

# New Bern Amateur Radio Club



foto by W2RLG & W2HVX

Volume 30, Issue 5, May, 2007



**W4EWN/R**

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

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

## Next Meeting -- Thursday, May 3, 2007

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

**Program:** Doug Blizzard, N4HAJ, will give a presentation of the building of the Down East Repeater System, the equipment, sites, the people who built it. Also info- the Carolina 440 Link System which covers from Central NC to Wilmington, to Hatteras.

### FINANCIAL REPORT

APR. 01, 2007 --- APR. 30, 2007

#### **CHECKING**

Balance @ Mar. 31, 2007 \$2,110.60

#### Expenses:

04/07 Prog Nrg \$23.84

04/19 Embarq 25.37

Total (\$ 49.21)

Subtotal \$ 2,061.39

#### Deposits

04/10 Membership \$40.00

Total \$40.00

Balance @ Apr. 30, 2007 \$ 2,101.39

#### **SAVINGS**

Balance @ Mar. 31, 2007 \$ 2,792.33

Deposits 00.00

Balance @ Apr. 30, 2007 \$ 2,792.33

GRAND TOTAL \$ 4,893.72

CR Gould, K4VC, Treasurer

### Test Session Success !!

At the NBARC sponsored VE Test session of 4-21 there were six applicants.

All six passed their tests !!

1-Tech, 4-Gens, 1-Extra

Billy Morton, made Gen. But names are not usually reported. The word is out, however.

Tnx to VEs, Vince, Bruce, and Tom Hill.

CRG

An alert reader just sent this -- Just found a neat web page. See [www.vanityhq.com](http://www.vanityhq.com) "The **Operation CQ**" project for present and past info/history of calls.

## Minutes of the meeting - March 1, 2007

The regular 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 approximately 6:45pm. Introductions were made from the floor with thirty-seven present; roster is attached.

Ralph, **N4RAB**, reported that out of eight students in the technician class all eight passed; three test takers upgraded to General. He also discussed adding a class session after the students pass the test to orient them to the Ham Radio hobby with presentations from representatives from groups like **ARES** and **Skywarn**. It was also suggested that students that pass the test receive a one year free club membership to encourage new membership.

Bob, **WB1CCY**, moved that the personal expenses of the instructors involved in the tech class be reimbursed. The motion was seconded and passed. After the motion had passed discussion was aroused about possibly requiring the instructors to submit their expenses for approval prior to being reimbursed. However, no changes were made the previously passed motion.

Bill, **K4VHO**, demo-ed the LCD projector from his work that costs around \$1250. Larger projectors could be purchased for \$600 - \$900. His suggestion was to make sure the projector eventually decided upon be at least 1600 lumens. A committee was formed to research the matter further and report back to the club.

Tom, **KJ4IV**, was available to purchase tickets to the Kinston Ham Fest that would take place on March 25, 2007.

Tom, **KV2CQ**, gave the nightly program on his DX'ing experiences in the Bahamas. The presentation included a slide show presentation of pictures of his radio equipment and of the beautiful landscape.

Bill Sanford, **K4VHO**, won the MFJ TNC door prize and the meeting was adjourned at 7:45pm.

Respectfully Submitted,

Robbie Rikard, **KG4MBQ**, Secretary

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## Minutes of the meeting - April 5, 2007

The regular 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 approximately 6:55pm. Introductions were made from the floor with thirty present; roster is attached.

Bob, **W2HVX**, discussed the public events that the club normally participates in. He will have sign-up sheets for several events in the coming meetings. The Woman's Shelter walk/run will be held in the Creekside Park area this year on May 12<sup>th</sup>. The club will be participating in the event as usual and a sign-up sheet will be available at the next meeting. A sign-up sheet for Neuse River day (June 2) will also be available at the next meeting.

The July program is going to be at the county jail. A tour will be given of the 911 dispatch center. Members that wish to participate should meet at the Sheriff's office at 5:30 on that day. The program is expected to last until about 6:30 at which time members will return to Famous for dinner and the remainder of the monthly meeting.

Don, **K8ZAB**, gave the nightly program on oil use and production throughout the world. Don spent his career in the oil industry and his insight provided an interesting perspective on the oil issues in the United States today.

The club discussed its options for buying LCD projectors and decided on the InFocus IN26. David Warwick agreed to purchase the projector and the club would reimburse him for his expense.

Al, **W8UT**, informed the club that Tommy Phelps amateur radio equipment was being sold by his family and if you would like more information you should contact Al.

