

# New Bern Amateur Radio Club



**W4EWN/R**

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

Volume 24, Issue 11

November, 2001

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

View the Newsletter there in color

## **November Meeting -- Thursday, Nov. 1, 2001**

6:30 PM at The Berne Restaurant

**Program speaker for November meeting** is Ed Goldberg, **W2UAS**. Ed will speak about his forty one years at RCA and the various projects he worked on. This will be our final program for 2001 as our next meeting, in December, will be our Christmas social.

**The door prize** will be a book: "HF Antennas for all Locations" published by the Radio Society of Great Britain, compliments of our editor, Al Parker, **W8UT**.

As program chairman I express my thanks to all who gave their time an effort for the many outstanding and informative programs. David, **K2CQV**

### **JAMBOREE-ON-THE-AIR**

On Saturday, 20 Oct 2001, **NBARC** joined with the Neuse Basin District, Boy Scouts of America to participate in the world-wide Jamboree-on-the-Air. The past three years the event has been held at St. Andrew Lutheran Church but this year the BSA district scheduled a cub scout Pow-Wow at the Craven Count Community College on the same date. This made for an ideal opportunity to set up **NBARC** operations at the same location. As a result, cubs were in nearly constant attendance as they took breaks between their other activities.

Rigs were provided by Dave, **KB4EBT**, Ken, **K4KDM**, Bob, **W2HVX** and Ralph, **N4RAB**. Other club members dropped by for various times and lent assistance. With the change in location and antennas it's difficult to compare raw numbers this year with previous years. However, Dave worked a JOTA station in Suffolk, VA, numerous times with different cubs. Bob reported that one of the cubs was so entranced with his mobile rig that he couldn't get the youngster to get out of the van and go to another rig. Over all, it appears the change in location worked out very well and the event was a great success.

Ralph, **N4RAB** (SEE PIX ON NEXT PAGE)



Dave, KB4EBT at the mic, his son, Ethan, at the table



another group of cubs & parents

### FINANCIAL REPORT

Oct. 1, 2001	----	Oct. 31, 2001
<b>CHECKING</b>		
Balance @ Oct. 31, 2001		<b>\$ 1,306.88</b>
<b>Expenses</b>		
10/2 Postage		\$34.00
10/02 MBE		42.40
10/08 CP&L		16.10
10/19 Sprint		32.29
Total		\$ 124.79
<b>SUBTOTAL</b>		<b>\$ 1,182.09</b>
<b>Deposits</b>		
10/02		\$ 80.00
10/15		263.00
Total		\$ 343.00
<b>Balance @ Nov. 1, 2001</b>		<b>\$ 1,525.09</b>
<b>SAVINGS</b>		
Balance		<b>\$ 1,122.07</b>
<b>GRAND TOTAL</b>		<b><u>\$2,647.16</u></b>

### President's Corner

In the temporary absence of Mac, your editor will say-- **PLEASE NOTE**  
 The November meeting is the annual election meeting. Please be there, if not, you may not be able to defend yourself!! There has not been a nomination committee, so nominations may be taken from the floor, or by 'write-in ballot'. If you would like to jump into the ring for any club office, please be at the meeting, or call one of the officers  
 . **Have Fun – wa0zgl**

**N2TWO** property sold at Maysville netted \$243.00. A few items remain, the figures opposite each item represent an average evaluation arrived at by a "committee of experts", based on their experience and knowledge of the item. Any one interested in any of these items contact **K4VC**.  
 Left overs will go to next club auction.  
 If you wish to buy any of these items contact Charlie, **K4VC** and delivery arrangements can be made. If you wish to inspect the items beforehand, he will work with you.

