

# New Bern Amateur Radio Club



**W4EWN/R**

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

Volume 24, Issue 12

December, 2001

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Website: [www2.cconnect.net/newbernarc](http://www2.cconnect.net/newbernarc)

View the Newsletter there in color

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## **December Meeting -- Thursday, Dec. 6, 2001**

6:30 PM at The Berne Restaurant

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**Christmas Social** is the meeting format this month. No door prizes, speakers, etc., just bring your own for the gift exchange. XYLs are encouraged to come. OMs bring a gift for OMs, XYLs for XYLs - \$5 limit on gift price.

Next years **dues are due**, and will be welcome. We have already received one payment for next year.

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### **President's Corner**

Hello to All. WOW, sure has been a fast year. Thanksgiving has passed and the Christmas season is on us. Looking forward to our meeting this month. It will be our Christmas Social meeting and gift exchange. Remember, the OMs bring a guys gift and the YLs bring a gals gift (\$5 limit).

Check out December QST. You will find W4EWN scored good in this years Field Day. I would like to thank everyone who supported the club this year. It has been a very good year and looking forward to 2002.

Have Fun – **WA0ZGL**

## MEETING MINUTES

01 NOVEMBER 2001

Mac, WA0ZGL, opened the meeting at 6:30 PM with a welcome to those in attendance. He referred to his vacation in the hills of Missouri, away from radios computers and cell phones. He mentioned that the By-laws called for the annual election of Officers for the coming year, at this the November meeting.

The usual self-introductions revealed there were 28 members in attendance, two XYLS, and two visitors.

Mac then opened the regular business meeting by referring to the our by-laws which require that a nominating committee be appointed at the Oct. meeting. He asked for a motion which in effect abrogated temporarily the appointment of such a committee. The motion came from the floor, was seconded, and passed unanimously.

The minutes of the October meeting, and the financial report for the month were part of the Newsletter. No comments or corrections were suggested.

Referring back to the necessary election of Officers for the coming year, he had surveyed each incumbent, and they all agreed to serve another year. Tommie Phelps, WA4EME, agreed to continue as Repeater Trustee; Dave Sousa, K2CQV, agreed to continue rustling up programs, and already has four corralled for 2002. One area of concern involved Ben Epting, N4NOA, who because of personal problems asked to be relieved of the office of Communications Officer. Dick Hallberg, K0UXZ, was contacted and agreed to shoulder the responsibility. After these explanations, a motion and second was received to the effect that the current officers were elected/re-elected for the calendar year 2002.

Bruce, N8UTY, gave a short dissertation on the various strains of virus prevalent on the Internet, and spoke of his recommendations for handling them, blocking them, and obtaining web information on them, and safe-guarding your hard drive from infection. He also spoke of the upcoming statewide Simulated Emergency Test. North Carolina has always ranked high nationally in this operation and Bruce urged a high membership attendance either

through W4EWN, or as HF liaison stations. He will provide more details as to the scenario and NBARC'S participation as the time approaches.

The meeting was then turned over to Ed, W2UAS, for the evening program. Ed started his employment with RCA in 1940, and retired from them in 1986. He was in the development lab in Camden, NJ. He spoke of and presented pictures of the early computers he assisted in developing. His machines occupied a whole room, and had hundreds of vacuum tubes doing the work. He was involved in Project Typhoon, designed to calculate artillery trajectories. He also had a hand in the T-35 AAA gunsight, and was close enough to the shooting in Europe to experience an incoming V-2.

After the war, RCA's (and Ed's) attention turned to the development of color television. From Ed's anecdotes, competition among the various companies was not only serious, but it also had a light side. Ed also spoke of his involvement with the TIROS weather satellite deployment.

Ed was an amateur radio operator before he applied for employment with RCA, and although he didn't use his ham knowledge as much as he would have liked – he felt it stood him in good stead in the competition for the job, and for his daily work.

An extremely interesting and informative program !

The meeting was adjourned at 2020

Charlie, **K4VC**

Acting Secretary



Ed Goldberg, **W2UAS**, at the November meeting

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## The ARES Angle

I hope a lot of you made it to the Maysville Hamfest in October this year. It was a perfect fall day, and a great turn-out. In addition to the usual fun stuff, like the flea market, the raffle, seeing old friends, and of course the BBQ from the Trent Café, there was also a SkyWarn meeting where Bill Sanford, KG4IUA was chosen as the new Emergency Coordinator for SkyWarn. Bill is active in ARES, and is currently president of the Crystal Coast Amateur Radio Society. I think he will do a fine job with SkyWarn, and I know we will all cooperate with him to have the very best program possible.

