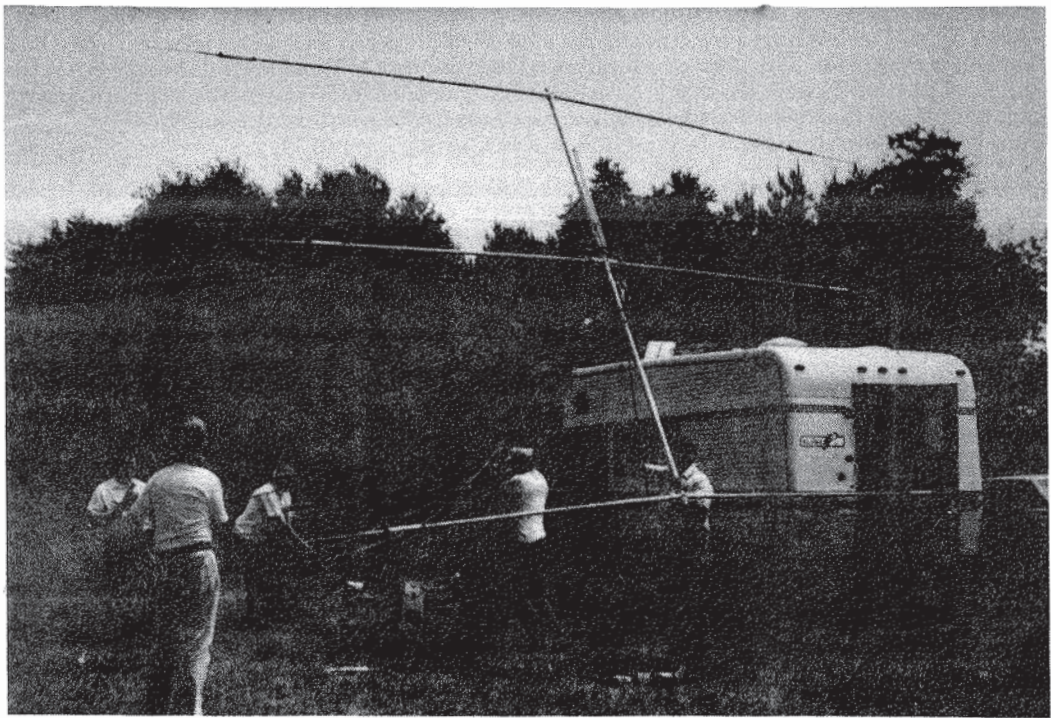


# Ham Rag

Rockford Amateur Radio Association  
September, 1983



**R.A.R.A. Meeting September 9, 1983  
7:00 p.m. - Rock Valley College  
Room 222 - Classroom Building I**

# President's Log

In the last issue of the *Rag*, one of the writers said something to the effect - "*Now that summer is almost here...*". Well, that was the June mailing. The paper then went on a two month recess. Not getting the *Rag* by no means ment the club went inactive. It seems like the summer came and went before I even knew it. So, whatever you may have done with yours, I hope you enjoyed it... even with the hot weather. I, for one, didn't seems to work in all the activities and events I would like to. But, you can only do so much.

Backing up just a bit, we'll try to recap some of the summer activities that the club was involved in. Realizing, of course, some of the events were two-meter affairs and some were not. There was still something to do for all who wanted to stay in touch over the last two months.

We started out with our County Disaster Drill with Paul KR9P in charge. It all began in Roscoe, June 12, and had ten amateurs turn out to help. They were, KR9P, W9DFK, KI9G, WA9NTT, N9CCH, K9CUQ, W9TET, K9IKP, KU9S, K9SAN. It was a good learning experience. I especially liked my run with "*Parnelli*" Holmes.

June 25-26, of course, is always a big event for the club. Field Days just seem to get better each year. But, then, I guess that's what they're for. This years new location worked out very well and it would be nice to try it here again next summer. The team concept that has been used the last couple of years really seems to be working quite well. Just let me remind you that it is still a whole club venture and all you have to do to be in on it is show up or ask to be on a team. For more details of Field Day, see Frank KS9X, or Russ WD9FVI.

