

Ham Rag

Rockford Amateur Radio Association



JAN 1984

President's Log

Once again we had a well attended meeting last month. Thanks to a very interesting program brought to us by Charles Jackson of the Rockford Crime Stoppers.

At that meeting we mentioned just briefly that the A.R.R.L. is looking for persons interested in helping out in the Volunteer Examiner Program. We'll take some time now for more details. It's not that we here in Rockford have had it so hard going into Chicago, but many didn't find it that easy. For some, after all, it still meant a day off work. It looks like the Volunteer Program is on the way and we can help as a club by supplying some needed personnel. When it gets under way, no one should have to travel for or miss a days work. I'm sure we would increase member, both into the Amateur Radio Community as well as into R.A.R.A. , if it would become easier to get to the testing facilities. It would be especially nice for those wishing to follow up after completing our Novice courses. I've alked to a lot of prospective Amateurs and they're right with you up until the time you tell them they have to take up-grade tests in Chicago. Now, of course, it won't make the tests any easier, but having closer access to the examining point will help. So, if you would like to become part of this program, let us know. Two have already volunteered. For more information, you can also write to: **Lori McBride, Assistant to teh Manager, A.R.R.L. Volunteer Examiner Program.** Also concerning this, see the following Q.S.T. Articles: "In Training", August -- Page 84; "Club Corner", September -- Page 84; "Deregulation and Amateur Radio", October -- Page 9; "F.C.C. Approves Volunteer Examining", November -- Page 68; "Another Step toward Volunteer Examining"; December -- Page 51.

While we're on the subject, when was the last time you really took time to talk about Ham Radio on a one-to-one basis with a prospective amateur? Several weeks ago, someone asked me a question about Amateur Radio. To my surprise, it took about 35 minutes before he was through asking and I was through telling. Now, I don't mean you should go around grabbing everyone. After all, he asked me. The fun part was finding out how much I knwe about Ham Radio. Believe me, you'll surprise yourself. Well, he was a good listener and I was quite sure he was going to make a bee-line up to Canterbury Book Store. I felt like checking that out, but I wasn't really ready for that. I'll just watch for his name to show up in out Novice Class.

Look at the weather situation, I hope you all got over the Christmas holiday with a minimum of trouble due to the low temperatures. (My car sure didn't like it--infact it refused to run for two days.) Let's hope for some moderation, so we call all get together for a club banquet. See you there!!

373, Bob, WA9NTT

CHARLIE JACKSON — ROCKFORD CRIME STOPPERS



Tech Topics

I'm gonna make it. By the time you read this, Christmas will have passed whether I survive or not. Somehow, this season has gotten away from me, and I didn't even get in a decent request for new high tech ham equipment (except for the two meter H/T, but I mistakenly called it a walkie talkie, and she said K-Mart had some nice ones--Nuts). The thing I should have requested is a decent SWR bridge or wattmeter. Although I don't have one of the new solid state rigs that mandates having one, it's about the most useful piece of test equipment for the shack.

None of us can avoid the measurement of Standing Wave Ratio (SWR) unless we avoid putting up antennas or don't want to know if they are working, so let's discuss some of the types of gear out there to measure it. Of course, perhaps we should define what it is we are about. Simply speaking, all the power going up the transmission line, and if the antenna isn't perfectly matched some will be reflected back. Again simply speaking, SWR is a measure of what portion of that power is reflected (to be dissipated in the line or rig) versus what is radiated (to obvious advantage). Since no antenna is perfect, particularly across a band, what's acceptable? The rigs with tube type finals can take a reasonable SWR (like 3 to 1), which says one fourth of your power is coming back down the line. Remember that because of line losses, the indicated SWR at the feed end is less at the antenna, but in consideration of the rig and for convenience we will measure down in the shack. Obviously we want to do better than 3 to 1. Many solid state rigs will not work with SWR's above 2 to 1, which is one tenth of the power coming back. My opinion is that under 2 to 1 is acceptable across a band, and 1.5 to 1 is a nice goal, which would be 4 watts back for 100 going out. To try for better than that is impractical, the guys claiming 1.1 to 1 are saying only one quarter watt is coming back out of 100 watts out, which is an enviable goal but one they probably can't really measure.

