

# Ham Rag

Rockford Amateur Radio Association

May, 1982

ND9XXK



*"It happens every spring!"*

# President's Log

## HAMETOS,

Well another month has flown by. As I get older the months seem to cast only a couple of weeks or so. Anyway, I wish to thank Gene-KA9BOD, for the program cast month. Although I didn't grasp everything that was shown, it was interesting how chips are designed, inspected and manufactured. Many pieces of present day amateur gear contain these devices, as does other instruments we use at home, work or play, we take them for granted. Also, we found out why it is so frustrating to trouble shoot when a problem does occur. I would also like to thank the *Texas Instrument Corporation* for the video tape and *Honeywell* for the movies. Last but not least, to thank *Rock Valley College* for the use of the video and movie equipment.

Anyone ready for a DXpedition to the Falkland Islands? Required equipment now includes a helmet, foxhole shovel and sidearm. Hopefully that situation will end soon and it will be back on the air.

After last month's "LOG" in the *RAG* by this author, all of my future words of wisdom will be screened for contest and word association. I believe, after seeing last month's program, a voltage spike in a computer chip at the printer, caused a malformation of my thoughts and words. We surely don't want the *RAG* to be mailed in a plain brown wrapper-HI.

With the on set of a few warm days, I hear that Larry-K9LUX, has raised (*extended or stretch-ed*) his 45G tower to over 100: seems he is in some competition with GeneK9IKP, for the *BIG DX SIGNAL* for Northern Illinois. Larry also made horizontal, Gertrude's-KB9PC, antenna. That guy sure likes to climb. If he likes bananas, he's in big trouble. No offence Larry, but I get shakey just standing up.

All kidding aside, Larry has much experience in climbing and tower construction. I've asked Larry and GeneK9IKP who has a 120 foot tower and who also hides a tale, to give us a Do's & Don'ts Program in May. Both these guys run up and down towers, like most people walk on flat ground. Hopefully they can give us all some pointers on tower construction and installing antennas. Although, most of us have some experience along these lines, it doesn't hurt to

pick up a few more ideas. With some good questions and comments from the floor, this could be a good learning experience for us all.

My only other comment is that I expect all antenna crews are in or about to get into high gear. With the vast amount of expertise known to exist among these dedicated people, I hope all erections go well. . . . .

Sometime in May, the *Fox Hunters* will be taking off again from Highcrest Shopping Center. May 16th at 2 p.m. is the target date. For you old hunters, dust off the loops, beams and dopple scans. For those of you who have never been on one, come along, you'll see parts of Rockford, Loves Park, and Winnebago County you never thought existed. A good time is had by everyone.

**FIELD DAY** is just under two months away. As usual it will be the last weekend in June. I believe Russ-WD9FVI and DonN9AWZ will have another meeting this month. They will need your help.

Since I can't think of anything else I'll say so long 'till next month.

May Meeting is the 14th. See you there! ■

EL PRESIDENTE



# CQ DX

## Hi Gang!!!

Summer is approaching, the bands are changing, so vary your operating habits. There will be openings, but not as long as the winter time conditions. When the bands are down work on your antennas, QSLing and station or look at the bikinis down the street. Ten will probably be dropping out quite a bit, but still we will have good openings occasionally. The South Pole will be best. Remember it is winter time for them.

### LOTS OF NEWS

**BY1PK** - China (rare) is active on 21.050 and 14.050 CW. Rig is KW - TH6DXX. *Sorry NO SSB yet.*

**ZA** - Albania (rare) EA8AK plus several ea ops have operating permission sometime in May. A test station was on for 1 hour a few weeks ago. Government officials have given the hams the go ahead.

**9N1MM** - Nepal is on 14.260 at 0300.

**VR6TC** - Tom Christian of Pitcairn Island is on 28.590 from 1700.

**5A1AD** - Libya is active on 10 meters, but has not submitted documentation to the league.

**2D9BV** is on 14MHz and 10 meters SSB.

**A22GM** - Botswana - 21.280 from 2230 UTC.

**Burma-DF8MP/XZ2** is active but government officials say no operating from XZ.

**KF10/CE0X** officially no good per ARRL. Did not have authorization.

**FB8WG-Crozet** (rare) is on 10 meters.

**YB** - Indonesia is on daily at 1230 UTC on 14.210-14.215.

**VP8AOB-S.** Orkney Island at 1900UTC on 21.300.

**4W** - Yemen G3DYY is active there, will be for about another month.

**K9LUX/Larry** raised his tower to 107 feet. It has really helped his signal.

**VK0** - Heard Island - January operation by some ZL's. Looks very good.

**SM0AQD/Eric** has been to many places and helped many DXers with a new country. He retired, but got restless again. So he is going to:

ZK1 - N. Cook Island ..... May

ZM7 - Tokelaus ..... June

T31 - Central Kirbatic ..... July?

T30 - ..... July?

T2 - ..... July?

