

New Bern Amateur Radio Club



Volume 24, Issue 5 email

May, 2001



W4EWN/R

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

Website: www2.cconnect.net/newbernarc

View the Newsletter there in color

New call letters for NBARC !!!!

W4EWN

June Meeting -- Thursday, June 7, 2001

6:30 PM at The Berne Restaurant

Speaker for June meeting will be Martin Culpepper, AC4PW.

Door prize will be a print of geese in flight by artist "J.F. Landenberger".

This is part of the 4 prints donated by Ralph Bitely, N4RAB

June Program

Martin Culpepper will give a talk covering the "Classic Centerboard" upgrade to the Bullseye shore-based high frequency direction finding system. The Classic Centerboard upgrade was a program to automate the management of an expected increase in the number of signals of interest. He will also tell what he learned about what goes on at a Navy intercept station, tho' he says he was not allowed to learn about the receivers.

Some of our members own the R-390 series receivers that were the workhorse of the intercept stations for many years in the '60's thru the '80's.

June Congratulations to:

Bob Chamberlain, 50 years as **W2HVX**
Dave Sousa, 48 years as **K2CQV**

Treasurer's Financial Report

May. 1, 2001 ---- May. 31, 2001

CHECKING

Balance @ Apr. 30, 2001 \$ 1,267.81

Expenses

05/07	C P & L	21.35	
05/15	ARRL (w2ypm)	51.00	
05/19	Sprint	29.40	
	Total		\$ 101.75
SUBTOTAL			\$ 1,166.06

Deposits

05/04	\$ 52.00	
05/14	53.00	
	Total	\$ 105.00

BALANCE @ Jun. 1, 2001 \$ 1,271.06

SAVINGS

Balance \$ 1,122.07

GRAND TOTAL \$ 2,393.13

73, Charlie, K4VC

Minutes of the last meeting

5 May 2001

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 President Mac Eutsler, WA0ZGL, at 6:30pm. Introductions were made from the floor with 35 members present roster is attached. The minutes of the previous were read by the Secretary and approved as read. The finance report was given by Charlie Gould, K4VC, also approved as read. Mac mentioned that the door prize aspect of the meeting was going well in an effort to support club finances. Mac also mentioned that the repeater was doing fine but due to some extraneous noise problems, the 100Hz subaudible tone was reenabled.

Bruce Arnold, N8UTY, EC for Craven County, mentioned that the Trenton repeater was back on the air. Bruce also mentioned that he had sign-up sheets for ARES and stressed that he would appreciate any voluntary operational category sign-ups and not necessarily just those who wish to participate in actual emergencies or disasters. He mentioned that there would be a basic and advanced skywarn training session held on 14 May.

Bob Chamberlain, W2HVX, commented on the public service events that would be held soon. On 19 May, the Coastal Women's Shelter is sponsoring a 5k run, and there would be a need for 12 to 15 operators. On 11 June, volunteers would be needed for the presentation of the NC Symphony. Sign-up sheets were distributed for those that plan to participate.

Charlie, K4VC, proposed to the club to change the club call for a number of reasons, most of which had to do with field day and contest ease of operation. WD4JMS was a mouthful especially in CW. After some discussion, the motion suggested three calls be submitted for approval by the FCC. The calls are: W4EWN, W4BAW, and W4NBN, and to be submitted for approval in that order. The motion was seconded by Ken McCain, K4KDM, and the vote carried, with two nay votes.

Charlie, K4VC, brought up some discussion on the insurance responsibility at the repeater site. After some discussion, the club voted to let Charlie handle the proposal as he saw fit. Ken, K4KDM, reported that Ralph Bitely, N4RAB, was in the hospital for surgery on his lung. Doug Baber, KC4FYW, was inquiring of any interest in conducting a CW class. The meeting was turned over to Andy Griffith, W4ULD, who gave an outstanding in-depth presentation on horizontal loop antennas. Just remember 4 x L = 1005/Freq. (Mhz). The door prize was won by Doug Johnson, KC0IWC. Bob, W2HVX, reported that, Charles Castor, N2TWO, was a silent key.

The meeting was adjourned at 8:15pm.
Respectfully submitted:
Ray Hemphill, W7OPH, Secretary.

President's Corner

Summer is fast approaching, as is the season for severe weather here in Eastern North Carolina. I was reminded of this fact this evening when the alarm went off on my weather radio. The severe weather warning was for Martin County and communities east of that location. Craven County missed the bullet again.

