

New Bern Amateur Radio Club



W4EWN/R

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

Volume 25, Issue 12

December, 2002

Website: www2.cconnect.net/newbernarc

View the Newsletter there in color

December Meeting -- Thursday, Dec. 5, 2002

6:30 PM at The Berne Restaurant

Program for the December meeting: Our Christmas is scheduled for the December meeting at the Berne. Kicking off at 6:30, we will order dinner from the menu and exchange gifts. The guys are to bring a guy's gift and the gals a gal's gift, approx. \$5 value.

Public Service -- Veterans Day Parade

A BIG DISAPPOINTMENT

It seems that "Murphy" intervened once again and denied us our chance to do our much anticipated public service thing. As you will remember, on November 11 the wx was wet and threatening. News of fatalities and widespread devastation in several states was uppermost in everyone's mind.

We were lined up to give the Veterans Day Parade managers the security blanket they needed. Ken, **K4KDM**, Mac, **WA0ZGL**, Bill, **KG4IUA**, Dave, **KB4EBT**, and Bruce, **N8UTY**, all reported for duty at around 1130 hrs. to support the initial staging/alignment of the marching units. Preston, **KF4YNK**, was kind

enough to arrive and offer assistance, even though his assignment was not until later.

Preston, Jamie, **KG4RLJ**, Ralph, **N4RAB**, and Charlie, **K4VC**, were prepared to take up posts along the march route when the parade began later.

Ominous wx warnings were coming from the NWS office, radio, and TV stations. SKYWARN had been activated. Ed Hughes, one of the parade managers, was in cell phone contact with colleagues to the west, who warned that the wx might be severe and was definitely coming our way. Dark clouds were gathering to our west and south.

Ed reluctantly made the decision to cancel both the parade and the following luminary memorial ceremony. Cell phone calls to radio and TV outlets and various

march leaders spread the cancellation notice in short order. The deed was done.

Sadly, months of planning on their part evaporated in moments. Geri Villanova, the other parade manager, said, "I'm really disappointed, but I'm trying not to show it." I perceived that her eyes were welling up.

Contacts via our 146.610 repeater with Charlie, Ralph, and Jamie confirmed the cancellation.

One comical incident: Geri's cell phone began to ring. She searched for it in her large bag. "It's in here

somewhere..." Ring, ring, ring, ring. Search, search, search. "Ah, here it is." Silence. Observation: cell phones have their pluses and minuses. (Holding up an HT: "And this fills in the minuses.")

Thanks to all who volunteered to support the event. There'll be a better day next time. Our preparation and obvious commitment was noted and deeply appreciated.

73, Bob, **W2HVX**

President's Corner

As we approach the year's end one can't but reflect back on the past eleven or twelve months. It has been a good year. Mixed with happy events as well as sad, one could always say that it could have been a better one but, hey....

The club has been involved in several very good public events, had a good field day, and closed it with a really fun foxhunt. If you missed the hunt you missed some challenging fun. I think it was the best one to date.

One more event will for sure close out 2002. Our Christmas is scheduled for the December meeting at the Berne. Kicking off at 6:30, we will order dinner from the menu and exchange gifts. The guys are to bring a guys gift and the gals a gals gift. I do hope everyone can attend. This is the one time during the year that our XYLs and YLs can meet, and get to know each other. Hope to see you there. **HAVE FUN- wa0zgl**

Meeting Minutes, 7 November 2002

The regular monthly meeting of the New Bern Amateur Radio Club was held on the above date and the meeting was called to order by Mac Eutsler, **WA0ZGL**, at 6:55pm. Introductions were made from the floor with 28 members signed the roster. Mac mentioned that the newsletter contained the minutes and the financial report, which were approved as read. He also mentioned that the nominating committee had forwarded the names of the incumbents for re-election to office. The club voted

in agreement, as follows: Re-elected to office for President, Mac Eutsler; Vice President, Pete Koonce, **KA4SXX**; Ray Hemphill, **W7OPH**, Secretary; Charlie Gould, **K4VC**, Treasurer; Tommie Phelps, **WA4EME**, Trustee for the repeater.