There was one disturbing note which arose at the hamfest. I had a nice chat with Doug Ferris, KD4ROK, who is EC for Pitt County. The disturbing part was when he told me that there are only three people in our part of the state contributing to the upkeep of the Trenton repeater. I am embarrassed to say that I am not one of them, but soon will be. I encourage each of you to do the same. Information on PCRN, which operates the Trenton repeater, can be found on the Web at <http://www.qsl.net/w4fal/pcrn/> If you want to be a supporting member and don't have an Internet connection, you can mail a check for at least \$15 to:

PCRN  
P.O. Box 12734  
Raleigh, NC 27605

Let's support this fine operation and help to keep one of our crucial area repeaters on the air.

And for now, that's the ARES Angle.  
Bruce Arnold, N8UTY  
Craven County EC

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## FINANCIAL REPORT

Nov. 1, 2001 --- Nov. 30, 2001

### CHECKING

Balance @ Oct. 31, 2001           \$1,525.09

#### **Expenses**

11/06 C P & L     \$ 33.51

11/19 Sprint       32.30

**Total**                   \$65.81

**SUBTOTAL**                           \$ 1,459.28

#### **Deposits**

11/02               \$ 61.00

11/26               15.00

Total               \$ 76.00

**BALANCE @ Dec. 1, 2001**     \$ 1,535.28

**SAVINGS BALANCE**               \$1,122.07

**GRAND TOTAL**                    \$ **2,657.35**

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## THE HF MOBILE ANTENNA - PART II

Andy Griffith, W4ULD

In Part I of this series I said that a 75 meter mobile installation has low efficiency unless the unmatched SWR is at least 2:1. This statement usually raises eyebrows because we normally think that low SWR is desirable. Low SWR at the transceiver terminals is desirable and is obtained by some form of matching device either at the antenna or at the transceiver. However, at the antenna terminal low SWR of a short loaded antenna is undesirable as we can see from the table below for an 8 ft. 75 meter antenna with the loading coil in the center.

Q of Coil	Coil Resistance ohms	Input Impedance ohms	SWR	Efficiency percent
100	36.3	45	1.11	2.1
200	18.1	23	2.17	4.1
300	12.1	15.7	3.19	5.8

Ground resistance is 1 ohm and radiation resistance is .974 ohm in each case.

The resistances of the loading coil and ground system far exceed the radiation resistance of less than 1 ohm. The radiation resistance is the only resistance contributing to radiation from the antenna. Power consumed in the remainder of the input impedance goes into heat. Since the total resistance is less than 50 ohms, the SWR will go up as the losses are reduced. This situation applies to all HF mobile antennas as long as the radiation resistance plus losses total less than 50 ohms. I have seen (and built) some super loss antennas with total resistance exceeding 50 ohms. On 75 meters a coil Q of greater than 200 and a ground resistance of 2 ohms or less are readily obtainable. Thus an SWR at the antenna of 2:1 to 3:1 is obtainable. However most installations I have measured on 75 and 40 meters run only 1.1 to 1.6 SWR.

We will begin our discussion of important parameters with the ground system. We are talking about RF resistance to ground which may not be the same as DC resistance as measured with an ohmmeter. A good RF ground requires a very short, heavy duty connection between the antenna mount and the chassis or body of the vehicle, and in the case of body mounting the body panels must be bonded to each other and to the chassis to create the maximum ground plane. I have found that it is difficult to get a good body ground for HF mobile. I prefer chassis mounting but we will discuss both.

I think the chassis mount at the bumper level is usually best because it is easier to get a heavy duty, low resistance ground and because a longer antenna can be used without striking overhead objects. Just by increasing the antenna length from 8 ft. to 11 ft. the efficiency more than doubles mainly because the radiation resistance doubles. I am aware that The ARRL Antenna Book says that ground losses increase as the base of the antenna is lowered. They mention 6 ohms ground resistance for a bumper mount versus 2.5 ohms for a roof mount. I question their method of measurement but that is another subject. I know that my "screwdriver" antenna has a ground resistance of about 2 ohms on 75 meters. Its SWR is 3.0:1. The mount is a heavy aluminum bar connected directly to the chassis of the sedan using the bolts that attach the bumper to the chassis.