On May 14, I attended a weather spotter class that was held in New Bern. It was full and well attended by NBARC members. Even though I have my advanced weather spotter certification I still make it a point to attend these classes from time to time to stay current and to pick up any new or updated information on weather spotting that may be presented. The classes, basic or advanced, are informative and professionally presented and definitely worth the cost which is your time. The training and information you receive from these classes might very well save your life or the lives of those around you that matter. This particular class was set up by Bruce, N8UTY. Weather Spotter Training class schedules are posted on the Newport Weather web site <http://www.nws.noaa.gov/er/mhx>.

It is time to inventory your emergency equipment and review your Emergency Action Plan. Be safe and

NEUSE RIVER DAY 2001

This year the event will be held on Saturday, June 2, and will be history by the time you read this or attend the next meeting. Look for "sneak peek" pix on the website the week of 6/4, and a few from previous years below.

ADDITIONAL EVENT EXPECTED

By the time you read this, we will have supported the MS Walk, Women's Shelter 5K Run, and Neuse River Day.

We have announced and passed around a sign-up sheet for the NC Symphony on Monday, June 11 at Tryon Palace.

Surprisingly, there is to be a second concert at Tryon Palace on Tuesday, May 26, performed by the NC Army National Guard Band. Details are scant at this time, but we'll let you know more by the June meeting.

Just an alert in case you're interested and available. Again, just our presence, even if the traffic load is light, is considered highly valuable to the organizers. You never know what can happen, and we are part of their preparedness.

Bob Chamberlain, W2HVX

NEUSE RIVER DAY 1999 & 2000



NBARC SUPPORTS 5K RUN

On Saturday, May 19, 10 operators turned out to support the 5K Run sponsored by the Coastal Women's Shelter. (See photo.) Left to right: Preston, KF4YNK, Bob, W2HVV, Vito, KB8VCZ, Bruce, N8UTY, Pete, KA4SXX, Charlie, K4VC, Howard, AA4AH, Bepi, KC4VV, and Dave, K2CQV. Our second photo is of an intrepid racer, identified tentatively as KR4ZJ who came without radio. We thought you'd like his outfit. To you astute observers who notice that only nine ops are shown, Read on.

Meeting at the parking lot behind the Farmer's Market at 0700, we discussed last minute details such as each op's location on the race course, the contents of expected reporting, and deployment of the ambulance (which came as a surprise). We had expected it to remain stationary during the race, to be called by us as needed. But at the last minute, we learned that it was to follow the racers and they wanted a ham aboard.

Flexibility is the name of the game. Thanks to Tony Koonce, N4WUJ, (Pete's son) and an extra HT brought along by Bruce, N8UTY, we managed to supply an operator with radio for the ambulance unexpectedly. A big thanks to Tony for his willingness to pitch in at the last minute.

The benefit of doing events such as this accrue both to the event and to us. They were able to track the whereabouts of both leaders and followers. Knowing when the course is clear is important. And Bambi and Allen, the two race coordinators, were able to communicate through their shadows, Pete and Bruce respectively.

We experienced considerable difficulty hitting the repeater with Hts, resulting in many repeat transmissions. Some of the rigs may have been set on low power. Some of the batteries may have been weak, in spite of recent charging. Some were in vehicles without a roof-top antenna. And sometimes just being behind a building or among trees can reduce signal strength. A slight change of location can bring the signal up considerably. Pete reported that switching to the input helped him hear

unreadable signals. There are many ways to "skin a cat," and the more flexible and prepared we are the better. Practice improves performance, as the old saying goes.

The bottom line is that we have already been asked to return for next year's race. Our service is valuable to them and to us. Thanks again for the great turnout and support of public service.

Bob Chamberlain, W2HVV



The Horizontal Loop Antenna

Andy Griffith – W4ULD

This is a summary of the talk I gave on the horizontal loop antenna at a previous club meeting.

The horizontal loop consists of a square or nearly square wire loop with all sides parallel to the ground. The perimeter of the loop in feet at the resonant frequency is approximately 1005 divided by the frequency in megahertz. Its input impedance at the resonant frequency is approximately 100 ohms.

There are three popular misconceptions about the operation of the horizontal loop that I will address: (1) The radiation from a loop is straight up so it is not as good as a dipole; (2) There is no difference in feeding the loop in a corner or at the middle of one side; and (3) The loop can be fed with 50 ohm coax and operated on all bands.

The radiation pattern of a 75 M loop operating on 75 M is almost identical to that of a 75 M dipole. Indeed, the maximum radiation is straight up when the antenna is about 1/4 wavelength high or less. The radiation angle comes down as the height in wavelengths is increased. A 35 ft. high loop or dipole on 20 M will have a radiation angle of about 25 degrees. Actually, all antennas consisting of horizontal wires in the same horizontal plane and at the same height will have the same radiation angle.