5. Micronta Pwr Supp, 120ac/12vdc \$ 10.00
6. Archer AC wall wart, 120ac/3v-9v dc \$ 4.00
7. 2 mtr. mag mount antenna \$ 15.00
8. Realistic, Nova-40 headphones \$ 5.00
9. Micronta 8 range multimeter, cat# 22-212a \$ 8.00
10. Micronta vhf/uhf swr/pwr meter, cat# 19-320 \$ 10.00

## MEETING MINUTES

4 OCTOBER 2001

The regular monthly meeting of the New Bern Amateur Radio Club was held on October 4th, 2001, at the Berne Restaurant, and the meeting was called to order by Vice President Pete Koonce, **KA4SXX**, at 6:30pm. Introductions were made from the floor with thirty members attending; roster is attached.

The minutes and financial report from the previous meeting were approved as circulated in the newsletter. Pete announced that the repeater seemed to be functioning normally, since there were no comments otherwise. Pete also mentioned that the Maysville Hamfest would be held on Sunday the 14th of October.

Ken, **K4KDM**, and Ralph, **N4RAB**, together reviewed plans for holding the Boy Scout Jamboree on the Air, which would be held in a field at Craven Community College on Saturday, the 20th of October, from 9am. Also on the 20th of October, exams will be given in room B-206, 9am, also at the community college. Ken passed out schematics for a tube-type QRP transmitter. Al Parker, **W8UT**, mentioned that he would appreciate any updated e-mail addresses.

The door prize was a repeater directory which was donated by Lou D'Arco, **N2AME**. The winning ticket was held by Ray Hemphill, **W7OPH**.

The meeting was then turned over to Martin Culpepper, **AC4PW**, who presented an informative program on the PC operating parameters of the Ten-Tec Pegasus hf rig.

The meeting was adjourned at 7:30pm.

Respectfully submitted: Ray Hemphill, **W7OPH**,  
Secretary.

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### Upcoming Hamfests

**Nov. 10 Myrtle Beach**, Grand Strand ARC, outside fleamarket, tailgate, open air hamfest event. ALL vendors and tailgaters are welcome. \$5.00 per spot. NO charge for admission.  
website <http://www.w4gs.org>  
Email: [beachfest2001@hotmail.com](mailto:beachfest2001@hotmail.com)

**Nov. 18 Benson** - JARSFEST, inside vendors, outdoor tailgating. Begins at 6:00am. \$5.00 at the door.

website <http://www.jars.net/jarsfest.htm>  
email AK4H blambert1@mindspring.com

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### Upcoming Operating Events

**Nov. 3-5 ARRL November Sweepstakes, CW**

2100 UTC Saturday, ends 0300 UTC Monday.

Operate no more than 24 of the 30 hours.

**Nov. 17-19 ARRL November Sweepstakes,**

**phone** 2100 UTC Saturday, ends 0300 UTC

Monday. Operate no more than 24 of the 30 hours

For further info on all above items, see the latest QST magazine

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### SWAP SHOP

**FOR SALE:** GAP Challenger DX-VIII Antenna, covers 80,40,20,15,12,10,6, and 2m. Brand new and still in original box with all accessories and instructions. Paid \$288 new, asking \$200 or best offer. Nick, N3OET, (252)393-4553, or email [wx4caster@ec.rr.com](mailto:wx4caster@ec.rr.com).

**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](mailto:anchor@ec.rr.com) or 636-0837

## HF MOBILE ANTENNA - PART I

Andy Griffith, W4ULD

I had forgotten how much fun HF mobiling can be until I took some trips a few years ago with the home-brew screwdriver antenna. I had become disgusted with 2 meters while traveling because local hams don't welcome travelers like they did in the early days of repeaters. So the HF rig was a lot of company and made the trips shorter. The 40 meter band is still a gentleman's band where one can always find a friendly QSO during the day. Of course, at night the band is flooded with foreign broadcast stations. The 17 meter band is great for mobiling because it is still not crowded. When it is open, DX is easy to work. One can even squeeze in on 20 meters occasionally among the 1500 watt stations. If they hear you, both domestic and DX stations will often give priority to a mobile station. Ten meters is open these days and this has always been a good mobiling band because the 10 meter mobile antenna on the open road is about as efficient as any low vertical antenna. With the 200 watt power limit below 28.5 MHz. one does not have to compete with amplifiers.

