



Three States Set Sights on Amateur Radio Antenna Legislation Including NC

NEWINGTON, CT, May 9, 2007 - North Carolina, Pennsylvania and Oklahoma have -- or soon will have -- Amateur Radio antenna legislation in play. Radio amateurs in all three states are hoping to have the essence of the limited federal preemption known as PRB-1 incorporated into their states' statutes. The North Carolina bill, H 1340, is on the fastest track at this point. The measure was reported favorably out of the House Ways and Means Committee on May 3, and unanimously approved by the full House on May 8. North Carolina ARRL Section leadership now are encouraging the Amateur Radio community to urge their lawmakers to support the bill when it reaches the Senate.

"In most other states it's taken three to four years for an antenna bill to make it to the floor of the legislature for a vote," says North Carolina Public Information Coordinator Bill Morine, N2COP. "We are fortunate here in North Carolina to

make it on the first try. Don't let this golden opportunity slip by!"

Morine says North Carolina radio amateurs can locate the name of their representatives via the North Carolina General Assembly Web site (scroll down to "Who Represents Me?" and plug in your full nine-digit ZIP Code, including the hyphen between the fifth and sixth digits. He suggests a telephone call followed up by an e-mail.

H 1340 calls on municipalities to require ordinances based on health, safety, or aesthetic considerations regulating placement, screening or height of Amateur Radio antennas or antenna support structures "must reasonably accommodate Amateur Radio communications and must represent the minimum practicable regulation necessary to accomplish the purpose" of the city or county. In addition, the measure would establish a minimum regulatory height of 90 feet "unless the

restriction is necessary to achieve a clearly defined health, safety, or aesthetic objective" of the city or county.

Elsewhere ARRL Eastern Pennsylvania Section Manager Eric Olena, WB3FPL, has alerted members in his section to a pending piece of legislation in the works for that state. He credited the efforts of George Brechmann, N3HBT, of Bucks County who has been working with Pennsylvania Sen Stewart Greenleaf, the pending bill's sponsor.

Meanwhile, radio amateurs in Oklahoma are still trying to get PRB-1 language on the books in that state. House Bill 1037 (HB 1037) moved out of the General Government and Transportation Committee with a "do pass" recommendation, but it failed to make the House calendar for a vote.

Couple Rescued At Sea Thanks To Amateur Radio

A long established ham radio network was instrumental in a recent rescue at sea.

It took place South-West of the Galapagos Islands starting on Friday, May 4th. That's when Wes Mullenix, KI0A, the Texas-based net controller on Intercon intercepted a distress call from a damaged 35 foot pleasure craft called the Sail About. As KI0A did not have good a truly readable signal from the emergency request, he handed the communications over to Fletcher Henderson, KA4BPR, in Dothan, Alabama.

It was KA4BPR obtained the pertinent information through a series of relays. He learned that there were two people on board, that they were named Gunner and Gretta, that they were from Norway, that

the boat's bow was damaged and began taking on water. With this information in hand, KA4BPR then called the United States Coast Guard to report the situation.

Soon several vessels had set an intercept course to rendezvous with the Sail About which was slowly headed toward that point under motor power.

During that time, members of the Intercon net kept in contact with Gunner and Gretta to assure them that help was on its way.

It took several hours, but finally the Sail About was spotted by the rescue ship S V Damarri. Soon other vessels arrived. Gunnar and Greta were rescued, transferred to M V Belnor and the Sail About was, sadly, abandoned at sea. (W4QVA)

NEXT MEETING

The next meeting of the Greensboro Amateur Radio Assoc. will be May 28, at the Golden Corral Steak House off Wendover Ave, near Sam's Club. The program will be on Logging Contacts.

**Field Day Is Coming
June 23 - 24, 2007
Hagan-Stone Park**



Engineering Report

by Engineering Chairman Carlton, O'Rork, N4DFA



There have been many things happening this last month, most of a negative nature!

