

New Bern Amateur Radio Club



Volume 28, Issue 12 December, 2005



W4EWN/R

146.610/ 146.010 PL 100 Hz.

444.900 / 449.900 PL 100 Hz.

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

Next Meeting -- Thursday, Dec. 1, 2005

6:30 PM at Famous Subs & Pizza, 2210 Neuse Blvd. (across from Roy's Family Restaurant.)

Program: Annual holiday gift exchange "eatin meetin" bring your significant other(s). Everyone is to bring a gift to exchange; the price of the gift should not exceed \$10, guys bring guy's gift, gals for gals.

FINANCIAL REPORT

Nov. 01, 2005 --- Nov. 30, 2005

CHECKING

Balance: Oct. 31, 2005 \$ 2,259.95

Expenses:

11/07	Prog Nrg	22.22
11/19	Sprint	<u>25.32</u>
	Total:	(\$ 47.54)

Subtotal \$ 2,212.41

Deposits:

SAVINGS

Balance @	Oct. 31, 2005	\$ 2,378.62
	11/04 Dr Prz	<u>\$ 32.00</u>
Balance @	Nov. 30, 2005	\$ 2,410.62

GRAND TOTAL: \$ 4,631.03

Charlie, K4VC, treas.

End of Year notice

Just a friendly reminder, dues are due at the end of Dec., do your Christmas shopping early.

73, Charlie, K4VC



SKYWARN

Recognition Day Skywarn Recognition Day is coming up December 2-3 from 7pm to 7pm. So far, we have no one scheduled to come out to NWS Newport and operate the radios. We have 2m/440 as well as HF capability. It would be great if we could have full 24hour coverage. In addition, Bill Sanford K4VHO will have the Carteret County Amateur Radio Society's emergency response trailer at our office. We'll be grilling burgers and hotdogs for the volunteers and Skywarn spotters that drop by. If you or anyone you know would like to schedule a time to participate, please let me and/or Bill know.

Thank you very much and 73! Hal Austin, NC4HA

Skywarn Focal Point, NWS: <http://hamradio.noaa.gov>

MEETING MINUTES

November 3, 2005

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-five present; roster is attached.

Franklin Bowers, a **Troop 13 Boy Scout**, presented his plan for his Eagle Scout project which involved making a tower base for an emergency radio station at St. Andrews Lutheran Church. The total amount he requested that the club contribute to the project was \$231. The club agreed to fund the project.

Ken, **K4KDM**, said the **Veterans Day** parade is scheduled for November 11. It was unclear at the time whether or not the parade would take place, but volunteers signed up to help and Ken would contact them if the parade was cancelled.

Bill Sanford, **K4VHO**, told the club that December 2 has been designated as **Skywarn Appreciation Day**.

Dick Goodwin, **K4JJW**, showed off his "stealth" antenna that serves two purposes for him. It keeps the Fairfield Harbor homeowners association happy, and it provides him with excellent receiving capabilities.

The annual club elections took place; club officers were as accepted as proposed. All positions holders remained the same; a new committee was formed, the "**Program Advisory Committee**" which will be chaired by Dave, **K2CQV**, and members will be Ray Hemphill, **W7OPH** and Ed Valentine, **W2YPM**.

It was decided that the December meeting would be the traditional Christmas party meeting. Everyone is to bring a gift to exchange; the price of the gift should not exceed \$10

Sonny, **W2ADD**, won the door prize, a CW course on CD-ROM. The meeting was adjourned at 8:30pm.

Respectfully Submitted,
Robbie Rikard, **KG4MBQ**, Secretary

The ARES Angle

Here's an interesting tip that I picked up from a Hurricane Wilma survivor in Florida. Many have found that, during a large-scale event, the telephones become unreliable, even if they are still working. With so many people making calls, the circuits become overloaded, and it is hard to either get a dial tone, or to get through to the person you are calling. I experienced this myself just this

fall, during Ophelia. I was calling all my patients to tell them the office would be closed and they should stay home. I never got through to one of my people in Morehead City. Although I could get a dial tone, I kept getting a message saying "All circuits are busy, try again later."

