



# Forsyth Amateur Radio Club, Inc.

# Newsletter



Founded December 30, 1930

April, 2005

## February Program Highlights

Civil Air Patrol Lt. Ray Dehart, Cadet Col. Lovette and Cadet Capt. Hauffmann brought us a most outstanding program this past month. Lt. Dehart set the stage briefly before turning the program over to the two cadets.

First up, Cadet Col. John Lovette talked enthusiastically about the history of the CAP and what the CAP is today. Cadet Capt. Kaufmann presented information about Aerospace Education, Emergency Services and some about the CAP efforts that support drug enforcement and photo reconnaissance.

The CAP was founded one week before the Japanese attack on Pearl Harbor. During World War II the CAP was credited with the sinking of two enemy submarines and the rescue of hundreds of crash survivors.

After WWII the CAP has gone on to fulfilling three primary missions: Cadet Programs, Aerospace Education, and Emergency Services. Cadets are from ages twelve to twenty-one. The Cadet Program is "making leaders for tomorrow", and doing an outstanding job of if these two cadets are an example.

The Cadets condensed a prodigious amount of material and concisely presented it with flair, grace and a contagious enthusiasm. The Cadets brought to light that the CAP is much more than the Search-and-Rescue program for which it is generally recognized.

Locally the CAP meets on Thursdays at 6:30 PM at Smith Reynolds Airport. To make it easy for new or visiting members everyone meets in the main terminal before moving to another area.



From left-to-right: Lt. Ray Dehart, Cadet Captain Hauffmann and Cadet Col. Lovette.



## QRP Power Meter

Tim King, AG4RZ, tells about this beautiful QRP power meter and how to duplicate it on page 6.

## License Exams

The Forsyth Amateur Radio Club continues to offer license exam sessions on the FIRST Saturday of EVERY month at the American Red Cross Chapter House, 690 Coliseum Drive, in Winston Salem. More details inside this Newsletter on the top of page 5.

## Club Meeting, Monday, April 11, 2005

We will meet, as usual, on the 2nd Monday of the month at 690 Coliseum Drive in the Red Cross Building at 7:30 PM sharp in Room 09, but come early, say, 7:00-ish, to "hob-nob" with your fellow hams. This month the program will be by Ronda Bumgardner, the Winston-Salem Journal's Straight Answer Ma'am.

**Forsyth Amateur Radio Club, Inc** is a non-profit (IRS 501(c)3) North Carolina corporation for the promotion of Amateur Radio, and for the education and training of hams and the general public primarily in Forsyth County, North Carolina.

FARC was originally incorporated as the Winston-Salem Radio Club on December 31, 1930 and has been in operation ever since. We currently maintain a state-of-the-art ham station in the basement of the Red Cross, 690 Coliseum Dr., Winston-Salem, NC and also maintain two 2-meter repeaters, 146.64 (100 Hz tone) and 145.47 (100 Hz tone).

FARC has a general membership meeting with a program on the 2nd Monday of every month at the Red Cross building, 690 Coliseum Drive in Winston-Salem. The club conducts its main business meeting (sometimes called the Board Meeting) on the 3rd Monday generally at the same location. This is where most of the club's business is conducted and all attending members have a vote. All club members are strongly encouraged to attend the business meeting. For more information about FARC mail us at FARC, Inc., PO Box 11361, Winston-Salem, NC, 27116; call 336-723-7388; or visit our web site at [www.w4nc.com](http://www.w4nc.com). Club email is to [w4nc@triad.rr.com](mailto:w4nc@triad.rr.com).