Now to the equipment. I've no experience with many specific brands (I said I wanted a new one), but I do have opinions. If money is no object, the wattmeters by Bird have an enviable reputation for reasonable accuracy and ruggedness. You will end up buying the meter and cartridges to adapt to your frequency use (HF vs. VHF) and power level, and you've got to calculate SWR. However, for most of us a relative measurement is more important than an absolute one. In fact, I'm particularly impressed with some of the units by Daiwa (and under other names) which indicate forward and reflected power with a cross needle system that also relates SWR right on the meter. The part I like about this is that with one of these in the line you can always monitor what's going on, and any changes will be noted before any damage (or band splattering, etc.) is done. A knowledge of the condition of your antenna systems at all times is invaluable, and it is the part of your system that is most vulnerable to changes with the season, the weather, the winds, etc. Simpler SWR meters will also serve, saving you some money, while requiring some switching to monitor all parameters. However, remember that you get essentially what you pay for. By that I mean avoid that cheap CB SWR meters. They are not necessarily designed for five band use, and usually won't give you the answers you need. Stick with the ones (there are plenty to choose from) for ham radio use, be sure that it's appropriate for the bands and power you will use, and monitor what's going on. A check against a Bird wattmeter or other known quality will help characterize the one you've got or a kit built. You don't need to condemn such units, or even the expensive ones if they're not perfect, but you do need to know the equipment you're using. And don't forget, the main point here is to know and protect your rig and antenna system, not impress us with how well you can measure power or SWR.

Meet KT9P, Dale

CQ, DX, CQ, DX, CQ, DX, this KT9P, Kilo Tango Niner PaPa. This what Nancy, N9BZT, his wife, has to put up with at the QTH of KT9P. Dale is what hams call a DXer. And DX he does! Dale will go to bed at 7pm to get up at 1:30am just to work DX on forty meters.

Dale, like many other hams, stated as a novice and upgraded. His calls were KA9JPA, N9CDZ, KC9BN, and now holds the extra call of KT9P. Dale was a CBer before being a ham and was known as "Noodle Nose". Being a person who wanted more of a challenge, Dale found out about a ham novice course being offered at Rockford College. He called me on the CB and asked, "Big Daddy", how would you like to go to a Ham Class with me? That's how it started for Dale and me.

Dale's station is well equipped to handle the DX stations he goes after. The first station consists of a Drake TR7 transceiver and a Drake L7 Amp. A second station has a Kenwood TS930S and an Alpha Amp 76 PA. A backup rig, Kenwood TS830S, is now being used because the TS930S is in the shop. Back to the stone age! Right, Dale?

Dale works 2 meters with Kenwood's equipment, a 7800, a 7850, and a 9130. He uses a 160 watt amp when he needs to be heard.

We'll, you can't work much Dx without an antenna system can you? Just like Dale's shack, his back yard is well equipped to handle DX or rag chewing. The heart of the antenna system is a 70ft motorized crank-up tower. It's a Tri-Ex LM-470D. The tower will go from about 25ft, and rise to 70ft in about 4 minutes. Since there are no guy wires, the base had to be big. And big it is! 42" X 42" X 8ft deep. Dale had to put 17,000 lbs of cement in that hole!