At its fundamental frequency maximum radiation from the loop occurs in both directions along a line bisecting the feed point. Thus a loop fed in its NE corner will have maximum radiation to the NE and SW. A loop fed in the middle of its northern side will have maximum radiation N and S, that is, 45 degrees from the corner fed antenna. Similar to a dipole, the radiation from an 80 M loop breaks into lobes when operated at higher frequencies. On 20 M there are four lobes. Generally, the lobes at the higher frequencies are shifted 45 degrees when the feed point is shifted from the center of a side to a corner.

A single band loop can be fed with coax with about the same loss as a dipole. To obtain the lowest SWR at the transmitter 1/4 wavelength of 75 ohm

line (RG-11) should be placed between the feed point and the 50 ohm cable to the transmitter.

An 80 M loop, about 70 ft. on each side, can be operated on all bands by feeding it with low loss feed line and an antenna tuner. If one attempts to operate all bands with RG-213 feed line, power loss in 85 ft. of line will range from 16 to 67 percent. The best feed method is to run 440 ohm window line all the way from the antenna to the balanced terminals of the antenna tuner. The feed line loss for 20 M through 10 M will be much less than a resonant dipole fed with RG-213. The next best feed system is to run window line from the antenna to a 4:1 balun and run a short length of RG-213 (less than 10 ft.) to the antenna tuner. Losses will be a little higher than the preferred feed method but still better than a coax fed dipole on 20 M through 10 M. The loop does not show the wide excursions of impedance that occur with an 80 M Zepp operated on all bands. A Zepp is a dipole that is fed in the center with window line or open wire line. Thus an acceptable feed system is to use a 4:1 balun at the antenna and run RG-213 (or better coax) to the tuner. The losses on 80 M through 40M will be about two to three times those of a coax fed dipole and about the same as the dipole on 20 M through 10 M.

Some operators claim that they get a 1:1 SWR at the transmitter when feeding a single band, resonant loop with 50 ohm coax. When I used a loop some years ago, the best I could get was about 1.7:1 SWR with about 50 ft. of RG-8 coax. This is why I recommend the 75 ohm Q-section mentioned above. I explored the effect of loop height using the EZNEC antenna program. As expected the input impedance of the loop came down as the height was reduced but not enough to get a 1:1 SWR at the rig. The impedance varied from 89 ohms at 20 ft. height to 113 ohms at 35 ft.

The antenna tuner and balun used with a loop in all-band operation should be rated at 1500 W although the transmitter output may be only 100 W. The antenna impedance on some bands contains high reactance which causes a high voltage drop across some tuner components and the balun. The high voltage drop may exceed the ratings of 300 W tuners and baluns.

73, Andy – W4ULD

SWAP SHOP

We have two list of eqpt for sale this month.

The first has been donated to the club by the widow of Bob Castor, N2TWO. Proceeds will go to the club treasury.

The second is from the estate of Richard Milman KB2HTI, and the proceeds will go to his widow.

From N2TWO's estate, for the club

DESCRIPTION	PRICE
Kenwood TS-130S	400.00
Astron RS-35A Power Supply	200.00
Antenna Tuner AT-230	78.00
Multi-Band Trap Dipole	30.00
2-Meter J-pole (coax/twinlead)	15.00
Realistic FM HT HTX-202	150.00
Realistic External Microphone	20.00
ICOM DC1 DC Adapter	15.00
ICOM BC-30 Battery Charger	20.00
ICOM Drop-in Battery Charger	40.00
Micronta 12V Regulated Pwr Supply	25.00
Micronta SWR/PWR Meter	40.00
AEA 2 Meter Collapsible Antenna	32.00
2 Meter Long Flex Antenna	25.00
Delcom 2 Meter FM HT	75.00
5/8 Mag Mount Antenna	35.00
Realistic Nova-40 Headphones	15.00
Micronta 22-312A Multi-tester	10.00
MFJ Morse Code Pocket Tutor	35.00
MFJ Active Antenna	25.00
Archer Universal AC Adapter	15.00
Assorted cables, adapters, connec	15.00

contact Bob Chamberlain, W2HVX
638-9299 or rchamber@coastalnet.com

FOR SALE: Apple color monitor -- the price is right, even a give-away! **Call K4VC** for details, 633-3178

WANTED: Will Buy -- Old tube-type ham equipment or test gear -- working or even preferably not working. Will buy tubes & parts for use in getting & keeping things 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

From KB2HTI's estate, for the widow:

Kenwood TS-520S (HF Rig) \$300

(includes the following:)