There is a way around it, if you have a cell phone with text messaging. Text messages are brief messages that can be sent from cell phone to cell phone, at least if you have a newer one which has some display space on the screen. Most cell phones made in the last 5 years are text-capable. Many packages include something like 20 text messages per month at no cost, and then a per-message cost after that.

Text messages (also called SMS) are sent by going to the menu, finding something called an Outbox or Message Center or something of that nature (the terms vary depending on the model used), and then using the number keys to enter a message. For instance, to enter a B, you would hit the number 2 twice. The first time it will display an A, the second time it would display a B. To enter R, you would hit the 7 key 3 times (P,Q,R). To enter a U, hit 8 twice (T,U). For a C, hit the 2 key three times (A,B,C). And for that E, hit the 3 key twice (D,E.) It is slow and a bit awkward, which is one reason the messages are short.

Of course, our CW abbreviations would come in very handy. CUL means See you later, and takes a lot fewer key-strokes, right? You just knew all that CW study would come in handy in the modern age somehow!

Text messaging is used a lot in Europe, and is gaining popularity among our youth here in the US. Us old fogies might want to practice it some before depending on it. I've only sent text messages once or twice, because I don't know anyone who uses it.

OK, back to the disaster scenario. Why does text messaging get through when a regular call does not? Just like PSK, it takes a lot less bandwidth than voice. And, just like packet, it can be stored and relayed when the frequency is clear. Shucks, we hams have been doing this stuff for years and just didn't know how modern we were!

Oh, how do you address them? You simply enter the cell phone number of the recipient. Easy as pie. If your party is already stored in the speed-dial memory, it is even easier.

I have had a great reluctance to rely on cell phones during wide-spread emergencies. I still remember, during Bonnie, the cell towers went out of service before the landlines did. Apparently this embarrassed the cellular

companies a great deal, and they set about hardening their equipment. Now, cell phone service is on a par with landline service, as far as reliability goes, which makes them much more useful.

Find out if you have text or SMS service from your cellular provider. If not, find out what it would take to have it included. Cellular service is so competitive, if you can't get at least 20 free messages per month, you need a different provider. You may not know it, but you can bargain the terms of your contract with them; you do not have to stick with the standard packages, although of course they prefer this, and most people do.

And for now, that's the ARES Angle.