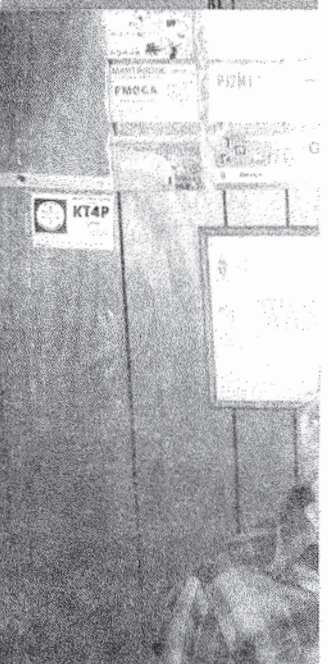
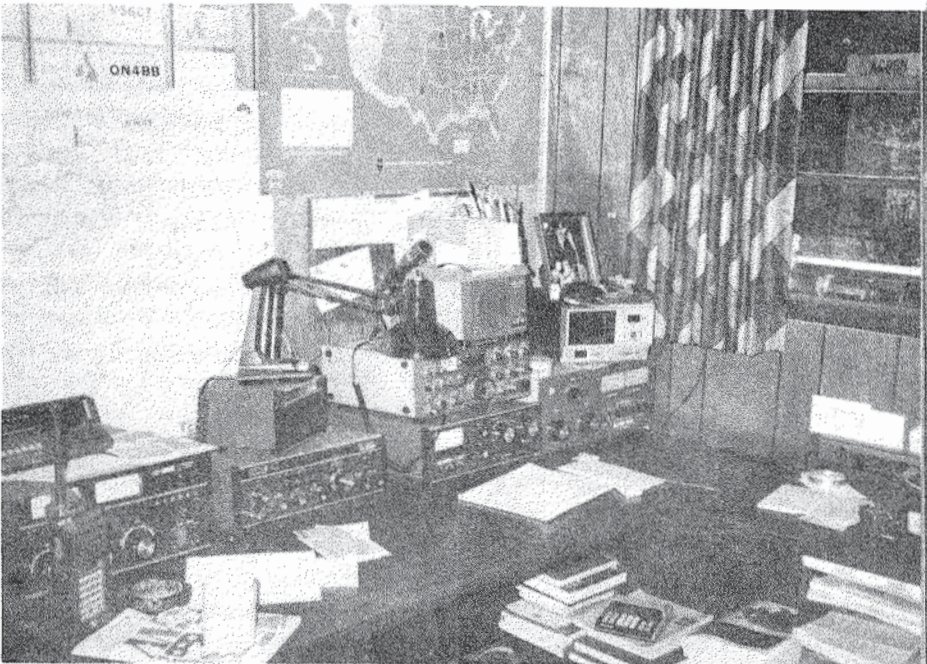
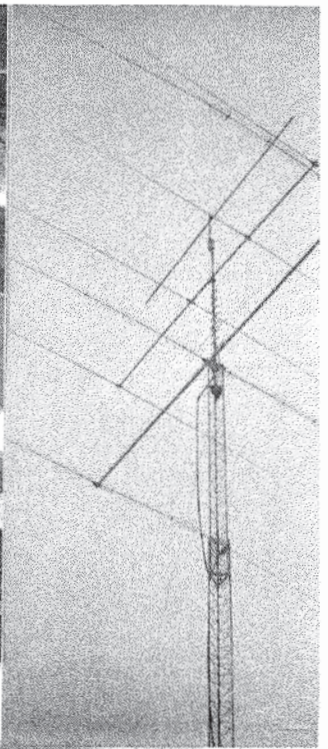
To hold the antennae, Dale uses an IIX mast that has a ladder built on it. The mast puts the top antenna at more than 85 feet. Dale now has three antennaw on the mast. A KLM 3 element on 40, a Hygain 4 element on 20, and a KLM 13 element long boomer on 2 meters. The whole works is turned with a Hygain HDR 300 rotor. What a beautiful sight!