Kenwood MC-50 Desk Microphone

Kenwood Remote VFO Model VFO-520S

Outboard Speaker

Astatic Desk Microphone \$50

Royce SWR Meter Model 2-100 \$10

Larsen 1/4 wave mag mount \$15

GAP Eagle DX-VI Vertical HF Antenna -- still in box, never used -- \$250

HF Vertical Antenna -- all bands -- don't know the brand -- take it off the house and it's yours

Various Navigation plotting instruments (compasses, parallel plotter, etc.): \$35

Contact Bruce Arnold, N8UTY

633-9096 or barnold@coastalnet.com

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Williamston Hamfest - it was small, but the first one for the Roanoke ARS. 3 of us were tailgating, about 12 set up inside. A nice time was had by a few. I bought a new boatanchor (HQ-180A) Al, W8UT

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June Operating Events

June 2 QRP TAC Contest (telephone area code) Eastern PA QRP club see June QST or www.n3epa.org

May 23-24 Field Day see May QST or www.arrl.org/

Upcoming Hamfests

June 9 Winston-Salem, NC

Forsyth ARC

<http://www.w4nc.org>

For full info on above items, see the June issue of QST magazine or web links

Detailed Regulation "Not in the Picture"

NEWINGTON, CT, May 24, 2001--The FCC says the ball is in the court of the Amateur Service to determine the course of future Amateur Radio regulation. Speaking at the Dayton Hamvention FCC forum, Bill Cross, W3TN, of the FCC's Wireless Telecommunications Bureau, said that the days of Commission-imposed regulation are past.

"Detailed regulation of the nitty gritty of communication services, including the Amateur Service, is not in the picture," Cross said. "Rather, the FCC is shifting to strong and effective enforcement of truly necessary regulations." The FCC, he said, now plans to look to the amateur community to reach consensus on any new regulations it thinks it wants and needs.

"I hope that those of you who are thinking about asking us to carve up a band by fiat will think again," he told the packed forum. "You really are asking us to tie your hands regarding your use of your spectrum."

The net effect, Cross said, would be to ask the federal government to put the specific operating interests of certain licensees or groups of

Cast of Characters:

President: Mac Eutsler, WA0ZGL
Vice President: Pete Koonce, KA4SXX
Secretary: Ray Hemphill, W7OPH
Treasurer: Charlie Gould, K4VC
Communications: Ben Epting, N4NOA
Trustee: Tommie Phelps, WA4EME
Assistant Secretary: Doug Whitford, KF4YHG
.Assistant Treasurer: Ralph Bitely, N3XID
Program Chairman: David Sousa, K2CQV
Public Service/Photog: Bob Chamberlain, W2HVX
Emergency Communications: Bruce Arnold, N8UTY
Assistant E. Comm.: Dave Warwick, KB4EBT

licensees, ahead of other licensees. "You really should think hard as to whether you want or need federal rules 24 hours a day, seven days a week, to apply everywhere the FCC regulates communications," he said. Cross noted that, in any event, US regulations do not apply to operators in other countries. (arrl)

"shack tips":

Need to cover a piece of equipment? Try disposable shower caps. These are available in packages of 10 for less than a dollar at Walmart. Because of the elastic band they stretch and fit snugly around equipment. I find them ideal for smaller mobile radios, telegraph keys, etc.

Dave, K2CQV

Round-the-World Ham-Sailor is on the Home Stretch

(May 31, 2001) -- Ham-sailor David Clark, KB6TAM, has departed the Ascension Islands after a brief stop. Clark now is on the last leg of his quest to be the oldest person to sail solo around the world. **UPDATE:** David Clark's wife, Lynda, reports that he arrived May 30 on Fernando de Noronha and said all is well. He expects to resume his sail in a couple of days. (arrl)

The Newsletter Team:

Al Parker, W8UT, Editor
Charlie Gould, K4VC, Data Base/Labels/P.O.mail
Mac Eutsler, WA0ZGL, Acrobat Handler

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 pse excuse typos, MS Spell Checker has quit working for May issue

LATE BREAKING NEWS

(NOT IN THE PRINTED EDITION)

NORTH CAROLINA GOVERNOR PROCLAIMS AMATEUR RADIO WEEK

NOW THEREFORE, I MICHAEL F. EASLEY, Governor of the State of North Carolina, do hereby proclaim June 23-29, as "AMATEUR RADIO WEEK" in North Carolina, and urge our citizens to pay appropriate tribute to the Amateur Radio operators of our State.

MICHAEL F. EASLEY

For full text of the whole proclamation, go to the Greensboro ARA website:

<http://www.greensboro.com/hamradio/proclamation.html>

The Greensboro mayor made a similar proclamation.

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