Direct connection to the chassis is preferred. Trailer hitches and bumpers that are bolted to the chassis are also good provided a clean, paint-free connection is made to the chassis. After installation, the attachment point should be sealed by repainting or spraying with a good electrical sealer. If there is any question about the installation, the antenna mount, bumper and/or hitch should be bonded to the chassis by a short copper strap about 1 in. wide using at least 1/4 in. diameter bolts and lock washers. Tinned braid is not good for this purpose as will be discussed later.

Next month we will cover mounting the mobile antenna on the body of the vehicle. 73, Andy.

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## Upcoming Hamfests

There are no 'fests scheduled during December. I did see several club members at the Benson 'fest on Nov. 18. It was a beautiful day, unlike recent years.

I think the next one to think about is the Richmond "FROSTFEST" which is in January, 2002.

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## Upcoming Operating Events

are there any 160m operators in the club?

**Dec. 5 Top Band Sprint**, 160-meter CW/SSB, sponsored by QRP ARCI rfoltz@turbonet.com

**Dec. 7-9 ARRL 160-Meter Contest**--see November *QST*, page 105

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## First Cruising Report from Rick & Tammy

GEORGETOWN SOUTH CAROLINA  
"KUDZU BAKERY AND SCHOEFIELD HDW"

We departed Gottschalk Marina early Sun (18 Nov. 01), clear day, and not too cold. Easy run to Carolina Beach and arrived there shortly after sunset.

Had a great dinner on Ed and Wendy's "Myst". They had decided to accompany us on our trip South for a few days. Early next morning we were off before sunrise for the trip down the Cape Fear River. Our next destination would be "Barefoot Landing".

Had a minor incident on the way down. The tach was showing funny readings and was bouncing around quite a bit. Went below and checked and somehow the alternator bolts had loosened and the two pieces of the alternator had actually started to separate, had to pull in to the Hague Marina (YUK!!) and tie up for an hour and put the silly thing back together again. Well, back underway and then late in the afternoon we arrived in Georgetown landing Marina.

For further info on all above items, see the latest QST magazine or ARRL website:  
<http://www.arrl.org>

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## SWAP SHOP

**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

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Anyone contemplating this trip has to stop here, the marina price is quite good and at \$.75 a foot in is well worth it. Then there is the Kudzu bakery!!

This damned place ought to be illegal in all fifty states. Tammy and I went in and had one cinnamon roll each, and a loaf of french bread. Any bakery smells good, but this place is something else, and they have expanded to include a lot of frozen foods. Quail, Rocky mtn trout, pheasant, ostrich, and a lot of vegetables all frozen.

Then there is Schoefield Hdwe. If my home town had this place, Lowes probably would see very little of my money...

As some of you know, I had some surgery in August, and have to change my lifestyle. Basically change or die, so you can guess what we are doing,,,,,, For the past four years I have developed the KFC guide to the South East Sea Coast. I know where every KFC is between Camp Lejeune and Miami. I know where to anchor and be at the counter in ten minutes or less. But all that is out the window now no more KFC!!!!

Got to meet a new friend from one of the Boards (bulletin boards on the i-net) Al Rogers saw the boat

while driving across the Pee Dee river bridge and stopped for a visit, and a martini (or two)

Rick and Tammy SV Pelago, Georgetown Landing Marina, Georgetown SC. Thanksgiving 2001

We were underway at a pretty good time on Fri. morning, but our departure went sort of askew. Damned alternator again, this time it quit completely, had to turn around and go back to the marina. Found out that the rotor went south on us, and we had to go in to town to replace it.... Got to tell you that just not impressed with Hehr Ample Power. Damned things just do not hold up, this time

Fri. the 23rd we will depart for Charleston area

it has all Delco parts in it. Back underway and made it to the South Santee River about 25 miles south of Georgetown

Rick and Tammy....

(if you want to get in touch with them while they're away, email to [wb6lnh@winlink.org](mailto:wb6lnh@winlink.org) , but keep it in text only, as they get their mail via ham radio and long msgs or attachments take forever to download.)

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Charlie, **K4VC** says: "I have attempted to unofficially "coordinate" 2002 exam sessions in our area, by checking with the respective liasons. I have their permission to submit the following: "

Morehead City, NC -- third Saturday of odd months.

Contact, Mac, **WA0ZGL**, at 252-447-8338, or [wa0zgl@coastalnet.com](mailto:wa0zgl@coastalnet.com).

New Bern, NC -- third Saturday of even months, except December.

