

# HARMONICS

THE VOICE OF THE ROWAN AMATEUR RADIO SOCIETY

June 2007 -Issue 254

## Net Reports

5-17-07 ..... 4  
5-24-07 ..... 5  
5-31-07 ..... 2  
6-07-07 ..... 3

The numbers include the Control Operator.

Congratulations to Herb, KF4TVI, for prefect attendance.

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## Financial Report

As of 5/31/07

**Brought Forward** . .  
\$3293.41

### Expenses:

HF advertisement. . . \$160.00

### Income:

Dues . . . . . \$10.00  
HF tickets . . . . . 20.00  
Total . . . . . 30.00

**Balance:** . . . . . **\$3163.41**

**McGinnis Fund** . . **\$2643.84**

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## Why Antennas Fall

Thanks to Tommie Wood, N4YZ, as reported by Sonny Peeler, AB4VV

### Antenna Life Span

Well, generally it depends on hours spent listening.

The antenna converts electromagnetic energy into electrical energy, which is basically electrons moving into your radio.

There are only so many electrons in each inch of copper wire, so when they've been sent downstream into your radio, the wire will become "ionized" and deteriorate and probably fall down. This explains why, when you come home one day, your

antenna is on the ground (see below).

What happens to all those electrons, you ask. Well, they migrate into your radio and accumulate. In older tube radios, there was a "grid leak" resistor circuit which allowed the electrons to fall on the ground. Now you can't see them, but they're there. As more pile up, they slide into your back yard.

Tube radios, because of the "grid leak" last a lot longer than solid state radios, which stop working when enough electrons have piled up inside to short it out.

Now those electrons in your back yard want to get back into the copper wire, so they "pull" the antenna down to be re-united with it. Since the antenna is high, and they're on the ground, this attraction is not strong, but on a windy day, the electrons get lifted from the ground towards the antenna, pulling it down again. The wind often brings in free electrons from your neighbor's homes (from TVs, etc), so there may be a lot of these things around. If too many electrons get lifted up all at once, they overload the antenna, causing a heat mark, or worse getting back into the radio. Now this is why your antenna usually falls down on windy days.

At least, that's how I understand it.

You can extend the life of your antenna by disconnecting it from

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your radio when you're not listening. But overall, 500 to 1000 hours spent listening will do in a long wire antenna.

73,  
Tommie N4YZ

## Follow Up on Why Antennas Fall

I shared your research article with a few friends. This was a reply from Abe, **K4MK**, over in Lexington. He and I grew up together in Winston-Salem. He is ex **K4IHN** and **W4MKM** and has quite an antenna farm ... including 80 and 40 meter beams.

Wayne, **W4HG**

Wayne,

This principle, when first discovered, prompted the development of the underground antenna. It was found that burying the antenna in at least 4 feet of dirt, whether conductive or not, greatly reduced the level of excess electrons accumulating in the antenna and practically eliminated the need for the grid leak in the tube type receivers. Concurrently, it was also found to reduce both atmospheric and man-made noise.

This was one of the significant steps in producing solid state receiving equipment. Once the engineers found that the underground antenna reduced all of the unwanted excess voltages coming into the receiver front end, transistors could be used to advantage. Even today, after almost fifty years of successive improvements in solid state receivers, those with the lowest noise figures

still utilize the basic underground antenna to achieve such stellar performance in noise reduction.

Abe, **K4MK**

(Editors note: Abe, AKA Kent, is the Lexington ham with the 75 Meter Beam at 130 feet who gave us the program last meeting.)

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## SM Report - April

### PRB-1 BILL PASSES IN NC HOUSE!

North Carolina House Bill H1340, was reported favorably out of the House Ways and Means Committee on May 3, and unanimously approved by the full House on May 8. The bill has been referred to the Senate. Thanks to all of you who contacted your state representative as the House bill was considered. None of us imagined this would happen so quickly! We will need you to make the same great effort to build support with your state Senator as soon as a number is assigned for the companion bill. Thanks also to the bill's sponsor Rep Danny McComas (R-New Hanover) and to former Wilmington Mayor Hamilton "Ham" Hicks, **KB4BR**, for shepherding the bill through the House with overwhelming success.

H1340 would not help us much with restrictive covenants and home owners associations. But it does require municipalities and counties to require ordinances based on health, safety, or aesthetic considerations regulating

**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 Rufty-Holmes senior Center at 1120 S. Boundary Street

### 2007 Officers

President - Grey Smith,  
KI4CKR, 704-857-2570  
ki4ckr@ags2.com

Vice-Pres. - Bob Yarbrough,  
KG4WAD, 704-645-8320  
Rtplus@dialpoint.net

Secretary - Patti Sibert,  
KI4GUN, 704-209-5249  
ki4gun@carolina.rr.com

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

*Harmonics*, the club newsletter is published monthly, mostly. 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](http://www.RowanARS.org)

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.

### LEADERSHIP ROLES

In my job as Section Manager I get to see the best of ham radio.....and sometimes the worst. The worst generally involves a squabble between groups of hams. You know the saying: "If there's three hams in a city there's going to be at least two radio clubs!" I understand the passion folks feel for this hobby and how opinionated we can become. That passion can bubble over when things aren't going the way we think it should. Friction between hams is of particular concern when it involves ARES because it puts our services at risk and compromises our ability to provide emergency communications. If one of our served agencies gets involved or even hears about it, it's very embarrassing and gives them the perception that we aren't professional and can't be reliable in an emergency. Their thought might be that if we can't manage ourselves, then how can we manage in a disaster?