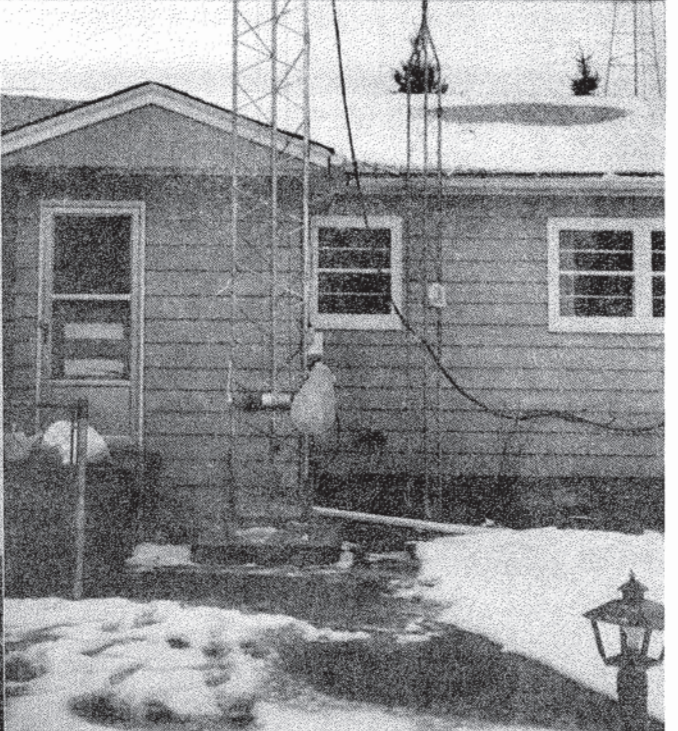
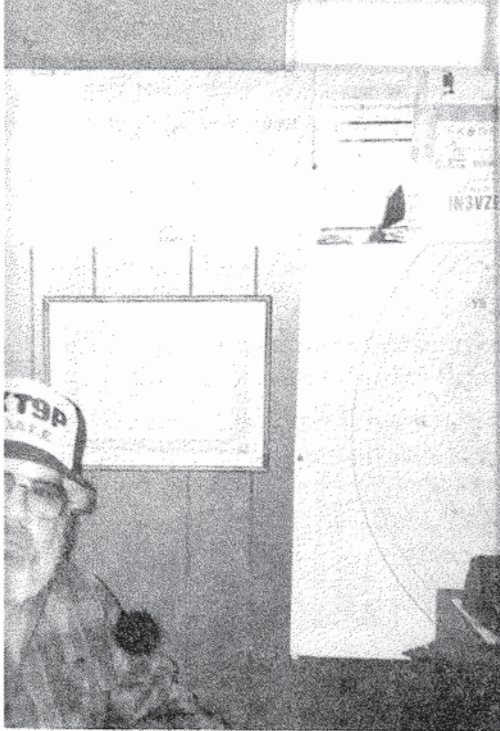
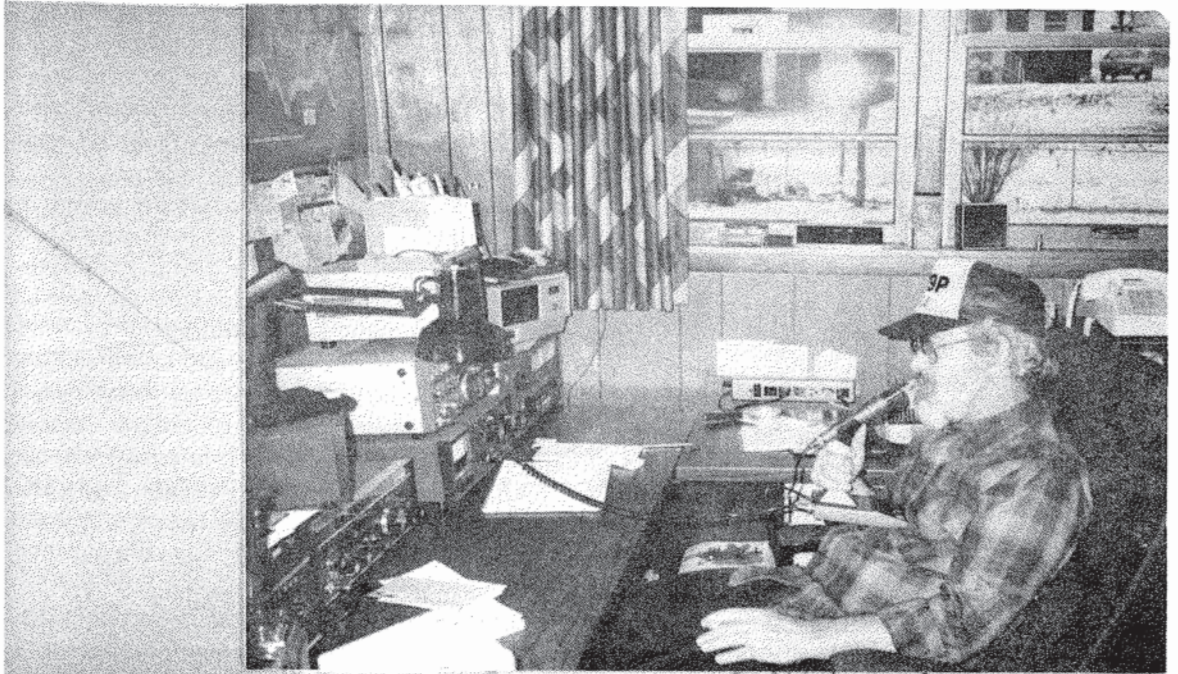
Just how do you put together an antenna system like this? Well, just ask some of the people that helped Dale. I know Dale would like to recognize all the people that put alot of effort into making this dream come true. Thanks to Frank/KS9X, Gene/K9IKP, Marvyn/KC9WF, Gene/KA9B0D, Louis/KA9ESH, Harry/WB9PBO, Lloyd/KT9Q, Kay/N9DRL, Bill/N9DTD, Nancy/N9BZT, Clayton's Nancy son, Gene/AK9N, Dave/N9DRQ, and Moe/N9CCE.