Dave, **KB4EBT**, reviewed plans for the Boy Scouts Jamboree on the Air, and mentioned that people and equipment would be needed, and that setup would be on the campus of Craven Community College.

Bob, **W2HVX**, presenter for special events, reviewed the communication plans for the Veteran's Day parade.

Bruce, **N8UTY**, mentioned his appreciation for those that assisted in the local SET exercise and considered the exercise a success, with six local agencies participating. Bruce also suggested that the club have a fox hunt. It was agreed that Saturday, November 23rd would be a good day and instructions would follow by e-mail.

Bill, **KG4IUA**, made some comments regarding Sky Warn.

Mac mentioned to the club the repeater change proposal offer that has been made to the club. It was agreed that it would be a good move for the club, and fruition would depend on the sanctions of the frequency coordinators, which is presently being researched. It was also mentioned that it would be a good idea to maintain both repeater locations as back-up. It was decided that December 5th would be the Club Christmas Party. Bring a gift of 5\$, men for a man and ladies for a lady,

which will be swapped during the party. Mac also congratulated Dave Sousa, **K2CQV**, for a job well done planning programs for club meetings. Mac is looking for volunteers to help with programs of interest to the club. Dave, **K2CQV**, also gave an interesting program on the history and progress of the CW key. The door prizes were won by John, **KR4ZJ**, and Bob, **WB1CCY**. The meeting was adjourned at 8:45pm. Ray Hemphill, **W7OPH**, Secretary.



Dave, **K2CQV**, with one of his favorites.

The Communications Corner

Another h*rr*c*ne season come and gone, and only one "just in case" call-up -- that's pretty good. Between Field Day, our various public service activities, and the Tropical Storm Gustav event, we once again displayed our readiness, and learned some ways we can improve. That's great.

Recently, we had another fun event: the 2002 Fox Hunt, on November 18th. We had a total of 10 participants, including our fox, Al Parker, **W8UT**. Al was a very wily fox. He used a dual-band transmitter, so that he could hide the transmitter and talk through it from a distance. The whole thing was in a kelly green tool box, which he hid in some holly bushes. That's dirty pool. Ralph Bitely, **N4RAB**, and Bob Chamberlain, **W2HVX**, found it in about an hour, and Pete Koonce, **KA4SXX**, with his son Tony, **N4WUJ**, found it next, in about another 15 minutes. Third was Mac, **WA0ZGL**. I got down to within a 10th of a mile but could not get any closer -- at one point, I was within 15 yards but did not find it. Finally threw in the towel. Gratefully, I was not the only one. As the organizer, frankly my greatest thrill came when we got the first report that someone had located it. That made it all worthwhile -- after all, what if we had this thing and no one found it at all? Weather was low 50s, very brisk breeze, but bright and sunny so that was good. A great time was had by all, and our first and second place winners appreciated the prizes (an FRS radio and a pack of AA batteries) donated by an anonymous friend of NBARC.

So on to the holidays. As I write this, I am heading off to Charlotte to spend Thanksgiving with the folks. By the time you all read it, Thanksgiving will be over -- I hope you had a safe and happy one. I hope to see you at the NBARC Christmas Party on Dec. 5th.

73,
Bruce Arnold, **N8UTY**

FINANCIAL REPORT

Nov. 1, 2002--Nov. 30, 2002

CHECKING

Balance @ October 31, 2002		\$1,560.48
Expenses:		
11/07	C P & L	\$ 29.15
11/17	Sprint	<u>39.32</u>
Total		\$ 68.47
Subtotal		\$1,492.01
Deposits:		
11/08		<u>\$ 183.00</u>
Total		\$ 183.00
Balance @ Nov.. 30, 2002		\$ 1,675.01

SAVINGS

Balance	\$ 1,140.49
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GRAND TOTAL	\$ 2,815.50
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ANNUAL SKYWARN RECOGNITION DAY