On April 27th I did an over the air telemetry voice read out that indicated a wattage output of 32 watts? The normal output is around 74 watts. I checked it several more times that Friday and then contacted Charles Lyons to go with me to the site on Saturday 28th to look into the problem. Saturday AM I checked it again over the air and got the same 32 watts before going up there. I can not take the space to go into great detail because so much has taken place.

Charles and I checked out the feed line and both sides of the duplexer. The SWR readings were satisfactory. I checked all cables and connections, but the output was still at 32 watts indicating a problem that we felt sufficient to take the Master 2 off the air. We left the site and I came home to get other equipment and think on the matter.

I finally decided that as there did not appear to be a problem in the antenna system that would cause the power cut back, that it was safe to put the backup machine into use. I went back up to the

site and transferred all cable and wire connections and turned on the previously unused repeater. The telemetry voice read out gave a wattage output then @ 76 watts. I thought for the moment we were back in business.

However, though this backup Master 2 is about 1db less sensitive normally than the one we had been using, there was a lot of noise and some chatter at times? Arch who consults with me on these matters suspected that we had been under 32 watts out for a while and now we had bumped it up to 76 and the duplexer was creating a wide band white noise that was getting into our receive.

About this time our phone line went out and News Line could not be brought up for the Sunday Night Net. I went back to the site May 3rd and checked to discover that we had no dial tone at the BellSouth modular box. I made another trip to get additional phone equipment of my own, called the BellSouth and they confirmed that the problem was on their line.

However, I was determine to be sure that it was not just a broken wire at or near our repeater. I snapped the cover off the modular box and tested the incoming line and there still was no dial tone. Left several messages with explicit directions to the Site, however, I had to finally physically guide the repairman to the site at 9 AM on Saturday May 5th and he found the problem on the other side of the building where some feed lines had been moved and apparently caused our phone line to become loose. This was not an area that we had been doing any work in, but the problem was now solved!

Charles and I went back to the site again on Tuesday May 8th and I turned down the power output which seemed to help a little, but the receive performance is still not nearly what it should be. It appears we have at least two and maybe three problems at this time.

The Master 2 previously in use dropped to half power indicating the possibility of one final PA transistor having gone out.

Additionally, the Phelps-Dodge duplexer is about 32 years old and has reached the end of it's useful lifespan. There is also the possibility that the backup repeater has lost additional sensitivity. So where does this leave us? My suggestions are, if you are running 5 to 10 watts on VHF mobile, bump it up to 25 watts. I myself do not advocate running a transceiver at full power for any substantial period of time., Another possibility, if you have the option, is to use the 442.875 Repeater.

The repeater with the suspected bad final PA has been removed and arrangements for it's repair are under way. We are searching for a potential source for a replacement duplexer that meets our specifications and at a price that the club can live with.

Another topic . We now have two additional persons join the Engineering Committee. Roger Stout has joined the EC to help specifically with duplexer operation and other areas as his time permits. Allen Bradely has joined the EC to deal directly with the controller/DVR programing.

Tom Forrest has donated a Gateway 2500 Laptop with Windows 98 SE to the club for Allen's use using Arch's software program. It has a sound chip problem to be resolved for that purpose. Roy Smith checked some items on the laptop and found someone to donate a good carrying case for the laptop. As you can see, this is a team effort and there is much to be done. We have had a lot of very good days and now it appears we will have a few on the down side.

I want to especially thank Roger, Allen, Tom, Roy and Charles. By the time you read this the Board will have had another meeting to discuss all of the above and move forward to resolve the issues. Please be patient. I do not expect things to show substantial improvement for a while do to the numerous items suddenly requiring our attention.

The Greensboro Amateur Radio Association

President: John Doggett, KI4BMS
Vice-President: Chris Thompson, K4HC
Treasurer: Ernie Wall, NC4EW
Secretary: Greg Spencer, KG4UQV
Financial: Al Allred, K4ZKQ
Engineering Chairman: Carlton O'Rork, N4DFA
Operations: Roy Smith, N4BYU
Members at Large: Clark Doggett, KG4HOM
Tom Forrest, N4GVK
Appointed Positions:
News letter editor and Webmaster:
Tom Forrest, N4GVK

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GARA Meeting Minutes



Regular Meeting Minutes April 23, 2007

The Meeting started at 07:30 PM. The minutes of the last club meeting were approved.