Officers for 2005 are:

President: Tom Gallagher, N4IOZ  
[n4ioz@triad.rr.com](mailto:n4ioz@triad.rr.com)

Vice-President: Melissa Hall, W4RXG  
[mhall@triad.rr.com](mailto:mhall@triad.rr.com)

Secretary: Robert Whitaker, KG4NEP  
[kg4nep@yahoo.com](mailto:kg4nep@yahoo.com)

Treasurer: Henry Heidtmann, W2DZO  
[henry@summitschool.com](mailto:henry@summitschool.com)

Newsletter Editor: Don Edwards, WS4NC  
[ws4nc@arrl.net](mailto:ws4nc@arrl.net)

To join our list server send a blank email to  
[w4nc-subscribe@yahoogroups.com](mailto:w4nc-subscribe@yahoogroups.com)

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We trade newsletters with other clubs, and many local clubs are on our mailing list. If your club has a newsletter and would like to trade please send us a copy.

## Mileposts from FARC Members:

The following three pictures are of Seward, Alaska and are from Raymond, KL7UHF (ex-WX1NCC). Makes you want to move to Alaska, doesn't it?



## Tales From The Sand ...

Raja, KB6MTH has a great blog going on his intrepid adventures as a MD serving in Kuwait. Lately he's taken up wood shop. Let's hope he returns with all 10 fingers intact. Read the details at <http://desertmedicine.blog.com/>

## Warble, Warble

Hey guys....Just got my Warbler up and running for 80 meters. Anyone interested in some QRP PSK? Shoot me an email at [ag4rz@arrl.net](mailto:ag4rz@arrl.net)

*73Tim,  
AG4RZ*

## Brain Teaser:

Here's a brain teaser for older folks in the club: What do W4KGR, W4IRE, W4PJO, K4QDM, K4CDZ, and K4IHN all have in common? Answer on the bottom of page 7.

*Tom, N4IOZ*

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## UPCOMING HAMFESTS & OTHER HAM DATES

April 16, 2005  
Catawba Valley Hamfest  
Burke County Fairgrounds on Bost Road  
Morganton, NC  
[www.cvhamfest.com](http://www.cvhamfest.com)

April 17, 2005  
North Carolina Section ARRL Convention  
Raleigh Amateur Radio Club  
Raleigh, NC  
NC State Fairgrounds, Jim Graham Building  
1025 Blue Ridge Blvd  
<http://www.rars.org/hamfest>

May 20-22, 2005  
Dayton Hamfest  
Dayton, Ohio  
[www.hamvention.org](http://www.hamvention.org)

May 21, 2005  
Williamston, NC Hamfest

May 28, 2005  
Durham Hamfest

May 28, 2005  
ARMAD  
(see page 3 of Last Month's Newsletter)

June 11, 2005  
Winston-Salem "Big Classic" Hamfest  
Dixie Classic Fairgrounds  
Winston-Salem, NC  
[www.w4nc.com](http://www.w4nc.com)

June 25 & 26, 2005  
ARRL Field Day

August 27-28, 2005  
West Virginia State ARRL Convention  
West Virginia State Amateur Radio Council Weston, WV West Virginia  
Convention Center, Jacksons Mill Route 1, Box 210  
E-mail: [w8xf@arrl.net](mailto:w8xf@arrl.net)

September 3-4, 2005  
Shelby Hamfest  
Shelby Amateur Radio Club  
Shelby, NC  
Cleveland County Fairgrounds  
1751 Marion Street  
<http://www.shelbyhamfest.org>

September 17-18, 2005  
ARRL Roanoke Division Convention  
Virginia Beach Hamfest and Electronics Flea Market Tidewater Radio  
Conventions Virginia Wesleyan College  
1584 Western Drive  
<http://www.vahamfest.com>

October 29, 2005  
South Carolina State ARRL Convention  
Grand Strand Amateur Radio Club  
Conway National Guard Armory  
1621 16th Ave  
Conway, SC  
<http://www.w4gs.org>

## Raleigh Hamfest - DXCC Card Checking

There will be full DXCC card checking available at the Raleigh Hamfest on April 17, 2005 beginning at 8:00 AM. Bill Moore, NC1L will be in attendance this year and everything is eligible including 160 meters and cards older than 10 years. WAS and VUCC applications will be accepted as well. Regular hamfest rules apply and it is suggested one use the latest version of the DXCC application available on the ARRL website.