July 4th saw the marathon foot race changed until November, so we still have that one to ool forward to. We were still brought into the 10K race thanks to Bill KB9UR. Helping out there were KB9IW, WB9SFT, KT9P, W9MOS, N9CCE, KA9NDQ, and WA9NTT. By the looks of the runners, I'm glad I was on the radio and not in the race. Come to think of it, one of our operators couldn't take it and did jump into it at the end. "*Why did you do that, Shari?*"

We again responded July 16, as we were asked to help with communications on the Sheriff's first annual Rock River Clean-up. This turned out to be quite a full day and to some extent a test a test of equipment and personnel. We all learned again on this one, and I believe we showed that there is a reliable source of communication in the event we are needed. There was some excitement for the team on the North part of the river... A crane on a bridge tipped over the rail and Chuck abd Floyd's report was the first one to come to the center. The following helped in that worth while project, KC9AP, KI9G, WD5GYW, WA9NTT, W9MOS, K9IKP, K9CCE, K9CCE, K9LJN, K9CUQ, and N9CCH.

Moving into August 7, we again picked up another race. This was another first, nut the radio operators did their usual good job. Putting their time into this one was KB9UR, WB9PBO, K9VJJ, KA9CDJ, WD5GYW, WB9SGF, KB9IW, N9CCE, and N9CWQ. This event was a triathlon with swimming, biking and running, staring at Lake Somerset and ending in Rockford.

de WA9NTT



# FM/Repeaters

Widespread use of FM on the VHF amateur bands began in the early 1960's with the appearance on the market of used equipment from the land mobile services. This commercial equipment utilized crystal-controlled receivers and transmitters, push-to-talk, and squelch circuitry to cut off the receiver audio output in absence of a signal. The "channelized" techniques were borrowed from the commercial user along with their gear. The result was/is a mode of operation quite different from the past amateur custom.

From one thing, FM frequency designations are usually abbreviated in conversation-hence 146.62 MHz becomes "five-two". A repeater uses a pair of frequencies-one input, one output. Repeater pairs are always specified with the input frequency given first. Thus a repeater receiving on 146.01 MHz and transmitting on 146.61 is referred to as .01/.61 repeater.

Some of the old familiar operating practices were discarded. These will be covered in later columns. New words or phrases are heard daily by those who use the FM bands.

**AUTOPATCH:** Electronic device for interfacing the repeater with the phone lines.

**CHANNEL:** Operating frequency of the repeater, or frequency used by two stations communicating on a simplex.

**SIMPLEX:** Alternating transmissions between two stations using the same frequency.

**DUPLEX:** Simultaneous transmissions between two stations using two frequencies.

**DUPLEXER:** Passive device used to permit the repeater receiver and transmitter to operate at the same time and while using a single antenna and feed line. Usually consists of several high-Q cavities.

**FULL QUIETING:** A receiver condition during which the received signal is strong enough to fully silence the internal noise of the receiver.

**INTERMOD:** Intermodulation distortion (IMD) in receiver front end or transmitter PA stage caused by nonlinear operating conditions. This causes spurious signals to be heard or transmitted.

**CONTROL STATION:** Member of the repeater group who is authorized by FCC to control repeater remotely by wire line or radio.

**PICKET FENCING:** Flutter on a mobile signal as the transmitter path is blocked or reflected momentarily by trees, utility poles, or other obstructions.

**OPEN REPEATER:** Repeater available for use by any licensed amateur club member or not.

**PL:** Private Line - a motorola trade name. Specific tone that must be transmitted to activate the repeater. Receiver at the repeater site has a sensing circuit that responds to only that tone.