The meeting was adjourned at

Respectfully Submitted,

Robbie Rikard, **KG4MBQ**, Secretary

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Don Oltz, **K8ZAB**

## UPCOMING PUBLIC SERVICE EVENTS

If you wish to provide communications for the following events, it will be important for you to attend the club meeting on May 3. We will have signup sheets for both events and will provide as much detail as possible at that time. Your attendance at the May meeting will be especially important in order for us to know who will participate and how to arrange the assignments.

### Women's Shelter 5k Run/Walk

Date: Saturday, May 12. Time: 0700. Place: Creekside Park (directions will be given at the meeting). Needed: 7 ops (net control, shadow, supply truck, 4 on the course). Length: about 2 hours.

The purpose of communications will be to facilitate operations between the event manager(s), the supply truck, the rest stop, and reporting any incident requiring assistance among the runners/walkers. It is useful to know where the leaders are (timers, refreshment arrangements) and when the last "stragglers" have returned (liability is terminated, award ceremonies can be started).

The course will start at Creekside Park, turn right onto Old Airport Road, right on Taberna Way, right on Emmen Road. Turnaround may be at Kriens Court, but that is not certain at this time. Runners/walkers will return by the same route. The roads are narrow with vehicular traffic, increasing the potential for accidents.

We will have our usual group photo, determine assignments, and share final details when we meet for the event.

### Neuse River Day

Date: Saturday, June 2. Time: 0700. Place: Union Point Park. Needed: about 20-22 ops (net controls, shadows, fixed land, roving land, marine). Length: from 2 hours to mid-afternoon, depending on your availability.

The purpose of communications is to provide a seamless network among shore and marine stations in order to coordinate all aspects of timing for registrations, launching, starting each race, reporting leaders at various points, public address announcements, answering questions, locating individuals, locating supplies, etc. Event managers tell us each year that they could not conduct the event successfully without our assistance.

Coordination of signups and assignments will be particularly challenging this year because the event

occurs nearly a month following our May meeting. We will have as much detail as possible at the meeting, so your attendance is critical if you plan to participate.

If you cannot attend the meeting but would like to participate in Neuse River Day, please contact either me or Dave Warwick, **K4DJW**.

73, Bob, **W2HVX**



2006 Neuse River Days group

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## Hamfests

**May 19** Williamston Swapfest at NC Telecenter, behind BoJangles, Williamston. Free admission, free tailgating, inside tables \$5. Door prizes. Call Steve, K4SER, 252 799-7654, Harold, KC4ZMF, 252 792-4118

**May 26** **Durham Hamfest** Little River Community Complex 8305 N. Roxboro Rd., Bahama, NC, north of Durham on HWY 501 N <http://www.dfma.org> for map & info or email [w4yqy@rcarc.com](mailto:w4yqy@rcarc.com)

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## For Sale

The following items from the estate of Tommie, WA4EME, are available. Offers will be considered in or above the price ranges given. Contact Al, W8UT, [anchor@ec.rr.com](mailto:anchor@ec.rr.com) 636-0837

Microphone, Collins SM-2	\$75-150
Microphone, Astatic D-104/UGB	\$30-50

Heath Keyer, HD-1410 + key, mounted	\$30-60
Heath SWR meter	\$20-40
Heath SB-610 monitor	\$30-50

Icom IC-228H 2 meter xcvr	\$30-75
CSC MAX 550 frequency counter	\$20-40
Galaxy pwr supply	\$10-20
TU-10-B tuning unit for BC-375 xmtr	\$5-15

Condition of the bottom 4 items is unknown, others are presumed to be working. \$ back if unsatisfied.

## BALUNS PART IV

# CONSTRUCTION AND TESTING

Andy Griffith, **W4ULD**

In Part III we designed a 1:1 voltage balun that should maintain balance with loads as high as 200 ohms from 3.5 MHz. to 29.0 MHz. We chose an Amidon Associates FT-240-61 toroid core. This core is 2.4 ins. OD x 1.4 ins. ID x .5 in. high and is constructed of Type 61 material ferrite which has a permeability of 125. Each turn of wire on this core is approximately 2.25 ins. long.

The balun was constructed by first wrapping the core with black electrical tape. The ferrite core is conductive and must be insulated from the winding. For the winding two 24 inch lengths of #14 enameled wire were paralleled and held together with glass electrical tape about each two inches.. This parallel winding was wound on one-half of the core. The third non-bifilar winding was added on the second half of the core. This winding is essentially an extension of the ungrounded half of the main bifilar winding. The finished balun is pictured in Figure 1 during balance testing.

Some of the data obtained during an evaluation of the balun are shown in Table 1. The impedance readings were made with an Autek Model VA1 analyzer. This is a good instrument but sometimes the algorithm that detects sign of reactance gets confused. Loads were  $\frac{1}{4}$  W resistors. It appears that the optimum impedance of the winding is about 67 ohms. Thus, a load impedance of 67 ohms will transpose to an input impedance of about 67 ohms with little reactance in the input impedance over a broad range of frequencies..