*73 and see you at the hamfest  
Bill, K4CIA  
NC Section DXCC Field Checker*

## W4NC 75th Anniversary

W4NC turns 75 years old on December 30 of this year! Any ideas on how we can celebrate? Bring your ideas to the next Club meeting.

## Monthly NC ARRL Section News Summary

NORTH CAROLINA: SM, John Covington, W4CC - SEC: WA4MOK. STM: K4HA. TC:K4ITL. BM: KD4YTU. PIC: N2COP. OOC: W4ZRA. SGL: AB4W. ACC: N4JCK.

Field Day will be here before you know it. This year it will be the weekend of June 25th. We are assembling a web page that will be posted at the beginning of June 2005 with information regarding Field Day operations. This information will allow radio amateurs visiting your area or without a club to locate Field Day sites to visit and possibly operate as well. A form will be available on ncarrrl.org starting in April which will allow you to submit this information electronically in a format that our webmaster can easily work with.

Another event I would like to encourage you to think about is Jamboree On The Air (JOTA). This year it will be on October 15th. JOTA is an exciting opportunity to allow scouts to experience ham radio and talk to their fellow scouts in other locations. North Carolina traditionally has had good JOTA participation, but I would like to see more of it.

Most scouts will never become hams, but they will leave their JOTA experience with a positive impression of ham radio. I believe that will benefit us in the years ahead when these young people serve on planning commissions, homeowners associations and so forth. Besides, it is great fun just to see their enthusiasm!

I should also point Girl Scouts as well as Boy Scouts have shown enthusiasm for JOTA in recent years.

On Tuesday, March 8, 2005, North Carolina ARES had a special information net called "Geologic Hazards of the Carolinas." This presentation was prepared by Bob Conder, K4RLC and was offered as part of an ongoing ARES training program in North Carolina. Bob's program was carried live on the Tarheel Emergency Net and several repeater networks throughout the state. Bob's program included references to an online slide presentation that you could look download and look at during his discussion. You can still download in PDF or PowerPoint format from [www.n4tab.com](http://www.n4tab.com).

The discussion of the effect of landslides in western North Carolina is particularly interesting since we experienced several of those last year right after Hurricane Ivan. Many thanks to Bob and also to John Guerriero, KG4HDT and Tom Brown, N4TAB for helping to present an interesting program for us. The combination of computer slides and

ham radio allows a program to be presented to many more people over a wider area than would be possible otherwise.

Upcoming Hamfests: Saturday, April 16 Catawba Valley Hamfest in Morganton; Sunday April 17 in Raleigh. I plan to be at both and hope to see you there.

A few more silent keys to report: John Schultz, K4JBS of Greensboro. John was very active with the Guilford Amateur Society and was a major player in securing their ARRL Affiliation in 2000. Russ Worthington, WA4POD of Snow Hill. Russ was a designer/builder and trustee of the ENC Repeater W4NBR. Others we have lost recently: Lois Staudenmaier, KA4PLD, Earl Turner, KE4YY and Pam Huffstetler, KG4ENT. Pam was very active in Gaston County ARES until she became ill.

73  
*John Covington, W4CC*

## ARES Net

Just a reminder, please join us on the Forsyth County Ares Net Thursday evenings at 8:30 p.m. on the W4NC repeater, frequency 145.47 MHz.

73, John, N0KTY  
*Forsyth Emergency Coordinator*

### FCAN Report - March 24, 2005

Net started at 8:30 PM. N4PAA was net control.

Check-ins - 10. Stations were KF4EOD Mike, KG4ECI Dan, KG4FGC Ken, WF4DD WFU Club station, WS4NC Don, W4RJR Bud, KS4YN Terri, NA4P Fred, KF4PLQ Woody and N4PAA Carl.