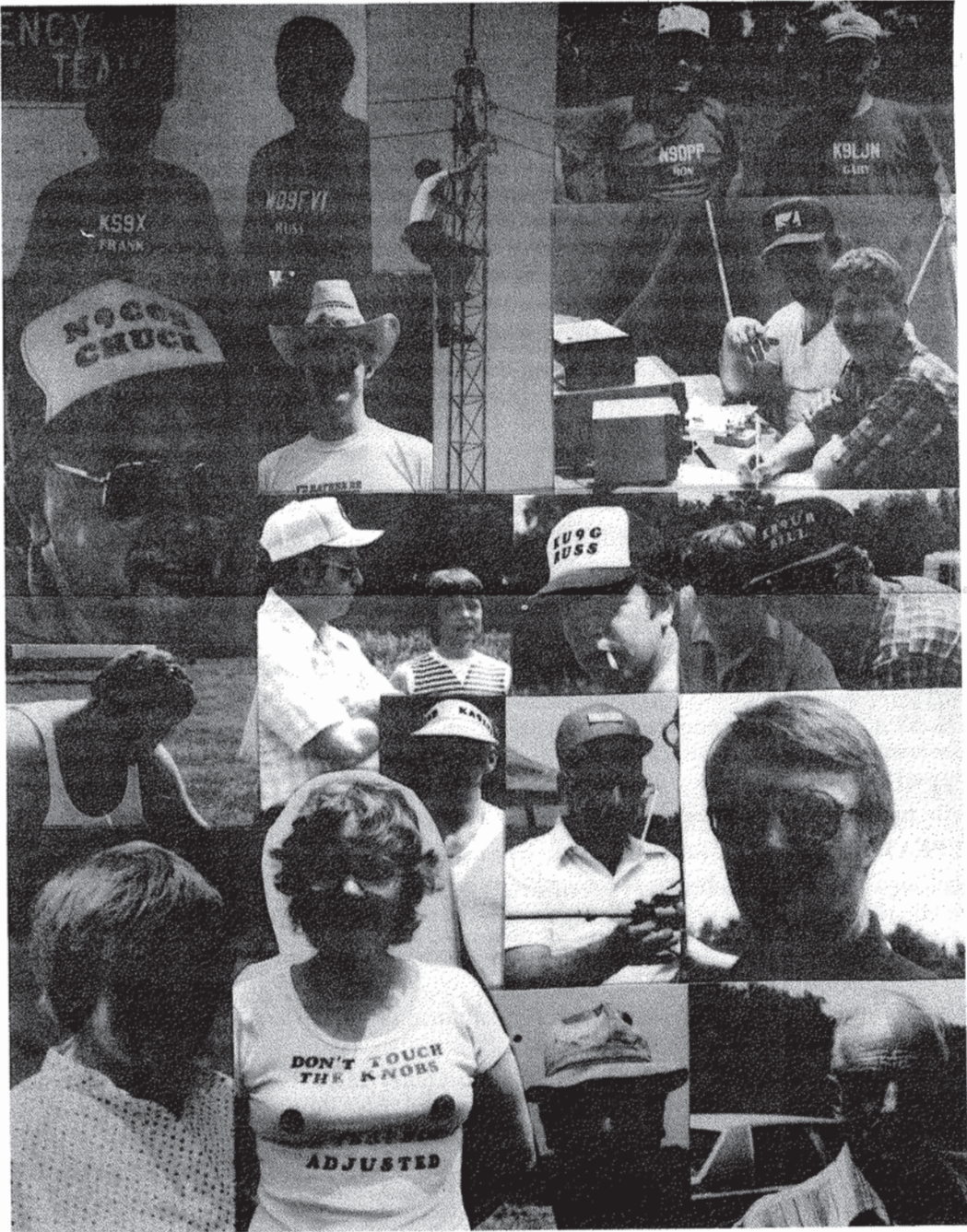
**SQUELCH TAIL:** Noise bursts transmitted by repeater between transmissions (*normally less than one second in duration*).

**TIMER:** Electronic or mechanical device which limits transmissions to 3 minutes or less. It resets only when the signal disappears from input frequency.

These are only a few of the common terms heard almost daily on the FM and repeater bands around the area. In the future other less common terms will be listed. Also, hopefully FCC repeater rules and regulations and operating procedures.

*Information: From ARRL FM AND REPEATER BOOK*

# FIELD DAY





**FIELD DAY SUNDAY A.M.**





R.A.R.A. PIG ROAST — 1983







PHOTO & LAYOUT - CAROL, K19G, 73

# Tech-Topics

It unfortunately looks like summer has come and is almost gone (*school starts a week from this writing*), even though it is still hot enough to sag and long wire in the area. So, it's back to the routine, and pick things up where we left off before the summer. That brings to mind a letter received as a result of an earlier Tech-Topics - one that shows there are people out there reading this *Rag*, and farther away than I thought. A point was made that is deserving of consideration.

The major question raised was about the safety of grounding a tower within the bottom of its concrete base. This is what I mentioned could be done at the bottom of the base section, and what's done at my local sky needle. The potential danger noted is that in a direct lightning strike, enough heating may occur through various means (*vaporize moisture, connections, conductors, etc.*) to fracture (*worse case-explode*) the concrete base. Hence, bye-bye tower?