Bruce, **N8UTY**

Craven County EC



Dick, K4JJW, "Stealth Antenna" program

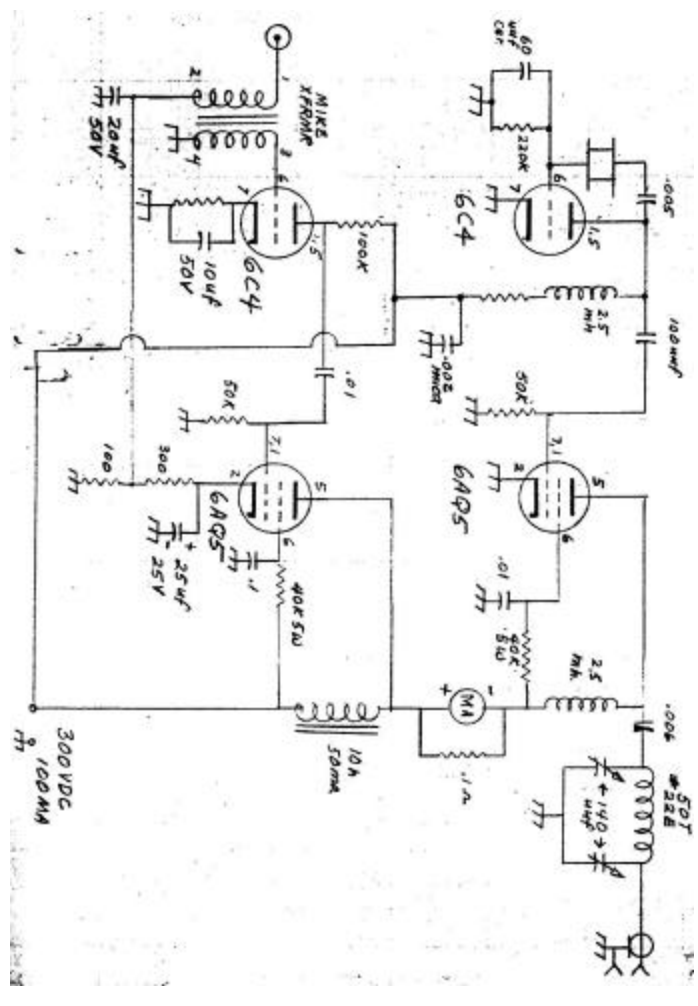


A 5 Watt 75 Meter Mobile Station

I received my Conditional Class license (**K4VHS**) in 1958. After a year as a novice, I was anxious to get started with voice communications. A nearby Ham, Tom Kincaid (**K4JLW**) gave me a schematic for a 75 meter crystal controlled AM transmitter very similar to the schematic I have included. I scrounged up the parts,

mostly from an old TV chassis, and got to work. I used the power supply from the TV, bought a chassis box, and a couple of crystals. I had to calculate the resistance for the meter shunt, (as I recall it was 100 ohms, not the .1 in the diagram), and put a potentiometer in the audio circuit. It was a good thing that I did, because I over modulated badly on the first test. I had Tom Robertson (**W4HBW**) check my signal and cranked in enough resistance to get a clean signal. The TV power supply put out 450 volts, and the rig put out 15 watts in the shack. The next step was to install the radio in my 1954 Ford Fairlane. I used a center loaded whip antenna fastened to the rear bumper, and a vibrator power supply which delivered 250 volts. With this setup I managed about 5 watts. My range was limited but I could talk to the local Hams and could check in Al Parker's (**W4BAW**) Sunday morning net on 3905 kilohertz. My receiver consisted of a home brew converter using the car AM radio as a tunable IF which provided excellent reception. I later got a tunable converter with output in the broadcast band, but the original was just as good. I used this rig for quite a while, those were the really fun days of Hamming.

73, Ken McCain, **K4KDM**



Hamfests

only 1 'fest in Dec., and it's a bit far away – watch for a few in Jan. & Feb.

Dec. 3, Sat., Gastonia, GAARC Swapfest
Gastonia Area Amateur Radio Club
<http://www.gaarc.com/swapfest> for info

“Tin Foil” Helmets:

Less Protection than You Might Think

submitted by our Emergency Communications Coordinator

For years, the term “tin-foil helmet” has been used to parody people with an intense interest in conspiracy theories, UFOs, black helicopters, and other fringe ideas which percolate through our culture. There is a small class of people who are certain that some sinister agency, usually the “gubmint”, is controlling our brains directly through radio-wave transmissions, and thus, the “tin-foil helmet”: a way to shield the brain from thought-control rays.

Well, the geniuses at MIT have done the definitive study on “Tin-Foil Helmets.” Here are their findings. Remember that MIT, like many engineering schools, has a long history of pranks. But the science is unassailable. Read on:

On the Effectiveness of Aluminium Foil Helmets:

Media Laboratory, MIT. 17 Feb 2005

Abstract

Among a fringe community of paranoids, aluminum helmets serve as the protective measure of choice against invasive radio signals. We investigate the efficacy of three aluminum helmet designs on a sample group of four individuals. Using a \$250,000 network analyser, we find that although on average all helmets attenuate invasive radio frequencies in either directions (either emanating from an outside source, or emanating from the cranium of the subject), certain frequencies are in fact greatly amplified. These amplified frequencies coincide with radio bands reserved for government use according to the Federal Communication Commission (FCC). Statistical evidence suggests the use of helmets may in fact enhance the government's invasive abilities. We theorize that the government may in fact have started the helmet craze for this reason.