Contact Charlie, **K4VC**, at 252-633-3178, or [k4vc@arrl.net](mailto:k4vc@arrl.net).

Jacksonville, NC -- all eve. sessions, last Tuesday of each month with the exceptions of June, July and August.

Contact Tom Hill, **KJ4IV**, at 910-326-4536, or [tomhill@gibraltar.net](mailto:tomhill@gibraltar.net).

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### **How the ARRL TIS Can Help YOU**

If you are a current ARRL member, ARRL Headquarters can answer your technical questions, too. (If you are not a member, we would like you to join so we can offer this service to you!) Our TIS staff is a valuable source of information and research for questions that cannot be answered by the Technical Coordinator or an article author.

TIS has prepared information packages which are available as Web pages and bibliographies which are available at no charge via the World Wide Web - just click on the link beside its listing above.

If you want to know if something has been previously published on a particular subject, the TIS staff can do research to help you locate this information. TIS can also help you locate a company

that sells a particular product (such as air variable capacitors) or personally explain a technical point to you via e-mail, letter or telephone. E-mail is usually the best method of contact with TIS, since it provides the TIS staff time to research your inquiry completely without lengthy phone charges being incurred.

The Technical Information Service can also supply photocopies of out-of-print QST or QEX articles or article construction "templates" (as mentioned in the text of an article). Reprints are available from the Technical Department Secretary, ARRL, 225 Main Street, Newington, CT 06111. Copies must be prepaid: articles are \$3 for ARRL Members, \$5 for nonmembers; templates are \$2 for ARRL members, \$3 for nonmembers. You may order by telephone (860-594-0200) and pay by credit card. Contact the Technical Department Secretary ([reprints@arrl.org](mailto:reprints@arrl.org)) for information or help with reprints and templates. However, if you would rather have a complete issue of QST, contact our Circulation Department ([circulation@arrl.org](mailto:circulation@arrl.org)) to see if it is still available.

ARRL members can contact the ARRL TIS Coordinator directly at [tis@arrl.org](mailto:tis@arrl.org) or by phone at 860-594-0214.

Non-members should contact [rcavanaugh@arrl.org](mailto:rcavanaugh@arrl.org). TIS is pleased to help a new ham get started or help an old timer get back into ham radio but non-members will be asked to join the ARRL so we can continue to provide this valuable membership service. After solicitation, non-member inquiry will be promptly forwarded to the ARRL HQ TIS staff.

To contact TIS by mail, please send an SASE to:

American Radio Relay League

Technical Information Service

225 Main St.

Newington, CT 06111 (taken from ARRL website)

## BOATANCHORS

The following prose was posted to a group of BA (boatanchor) enthusiasts about 4 years ago, and I felt it would help us to understand the nature and lure of BOATANCHORS. Dick has consented to allow his work to be shared, and I am grateful, as I hope you will be as you read it. Thanks Dick.

### Subject: SX-101 Arrives

Those who remember such things may recall that in the last days of November there came upon me a craving for a Hallicrafters SX-101. Even for one for whom such cravings are not rare, this seemed strange. I had passed the '101 by many times before. It's strictly an amateur product after all and the closest I've ever come to such a thing is the highly suspicious ham band calibration on the GPR-90RX. But it at least is general coverage. How would one monitor KPH with a '101? Not at all was the obvious answer. So the '101 remained a stranger to this radio room.

Then, as Fall passed into Winter, a small whisper from this admittedly classic radio reached my ear. I ignored it as an obvious aberration caused by the beginning of sun spot cycle 23. But the voice continued. "You know you want me. You've always wanted me. Why resist?", the voice purred. Suddenly that enormous slide rule dial, the back lit dial scale, the row of toggle switches... I realized how beautiful they really are. Like any good seductress the '101 had my number and I fell like a head shot deer. Then came the search, that part of the game that the most fun and the most agonizing at the same time. But yesterday list member Larry Rau called with a tip: A SX-101 was available nearby.

A quick call to the owner resulted in an agreement to meet at the Livermore swap meet today. As I stood there in the parking lot, shivering in the darkness before dawn and getting soaked by a virtual monsoon, I knew I must be barking mad - but I loved it. As I did the radio when it was revealed to me in the back of an Astro van. "Take me, you fool!", she whispered. And I did.