DECEMBER 7

The fourth annual SKYWARN Recognition Day (SRD) <<http://hamradio.noaa.gov/>> is December 7 (UTC). That's when Amateur Radio operators set up stations at National Weather Service (NWS) offices and contact other operators around the world. The event is sponsored by the ARRL and the National Weather Service. "The purpose of the event is to recognize the vital public service contribution that Amateur Radio operators make during National Weather Service severe weather warning operations," said David Floyd, N5DBZ, warning coordination meteorologist, at the NWS Goodland, Kansas, office. "It also strengthens the bond between Amateur Radio operators and the local National Weather Service office." For several decades now, hams have assisted the NWS by providing real-time reports of severe weather and storm evolution. The information radio operators locate near a storm can provide plays a key role in aiding forecasters. SKYWARN operators in several states activated to spot and track an outbreak of severe thunderstorms and tornadoes November 10. Scott Mentzer, **NOQE**--the meteorologist-in-charge of the NWS office in Goodland, Kansas, and the creator and annual organizer of SRD--says more than 90 stations are registered to participate, up from 80 last year. Most participating NWS stations will operate on 80, 40, 20, 15, 10, and 2 meters using SSB and FM. Mentzer says a number of NWS offices will be equipped to support Internet Radio Linking Project (IRLP) stations. All contacts will be made utilizing the General or Novice portion of the bands. Stations will exchange signal report, location and a one-word description of the current weather at their respective locations ("sunny," "partly cloudy," "windy," etc). This is not a contest, so no scoring will be computed. SKYWARN Recognition Day will take place December 7 from 0000 UTC to 2400 UTC. Since SRD is being held on Pearl Harbor Day, each NWS office will transmit a special message from approximately 1800 to 1900 UTC--approximately the time of the Pearl Harbor, Hawaii, attack on December 7, 1941--to honor the World War II veterans.



Fox Hunt at the start (L to R):

Tony (Koonce) N4WUJ, Pete KA4SXX, Mac WA0ZGL, Charlie K4VC, Ken K4KDM, Ralph N4RAB, Bruce N8UTY, Bill KG4IUA, Bob W2HVX



Fox Hunt at the finish (L to R):

Ralph, Tony, Bill, Pete, AL W8UT (The Fox), Bruce, Mac, Bob, Ken



Winners- Bob and Ralph
2nd Place- Tony and Pete

THE VK4XT COPPER ANTENNA

FOR 2M/440

Andy Griffith - W4ULD

An old friend from Delaware recently referred me to the VK4XT antenna. It can be seen at web site <http://sharon.esrac.ele.tue.nl/pub/antenne/2-70vert.txt>.

The original antenna was constructed from 4 mm diameter stainless steel rod and mounted on a tower. Since it is so simple, I decided to model it with EZNEC and see if it should perform as advertised. I was really surprised at the low SWR on both bands without using some elaborate matching network.

So I decided to redesign it and build it using popular copper pipe construction. My version is shown in Figure 1. The SWR at the antenna from 430 MHz. to 450 MHz. is flat 1:1 and on 144 MHz. it is 1.7:1 dropping to 1.3:1 at 148 MHz. SWR values in the shack will be lower because of feed line loss. The antenna operates as an extended double Zepp in the 440 band and thus has a nice gain of 9 - 10 dBi when mounted about 30 feet above ground. On 2 M the antenna is short of a full half wave dipole and has a gain of 6.8 dBi. The resonant frequency in the lower band is about 151 MHz. The stub matching system was designed for 445 MHz. By adding 1/2 wavelength (at 445 MHz.) to the stub, the stub still works on 445 MHz. and provides a reasonable match to 50 ohms on 2 M. A single ferrite bead over the coax at the feed point acts as a balun. This bead may be either the solid type (.25 in. ID x 9/16 in. OD x 1-1/16 in. LG.) of 43 material and sold at hamfests for about \$2.00 or the split snap-on type such as #FB-40 from All Electronics for \$2.00 or Radio Shack RS-273-0105 for about \$4.75. I tried both the solid type and the Radio Shack snap-on bead.

