.com, in the Digital Voice section. One thing to consider is that all D-STAR radios are dual-mode. They're good analog radios, and the D-STAR part of them is on a plug-in board. ICOM isn't even whispering this, but if D-STAR should be replaced by different, or newer technology, maybe the radios can be upgraded with a new board.

VERTICAL ANTENNAS – PART V
GROUND MOUNTED ANTENNAS TALLER THAN ¼ WL

ANDY GRIFFITH, W4ULD

We stated earlier that a ground mounted antenna ¼ WL tall will have an input impedance at its base of about 36 ohms and zero reactance assuming the ground is supplemented with 100 radials. In the AM broadcast industry ¼ WL in height was about as high as one wanted to go. In Ham radio taller antennas in terms of WL are practical especially for 14 MHz. and above.

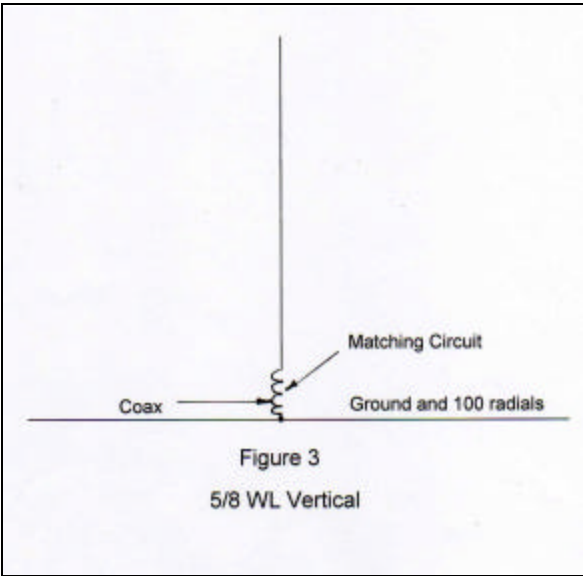
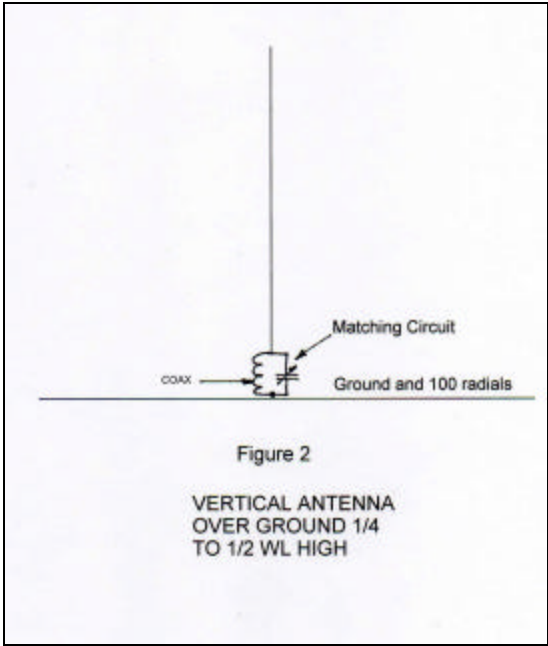
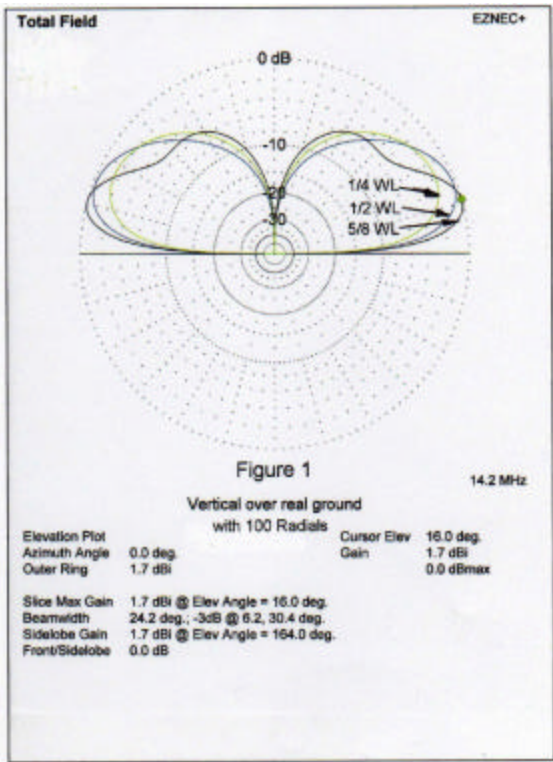
Generally as one increases the height of an antenna above ¼ WL, the minimum angle of radiation will come down as shown in Figure 1, thus increasing the gain in the lowest lobe. This effect is valid up to a height of about 5/8 WL. Above 5/8 WL high angle lobes become dominant. The low angle can be advantageous for working DX if one can locate the antenna in the open. This is also the basis for the 5/8 WL whip used extensively at VHF for mobile antennas.