There was no traffic. There was one announcement. KG4FGC Ken announced that the spring MS Walk will be held on Saturday, April 16th on the Wake Forest University campus. The WFU Club will be coordinating the event, with volunteers welcome. Anyone who would like to help provide communications for this event can either contact Ken on this weekly net or e-mail him at [hoglund@wfu.edu](mailto:hoglund@wfu.edu). The activities get underway about 8 AM and are over by noon, with lunch provided for volunteers. The walk stays in the WFU campus area so there is not much travel involved; it is easy to find the event coordinators and get your assignments and the event is well organized and keeps to their schedule. If you have wanted to try helping at an event, this is the one to get you started.

No Emergency Coordinators were available for the ARES meeting. N4PAA Carl pointed out that the weather the night before the net should have made us all aware that the spring severe storm season is here already. Although there was no tornado or straight line wind damage from that storm system, there was some very impressive hail in some areas. That storm was our wake up call to get prepared for the severe weather season.

Formal session: 14 minutes. Informal session: 6 minutes. Total time: 20 minutes.

## FCAN Net - Mar. 10, 2005

Net started at 8:30 PM. N4PAA was net control.

Check-ins - 13. Stations were KK9DOG (ex KG4NTB) Gary, KF4EOD Mike, KG4ECI Dan, KG4FGC Ken, WF4DD WFU Club station, KF4KYD Jim, WS4NC Don, N0KTY John, KC4WSK Van, KG4NEP Robert, KF4IXK John, WB4QXG Fred and N4PAA Carl.

There was no traffic. There were two announcements. KG4FGC Ken announced that the week of March 13th to 19th is Severe Weather Awareness Week for North Carolina. Last year has set a record with tornados reported in 70 of the 100 counties of the state, so the state is getting serious about severe weather awareness. Wednesday March 16th will be the simulated tornado drill - weather permitting.

A Skywarn Basic Spotter Training class will be held Tuesday, March 15th at the Government Center, 1012 Main Street in Danbury, Stokes County. This class is sponsored by the Blacksburg, VA NOAA office. The ARES meeting was held by N0KTY John. He reinforced the announcement about Severe Weather Awareness and that the snow and ice storm season is approaching its end but the tornado and severe thunderstorm season is just getting underway.

Formal session: 19 minutes. Informal session: 8 minutes. Total time: 27 minutes.

*N4PAA Carl*

## NC QSO-Party Report

W2DZO reports that we had almost all counties activated and lots of participation. A full report will be in next month's Newsletter.

## License Exams

The Forsyth Amateur Radio Club continues to offer license exam sessions on the FIRST Saturday of EVERY month (includes holidays!) at the American Red Cross Chapter House, 690 Coliseum Drive, in Winston Salem. This is across the parking lot from the Arts Council Theater ("Little Theater"). Examinees need: Photo ID, ORIGINAL and COPY of all documents (License, CSCEs, anything else submitted for exam credit), Social Security Number, and fee of \$12. Registration begins at 8:30 AM. Exams begin at 9:00. Please arrive before 9:00 because if you aren't there we might leave!

## Calls Heard (@ the March Meeting)

During the lull in frantic roundball activity a few of us ventured into the cool evening on the second Monday in March to hear the presentation from our local Civil Air Patrol Squadron. Paying rapt attention in the congregated membership were John, N0KTY; Benny, REACT; David, N5WNB; Dan, KG4ECI; Steven, KG4JWU; Mike, K4MDA; Cedric, WB4ZWS; Tim, AG4RZ; Jeff, AC4YN;

Tink, W4DCW; Carl, N4PAA; Dick, W4UW; Don, WS4NC; Melissa, W4RXG; Edwin, AF4XC; Woody, KF4PLQ; Van, KC4WSK; Tom, N4IOZ; And Dale, WB9SZL. Joining as visitors for the evening were James Harbuck, Beth Lovette, Lydia Fatz and her father Peter, and Jim Kaufmann, WB7EAK. On hand from the Civil Air Patrol were Cadets John Lovette, Amie Kaufmann, and their leader Ray DeHart, KC4YLU.