Construction is quite simple. However, one must follow the dimensions carefully since 1/16 in. is a lot in wavelength at 445 MHz. Feed point construction is quite critical since the dimensions of the copper bar across the feed point and the length of unshielded coax attached to the feed point determine the total length of the antenna. I used RG-8X from the feed point to about 27 ins. down the PVC mast to minimize interaction between the antenna and the shield of the coax. I tried LMR-400 low loss coax but it completely detuned the antenna. So I stayed with the RG-8X since the loss in this short section is only about .2 dB at 445 MHz. The line from the antenna to the shack should be a low loss type such as LMR-400 from Times Microwave Systems or The Wireman (Item 1000). This cable has about half the loss of RG-213 at 440 MHz.

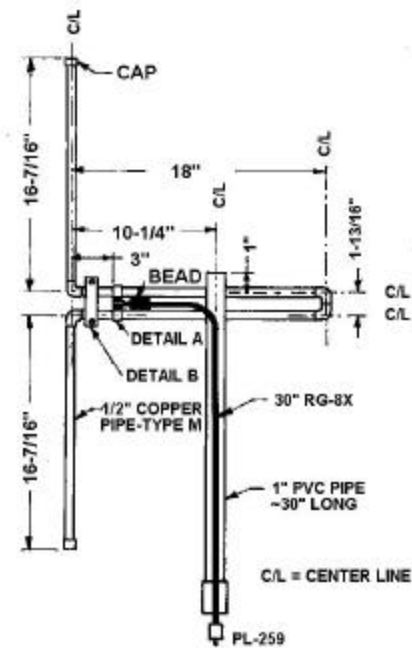


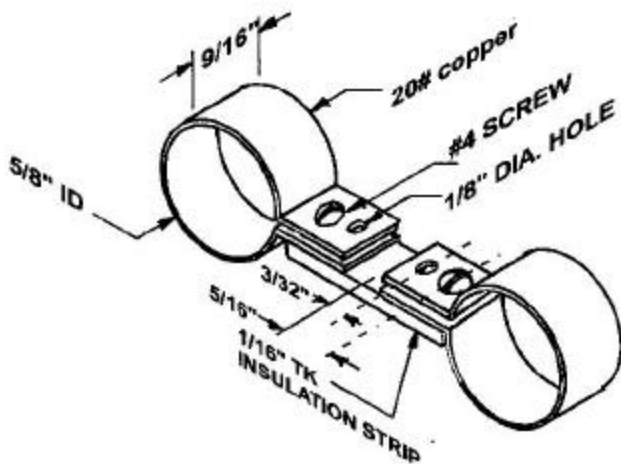
Figure 1

The feed point is shown in Detail A. It is constructed from strips of about 20 pound copper. Scraps of copper can usually be obtained from a sheet metal shop. A “clamp” is mounted on each leg of the stub with an insulation strip connecting the two for support. The #4 screws clamp the “clamps” to the stub. The center conductor of the coax is soldered in the 1/8 in. diameter hole in the top “clamp” and the shield is soldered in the hole in the bottom clamp. The unshielded coax leads must be only 1/2 in. long. The 1/16 in. thick insulator is 9/16 in. x 1-1/16 in. and was made from a small piece of circuit board with the copper removed. The #4 screws and their nuts should be stainless steel. The best way to make the “clamp” is to cut a piece of copper sheet 9/16 in. wide by 2-7/8 ins. long. Using pliers, bend a tab to 90 degrees on each end of the strip 1/2 in. from the end. Form the “clamp” around a stub leg. Hold the tabs together with pliers while drilling the holes. Two clamps are required.

Detail B shows a PVC stub separator and clamp. This item is not absolutely necessary but I found it very helpful in holding the antenna together during final assembly. To obtain clean holes and maintain alignment the 5/8 in. diameter holes in the PVC clamp and the 1 in. PVC mast should be drilled on a drill press with a Forstner type bit with the PVC pipe clamped in a vise.

The upper and lower antenna elements should be constructed first. Then solder the ends and the two legs of the stub onto the elements. Next install the PVC element clamp (Detail B) and tighten the clamp to hold the elements and the legs of the stub in position. Next install

the feed point bar (Detail A) and thread the mast onto the legs of the stub. Push the mast and the feed point bar close to the PVC element clamp. Cut a 1 in. length of copper pipe to be soldered between the ells at the base of the stub. Assemble and solder the ells and 1 in. connector onto the ends of the stub making sure to maintain the 1-13/16 in. stub spacing and the 18 ins. stub length. The ells should be touching or almost touching each other.