Al Allred K4ZKQ, said that the finances are a little bit better than expected.

Carlton O'Rork N4DFA stated that Roger Stout N4RWS, has agreed to be on the engineering committee as his time permits.

Carlton also said that research is still under way with the duplexer upgrade. Al Allred stated that we are a standby emergency communications organization and we can't afford to wait until the duplexer quits working to order a replacement.

Allen Bradley KD4IUN, says he still needs volunteers for the soccer tournament on Memorial Day weekend May, 26 & 27.

The Summerfield founders' day event will be on May 19 and volunteers are needed. Contact John Doggett, KI4BMS

The Highland Games will be on May 5th and a lot of volunteers are needed for that also. Contact Jon Matlock, KE4IAM.

Roy Smith N4BYU provided the program on QSL cards.

The Meeting closed at 08:30PM

Respectfully submitted by
Greg Spencer KG4UQV

Board Meeting Minutes MaY 14, 2007

The meeting was called to order at 7:30 pm.

Present at the meeting were, John Doggett – KI4BMS, President; Chris Thompson – K4HC, Vice President; Al Allred – K4ZKQ, Financial; Ernie Wall – NC4EW, Treasurer; Carlton 'O'Rork – N4DFA, Engineering; Roy Smith – N4BYU, Operations, Greg Spencer ; KG4UQV, Secretary.

There was a question raised at the April regular meeting about a person serving on the board of two clubs at the same time. The Board was polled and does not see any problem with it and elected not to take any action on it.

The minutes of the last board meeting were approved.

The date has been set for the annual barbecue picnic. It will be September 22 at the Doggett estate in Doggettville NC (near Summerfield).

Chris Thompson read the draft of a letter he had written that we could send to the Natural Science Center about holding our regular monthly meetings there. There was a discussion about the cost to hold the meetings there which would be about \$500.00 per year. It was decided that we should hold off on sending the letter and look at some other possible venues that would be less costly.

Chris said that he would like to see another construction project in the future, possibly about building some antennas. The board agreed. Chris also stated that the program for this months meeting will be on logging software and interfacing them with a radio.

Ernie said that there had been no deposits this month and we have an equipment insurance payment due later this month.

This prompted a discussion about a current equipment inventory for our records and to be sure we have all equipment listed on our insurance policy to be sure we are covered in case of any loss or damage.

Chris made a motion to have a current inventory done as soon as it is convenient, Roy seconded and it was approved.

Carlton spoke about the duplexers and what he has found out from some of the sources he has contacted. John made a motion to set aside \$2500.00 for the purchase of a new duplexer, Ernie seconded and the motion was approved. Carlton also spoke about the primary

145.150 repeater having a blown final transistor and he made a motion to have the club take Arch up on his offer to repair the repeater. Chris seconded. The motion was approved. Roy made a motion to adjourn and Chris seconded.

The meeting closed at 8:50 PM.

Respectfully submitted by Greg Spencer, KG4UQV, Secretary

ARES Web Site To Change

Guilford County EC John Doggett, KI4BMS, says the Guilford County ARES web site will have a new domain name beginning sometime in July. The old domain name was "guilfordares.com" and the only change will be changing the name to "guilfordares.org" which stands for "organization." For now the old domain name is working. The Yahoo groups list will not change.

A new look is planned for the web site and will include including useful information, links and photos. A special thanks to Don Campbell, KG4IYH, for taking care of the site for the past years. The new site manager will be Tom Forrest, N4GVK.

Thursday "Lunch Bunch" Gets a Name

The Thursday "Lunch Bunch" has finally been dubbed a new title: the "ROMEO" lunch group. And of course your first question is what does this mean?