If you're a leader in the ARRL - and especially if you have a leadership role in ARES - as EC, DEC, AEC's etc., I encourage you NOT to get involved in controversial issues, disputes and squabbles. As amateurs we're all volunteers and the only

way we can make decisions is by collaboration and consensus. If it looks like that isn't going to happen, consider recusing yourself from the issue and use your EC appointment as an excuse. The risk is that if you offend any of your constituents then they aren't going to want to volunteer for your next public service event, training exercise, or disaster. I'm not suggesting that you shouldn't get involved in a local club - that's important of course. But it's also important for you as an EC not to take a central role in an issue that is going to cause lots of dissention in the local ham community. That means that sometimes things won't go the way you think they should. But is having your way in a situation really important enough to lose 1, 2, 3 or 10 volunteers at your next public service event?

The issue I think is that an EC has the most difficult management task there is - managing volunteers. You can't motivate them with pay, promotion or glory. They have to WANT to work for you because it's a cause they believe in or maybe it's just because they like you. So it's important that we have EC's who can get along with mostly everyone, because you're going to need mostly everyone when the big one hits!

### WITHER HAMFESTS? - Ward Silver, N0AX

Note the difference between "wither" (meaning to shrivel or dry up) and "whither" (meaning "to what place? where?"). Very often, I hear hamfest more closely associated with the former as attendance falls and fa-

miliar events "go dark." Is the hamfest doomed?

To be sure, on-line auction and for-sale sites have decimated the amount and diminished the quality of equipment and parts for which hamfests were once the premier source. After all, with information on nearly anything available for the effort of a few keystrokes, why go to all the trouble of making the trek, standing in line, and wandering the aisles? Without that guaranteed need, can the traditional hamfest survive? Well, probably not if the primary focus remains on selling and buying - technology has overcome the tailgate laden with dusty boatanchors and heaps of semi-identifiable gadgetry.

Instead, let's look at what the hamfest can provide that the on-line venue just can't: demonstrations, seminars, classes, and lectures, competitions, equipment testing, and of course: face-to-face meetings and license exams.

These just don't work as well over the Internet. A hamfest that evolves from an "intergarage junque transfer" to more of a convention-style show may very well prosper.

Today's newer hams - in their 30's and 40's - need a good reason to mark off a weekend day on the refrigerator calendar. They need to have an experience unavailable on line and they should be able to take away something of value.

Dayton is coming up this weekend and the enthusiasm on

the email reflectors and Web sites is palpable, even as the legendary flea market continues to shrink. Around 25,000 hams will flock to southwestern Ohio this weekend to partake of the main activities, hold their own sub-hamfests, meet old friends, make new friends, check out the new gear from all the manufacturers - drinking great draughts from the deep well that is Amateur Radio in the 21st century. Wither hamfests? I don't think so!

(Note from N4IB: Ward Silver, **N0AX**, writes the "ARRL Contest Rate Sheet"

every other Wednesday and you can subscribe to the newsletter by updating your profile on [www.arrl.org](http://www.arrl.org).)

### UPCOMING EVENTS

June 9: Winston Salem Classic Hamfest

June 9-10: Tour de Cure, Cary

June 23-24: ARRL Field Day

July 7: Salisbury Firecracker Hamfest

July 21: Mid-Summer Swapfest, Cary

July 28: Western Carolina Hamfest, Waynesville

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## Minutes: May 8, 2007

### Program:

Presentation by Kent Miller, **K4MK**. Kent showed the club members a slide show of his 75 meter beam project.

### Business:

Minutes of the April meeting were read and approved.

Flyers have been printed and mailed for the Fire Cracker Fest to all ARRL members within a 100 mile radius.

Ralph gave treasury report.

25.00 Memorial to Paul DZIEZYC - **KB4OEN**

284.00 postage - mailing flyers

763.81 tickets & flyers

\$1072.81 McGinnis Fund  
\$2803.84 balance

### Field Day:

Chairman Ralph Brown Co-Chairman Janet Smith

People bringing equipment to Field Day> June 23 - 24 Sloan Park

Janet 857; Gary Generator?? TR7. L75 amp; Butch will bring a radio if possible Ralph IC-730; Larry 40 meter antenna extended double zep; Gray digital station; Rick TS825, amplifier, amitron;

The club voted on and approved the use of amplifiers at field day event. If you have one you can bring please do so. More details will be finalized at June meeting.

There will be a pot luck dinner at 6 p.m. on Saturday June 23 at Field Day.

### Fire Cracker Fest

Chairman: Ralph Brown; Outside tickets: Butch; Inside tables: Ralph; Kitchen: Patti, Dave Hughey, Janet Smith, Brad Sellers, Christina Smith, Chris and Stacy.

There will be a schedule made to take shifts in the kitchen so everyone will have an opportunity to participate in the event.

Vendors - dBj Radio and Electronics, Wilco PC and Amateur Radio Products; Frank - Mike Higman - George W. -

Ralph will have Gary call the wire man.

Ralph will bring financial report for Janet to finish paperwork for Tax Status.

### RARS Attendance

Patti Sibert, **KI4GUN**; Ralph Brown, **WB4AQK**; Grey Smith **KI4CKR**; Tommie Wood **N4YZ**; Frank Waring **AF4D**; Ralph Mowery, **KU4PT** Rick Wallace **K4PM** ; Nelson Large **W4FQV**; Butch Edge **W4WEE**; Jack Barnhart **W8ZRI**; Bob Rector **W4REO**; Clarence Beaver **K4SHU**; Larry Wright **N4QY**; Christina Smith **KI4FFT**; Janet Smith **KI4CKS**; John Dwiggins **N4QVM** ; Dave Houghey **KE4VED**;

Visitors: Mike Hymen **W4OCO**; George Whatley **N4YM**