In my case, my reasoning dealt with the rather wet normal soil conditions around our subdivision. This means the lower legs down in the gravel underneath the concrete will be grounded, and would be competing with a conventional ground system. I further rationalized that providing a solid ground for the tower legs there would avoid the possibility of the current going through the concrete itself, which would spell certain disaster. Finally, the more direct connections at the bottom of the hole were kept in the gravel for safety, since the interconnects are the most critical points. However, I have to admit that in dry soil, the conventional ground system attaching above the concrete base is a better trade-off from a safety standpoint. Also, I should install a conventional system on my tower, and consider what I have as a back-up, further avoiding any chance of current through that concrete.

**Now what makes a good conventional ground system?** *Consider the following (and wish for luck):*

1. At least two ground rods, 8 feet long minimum.
2. All ground rods are copper coated steel, or galvanized steel pipe, ½ inch dia. min.
3. Interconnects to the tower legs are copper stranded or braided cable, #8 AWG minimum, no longer than 12 inches, and with no sharp bends. Hardware may be electrical grounding clamps available at electrical supply stores.



# Secretary's Log

RARA general meetings were suspended over the summer, but Rockford hams were busy anyway. The June meeting was about Field Day which was June 25th and 26th at Roland Olson Forest Preserve. Only one word is needed to describe Field Day, **H O T ! ! !** Everyone had their own way of finding comfort from the heat. The 40 meter team, which was headed by Gene, AK9N, and Russ, KU9G, pitched a tent in the woods. They looked pretty classy in their red Tshirts too. The 80 meter team, Brad, KA9LTR, and Gene, K9ILP, also found a nice wooded area where they could operate. The 20 meter team headed by Dale, KT9P, used a nice trailer provided by another helpful ham. They even had a fan!!! The 10 and 15 meters team, which was headed by Chuck, N9CCH, used a great motor home. The 2 and 6 meters team, Moe, N9CCE, and Kay, N9DRL, used a screen tent with lots of bug repellent, and the novice team used a regular tent with a picnic table for operating. Everyone took advantage of the barbecues which were catered in and drank lots of pop. Thanks to Russ, WD9FVI, and Frank, KS9X, for organizing the Field Day, and thanks to all who aren't mentioned but helped a lot.

August 14th was our annual pig roast at Hononegah Forest Preserve. Dale, KB9WD, and JoAnn, KA9DNQ, did their usual superb job roasting the pig. Chief pig cutters were Marvin[ KC9WF, and Dale, KB9WD. Good job, guys! If anyone went away hungry, it had to be their own fault. There was plenty to eat with a wide variety of food. Several people enjoyed playing volleyball while others just sat and visited. All in all, it was an enjoyable way to spend a lazy, August Sunday afternoon. Join us next year if you didn't this time.

See you at the September meeting.

**Kay, N9DRL**

## W9TAG/SK

Donald F. "Chris" Christopherson died June 14, 1983 in Veterans hospital, Madison, Wisconsin after a long illness. Chris was born December 26, 1917 in Milwaukee. He lived 28 years in Rockford, coming from Beloit. He married Myrt y Germain in Loves Park, May 28, 1955. He was employed as an electrical technician by Barber-Coleman, Park Plant for 27 years. He was a Marine serving with the 2nd division in the South Pacific during WW II. Chris received his call letters W9TAG in 1933. He will be missed by his fellow hams.

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

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# CQ DX

Welcome back, gang, to the fall of 1983 DXing. I hope everyone got their antennas repaired or up.

Supper was fair propagation; I have seen better and also worse. Lots of disturbances affected 20 and 15, At this time 15 is fairly good, 20 is excellent. This winter it looks like 15-20-40-80 meters. Ten may be open??? but it will probably be down quite a compared to last winter. Always check all bands when tuning, because 10 and 15 can open and close fast. However, they are excellent bands when open.

Remember, courtesy, only call when the DX station tell you to. Listening to XU1SS in a pileup on his frequency recently, I heard him call one of our locals, but was QRMed by several stations calling on top of him. Placing your call and listening carefully will reward you many DX contacts. This takes experience, Unfortunately many DX'ers call & call many times on top of the DX station. A good operator can place his call once or twice and make it. Al, K6YRA (*ex W9YRA*) is an excellent operator. When tuning the bands, listen for him in the pileups and you will understand what I am saying. XU1SS went QRT after that mess and many other DX stations do the same thing when people call out of turn.