As the height is increased above ¼ WL, the input impedance becomes inductively reactive and the resistive component increases until at ½ WL the reactance is again zero but the resistance approaches 1500 ohms. Thus, between ¼ WL and ½ WL some form of capacitive loading must be used to cancel the inductive reactance of the antenna. Above ½ WL the reactance is capacitive and the resistance begins to subside. At 5/8 WL an inductance is used at the base of the antenna for loading and impedance matching.

The usual method of feeding a vertical between ¼ WL and ½ WL is with an LC circuit as shown in Figure 2. The parallel LC circuit will have a capacitive total reactance as long as the absolute value of the reactance of the inductor exceeds the absolute value of the reactance of the capacitor. (See *The ARRL Handbook*). A fixed inductor and a variable capacitor thus become a convenient way to cancel out the inductive reactance of the antenna. Unless the antenna is close to ¼ WL, the R component will be above 50 ohms. Therefore, by taping the coax feed line starting at the bottom of the inductor, a match can be obtained between the coax and the input resistance of the antenna.

The same type of LC circuit can be used for a ½ WL tall vertical. However, in this case the LC circuit should be resonant at the operating frequency since the antenna contains no reactance. With a variable capacitor of 125 pF a suitable coil would be 1.256 uH or one consisting of 5 turns of #12 wire wound on a 2 in. PVC form with a coil length of 2 in. The variable capacitor should be a high voltage type with a plate spacing of about .07 in. 125 pF capacitors with about .07 in. plate spacing can usually be found at hamfests. As mentioned above the input R approaches 1500 ohms. Thus based on the efficiency formula in Part IV the ground resistance would become less important. Some “experts” and commercial ads claim that radials are not required. I do know that at least a few radials are required. When I had my place on the ocean, I built a ½ WL vertical for 15M with a parallel resonant LC circuit at the base. The antenna would not load until I laid four radials on the ground. The coax was easily matched to the antenna by tapping the lower portion of the coil. I had a clear shot to the south over the ocean and got excellent reports out of the Caribbean and Central and South America.

The usual method of feeding a $5/8$ WL tall vertical is shown in Figure 3. According to EZNEC+4 an inductance of 3.17 μ H is required to cancel the capacitive reactance of the antenna at 14.2 MHz. This may be correct, however, I have encountered as much as 500 ohms capacitive reactance with $5/8$ WL antennas used for 2M mobile. Thus if one is building a $5/8$ WL antenna for 14.2 MHz, its capacitive reactance should be measured and an inductance having the same numerical reactance should be placed between the bottom of the antenna and the radials. Lacking a means of measuring reactance, one should start by assuming 500 ohms. For 14.2 MHz, this would be a 4 in. long coil of 13.8 turns of #12 wire on a piece of 2 in. PVC pipe. Short the turns starting at the top of the coil and adjust the position of the coax tap until a SWR meter or antenna analyzer indicates a match.



Cast of Characters:

President: Dave Warwick, K4DJW
Vice President: Pete Koonce, KA4SXX
Secretary: Ray Hemphill, W7OPH
Treasurer: Ralph Bitely, N4RAB
Emergency Communications: Jim Wright, KS4O
Assistant Em. Comm.: Dave Warwick, K4DJW
Public Svc/Special Events/VEC: Bruce Arnold, N8UTY
Trustee: Billy Morton, KE4YMA
Program Committee Chairman: Bill Lindquist, K2UFC
Photography: Mac Eutsler, WA0ZGL

The Newsletter Team:

Al Parker, W8UT, Editor
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Selected Local Nets Times are local time, unless otherwise stated

Club Net Manager: position open

<< some net freqs. & times will change this month, look hr next mo. >>

Craven County ARES: 146.61 MHz, 2000 before threatening

wx; monitor during ARES activations

NC ARES Net, 3.923 MHz, 19:30 daily

Waterway Radio Cruising Club: 7268 kHz, 0745 daily

Fairfield Harbor Cruising Net, 7224, 0730 M-F

NC Morning Net: 3926 kHz, 0745 daily

Carolina Slow Net (CW): 3.571 kHz, at 8PM ET (5wpm) daily

Coastal Carolina Emergency Net: 3908 kHz, 1900 daily

Carolinas Net (CW): 3573 kHz, 1900 (25 WPM), 2200 (12-15 WPM) daily

Carteret County ARS/ARES: 145.45 mHz, 1930 Tues./ Emerg

Traffic handling 1st Tues. after 4th Sat., monthly Skywarn:

145.21 mHz, 2100 Tuesdays

Pamlico County ARES: 147.210 MHz, tone 151.4, 1930 Wed.

ENC Emergency: 146.685 mHz, 2100 Thursdays

ENC Traffic: 146.685 mHz, 2030 daily

NBARC Ragchew: 146.61 mHz, 2000 daily

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<http://www.nbarc.org>

802 Bluebird Dr., New Bern, NC 28560