At loads below and above 67 ohms the  $Z_0$  of the winding follows the general rules for transmission lines. That is, if the load is below the  $Z_0$  of the line, the input resistance will be greater than the load resistance and a positive reactance will be evident. If the load impedance is greater than the  $Z_0$  of the line the input resistance will be less than the load resistance and a negative or capacitive reactance will be evident.

The balance test was described in Baluns Part I and is shown in Table 2. It appears that balanced was maintained for resistances of 20 through 200 ohms load from 1.8 MHz .through 29 MHz..For 300 ohm load resistance (2 x 150) balance was fairly good from 1.8 MHz. through about 7 MHz. but fell apart at higher frequencies. Thus, the balun will work well on 160 M.

My conclusion is that this balun surpassed the design criteria. This balun should be good for at least 1 KW power. We will talk about power ratings later.

*73, Andy, W4ULD*

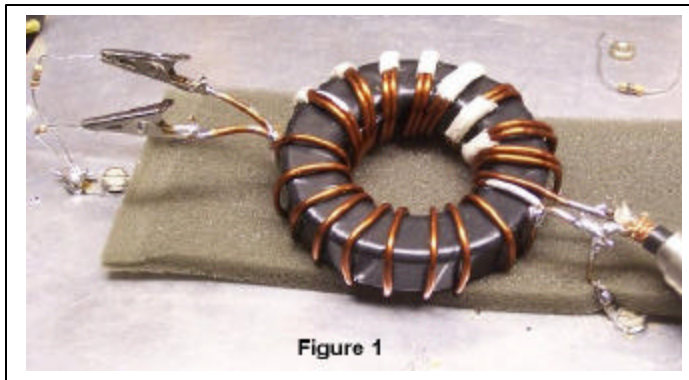


Figure 1

**Table 1**

Load R Ohms	Freq. MHz.	Input Impedance R +/- jX	SWR
27.2 SWR=1.84	1.8	30 + j4	1.70
	3.5	30 + j6	1.66
	7.0	30 + j11	1.75
	14.0	34 + j19	1.77
	21.0	28 + j40	3.2
	29.0	38 + j39	2.42
67.2 SWR=1.34	1.8	69 + j8	1.40
	3.5	70 + j4	1.40
	7.0	69 - j0	1.40
	14.0	69 + j2	1.38
	21.0	67 + j2	1.30
	29.0	62 + j11	1.31
80.8 SWR=1.62	1.8	82 + j11	1.66
	3.5	83 + j3	1.65
	7.0	84 + j0	1.62
	14.0	76 + j8	1.54
	21.0	69 + j5	1.38
	29.0	60 + j17	1.41
99.5 SWR=1.99	1.8	101 + j14	2.03
	3.5	102 + j4	2.04
	7.0	97 - j7	1.94
	14.0	86 - j7	1.74
	21.0	73 - j10	1.51
	29.0	60 ? j16	1.38
219 SWR=4.38	1.8	204 + j52	4.30
	3.5	217 - j23	4.30
	7.0	175 - j79	4.2
	14.0	108 - j88	3.73
	21.0	63 - j84	3.99
	29.0	59 - j45	2.25

**Table 2**  
**BALANCE TEST**

Load R Ohms	Freq. MHz.	V1/V2	Balanced Y/N
2 x 10= 20	1.8	4.6/4.6	Y
	3.5	3.5/3.5	Y
	21.0	2.4/2.2	Y
	29.0	2.2/2.2	Y
2 x 27= 54	1.8	2.2/2.2	Y
	29.0	2.6/2.6	Y
2 x 100= 200	1.8	5.0/5.0	Y
	29.0	2.0/2.0	Y
2 x 150+ 300	1.8	2.6/2.6	Y
	3.5	4.6/4.5	Y
	7.0	6.2/6.4	Y?
	14.0	3.6/4.0	?
	21.0	3.0/2.8	?
	29.0	2.7/2.0	N

# Heard Any Good QRM Lately?

## The Good, The Bad and The Ugly

By Philip Cala-Lazar, K9PL

Heard any good QRM lately? I have. Not that any QRM at any time is good, but an analysis of its source(s) can be revelatory. Seems ever since the FCC “refarmed” the CW subbands there’s been an abundance of QRM, especially on old reliable 40-meters. That’s the band where, no matter the time of day or where in the solar cycle we find ourselves, a QSO is doable.