"Retired Old Men Eating Out" which was thought of by Jerry Perryman, WA4BKR.

The group of mostly retired Hams, has been meeting every Thursday at the K&W Cafeteria off Big Tree Way for a number of years and is spear-headed by Don Harris, W4BUZ. They usually gather there around 11:15 for lunch and frequently fill up many tables. You can catch up on the latest in HD television from join in on technical discussions. All are welcome.

HF Antenna Discussion - For Restricted Homeowners

Remote Baluns

by **Richard Borgioli, KE4ZHN**
Orlando, FL - Via E-ham,net

As we all know, many hams are forced to run compromise antennas, myself included. While this is much better than the alternative of not having ANY antenna, it also presents challenges to amateurs' technical abilities to come up with a design that's reasonably efficient while not being overly obnoxious to the neighbors. While at the same time providing you with a decent signal.

I live in a so-called antenna restricted area (no towers) and after some squabbling with a homeowners association; I managed to put up a 40 ft push up mast for my limited antenna farm. While most amateurs in this situation can't even go this route, I was lucky in this regard. Now, faced with the challenge of being able to operate HF on 80-10 meters on one antenna is another matter... Since I could not push my luck by running cut to the band wires all over the yard, and risking further grief, I had to make due with an old stand by from the 30's, the 135 ft centered doublet. I strung this up in a typical inverted V configuration apexed from the top of the push up on a small homebrew PVC yardarm so as to get the feedpoint of the V away from the metal pipe.

This antenna is fed with your garden-variety 450-ohm ladderline twin lead. This works pretty well on the lower bands as I ran the feedline directly into my shack and fed the line right off the internal tuners balun (4:1) All was well till one fine day wanting to work some DX on ten-meters, then I discovered that I had RF in my rig something terrible.

No matter what I tried, the RF was getting into my rigs audio circuitry and wreaking havoc. Discouraged, I had to find a solution to this. The answer is simple. Remote mount the 4:1 balun outside! (a current type is preferred for this) I purchased a balun and ran a short run of

RG-8 coax outside to the balun and from there it feeds my 450-ohm line which runs straight up to my dipoles feedpoint. Now, there isn't any RF on any band at full power.

While this is no news for veteran hams who have been around for awhile, I posted this article for new hams who are having the same problems with running open wire feed into the shack, or forced to run a single antenna for all bands. My problem

"I live in a so-called antenna restricted area (no towers) and after some squabbling with a homeowners association; I managed to put up a 40 ft push up mast for my limited antenna farm."

was, I had no way to directly run the 450-ohm line into my shack without bends and close proximity to wiring and objects that most certainly caused the line to become unbalanced and radiate into my shack. This is lost power and highly undesirable for one seeking a decent signal!

Also, by remote mounting the balun, you get the best of both types of feedlines. You get the excellent shielding properties of coax inside, while keeping the multi-band capabilities of ladderline with very little loss. Sure, it's not perfect, but it sure beats RF in your rig, computer, phones etc.

There are a couple of tricks for maintaining an easily tunable doublet using this system to keep in mind. For instance you run out of roller inductor on 80-meters all you need to do is add a short piece of ladderline to the existing run. Yes, I know, splices aren't exactly desired, but the loss of ladderline is so low, you wont even know it's there. Keep the line lengths on both conductors as close to identical as possible!

If you do not, the line becomes unbalanced and you defeat the purpose of

using it. If possible, try to run your ladderline at least a quarterwave long on the lowest band you operate on between your balun and feedpoint. This seems to help it tune up a lot easier and you will have lots of roller inductor left to play with on your tuner.

I have also read that many tuners internal baluns leave much to be desired. They aren't built heavy and many have very poor current balance on the higher bands.

If you have an RF current meter available, just try and measure the current in your ladderlines conductors on higher bands and you may see as much as a 50% difference in current! (Several amateur

antenna websites all agree on this.) Not very well balanced at all!