DETAIL A

Clean the entire antenna with 000 or 0000 steel wool until the copper is bright. File or sand off any solder blobs. Slide the PVC mast into position and clamp the feed point bar into position. Solder the RG-8X coax to the feed point bar. Install the bead balun on the coax about 1/2 in. from where the center conductor leaves the shield and hold it in place with small wire ties. If a solid sleeve bead is used, it must be installed before soldering the coax to the feed point. Water proof the bead by wrapping it in black electrical tape and coating with liquid tape or silicone caulking. Dress the coax along the stub and mast similar to Figure 1 and hold it in place with tape or wire ties.

If dimensions were followed carefully, the antenna should be tuned. However, it may be helpful to clamp the mast to an outdoor table and check the SWR with an antenna analyzer. It should be 1:1 from 430 MHz. to 450 MHz. If not, move the feed point bar slightly until the SWR is close to 1:1 at 445 MHz. The SWR on 2 M should be as stated early in this article. Finally, tack solder the “clamps” to the stub legs using a propane torch at low heat to prevent melting the PVC bracket and mast. Coat the feed point connections with liquid tape.

Happy building and 73, Andy – W4ULD

Coastal Carolina Emergency Net

The Coastal Carolina Emergency Net (3907 at 7:00 PM nightly) will hold it's annual Xmas party at Mrs. Willis' Restaurant in Morehead City at 6:00 PM December 7. Meal choices are seafood platter, prime ribs, or ribeye. Men bring a present for a man and ladies for a lady. Presents should be about \$5.00 or less. Make your reservation for the banquet on the net to N2WUO by November 29. If you prefer, I will take your reservation if received before November 26.

A Hospitality Room will be at the Comfort Inn in Morehead beginning about 1:30 PM.

Everyone is invited. You do not have to be a member of the CCEN. If you cannot attend the banquet, drop by the Hospitality Room for some eyeball QSO's and hors d'oeuvres.

Andy - W4ULD, w4uld@starfishnet.com

ARRL Straight Key Night 2002

When was the last time you cleared a bit of the rust off your fist and tried some code the good old-fashioned way- via the straight key? In this era of digital communication, keyboarding, FM and electronic keys, once a year many excellent operators bring the past to the present and participate in the annual **ARRL Straight Key Night**. If but for a brief 24-hour period, it is a trip to a nostalgic time, much the same way an old soldier tries on his old uniform. For others, it is an excellent opportunity to try their hand much as their Elmers did in the past.

The object of this friendly event is to enjoy some good, old-fashioned QSO fun, using straight keys. The emphasis is on rag-chewing rather than on fast contest-type exchanges. SKN 2002 begins at 7 PM EST December 31 and runs for 24 hours through 7 PM EST January 1 (**0000-2400 UTC January 1, 2002**).

When participating in SKN 2002, instead of sending RST before sending the signal report, send the letters SKN, to indicate your participation and to clue in passersby who may be listening that SKN is going strong. Following SKN, send the Contest Branch a list of stations worked, plus your vote for the best fist you heard (it doesn't have to be one you worked). Also, include your vote for the most interesting QSO you had or monitored, as well as any interesting comments you have for the Feedback section of the SKN 2002 write-up.

November Operating Events

Contests

December 6 - 8 ARRL 160 Meter Contest
14 - 15 ARRL 10 Meter Contest

January 1 Straight Key Night

for details see:

<http://www.arrl.org/contests/calendar.html>

Hamfests

The season is pretty much over, no 'fests within driving distance are scheduled for December. One possible in Jan, and the Richmond "Frostfest" is in Feb.

Jan. 11 - Greenwood, SC, Greenwood ARS

Contact: Allen Kennemore, W4JAK

106 Dorchester Drive

Greenwood, SC 29646

SWAP SHOP

FOR SALE: NBARC logo front license plates. Heavy metal, not flimsy plastic.