The modern HF mobile antenna is shown in the sketch on the next page. It consists of some form of mounting which is well grounded to the chassis or body of the vehicle, a relatively stiff mast which may be tubing or a heavy wire in a fiberglass sheath, a loading inductance to resonate the system at the operating frequency, and a flexible whip. The length of the whip is usually adjustable to fine tune the antenna to resonance. The total length from the mount to the top of the whip is usually 8 ft. to 9-1/2 ft. The efficiency of a vertical, less than 1/4 wavelength long, increases with length (all other factors being equal) so some homebrew systems are designed to just clear 13-1/2 ft. underpasses.

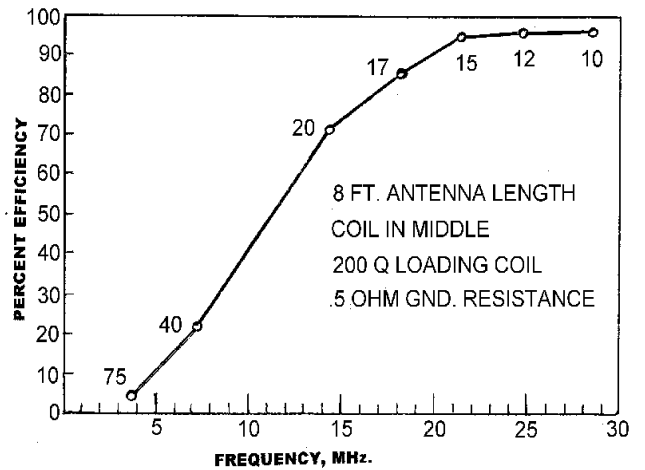
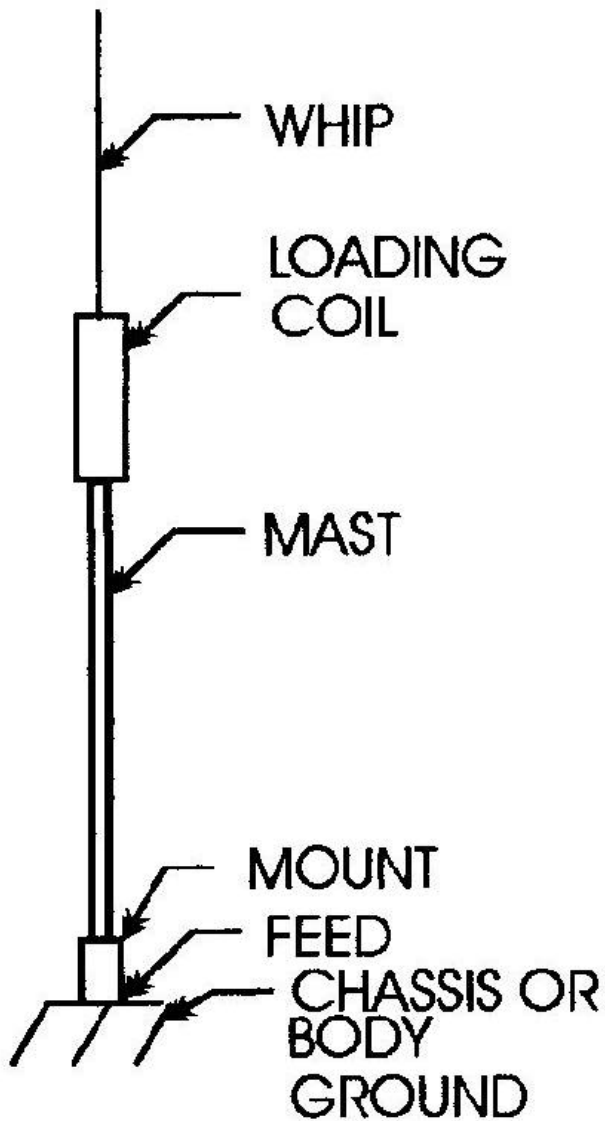
The efficiency of an 8 ft. loaded antenna is quite low, especially on the 75 and 40 meter bands, as can be seen in the graph on the next page. The data were calculated for a fairly high efficiency antenna. Most mobile installations I have seen perform at about half the efficiency shown in the graph for 75, 40, and 20 meters. The only power radiated from the antenna is that absorbed in the radiation resistance (RR). An 8 ft. 75 meter antenna has a radiation resistance of only 0.97 ohm while rf ground resistance (RG) and coil resistance (RC) may total 15 to 40 ohms. The power consumed in the latter resistances goes into heat. The efficiency of the antenna in percent or power radiated per 100 watts input is shown by the following expression.

