

HARMONICS



THE VOICE OF THE ROWAN AMATEUR RADIO SOCIETY
January 2009 -Issue 272



Minutes: December 08, 2008

The RARS and their guests met at 6:00 PM at the Ruffy-Homes Senior Center for their Christmas party and short meeting. Present: Tommie Wood, **N4YZ** and guest Sue Wood; Ralph Brown, **WB4AQK**, and guests Helen and Lillian Brown; Wayne Ashworth, **W4HG** and guest Pat Ashworth; Nona Morris, **KA4NHL**; Jim Morris, **KA4MPP** and guest Maude Young; Frank Waring, **AF4D** and guest Eugenia Waring; Larry Wright, **N4QY**; Holland (Bud) Bost, **K4AGO** and guest Gaye Bost; Richard Beck, **KG4BAV**, and Ann Beck; Clarence Beaver, **K4SHU**; Rick Wallace, **K4PM**; Assoc. Terence Wallace, and guest Jared Stancil.

A very good meal of chicken, ham, green beans, corn, slaw, sweet potatoes, cranberry sauce, blackberry and apple cobblers, and tea was brought in

from Debbie Suggs by her helpers. Coffee by the RARS.

Minutes of November 10, 2008 were in December's Harmonics and with no one opposed to the minutes of the last meeting, the minutes were approved.

Treasurers report given by Ralph Brown in the December Harmonic – Beginning Balance \$3894.59, donations and dues \$36.00, expenses: plaque and refreshments, \$57.16. Balance of \$3873.43 with \$3535.21 being The WD4KJZ Fund.

The nominating committee, nominated the following:

President	Tommie Wood, N4YZ
Vice-president	Wayne Ashworth, W4HG
Secretary	Nona Morris, KA4NHL
Treasurer	Ralph Brown, WB4AQK

They were elected as the new officers for the year 2009.

The Home Building Contest (Home Brew Contest) Judges are Wayne Ashworth, **W4HG** and Bud Bost, **K4AGO**. The three projects as they were voted for:

- #1 By Larry Wright, **N4QY** – QRP Station Transmitter built from a kit.
- #2 By Larry Wright, **N4QY** - Receiver designed and built from scratch
- #3 By Frank Waring, **AF4D** – Build a 2 meter Antenna omni directional.

The “Ham of the Year” plaque was presented to Tommy Wood, **N4YZ**, by Jim Morris, **KA4MPP**.

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Tommie Wood said with no further business, the meeting was dismissed.

Nona Morris, KA4NHL, Secretary

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Tommie, N4YZ, gets the Operator of the Year plaque, presented by Jim, KA4MPP



Third place winner of Home Brew contest by Frank, AF4D, Omnidirectional 2 m antenna used for satellites



Lindenblad Antenna

Lindenblad is a type of antenna that is circularly polarized, omnidirectional. It is ideal for low earth orbit satellites.

Because it is omnidirectional it does not need to be pointed at a satellite. It is also a good general purpose antenna at home for FM, vertical or SSB/CW, horizontal as its circular polarization is compatible. See QST August 2007 for information on the 2 meter antenna.

Frank, AF4D

The Rowan Amateur Radio Society
P. O. Box 593
Salisbury, NC 28145

The Rowan amateur Radio Society exists to secure for its members the pleasures and benefits of associating with persons commonly interested in amateur radio in any and all its facets. Its purpose is to facilitate the exchange of information, radio knowledge, fraternalism and individual operating efficiency among members. Society programs and activities are intended to advance the general interest and welfare of amateur radio in the general community.

The Society is a nonprofit organization and seeks no payment for services it provides the community's agencies.

Membership

Membership in the Society is open to all applicants who express a willingness to abide by the Society's Constitution and By-laws. Persons may apply at regular meetings and are considered elected when approved by two-thirds of those members present

Meetings

Regular meetings are held on the second Monday night of the month at 7:00 PM at the Ruffy-Holmes senior Center at 1120 Martin Luther King Jr. Ave S.

2009 Officers

President - Tommie Wood, N4YZ, 704-637-0024
woodt@earthlink.net

Vice-Pres. - Wayne Ashworth, W4HG, 704-633-9330
w4hg@arrl.net

Secretary - Nona Morris, KA4NHL, 704-278-4960
morrisonona@aol.com

Treasurer - Ralph Brown, WB4AQK, 704-636-5902
rkbrown5902@bellsouth.net

Harmonics, the club newsletter is published mostly monthly. Submit articles, complaints, corrections, or comments to the club Editor. Material may be reprinted provided proper credit is given.

Editor - Ralph Brown, WB4AQK

On the web

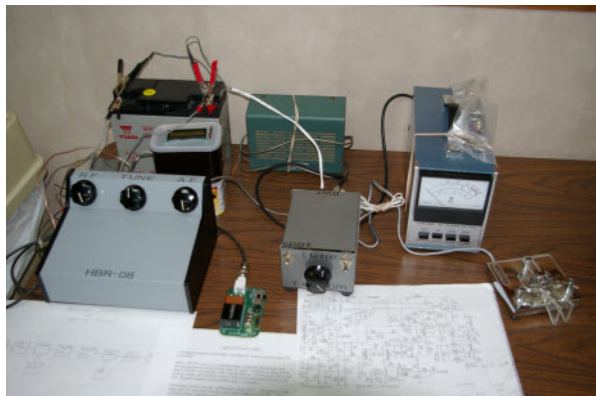
www.RowanARS.org

January 12 Meeting

President has promised to bring the program on PSK 31. Come out and learn about another phase of our favorite pastime. This should be of particular interest to those of you into computers.