\$10.00 each, or - **SPECIAL** - 2 for \$19.99. (such a deal, limited quantity available)

Call Charlie, **K4VC**, at 633-3178,

or e-mail at K4VC@arrl.net

FOR SALE: for non-ham friend. **Azden 5000** 2 meter retired CAP mobile with mag mount antenna and mount bracket. Manual included with schematic. 25W 20 memories, 140.000 to 149.999 mc. Probably early 1990's but works fine, \$60

call George, **N2UCH**, at 249 4999

or email at n2uch@cconnect.net

WANTED: Will buy tubes & parts for use in getting & keeping tube eqpt going. Will help anyone who wants to get tube type equipment working and on the air (I work free, or for junk).

Al, **W8UT** anchor@ec.rr.com or 636-0837

Congress adjourns; HR 4720 expires without action: The US House of Representatives officially adjourned for the year November 22 at 2:33 PM. The US Senate wrapped up its business earlier this week, so the 107th Congress is officially in the books. With adjournment go any hopes of passage of HR 4720, the CC&R bill introduced by New York Democrat Steve Israel earlier in the year. ARRL members are requested to wait until a new CC&R bill--with a new bill number--is introduced in the next session of Congress before seeking cosponsorship support from members of Congress.



"Watch that character try to offer me \$2 for that old radio."

The following anecdote is not from your editor, it was part of the announcement on the ARRL website for **Straight Key Night**, author unknown.

When I think about my early days in CW, I can't help but fondly remember Dr Mac--WA4VNV (later N4IX and now a Silent Key). I had agreed to take over from him as the editor of the local club newsletter, and he had agreed to keep this neophyte 13-year-old supplied with copy. The only caveat was that he would only send me his material for *Smoketest* (the club newsletter) over the air in CW. It was a sneaky way to force me to increase my code proficiency, but it was effective. And boy, could he make that old straight key sing. Thanks, Dr Mac!

Cast of Characters:

President: Mac Eutsler, WA0ZGL
Vice President: Pete Koonce, KA4SXX
Secretary: Ray Hemphill, W7OPH
Treasurer: Charlie Gould, K4VC
Communications: Bruce Arnold, N8UTY
Trustee: Tommie Phelps, WA4EME
Assistant Secretary: Doug Whitford, KF4YHG
Assistant Treasurer: Ralph Bitely, N3XID
Program Chairman:
Public Service/Photog: Bob Chamberlain, W2HVX
Emergency Communications: Bruce Arnold, N8UTY
Assistant Em. Comm.: Dave Warwick, KB4EBT

Selected Local Nets

Club Net Manager: Billie Morton, KE4YMA
Craven County ARES: 146.61 MHz, 2000 before threatening wx; monitor during ARES activations
Waterway Radio Cruising Club: 7268 kHz, 0745 daily
Fairfield Harbor Cruising Net, 7224, 0730 M-F
NC Morning Net: 3927 kHz, 0745 daily
Carolina Slow Net (CW): 3715kHz, 1800 (5wpm) daily
Coastal Carolina Emergency Net: 3907 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
NBARC Traffic: 146.61 mHz, 2000 Tuesdays
Skywarn: 145.21 mHz, 2100 Tuesdays
ENC Emergency: 146.685 mHz, 2100 Tuesdays
ENC Traffic: 146.685 mHz, 2030 daily
NBARC Ragchew: 146.61 mHz, daily, after ENC Traffic closes

New Bern Amateur Radio Club

www2.cconnect.net/newbernarc
P.O. Box 12483
New Bern, NC 28561-2483

The Newsletter Team:

Al Parker, W8UT, Editor
Charlie Gould, K4VC, Data Base/Labels/P.O.mail

The NBARC Newsletter is the newsletter of the New Bern Amateur Radio Club, Inc., PO Box 12483 New Bern, NC 28561. NBARC is an affiliated club with the ARRL and ARES

Any inquiries, comments, items for Swap Shop, suggestions, contributions, and letters for inclusion should be sent to the editor, W8UT, at e-mail: anchor@EC.RR.com