Ed's Wrecker Service got the tower off the truck and into the back yard near the hole. The wrecker was also used to stand up the tower once it was attached to the base.

If it weren't for hams like the ones above, such a dream could not come true. It's sure nice to know that in Rockford and in the RARA club, there are people willing to help.

73 for now,
Marvin, KC9WF





MICRO/DIGITAL CORNER

I guess I've had it kind of easy the last couple of months thanks to Don, N9AWZ. I especially enjoyed the article on sorting. I hope you will come up with more good things Don (or from anyone else)! It's hard to come with new material every month as the rest of the HamRag writers know.

As I am writing this on Christmas Eve, I am thinking that tomorrow many of you out there may have received computers. One of the newest out is the IBM PC jr. which should promise to impress a good number of people particularly those that use IBM computers in their work. One of the design considerations was to keep as much compatibility to the IBM PC as possible. According to the January '84 issue of COMPUTE. The floppy disk system is the same and disks are interchangeable between the two.

One of the neatest features is the cordless remote keyboard run with 4AA penlight batteries. The keyboard can be used up to twenty feet away from the main unit and data is transmitted via infrared sensors. You must be within a 60 degree arc of the main unit, but reports say it is reliable. It looks like a very interesting computer and I would expect they will sell many even though the starting price tag is \$669.

Since Texas Instruments has announced it is dropping out of the computer market I've seen their computers going for as low as \$49.95. The ZX81 has been as low as \$29.95. A person could buy one of these units and dedicate it to a function such as home heating or something of the like. Pretty soon the question won't be "Do you have a computer?", but instead "How many do you have?"

There are many new magazines on the market, the newest for VIC and Commodore 64 is called RUN. It is published by Wayne Green. The first issue was interesting and he promises to have a Data Base program in the second issue. I will be looking forward to see how that works. The last issued of COMPUTE GAZETTE had a word processing program which I am currently typing in. I had to load a machine language loading program first, which I am having a few small problems with. I am sure that the problem is with the article, as I could never make any typos....