## Calls Heard (@ the February Meeting)

A little late, but nonetheless here.... At the February "Valentine's Day" meeting we found Melissa, W4RXG; John, N0KTY; Dick, W4UW; Don, WS4NC; Jeff, AC4YN; Don, KT4KV; Carl, N4PAA; Edwin, AF4XC; Dan, KG4ECI; Henry, W2DZO; Cedric, WB4ZWS; Robert, KG4NEP; and Van, KC4WSK. A guest that evening was Eugene Windsor, K4SDV and our program was presented by visitor Gary Howell, WB4BMJ. Sorry about the delay, but your intrepid reporter just wasn't intrepid enough to make it to the chapter house when there wasn't a meeting in room 09 before the deadline for the March The Newsletter.

## April Meeting Program

**April 11, 2005**

Ronda Bumgardner better known as SAM, the *Winston-Salem Journal's* straight Answer Ma'am, will be our guest. She will have lots of good information and a great smile.

*73s, Melissa Leonard Hall W4RXG  
Vice President*

## The Newsletter Hamfest:

### House for Sale (Now without towers!):

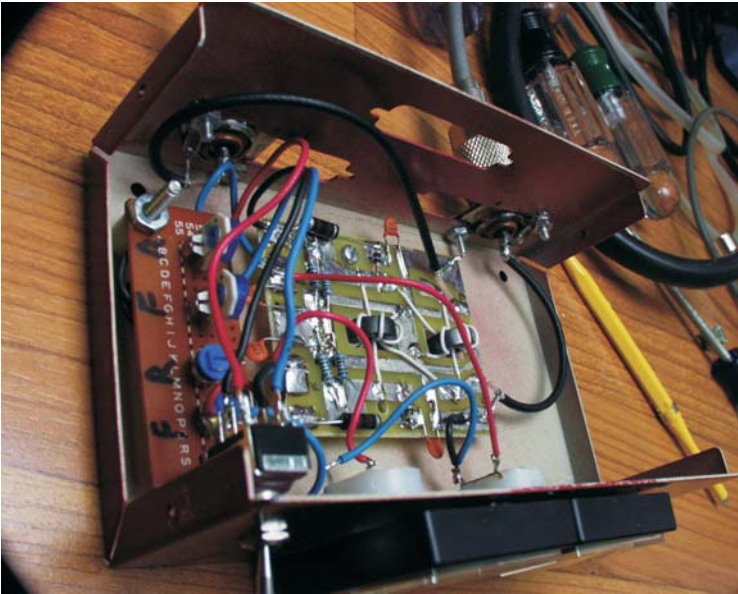
934 Franklin Street 3br/2ba, with wired shop outside, patio, remodeled kitchen & both baths. \$134,500. Convenient downtown location in historic West Salem. Henry, W2DZO 336-945-0406

### TOWERS & HARDLINE

Various towers, hardline and tower parts. I also have hardline connectors from \$20.00 - \$75.00 by size. If you're interested you can reach me by e-mail or call!! Delivery can be arranged within 50 miles or so. KG4NEP, Robert L. Whitaker Jr. 336-997-6896  
kg4nep@yahoo.com

### Looking for a 2-Meter Handheld

Hi, I am looking for a used hand held transceiver that works good. There may be someone in the club that is selling one. Gail, 725-3499



## Hey! Go build something!

North Georgia QRP Club's NoGaWatt

by Tim King, Jr., AG4RZ

Have you ever found yourself in need of a piece of test equipment that's not available locally, is too expensive, or just doesn't exist?

I did recently. Having had an interest in QRP since I first got my ticket, I have built a couple of low power radios. I also have run my commercial HF rigs at the lowest possible "RF Power" setting, taking the manufacturers word that it was 5 watts, and never really caring what the output of my "homebuilt" rigs was.

I recently acquired two of Dave Benson's, K1SWL (EX-NN1G) PSK kits. One is the PSK -80, otherwise known as the "Warbler" The other is the PSK-20. AS I am sure you are aware, PSK-31 is a hot digital mode that uses only a 31hz wide chunk of our spectrum, allowing "keyboard to keyboard" communications in real time between two or more amateurs. Low power gets you allot with this mode, and most users run from zero to 20 watts.