I am now sitting before a Hallicrafters SX-101 Mk. IIIA which has assumed the title for the longest model designation in my collection from the SP-600-

JX-17. The dial and the S meter cast their glow. It is tuned to the 40m CW band. There's some kind of pile up. I tease the stations apart with the notch filter and selectivity control. Hee-hee. Their notes seem bell-like coming from the incorrect but nevertheless imposing PM-23 speaker. The best part is that the '101 has finally displaced the hulking 286 computer from my operating table which is now silicon-free.

Sure, I know it's the honeymoon period. Later another seductress may whisper and my lust for the '101 may fade. But for now she holds center position on the operating table as I suspect she will for some time to come.

Thanks and a tip of the earphones to Larry for playing matchmaker.

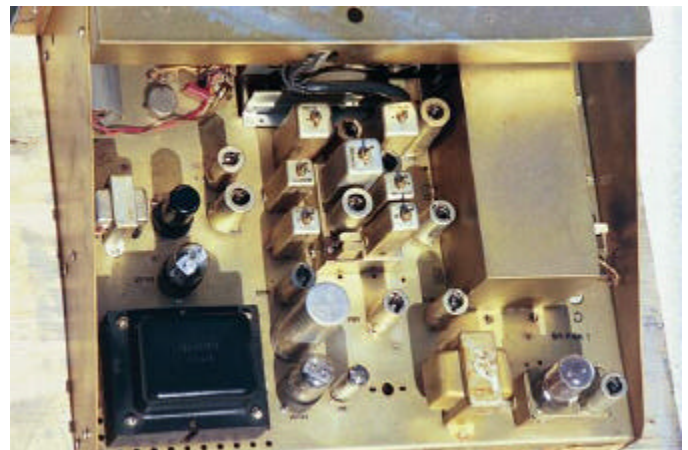
73,

Dick Dillman, **W6AWO**  
ddillman@igc.org

7 Dec 1997



Hallicrafters SX-101



Hallicrafters SX-101  
(W8UT photos)

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## **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

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 (suspended)

Skywarn: 145.21 mHz, 2100 Tuesdays

ENC Emergency: 146.685 mHz, 2100 Thursdays

ENC Traffic: 146.685 mHz, 2030 daily

NBARC Ragchew: 146.61 mHz, daily, after ENC Traffic closes

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## **News Items of Interest**

### **Mail disruptions lead to vanity processing suspension**

Recently announced changes in mail handling procedures at the FCC's Gettysburg, Pennsylvania, office have effectively halted processing of Amateur Radio vanity call sign applications. The FCC has processed vanity applications received through October 14. Vanity applications received after that remain on hold for now.

"We understand that mail directed to the FCC Gettysburg office beginning October 15 was being held pending the start of special handling precautions to address any biohazard contamination concerns," said ARRL VEC Manager Bart Jahnke, W9JJ. He said the FCC is tracking the receipt date for each piece of mail.

Because the FCC gives equal priority to paper and electronic vanity applications, all vanity processing was being suspended until the mail situation is resolved. Citing a need for heightened security measures, the FCC announced November 14 that it had moved the Gettysburg office's mailroom offsite, to the rear entrance of 35 York St, Gettysburg, PA 17325.

The FCC did not announce, however, that mail received at Gettysburg starting October 15 had not yet been opened, pending arrangements to handle it without the possibility of endangering personnel. Jahnke said vanity processing should resume once the FCC begins to open its mail backlog. Just when that might happen is not yet known. Vanity processing typically takes 18 days.

Jahnke said the mailroom situation also could affect some Amateur Radio renewals. He said amateurs who filed for renewal in a timely fashion may continue to operate beyond the expiration, if the mail delays cause the license to lapse before the renewal occurs. He said applications from those filing for renewal near the end of their two-year grace period will be accepted for processing if they get to the FCC before the grace period expires. (taken from ARRL website)

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6:30 PM at The Berne Restaurant

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*Cast of Characters:*

President: Mac Eutsler, [WA0ZGL](#)

Vice President: Pete Koonce, [KA4SXX](#)

Secretary: Ray Hemphill, [W7OPH](#)

Treasurer: Charlie Gould, [K4VC](#)

Communications: Dick Hallberg, [K0UXZ](#)

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](#)

The Newsletter Team:

Al Parker, [W8UT](#), Editor

Charlie Gould, [K4VC](#), Data Base/Labels/P.O.mail

Mac Eutsler, [WA0ZGL](#), Acrobat

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](mailto:anchor@ec.rr.com)

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**New Bern Amateur Radio Club, Inc.,**

**PO Box 12483**

**New Bern, NC 28561**