73, Gene, WB9MMM

MENU FOR AWARDS DINNER

Tossed salad	Baked chicken
Relish Tray	Sliced baked ham
Dinner rolls	Swedish meat balls
Coffee, tea or soft drink	Augratin potatoes
Cole Slaw	Green bean and mushroom casserole
Four bean salad	Melon balls
Peach cobbler	

You are welcome to make your own sundae.

Make your reservation NOW.

PLACE: JOSEY WALES, 5803 N. Second ST

TIME : 6 PM cocktails, & 7PM dinner

No Code Buried

The Amateur Radio Service is well, it's thriving, and it's providing an excellent service to the American public. With these words Private Radio Bureau Chief Robert Foosaner introduced the staff recommendation to the FCC Commissioners that the "No Code" proposal (Docket 83-28) be dismissed "for keeps". Almost 5000 comments were filed, running 20 to 1 against removing the code requirement.

One point made by Foosaner is that although the code test is something one must prepare for, it requires a minimal amount of study to pass the slow speed exam. He read a portion of the comment filed by Handi-Hams, which reported that they had trained over 5,000 severely handicapped individuals in the skills needed to pass the Amateur Radio examinations. For some of these individuals, Morse Code is the only mode that they are capable of using. In conclusion the bureau chief said, "I strongly recommend that we maintain the code requirement, we endorse the Service as it is, and we buy the concept of **NO CODE**" Ten months ago few hams would have expected this statement to come from the FCC staff. But that is what the staff recommended, and a few minutes later the FCC commissioners voted unanimously to keep the Morse Code requirement for all classes of ham licenses in the United States.

ARRL LETTER, December 20, 1983

Effective January 1, 1984, Commercial and Amateur Radio License exams will be given at Chicago, IL BY APPOINTMENT ONLY in accordance to the following schedule:

Feb. 6th thru 10th -Applications must be received no later than January 15th.

May 7th thru 11th -Applications must be received no later than April 15th.

Aug. 6th thru 10th -Applications must be received no later than July 15th.

Nov. 5th thru 9th -Applications must be received no later than October 1th.

Applicants who file an acceptable application will receive about one week prior to the exam dates, a notice specifying the place date and hour you are to appear for the exam.

All FCC facilities will give both commercial and amateur exams on those dates. Remember— Form 610 must be submitted at least one month in advance of the exam dates!

de, McHenry County Wireless Newsletter

The FCC has extended the operator and station licensing periods in the amateur Radio Service to ten year license terms and changed the grace period to two years.

The FCC said it would not issue a blanket order extending the terms of existing licenses because this would be confusing to both amateur licensees and foreign licensing authorities. *The new 10 year license terms will be phased in as licenses come up for renewal.* (This program has already taken effect as I received my ten year license when I sent in my change of address. WB9SFT)

de, McHenry County Wireless Newsletter

Secretary's Log

Bob, WA9NTT, opened the meeting at 7:05 PM. He asked that everyone present indicate on the sign-up sheet whether they will attend the January Awards Banquet. The banquet will be on January 14th, at Josey Wales in Loves Park. Mark the date on your calendar!

The *Ham Radio On The Road* committee is on its way. Several people have volunteered to be on it. Shari, WB9SFT, and Bob, WA9NTT, have already been to Lincoln Middle School. Fine business! We need more places to go like that. Suggestions???

Bob, WA9NTT, read a letter from the ARRL about volunteer examiners. Advanced and Extra Class licensees are needed for the volunteer examiner program. Anyone interested in becoming a volunteer examiner should let Bob, WA9NTT know.

Although it's a few months off, we need to think about Awareness Day. Right now the most important thing is finding a chairman for it. Again, we need volunteers. Hope a lot of people offer!