Introduction

It has long been suspected that the government has been using satellites to read and control the minds of certain citizens. The use of aluminum helmets has been a common guerrilla tactic against the government's invasive tactics [1]. Surprisingly, these helmets can in fact help the government spy on citizens by amplifying certain key frequency ranges reserved for government use. In addition, none of the three helmets we analyzed

provided significant attenuation to most frequency bands.

We describe our experimental setup, report our results, and conclude with a few design guidelines for constructing more effective helmets.

Experimental Setup

We evaluated the performance of three different helmet designs, commonly referred to as the Classical, the Fez, and the Centurion. The helmets were made of Reynolds aluminium foil. As per best practices, all three designs were constructed with the double layering technique described elsewhere [2].

A radio-frequency test signal sweeping the ranges from 10 Khz to 3 Ghz was generated using an omnidirectional antenna attached to the Agilent 8714ET's signal generator.

The experimental apparatus included a data recording laptop, a \$250,000 network analyser, and antennae. A network analyser (Agilent 8714ET) and a directional antenna measured and plotted the signals.

Because of the cost of the equipment (about \$250,000), and the limited time for which we had access to these devices, the subjects and experimenters performed a few dry runs before the actual experiment.

The receiver antenna was placed at various places on the cranium of 4 different subjects: the frontal, occipital and parietal lobes. Once with the helmet off and once with the helmet on. The network analyzer plotted the attenuation between the signals in these two settings at different frequencies, from 10Khz to 3 Ghz.

Results

For all helmets, we noticed a 30 db amplification at 2.6 Ghz and a 20 db amplification at 1.2 Ghz, regardless of the position of the antenna on the cranium. In addition, all helmets exhibited a marked 20 db attenuation at around 1.5 Ghz, with no significant attenuation beyond 10 db anywhere else.

Conclusion

The helmets amplify frequency bands that coincide with those allocated to the US government between 1.2 Ghz and 1.4 Ghz. According to the FCC, These bands are supposedly reserved for “radio location” (ie, GPS), and other communications with satellites (see, for example, [3]).

The 2.6 Ghz band coincides with mobile phone technology. Though not affiliated by government, these bands are at the hands of multinational corporations.

It requires no stretch of the imagination to conclude that

the current helmet craze is likely to have been propagated by the Government, possibly with the involvement of the FCC. We hope this report will encourage the paranoid community to develop improved helmet designs to avoid falling prey to these shortcomings.

For some pix of the people, setup and equipment, see:

<http://people.csail.mit.edu/rahimi/helmet/>



Ken, **K4KDM**, may have been part of the helmet tests



Al, **W8UT**, probably expressing an unsolicited opinion.

Eagle Scout Project 51 Feet High

The club is supporting a third Eagle project. During our November meeting the members voted to support the project being undertaken by Scout Franklin Bowers of Troop 13, New Bern.

The erection of a Model W-51 Tri-Ex tower, donated by Pastor Dale Kemppainen N4JZ to the Saint Andrews Lutheran Church of New Bern, will be the focus of Frank's project. The tower will be raised on church property and will support a tri-band HF beam and VHF antennas for long and short-range communications. The

Ken Coffey KT4KJ Memorial Radio Station will be connected to the tower antennas in support of emergency



Tri-Ex tower model W-51. 355 lbs. Extended height 51 ft. Nested height 21 ft. free standing.



Scout Franklin Bowers of Troop 13, New Bern, to undertake a 51-foot high Eagle project.

as well as hobby and training operations. The freestanding crank up tower will require 2 cubic yards of concrete and a heavy load of hardware. At our November meeting, Frank gave the membership a briefing on his proposed project. Frank came across very confident he would complete the project. The church plans to establish a certified Red Cross shelter in the future. All Hands are behind Frank in support of this worthwhile project.

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

Selected Local Nets

Times are local time, unless otherwise stated
Club Net Manager: Vito Hughes, KB8VCZ
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: 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
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, 2000 daily

New Bern Amateur Radio Club

<http://www.nbarc.org>

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

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