There are specific 4:1 baluns made for this type of application, (coax to ladderline) but I'm not going to endorse any products here; that's up to you to find one. If you read the product reviews section on this website, you can find some suggested baluns to try. While I admit that this isn't the worlds best set up, it does do a good job on the bands and I have no trouble working DX or anyone I can hear on any band, including the WARC bands.

I believe that this system works well enough to suit most any ham who is stuck in the antenna restricted areas and can maybe sneak one up across a couple of trees for support. I also believe this outperforms the G5RV especially on 80-meters. Not that the G5RV is a bad antenna, but its short length on 80 degrades it somewhat on that band.

I would imagine a system like this could work well on full wave loops that are installed far from the shack. You could use this approach to limit feedline losses over long runs without running open wire into your shack and risking RF in

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Illinois Repeater Assoc. Fields Digital Migration Plan for Repeaters

The Illinois Repeater Association now has a proposed digital repeater plan. Titled "The Digital Migration - A Proposed Path," the strategy was developed by Robert Shepard, KA9FLX, who serves as the organizations Technical Committee Chairman.

Shepard indicates that the plan was crafted so as to serve the needs of tomorrows digital relay systems in such a way as to minimize impact on to existing analog systems. It also takes into account how to integrate digital systems into the existing analog environment, utilize spectrum efficiently and plan for the future.

In other words, nobody will be displaced when and if its implemented. Rather, its goal is to make it possible for analog and digital to share opectrum with minimal impact on one another.

This is believed to be the very first analog to digital repeater bandplan developed anywhere in the world. Shepard has posted it on the Illinois Repeater Associations website as both a .pdf file as well as a full Power Point presentation. You can find it on-line at www.ira.net. (Via e-mail)

In Further Digital News - Ham Radio's Digital Future: New Version of WSJT Released

Still with digital ram radio news, word that a new version of WSJT program designated version 5.9.7 has been developed by Joe Taylor K1JT.

This new rendition contains 8 updates from the latest past release version that appear to make the program a bit more

friendly to use.

For those not aware, WSJT is a computer program for VHF and UHF communication using state of the art digital techniques. It can decode fraction-of-a-second signals reflected from ionized meteor trails, as well as steady signals more than 10 dB weaker than those required for conventional C-W. One of its operating modes is particularly well optimized for amateur Earth-Moon-Earth communications.

WSJT is open source software licensed under the GNU General Public License and is free for any ham to use. You can download it at:

<http://physics.princeton.edu/pulsar/K1JT/WSJT597.EXE> (VHF Reflector)
(From Published Reports)

QCWA, Newsline To Collaborate In Mentoring Program

QCWA, Newsline to collaborate in mentoring program (May 15, 2007) -- The Quarter Century Wireless Association (QCWA) www.qcwa.org and Amateur Radio Newsline® (ARNewsline) have joined forces in cosponsoring the Roy Neal, K6DUE, Amateur Radio Mentoring Program. ARNewsline launched the post-licensing educational service in 2004. It's designed to pair newcomers with veteran radio amateurs who can share their skill and experience.

"Amateur Radio is a tremendously

complex arena", says Newsline Executive Producer Bill Pasternak, WA6ITF.

"We have hams who are truly experts in numerous fields [and] we want to take advantage of that talent pool to help educate the next generation of operators and generations to follow."

The collaboration with QCWA makes thousands of veteran radio amateurs available as potential mentors -- each with at least 25 years of experience in the hobby. QCWA President John B. Johnston,

W3BE, called the arrangement "a good deal for all of Amateur Radio."

A retired FCC employee and Dayton Radio Amateur of the Year, Johnston says he believes that it is important to keep ham radio traditions alive.

ARNewsline and the QCWA are now seeking both new radio amateurs and potential QCWA mentors -- or Elmers. Send your name, call sign, address with ZIP code, telephone number and a convenient time to call via e-mail to: mentor@arnewsline.org

Ham Happenings NEWS briefs

From Ireland ...