Field Day co-chairman, Gary/K9LJN, is busy getting things set up for Field Day. He has already made the initial contacts to acquire the same site as last year. My, he's a busy beaver!!! That's another important day to mark on your calendar. Start thinking about what band you want to help operate. We do need you!!!

Gene, KA9BOD, introduced Charlie Jackson, founder of the Rockford Crime Stoppers Program. He gave a very interesting talk about the program and was super willing to answer questions.

Many thanks to Gene for providing all these excellent programs. You're doing a super job, Gene!
I hope all of you had a nice holiday season.

73, Kay, N9DRL

NOTICE

If you (licensed/prospective amateur) are interest in a class (upgrade/Novice), please fill out the following and send to either KI9G or AK9N. Plans are being made for classes beginning in early spring.

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

CALL _____ TEL# _____

Interested in (circle choice)

1. Novice
2. Technician/General
3. Advanced
4. Extra

KI9G
Carol Holmes
3010 Lotus Lane
Rockford, IL 61111

AK9N
Gene Melton
923 Otto Rd.
Rockford, IL 61111

Potpourri

Congratulations and good luck to the seven novices who recently passed their class exams at Harlem Community Center. We will soon have some new call signs to add to the list of area hams. We wish each one much enjoyment in the field of amateur radio. Seven out of the eight people who attended this class passed. Was it the exceptionally sharp students or good instructors — or maybe both???

No one seems to know how many heard the space lab during their orbits around the earth. Several in this area heard W5LFL and were able to make intelligible tape of their transmission. Congratulations to all who were able to do so.

Brad, KA9LTR has his antenna up and the regular CW Thursday night net is back in business. So why not join them at 9 PM on 21.130 MHz. Perhaps there are some hams who could upgrade their license by improving their code speed. It is surprising how rusty you can get by using your mouth most of the time instead of your fist occasionally.

Our 1983 Awards Dinner at Josey Wales was certainly enjoyed by all and those who do not attend the 1984 will be disappointed. It will be a repeat performance. Rubbing elbows with friends who share the same interests, the good food and just maybe winning an attendance prize will add up to making it an evening to remember. SO BE THERE!!!

Many times call signs are hard to understand especially when said fast. I'm sure that I am not the only one who has had to ask a station for a repeat several times and then wonder if I've got it right. I believe phonetics are advisable in cases where there are letters in your call which sound alike such as PBT, IY, CZ, AK, etc. A station call sign might just as well remain unsaid if it can't be understood.

HAPPY NEW YEAR!!!

Chuck/N9CCH

**Dave Bond, N9DRQ, has upgraded to EXTRA class.
Congratulations Dave!**

**ROCKFORD AMATEUR RADIO ASSOCIATION, INC.
P.O. BOX 1744, ROCKFORD, ILLINOIS 61110**

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V. Pres.	Chuck Henley	N9CCH	633-6524	Jim Ambruso	WD9FVF 654-3620
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HAM RAG Editor	Sharon Harlan	WB9SFT	398-2683		
Circulation Manager	Alice Davidson		877-6274		

Ham Mart

FOR SALE: 6 meter Swiss Quad- \$25.00
Rotater-Channelmaster, Mint
condition, \$25.00
Mike Oberg, WB9JAU, 399-0961

WANTED: Sencore VA-48 vidio Analyzer; TV parts'
modules; transisters;etc.
Clarence Wilken, 938-2221 938-2564
RR 2, Box 3, Forreston, 61030

**ROCKFORD AMATEUR RADIO ASSOCIATION
P.O. BOX 1744 ROCKFORD, ILLINOIS 61110**

ADDRESS CORRECTION REQUESTED



NETS:

28.7 Mhz. Monday 9:00 p.m.
50.4 Mhz. Nightly 9:00 p.m.
146.01/.61 Mhz. Monday 8:00 p.m.

**BLACK HAWK VALLEY
TEN TEN INTERNATIONAL**

28.925 Mhz. Wednesday 9:00 p.m.
21.130 Mhz. Thursday 9:00 p.m.