$$\text{Antenna Efficiency, \%} = 100 \times \text{RR}/(\text{RR}+\text{RG}+\text{RC})$$

The secrets of an efficient mobile antenna for 75, 40, and 20 meters are (1) make the antenna as long as possible to raise the radiation resistance, (2) insure that the direct connection to the vehicle body or chassis is short and low loss for rf, (3) use a loading coil with the highest possible Q factor, and (4) position the coil at or just above the center of the antenna. Unfortunately, many commercial antennas are not designed for best efficiency. If an installation for 75, 40, or 20 meters shows an unmatched SWR of less than 2:1, it is a low efficiency system.

In the next five newsletters I will try to discuss each of the above parameters and also methods of matching the mobile antenna to 50 ohm coax. Meanwhile there is some very good information on mobile antennas in the latest edition of The ARRL Antenna Book. Don Johnson, W6AAQ, is probably the best authority on ham mobiling. His popular book, 40 Years of HF Mobileering, is a classic.

73, and hope to see you next month. Andy.



Please excuse the poor resolution of the above graph. It should be clearer on the website edition.

### LOCAL NEWS

Bill and Rita Aven seen in town in early Oct. They had left some furniture in their Fairfield Harbor home in order to better show the home for sale. This trip up from Florida was to remove that furniture. Bill said he was not as active on radio as he would like to be. It was good to see them !

NBARC test session on 10/20 resulted in one club member upgrading to General and a Grifton resident becoming a new technician. Two for two ain't bad ! Jacksonville exam on 10/30 will be past by the time you read this. Next exam is in Morehead City the 3rd Sat. of Nov. If you promised yourself that you would upgrade in 2001, that is the last exam for the year. See WA0ZGL for further details.

## The ARES Angle

Folks, it looks like we are going to get past another year without any ARES activations, for which I am grateful. It may be too early to rejoice, but with only about a month left in the hurricane season, I am feeling pretty relaxed about it.

We will be participating in the state-wide Simulated Emergency Test on Saturday, November 3. This is the first time we've taken part with the rest of the state since I've been EC, and I am looking forward to it.

We'll activate our net at 1100 local time on the 3rd, on the 146.610 repeater. We will need someone to serve as our liaison to the Tar Heel Emergency Net, and we will be deploying people to a number of state and local agencies. I hope we have a good turnout. More information will be available at our club meeting on Thursday, Nov. 1.

Now, this is not about amateur radio, but many of us use computers nowadays. You might think that by using a good antivirus program you are protected from most of what can hurt you. I'm sorry to tell you that this is incorrect. If you are online at all, you should have a firewall. The best also happens to be free. It is called Zone Alarm, and it can be found at [www.zonelabs.com](http://www.zonelabs.com). A firewall prevents anyone from having unauthorized access into your computer. You might think no one is trying, but you would be wrong. There are people out there who are just trying at random to find vulnerable computers. Once you've installed Zone Alarm, you will see from its log how often you are getting pinged. Most of these are harmless. Some are not. You may think that if you have a dial-up connection to CoastalNet or a similar provider that you are being protected on the server end, but it doesn't work that way.