**QSL Information** - again LISTEN to the DX station. Most DX stations give their QSL information, but within 1 or 2 minutes later some one always asks again for a repeat. This takes time when several hundred stations are waiting to make the contact. K9LKA, Larry, suggests when you work a rare one, copy down the calls he works in order before, and the call he worked after you work him. That way if there is a question you can give him information if he can't find you in the log.

XU1SS, XU1PV, XU1KC Kampuchen (*Cambodia*) was on in August. As far as we can tell it is a similar operation as XZ5A, XZ9A Burma. The ARRL probably will not count it; these operations do not have approval from the ruling government of those countries. But the motto is work it and worry later!

701AB (*Peoples Republic of Yeman*) operated by J28AZ may be on in early September. This is a very **RARE COUNTRY**. BY-CHINA is still on CW. AK9N and KI9G have a DX contest going. Ask them how they are doing. I hear Carol likes Italian dinners, is that right Gene?

September 17 is the annual W9DXCC convention. It will be held at the Holiday Inn in Itaska, Illinois. Programs start at 12:30 P.M., with registration begining at 11:30 A.M. Cost will be \$19.00 for the early bird postmarked before September 10th and thereafter \$22.00. Send registration to: **Howie Huntington, K9KM, 65 South Burr Oak Drive, Lake Zurich, Illinois 60047**. Make Check payable to: W9DXCC. A lot of DX'ers attend this one. I always enjoy them, they are very educational and fun. More information can be obtained by calling me, or KS9B.

Dale, KT9P, worked CN8MC, Spanish Morrocco. The operator is Ray, N8BSD, from Rockford and is looking for RARA stations - 1700z around 21.260.

**73 and good DXing  
Gene, K9IKP**



# Potpourri

All summer I've been trying to collect some real "Dirt" to write about, but I guess I haven't been at the right place at the right time. So, I'll just mention a few nice things that happened since the last issue.

We participated in an emergency drill with are police and fire departments at Roscoe. The exercise was a mock explosion and fire at the school there and gave everyone an idea what to expect and what to do in an emergency like that.

We had a very successful Field Day the last week in June at the Roland-Olson Forest Preserve east of Roscoe. Several hams got into the act and managed to get through the week end without a heat stroke.

We took part in handling communications during the county sheriff's clean-up program of the Rock River in July. Over 150 tons of debris, mostly logs and dead trees, was removed and hauled by trucks furnished by surrounding municipalities and county truck.

KB9UR recruited several hams to handle communications at various places along the route taken by the racers on the day of the Tri-Athlon. It's not only enjoyable to take part in such activities but a service to those taking part.

Our annual Pig Roast and Picnic was enjoyed by all who attended. I want to thank the following who spent time and sweat in making it a success.

**W9MOS** who picked up the ice and tanks for the cold drinks.

**N9CCE** for picking up the soft drinks.

**AK9N** who got the beer.

**WB9SFT** who made the signs so no one could get lost.

**KA9NDQ** and **KB9WD** (they even wore their *Piggy* hats), who procured the pig and brought it to the site.

**NOW HEAR THIS!!!** WB9SFT, Sheri, has been appointed as the affiliated club coordinator for the ARRL Illinois section. She will work with special service groups and report her opinion on their capabilities and recognition. She remains the assistant director for the ninth district... **CONGRATS SHERI.**

K9LJN, Gary, has a knee injury; W9SS, Dennis, has a broken foot after falling from his garage roof; KA9IMZ was cutting down a tree and it fell on him cracking some vertabrae and breaking an ankle; K9UWO, Frank, is in the ICU at Rockford Memorial Hospital and W9WOQ, is improving after being critically injured in a fall from his garage roof August 17th. Let's hope all of these fellows make a speedy recovery.

**FLASH!!!**— Chuck, N9CCH, got his tower up and his mini-quad in operation. The job was done by friends who apparently knew their left foot from their right. Chuck publicly thanks AK9N. KA9BOD, KT9P, KS9X, K9LJN, and K9IKP. **IT WORKS!!!**

Hope I have mentioned the most important stuff.

**cheers 73, N9CCH**

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