Like many of us, when I get a new radio, I cannot wait to play with it. As soon as I got the "Warbler" home, I hooked it up to the second PC in the shack, gave it 12v and an antenna, and fired up Digipan. A quick call to my father-in-law, Gene, WB4MSG, and wow, this thing works!! There was one problem, though...I had spurs! So I decreased the drive, and was able to clean up the signal, but it didn't appear to be tracking on frequency. I loaded the rig up (slipped it in my pocket) and headed to his house for a quick alignment.

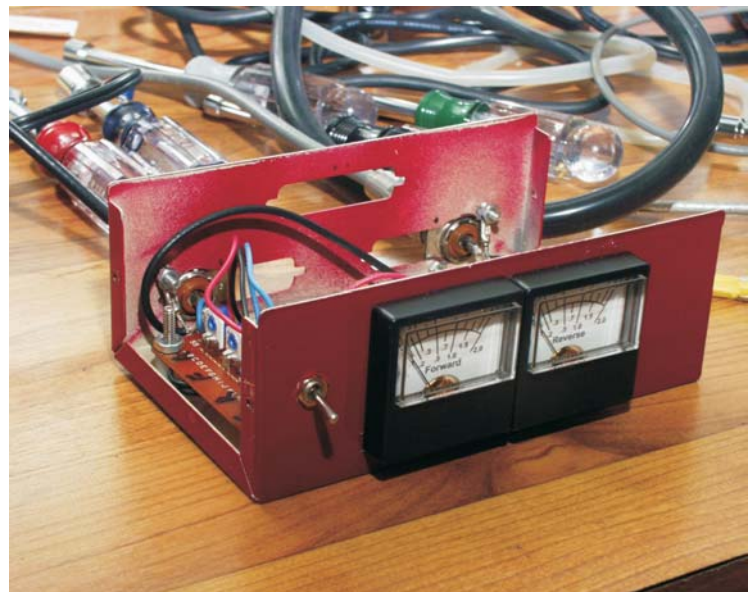
It quickly became apparent we needed a way to measure the power out, and his shack meters (Kenwood 200w/2000w selectable) weren't quite sensitive enough to tell us what we need to know. The next day I set about searching for a solution. Finding nothing reasonably priced in the commercial market, and having heard wonderful things about the North Georgia QRP club's kits, I decided to purchase there NoGaWatt.

The NoGaWatt is a bi-directional wattmeter, in kit form. This kit is based upon the "Stockton" design, for which information can be found in the 1996 handbook, page 22.36.

Shipping was quick, and included in the \$25.00 price. The instructions are very straight forward, and leave nothing to wonder about. You have to wind two toroids, but there are only 7 turns on each, so don't let that scare you away! The kit is "surface mount," but don't fear, that doesn't mean you need tweezers! In this case, surface mount refers to the fact that there are no "thru holes," everything is simply soldered to the board, "Manhattan" style. Construction is simple, taking little more than an hour, and that includes a couple of trips to the coffee pot.

The instructions remind me of Heathkit kits (yes, I am old enough to have assembled a Heathkit), and they thoughtfully provide spaces for you to check off each completed step. After reading the manual I decided to build off of the schematic, referring to the board layout as necessary. You begin by tinning all the pads on the board, and also all component leads. This save some frustration when trying to attach components later.

After double checking my wiring, and verifying the diodes were installed correctly, It was time to test the kit. I used the  
*See QRP, top of page 7*



*QRP power meter; Continued from page 6*

PSK-20 this time, as I knew it had more output than the Warbler. Both meters showed deflection, so I knew I had a winner! It was time to apply the included calibrated meter faces. The faces offer two scales, 0-2watts and 0-6 watts. The range you choose is left up to the builder. Calibration instructions are included for both ranges. (I did deviate from the kit slightly: I chose to add a second set of calibration pots, selectable by a DPDT switch on the front panel, so I could use both ranges.)