GARA member **Charles, NT1J**, will be at his home in Ireland mid-May to mid-June. He'll be listening for GARA members on 14.180 MHz (+/- QRM) at 8:00 AM Greensboro time on Saturdays and Sundays, May 19-20 and 26-27, and June 2-3 and 9-10. His Irish call is EI7JV. If you need Ireland for DXCC, or just want to talk across the pond, give Charles a call.

If you need a QSL, he'll bring it to the June GARA meeting.

Get Well ...

Rusty Hughes, WA4SAD, recently finished his second round of IVIG therapy. Rusty's wife, Sue says thanks for all the prayers and encouragement from the "Romeo" guys.

Note of thanks ...

The repeater trustee and Operations Manager wishes to thank **Tom, N4GVK** for the donation of the laptop computer to be able to program the repeater controller and any other needs the club may need. Also thanks go to **Bob, K3ZGA** for the nice carrying case for it. Thanks guys...N4BYU

Baluns from Page 4 ...

your rig. Many of the audio experimenters would really benefit from this feed system to keep any stray RF out of sensitive audio equipment.

A word of caution for Windom users -- a Windom is NOT a balanced antenna even though some use open wire for feeding them, the line actually acts as part of the antenna. The unbalanced condition would destroy a balun if used in this manner. Remember, a BALUN is for unbalanced to balanced feed, NOT unbalanced to unbalanced! I hope that any of this is helpful to hams both new and old.

Area Activities

FOURTH MONDAY – at 6:30 PM, the **Greensboro Amateur Radio Association** have their regular monthly meeting at the Golden Corral on Landview Dr., off W. Wendover Ave. Please plan to gather at 6:30 PM for dinner. The meeting is scheduled to start at 7:15 PM

CLUB NETS:

SUNDAYS – weekly at 9 PM, the **GARA News and Information Net**. This net features NewsLine and is on the 145.150, W4GSO repeater. Roy Smith, N4BYU is always looking for net controls. Contact him if you would like to help.

THURSDAYS – The **Guilford County ARES Net** meets on the 145.150 repeater (100 Hz. tone) at 9 PM.

TUESDAYS – at 8 PM, the **2 Meter SSB Net** meets on 144.225 Mhz. USB. Chris Thompson, K4HC is the net control station.

WEDNESDAYS – **The Guilford Amateur Society** holds their weekly net on the 145.250, W4GG repeater with an 88.5 Hz. tone. Jim Hightower, W4JLH is the net control.

TUESDAYS – at 8:30 PM **The Triad SkyWarn Net** meets on the 147.225, K4ITL repeater, no tone required.

OTHER ACTIVITIES :

FIRST MONDAY – **The Guilford County A.R.E.S.** monthly meeting is held at 1002 Meadowood St. off W. Wendover Ave, in the EMS building, beginning at 7 PM.

THIRD MONDAY – at 6:30 PM **The Guilford Amateur Society** holds their monthly meeting at the Greensboro Police Western Sub Station at 300 Swing Rd in the community room. Refreshments at 6:30 PM and the business meeting begins at 7 PM.

SATURDAYS – at the K&W Cafeteria on Big Tree Way, hams get together for **Saturday Breakfast** at 7:30 AM. Talk-in is on the 145.150, W4GSO repeater, with 100 Hz. tone.

THURSDAY & FRIDAY – at 11 AM, Greensboro Hams get together for lunch. Thursday lunch group is meeting at the K&W Cafeteria off Big Tree Way and a Friday lunch bunch is at the K&W Cafeteria off South Holden Road. Talk-in is on the 145.150, W4GSO repeater with a 100 Hz. tone.

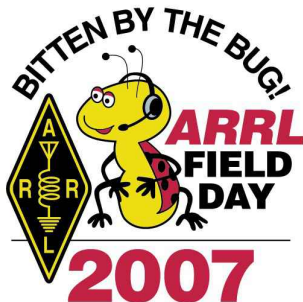
EVERY FRIDAY – at 8 PM (approximately) Greensboro Hams get together for coffee at Guilford College (summer location till Daylight Savings time changes)

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Web:
www.w4gso.org

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