Be sure to be at the Ruffy Center at the usual time, 7:00 PM, or maybe a little earlier to brag about what Santa brought you in the form of electronics.

First and Second prize winners by Larry, N4QY. QRP transmitter and receiver. Description follows.



The following is an edited description of the two items:

The Transmitter is a 40m kit available from KD1JV. It consists of a kit of parts and a pc board. Its features are: 0 - 5 w output; Heterodyne VFO with 100 KHz range; QSK receiver connection; Receiver mute relay; Built in keyer; Keying monitor; Spot function; Dedicated uP "Huff and Puff" VFO stabilizer

The HBR-80 40m CW receiver is a superheterodyne solid state design built with discrete transistors except for the audio IC stage. It features a sharp 250 HZ wide 4.00 MHz crystal filter with a digital read out. (the readout is a kit from NORCAL which eventually be mounted on the receiver) Varacter tuning is accomplished with a 10 turn pot.

It took about 180 to 200 hours to design and build the receiver - with much experimentation along the way.

Most stages use the cascade configuration using JFETS. The audio preamp stage uses two transistors and the audio output stage is a LM 386. Preceding the rf stage is a double tuned band pass filter for good image rejection.

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Financial Report

As of December 31, 2008

Brought forward	\$3873.43
Income:	
Party	189.00
Dues	<u>15.00</u>
Total	\$4077.43

Expenses:

Caterer	\$225.00
Project Prizes	175.00
Memorial	<u>25.00</u>
Total	\$425.00

Balance\$3652.43

McGinnis Fund \$3360.21

This is a good place to remind you all that dues have been due since November. The roster still shows a few '08 and even some earlier years.

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Introduction to Crystal Radio Sets

(from the January 2009 issue HPARC Newsletter, Mark McMahan, KB4MFP, Editor)

Crystal radios are important for at least two reasons: One, they are the building block for Ham radios; and two, young folk can become interested in radio by building a crystal set which is very easy to build with the help of a mentor or grandparent.

A crystal radio is the purest of all radios. It has very few parts, it needs no batteries or other power source, and it can be built in a short time out of things you can find around the house.

The reason a crystal radio does not need any batteries is the amazing design of the human ear. The ear is extremely sensitive to very weak sounds. The crystal radio uses only the energy of the radio waves sent by radio transmitters. These radio transmitters send out a large amount of energy (tens of thousands of watts). However, because they are usually far away, and we have at most a few hundred feet of wire for an antenna, the amount of energy we receive with the crystal radio is measured in micro-watts (0.000001 Watts). The human ear can detect sounds that are less than a millionth of a micro-watt.

In next month's issue we will present a simple working radio using parts that we buy at stores like Radio Shack or through mail order. We will try

to use common household objects when we can, but our emphasis will be to quickly put together a radio that works.

In the meantime, consider working with some youngster to build a crystal set. It's a lot more fun to build than a cell phone. Happy New Year.—
Chris Horne, W4CKH

From the editor, WB4AQK

What do you think of this as a project for our club? Why not offer our services with this project to a bunch of cub scouts? Bet they would get a bang out of it and RARS would certainly become more known for what we are.

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Ham Happenings

CHU time beacon changes frequency

After seventy years of broadcasting Canada's official time, NRC's shortwave station CHU will move the transmission frequency for the 7335 KHz transmitter to 7850 KHz. The change goes into effect on 01 January 2009 at 00:00 UTC.

In April 2007, the International Telecommunications Union re-allocated the 7300-7350 KHz band from a fixed service to a broadcasting service. Since then, interference on the 7335 KHz frequency has come from many information broadcasters around the world.

State Traffic Nets Change

We've experienced some challenging propagation conditions on 75 m since the end of daylight savings time. But there's still traffic to pass and ARES business to be conducted. These challenges are a reminder of what we could face in a real emergency and our served agencies expect us to be able to communicate regardless of band conditions. To deal with these issues, we're making the following changes to our section SSB nets:

Beginning Tuesday, November 25 the North Carolina Evening Net (NCEN) will begin at 5:30 pm

EST on 3.923 MHz. We'll move back to 6:30 pm when conditions improve - or daylight savings time returns, whichever comes first. Since we'll lose some checkins at this early hour, ARES folks who would normally check into the Tarheel Emergency Net are asked to check in to the NCEN to make sure we have enough outlets for traffic.

Also beginning Tuesday, November 25, the Tarheel Emergency Net will move to 1.945 MHz at the usual time, 7:30 pm EST, on every night except Monday. We'll continue to try 75 m on Monday nights. I know many of you don't have 160 m antennas, but you may have something up that will load on 1.945 MHz at least good enough for the Tarheel Net. It will give you a good excuse to try something new!

These changes are in effect until further notice. Thanks for your flexibility.

David Roy, W4DNA
NC Section Traffic Manager
w4dna@nc.rr.com

Desecheo Island Dxpediton a go!

The Desecheo Island DXpediton is now official on for early next year. This as the U.S. Fish and Wildlife Service notifies the team that February 12th to the 26th 2009, will be the dates allocated for the radio operation.

Only fifteen operators will be allowed on the island at any given time. A total of 6 to 8 stations will be operational on the High Frequency bands including 160 and 6 meters.

Desecheo Island is #2 on the worlds Most Wanted DX List. (I've also seen it listed as #7 editor)
—Amateur Radio Newslne,
Report 1633, Nov. 28, 2008

Brief explanation of 1937 radio

Anyone with enough time to look at youtube video might like to try the following sites.
http://www.southgatearc.org/news/october2008/on_the_air.htm or <http://tinyurl.com/5rrrng>

Both point to the same page on the Southgate Site. You can also access Southgate news links on the club's website on the news page.

Thanks to Webmaster Herb, KF4TVI