The worst part is applying the included faces to the meters. Take your time, and be careful. I damaged the movement of one of my meters, and had to order a replacement. After getting the face on the replacement meter without any problems, I started looking for box to put this all in. The enclosure is left up to the builder, and the kit is "Altoids" friendly, for hard core QRPer's.

I chose to house mine in an enclosure reminiscent of the Franklin Converter Company. For those of you who don't know, my father-in-law and a few others formed the Franklin Converter Company, which offered numerous interface devices for amateurs in years past. They built most of their offerings in simple A/B printer boxes. Since he has several of these around, and I happen to know where all the goodies are hidden, I have a supply of these nice cabinets.

After painting the box a nice deep red, I installed the board and meters. With a quick call to Don, WS4NC, to set up a time to calibrate the kit, I was all set. Don made quick work of the calibration process, Using his 817 and a 'scope. You can also calibrate the meters with a RF voltmeter, or a Bird wattmeter with the appropriate low wattage slugs.

After calibrating the 2 watt scale, we noticed a problem - the DPDT switch I used to select ranges was bad. After replacing it, we quickly got the 6 watt scale calibrated and the meter was working like a champ. I suppose one should never assume that a switch is good, just because it is new!

I am happy to report I am very pleased with this kit, and it works great. I like having a true twin meter setup, just like the nice full kilowatt guys. If you ever find yourself in need of a QRP wattmeter, I would not hesitate to recommend the NoGaWatt.

## Answer to Brain Teaser from Page 2

Answer: They were all listed as control operators on the first license for WR4ACA, the original repeater on Baptist Hospital. Back in those days, the control operator had to have positive control of the repeater, which meant that these folks sacrificed their telephone line for hours at a time to satisfy the FCC requirements at the time. FCC regulations for amateur repeaters at the time were so stringent that the first application was rejected because the proposed antenna was not on the list of acceptable models!

## And . . . in other news . . .

### Rohn Tower Facility is Back

Radian Communication Services, Inc., a subsidiary of Onex Corporation based in Toronto, acquired the assets related to tower and tower accessory manufacturing operation of ROHN Industries, Inc. in December 2003. Since 1948, ROHN has been a leading designer and manufacturer of towers, poles, masts and accessories for the wireless telecommunications, lighting, wind power and utility transmission/distribution industries.

Radian Communication Services, Inc. held a grand opening event and dedication ceremony **today** in order to recognize new jobs and opportunities coming to Peoria.

Manufacturing operations of ROHN have returned to Peoria after being moved to Frankfort, Indiana in early 2003. Radian was able to retain all of the Peoria-based engineering, drafting, quoting, and field sales personnel. As manufacturing is being rebuilt, they have been able to add many plant personnel, outside sales, and a construction manager.

### Shelby Hamfest, back on track . . .

An article from the Shelby Star made the ham radio rounds last month. It seems the Cleaveland County Fairgrounds has a new manager. The new manager raised the rates so high for the Shelby Hamfest that the possibility of not holding the event or holding the event outside of Cleveland County was discussed.

Never fear. According to John, W4JL, as quoted by K4TRM) the contract has been signed as of March 29. Everything is back on schedule for this year.

The Shelby Hamfest began at Brackett's Cedar Park in Casar but was moved to the fairgrounds for the past 25 years because it outgrew Cedar Park.

### Editor's Corner

For information to make it into the Newsletter, I need submissions no later than the morning of the 4th Monday of the month. Email me at ws4nc@arrl.net with any submissions. Just plain text is all that's required, most formatting will be redone to match the Newsletter's form anyway. Pictures can be most any form, but jpg's are probably best. Pictures need to be of the highest resolution possible.

ADDRESS CORRECTION REQUESTED

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## Moment of Zen



Thank you, thank you very much ladies  
and gentlemen. I'll be here all week. Try  
the veal . . .