FW8 - Wallis & Futuna Is. .... July?

and many other places around the world on a 2 year tour. QSL via SM3CXS. Eric is a top notch SSB and CW operator.

**K9LJN** worked the following with an 820 barefoot and a dipole: **TR8IG** - Gabon; **ZM7VU** - Tokelaus; **DJ6SI/3X** - Guinea; **TS1SA** - El Salvador; **FY7BW** - Fr. Guiana; **5Z4CS** - Kenya; **UA0FCL** - Asiatic Russia; **HT1JCC** - Columbia; **FP0FSV** - St. Pierre; **C53EK** - Gambia; **J88AG**; **ZD7BW** - St. Helena; **VK9NL**; **HK0BKX** - San Andres; **VK9NM/LH** - Lord Howe Is.; **ZK2BA** - Niue; **CN8CO** - Spanish Morocco; **5W1DC-W.** Samoa; **3B8CF** - Mauritius; and **ZK1CQ** - Cook Island.

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

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**GENE AK9N**



**CAROL KI9G**



**RUSS WD9FVI**

**NOVICE CLASS • SPRING 1982**

**BRUCE DAVIS**  
Motorcycles



**BERT JOHNSON**  
Wood Working / Fishing



**TONY MISUNAS**  
Golf / Bowling

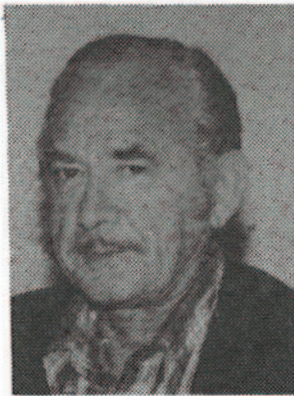


**DON CAMPBELL**  
Bicycling / Grandchildren (4)





**DAVID MOHR**  
Model Rocketry /  
Photography



**LEE WOLFF**  
Old Records-78's /  
Photography



**DAVID BOND**  
Photography

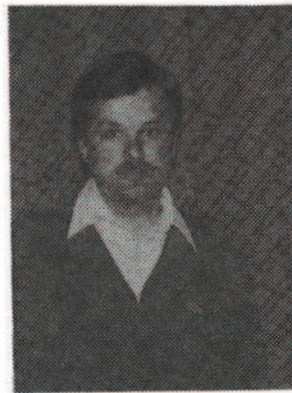
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Sports / BMX Bikes



**GLORIA SILVIUS**  
French Language /  
Church Activities



**DAVID MCCHRISTIE**



**DAVE WATSON**



*Due to darkroom disaster, no picture available of a spring Novice, Chuck Cushing. His other hobby is Photography. Sorry Chuck. . . .*

**Photos & Layout - Carol K19G**

# Novice Corner

Of the many pieces of test equipment available, I feel the most useful is the oscilloscope. With it you can measure AC voltage, frequency, DC voltage, and see if distortion is present on a signal. Looking at an oscilloscope for the first time can be confusing as there are many controls. An overview of the most important ones follows.

- **Volts per division:** The screen is divided into squares. The volts per division refers to the horizontal lines. The switch will have many settings such as: .05V, .1V, .2V, etc. on the low end to 5V, 10V, 20V on the high end. This means, for instance, that if you were set at the 1 volt position that the oscilloscope would show a difference of potential of 1 volt between each horizontal line. If a signal showed that it was 4 divisions wide it would be a 4 volt signal that you were looking at. If you were on the .5V scale and had a 4 division high signal, it would be a 2 volt signal ( $4 \times .5V$ ). When looking at an AC signal such as in the figure, you must remember that the signal is 20V Peak to Peak. If you read this voltage on a voltmeter, it would register as 7.07VAC. To convert the 20V P-P signal to RMS, you must divide by 2 (to get peak) then multiply by .707.

- **Time Per Division:** The vertical lines represent time per division as you read from left to right. Typical time per division readings might be: .5u sec., 1u sec., 2u sec., etc. on the higher frequency end to .2 sec., .5 sec., and 1 sec. on the low end of the scale. If the time/division knob was set on 1M/sec (millisecond) and a signal was 6 divisions from left to right, the signal would be 6 milliseconds long in duration.

However, we don't normally refer to a signal in ham radio as being expressed in seconds, milliseconds, or microseconds (*u sec.*). Instead we refer to what frequency they are. To convert frequency we take the reciprocal of time ( $I/T$ ) or to find time we find the reciprocal of frequency ( $I/F$ ). Therefore our 6M sec. signal is  $1/.006$  or 166Hz. In the figure our one cycle is 80u sec. long, so to find the frequency, we take the reciprocal ( $1/.000080$ ) and find that the frequency is 12.500Hz. If we were looking at the output of a transmitter operating at 3.7MHz we would see that each cycle would be .27u sec long ( $1/3,700,000$ ).

- **Trigger Level:** When first connecting the scope probe to your test point, chances are the signal will be "running" or not stationary. By rotating the trigger level you should be able to make it stand still. Some scopes have more than one knob to help make the image stationary when it may be irregular in shape. Some of these can be hard to make settle down.