Here's another handy utility, which is also free. It can be found at [www.finjan.com](http://www.finjan.com) and the name is SurfinGuard. Your antivirus program is looking for files which contain certain elements. That is fine as far as it goes. The frequency of Trojan, worm, and "no-click" attacks has increased dramatically and current anti-virus software is reactive by design, not able to detect and terminate new "first-strike"

attacks. SurfinGuard goes a step further, in that it notices if a file is trying to actually do something on your computer and isolates it. Pretty neat, and pretty useful. If you want to see for yourself whether you are vulnerable are not to this kind of attack, there is a test utility on the Finjan site -- just click on the "Test" link and be prepared to be surprised.

Finally, one way that viruses and so forth sneak onto your system, is by pretending to be a different kind of file, such as a photograph. Since Windows does not show filename extensions, such as .exe, that would let you know it was a masquerade, there is another (free!) utility which will display the extensions for you. It is called PowerDesk 4 and is found at [www.ontrack.com](http://www.ontrack.com).

Finally, if you are running Windows software, go to their Upgrades site via [www.windows.com](http://www.windows.com) -- you will have to go through some links to get there but it's worth it -- there are free patches and upgrades that close up security holes in Windows, Internet Explorer, Outlook, Word, etc. Bookmark the site and come back from time to time, new ways of attacking Windows programs are being discovered all the time.

As careful as I've always been, I was fooled earlier this year by a very sneaky virus that inserted itself into an actual file from a friend's computer and emailed itself out to his whole address book. Since the file name was something I thought he might have written (he actually had, the virus just used a random file from his hard drive), I opened it and bingo -- fortunately, I realized something had happened right away, and was able to disinfect my computer before transmitting the virus to someone else -- after a lot of work. It sure showed me that my former level of caution, which I thought was enough, was inadequate. Don't run the risk -- get more secure today.

And for now, that's the ARES Angle.

Bruce, **N8UTY**

Craven County EC

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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: 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

### The Newsletter Team:

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

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

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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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The following is in small print, but may affect many of us. (taken from ARRL website <http://www.arrl.org>)

### **FCC Clarifies Details of CORES Amateur Implementation**

NEWINGTON, CT, Oct 23, 2001--The FCC's Wireless Telecommunications Bureau (WTB) has clarified several issues regarding Amateur Service implementation of the Commission Registration System--or CORES. After December 3, everyone doing business with the FCC--including amateur licensees--must obtain and use a 10-digit FCC Registration Number--or FRN--when filing. The new requirement further expands the number of FCC abbreviations, numbers and systems hams need to be aware of.

Many Amateur Service licensees now registered in the Universal Licensing System (ULS) already have been cross-registered in CORES and were issued an FRN by mail. The last cross-registration was done May 23.

The FCC has said it plans to do another cross-registration before December 3 and that once CORES becomes mandatory it will "auto-register" all amateurs who first go to register in ULS and issue them an FRN. Amateurs then may use either their FRN or their ULS-assigned Licensee ID Number in place of their Taxpayer Identification Number (TIN--typically an individual's Social Security Number) when filing applications with the FCC.

Starting December 3, new or upgraded license applicants not previously registered in ULS will automatically be registered in both CORES and ULS when they provide a TIN or SSN on a license application filed for processing by a Volunteer Examiner Coordinator.

#### **Additional Clarification Possible**

CORES and ULS on-line registrants will be able to choose a password to access either system in the future. For those already cross-registered in CORES from ULS, their CORES and ULS passwords should be identical. The WTB says that starting December 3, "all passwords will be maintained in the CORES database." Amateurs should contact the CORES help desk for password assistance. Call toll-free 877-480-3201.

The WTB is continuing to work out the details of how amateurs, CORES and ULS will co-exist, and it plans to start Amateur Service testing with CORES in early November. The results of that testing could lead to additional changes in how CORES will be implemented for the Amateur Service. The FCC has just issued another Public Notice that discusses the changeover to CORES/FRN in a general way and clarifies some aspects of how CORES and ULS will work together.

The FCC established CORES last year and has been in the process of implementing it. For more information on CORES/FRN, visit the FCC CORES Web site. (portions have been edited out, see website for full text)