There’s always been the international broadcasters and SSB stations with band plans other than ours to contend with, and the occasional digital station that wandered down from its traditional watering grounds and was easily skirted, but wait, there’s more.

**The Good:** There are more CW operators sharing the band. Since the beginning of the year I’ve worked many “retread” amateurs. They’ve been away from ham radio and/or CW for years, some for decades, and now they’re back and to quote them, “Having a ball.” I don’t know if recent FCC actions spawned this regeneration, but one thing for sure, Morse ability once learned is not lost despite hiatus length.

**The Bad:** SSB stations jumping on frequencies already in use. More and more digital operation moving toward 7.000 MHz and plopping themselves on existing QSOs—contest weekends are especially bad as digital signals blanket the band. Yes, there are the WARC bands, but as more and more contests occupy more and more weekends it squelches 40-meters for those whose operating time is limited to weekends.

**The Ugly:** Too many CW operators hopping on an occupied frequency, tuning up or not, and commencing an interminable CQ sequence. No matter both parties in the preexisting QSO expressing “QRL,” the fervent QSO-seeker persists—without reply. Could it be because others hear the preexisting conversation?

### Premature Jubilation

Jubilant’s been expressed on some discussion lists about multitudes of new General class phone operators crowding the bands, whereas the CW subbands will exist as a spacious idyll. That’s not the way it is playing out; during my operating time I experience more jockeying for available spectrum, not less. Even the old, now truncated, 40-meter Novice subband is enjoying a resurgence of occupation: as in years past there are CW stations nightly dodging the shortwave broadcasters and during daytime hours a great place to meet OOT’s.

One recent weekday evening I experienced, in an hour’s time and during three different QSOs, three stations coming on

frequency and emitting lengthy CQs. Not one inquired, “QRL?” Nor did my or the other station’s QRL do any good to halt the CQ’ing onslaught. Perhaps their preliminary transmission of many seconds-long carriers while tuning is the now trendy substitute for proper procedure. It’s not a matter of veteran operators or the newly licensed—going by their callsigns—they fell into both categories.



### Read the Book(let)

I know this has been discussed to death over amateur radio’s century-long existence, but every ham in every generation needs be sensitive to the problem and how to happily coexist on undoubtedly ever more crowded bands.

There’s not much we can do about the phone and digital operators sharing the band—they have every right to be there—except wish they’d employ more discretion in their operating practices. But in “preaching to the choir,” we know that CW is such an organic, simple and adaptable mode unimpeded by gear, that not QRM’ing is a very simple matter.

Every amateur radio primer offers the same good advice, typically, it appears right up front. A 1960’s version of the ARRL’s *An Introduction to: Operating an Amateur Radio Station*, states: *One thing that is considered the height of ill manners and ‘liddy’ procedure in amateur radio is to tune up or make any transmission on a frequency which is already occupied. On CW, ...the Morse letter C (didit dit) should bring a response if you are interfering with a station you cannot hear.* “Didit dit” has fallen out of favor, but too often so has its replacement: “QRL?” It is a simple matter; use “QRL?” and listen for a bit, it will improve everyone’s operating experience.

One last thing, that little 34-page ARRL booklet is chockfull of thoughtful advice and useful information, its cover price was fifty cents—free to League members. What price peace on the bands today? Reprinted with permission of the *K9YA Telegraph e-Zine*. Subscribe for free at <http://www.k9ya.org>

Cast of Characters:

President: Mac Eutsler, WA0ZGL  
Vice President: Pete Koonce, KA4SXX  
Secretary: Robbie Rikard, KG4MBQ  
Treasurer: Charlie Gould, K4VC  
Communications: Bruce Arnold, N8UTY  
Trustee: Billy Morton, KE4YMA  
Assistant Treasurer: Ralph Bitely, N4RAB  
Public Service/Photog: Bob Chamberlain, W2HVX  
Emergency Communications: Bruce Arnold, N8UTY  
Assistant Em. Comm.: Dave Warwick, K4DJW  
Program Committee Chairman: Bill Lindquist, K2UFC

**The Newsletter Team:**

Al Parker, W8UT, Editor  
Charlie Gould, K4VC, Data Base/Labels/P.O.mail  
Bob Chamberlain, W2HVX, graphics & photography

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The NBARC Newsletter is the newsletter of the New Bern Amateur Radio Club, Inc., 103 Outrigger Rd., New Bern, NC 28562. NBARC is an affiliated club with the ARRL and ARES.

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**Selected Local Nets** Times are local time, unless otherwise stated

Club Net Manager: position open  
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): 3571 kHz, 8PMET (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

**New Bern Amateur Radio Club**

<http://www.nbarc.org>

103 Outrigger Rd., New Bern, NC 28562