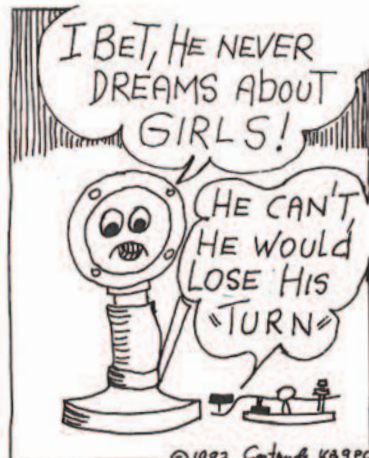
- **Vertical Position:** Allows you to position the display vertically on the screen.

- **Horizontal Position:** Allows you to position the display left and right on the screen.

There are usually several other controls such as focus, intensity, astigmatism, and chopped. The best way to learn how to use one is, of course, to have one sitting in front of you to experiment with, connecting different signals to see how it reacts. I have only given a very short description, if you are interested in learning more, there are several good books available at the **Rockford Public Library** that explain in much more detail how to use and give specific example on using to find problems. ■

Happy Troubleshooting  
WB9MMM

MIKE + MC KEY



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# In My Opinion

## AESTHETIC CONSIDERATIONS REGARDING AMATEUR RADIO TOWERS AND ANTENNAS

Amateur radio operators are licensed by the Federal Communications Commission to operate radio stations in order to provide emergency communications in times of disasters, promote international goodwill, and to allow the ordinary person to experiment with improving on modes of communication.

In order to operate a radio station, antennas are required. They can be anything from a wire to a more complicated structure requiring a tower for support. The physical size of the antenna, and the type, and its height above the ground are determined by the frequency that the amateur is using. The more complicated antennas requiring a tower for mounting necessitate that the tower be strong enough to support to antenna safely.

When considering aesthetics, it must be remembered we live in a world where people have many different interests, hobbies and occupations. Each has a different opinion as to which is aesthetically pleasing. Driving through our residential streets one can see many items which could be classified as aesthetically unappealing - and can be seen and heard with great regularity.

Here are a few items which could be considered aesthetically displeasing to many:

- 1) **Basketball hoops:** not all houses have them. Some look very bad in appearance do to weathering. When used, noise is created that can be bothersome to the neighbors. An out-of-control ball can break plants.
- 2) **Woodworking:** Usually pursued in garages and can cause noise pollution for neighbors.
- 3) **Campers, trailers, boats, motorhomes:** These are often parked in driveways for long periods of time. Their length can cause them to extend over sidewalks. Some are parked on lawns and the owners do not move them, so the lawns are overgrown.
- 4) **Auto Work in Driveways:** Some people repair vehicles in their driveways. Often the vehicle will be in place for weeks. The driveway becomes built up oil and in general looks very "messy" and unappealing.
- 5) **Swimming Pools:** Although not seen from the front of the house, the noise created by persons using the pool (as well as parties around the pool) can cause noise pollution for the neighbors.

6) **House Colors:** There are houses in the city that are "aesthetically shocking" in color.

7) **Utility Poles:** These structures are certainly not eye appealing, but are a necessity. Most people give little thought to them and tend to allow themselves to look at more appealing and interesting items.

8) **Pets:** Dogs and cats can be a neighborhood nightmare when not properly supervised by their owners. Loose dogs can leave unaesthetic reminders in yards around the neighborhood. They also are able to chase people.

The list could go on almost endlessly considering the many items that one might see every day. Depending on the "eyes of the beholder" any of the items I've mentioned could be aesthetically unappealing.

In the defense of Amateur Radio towers and antenna installations consider the following:

A) Unlike houses that must be kept painted, a tower and antenna will maintain its shiny new appearance because of the material that these structures are made from.

B) A person will never find themselves stepping into a pile of tower and antenna on their front lawn, although they may find themselves doing a fast side step to avoid the unaesthetic reminder left by the neighbors dog.

C) Towers and antennas are normally installed in backyards so they do not create eye level visual problems that some people might consider unaesthetic as do cars parked across lawns or RV type items parked in driveways.

D) The higher above ground level that an antenna is at, the smaller the antenna system will look.

All one needs to remember is that "beauty is in the eye of the beholder". ■

-73, WB9SFT

Shari

# K9ENS/SK

*Harold R. Hambridge, K9ENS, died Monday March 29, 1982 in the emergency room at SwedishAmerican Hospital of a heart attack.*

*Harold was born May 16, 1906 in Belvidere. He moved to Rockford 41 years ago. He married Elvy Magnuson in Rockford, February 14, 1942.*

*Harold owned and operated the City Service gas station at 6th and Broadway for many years retiring in 1965. After his retirement he worked at Ipsen Industries for eight years. He was a member of Zion Lutheran Church, and a ham for 25 years.*

*Services were held March 31 and burial was in Arlington Memorial Park.*

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## **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.**