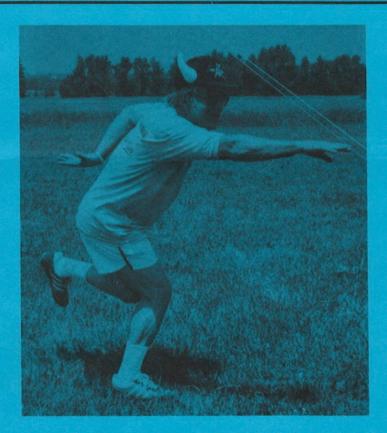
Ham Rag

Rockford Amateur Radio Association September, 1984



R.A.R.A.'s Olympic Hopeful
"MERCURY HIRSCH"
On His Way To Make Points For Field Day

President's Log:

Now that it's time to get going again club wise, I don't know if I'll need retraining or just some time to get back into the groove of things. We normally do not schedule anything in the month of July. Last year, we did have a few activities come up, but this July was quiet for the club. That's how it should be, so that we call all just take a little break -- relax and enjoy the summer a bit. Well, that's just exactly what I did -- took a month off and now it's time to get going again. However, we should say thanks to the New Operators at this time -- as they keep us all in touch year-round.

Backing up to April for a moment, I would like to thank Larry KS9B, and Gene K9IKP, for bringing us a program on DX. I like hearing from outside people as mush as the next person and I might add we do get some very good speakers here. But, I can't help thinking we must have a real wealth of information among ourselves. So, if you have any special interests or projects to share with the club -- let us know.

We were again pleased to have at our May meeting Ken Farver, KB9I, who brought us another edition on testing and results of testing H.F. receivers. Ken brought equipment and there were radios on hand for actual testing and demonstrating of procedures. Thanks Ken.

We all know what took place in June, of course. Field Day. Is it just me, or are they getting better every year? Anyway, we have Gene K9IKP and Gary K9LJN to thank for their many hours of preparations and over-seeing the event. I still aven't figured out how you get a T-shirt... Well, it was a great day and the weather was fine. Thanks to all who came out and helped make the entire day a success. Thanks again goes to the Sheriffs Department for the use of the trailer and generator.

Speaking of good things. . . As I said at the picnic, I'm not sure if it's the close of summer or the beginning of the Fall's activities, for us. But, the August Pig Roast brought us together for one of the finest gatherings we have in this club. Talk about good things to eat --- WHAT A FEAST!

Finally, I want to take some time to make a special invitation to all for the September meeting. I'm quite sure that young and old timers both will find this one fascinating. Our guest will be W9MG, A. G. "Gerry" Sayre, Milton, Wisconsin, Uncle of Dive Bond, KZ9V.

73,WA9NTT

ATTENTION ATTENTION ATTENTION

SEPTEMBER 14 ● 7:00 P.M. ● ROCK VALLEY COLLEGE ● BUILDING 1 ● CLASSROOM 222

Come be a part of the 1938 DXpedition to Northern Greenland and Ellsmere Island. This was a sailing exploration consisting of 10 men on a 105 Foot, 3-Masted Ship.

Winter in the Ice. "Sparks" Sayre will tell and show us what it was like to be Operator from 1937-1939 on this trip. He built his own transmitter for the ship and made Lantern slides. Anyone remember those???

COME SEE!

GERRY'S FIRST CALL GOES BACK TO 1919!

R.A.R.A. FIELD DAY

We would like to thank everyone that participated in Field Day this year. A special thanks to Nancy and Dale-N9BZT and KT9P and to JoAnn and Dale-KA9DNQ and KB9WD for the wonderful breakfast. We had about 5200 points. Here is the point breakdown per

band. 160 80 40 20 6 &2 Novice 24 CW 41 0-CW 714 CW 388 CW 142 CW 66 126 SSB 205 SSB 183 SSB 234 SSB 50 SSB

ANY VOLUNTEERS FOR NEXT YEARS FIELD DAY CHAIRMAN???

Thank you all

Gene and Gary K9IKP K9LJN

Effective 0001 UTC, September 1, U.S. Amateur Radio operators may operate phone (A3 and F3 emissions, as well as slow-scan television and FAX A4, A5, F4, and F5 emissions) on the following frequencies:

- *3750-3775- Amateur Extra
- *3775-3850-Advanced and up
- *3850-4000-General and up
- *21200-21225-Amateur Extra
- *21225-21300- Advanced and up
- *21300-21450-General and up
- *28300-29700-General and up

With regard to the 40 meter band, FCC concurs with ARRL that phone expansion here would be detrimental to CW operations; however, the comission will allow phone operation on 7075-7100 Khz in Hawaii and other areas near region 3 including Alaska. The commission agreed with most commenters that because of Hawaii's proximity to Region 3 where phone operation is permitted, hams in this area would get releif from interference from Regions 1 and 3. It was noted that expanded 40-meter phone operation should include Alaska because of its proximity to Asia.

ARRL Letter, August 2, 1984

WB9HHH/SK

Ralph Shaff, WB9HHH became a silent key on June 19, 1984 in Rockford Memorial Hospital after a long illness. Ralph had kived in Rockford since 1951 coming from Arlington Heights. He had been employed as an Underwriter for Firemans Fund Insurance Co.

employed as an Underwriter for Firemans Fund Insurance Co.
Ralph was a past member of the board of directors for RARA and a control operator for the 146.61 repeater. Memorial services were held June 22,1984

The October meeting will be the annual election of officers. Be sure and attend and make your vote count. Do you know o f any one who would make a good officer? How about YOU??? Be there.

Tech Topics:

The summer is coming to an end, and in review, I find that my construction projects didn't have much to do with amateur radio. I haven't hung and wore, added any control boxes, or accomplished any of the classical summer activities. However, this doesn't mean that I haven't had an opportunity to work on some of the ham gear around here. It seems that during one of the heavy thunderstorms this summer, something attracted some lightening. I say something, because the major damage occured at the end of the house opposite the ham tower, and I have not been able to exactly determine where all the snapping and crackling went on. Some lessons may be learned from this, and I expect some work is in store for me.

First, the only structural damage to the house was to ehe roof right next to the guy anchor attached there. This was too close to an oven hood exhaust also on the roof, and a neat hole was burned through the shingles as the charge jumped to the flashing under the shingles to get to ground. By the way, I never found some of the roofing nails. This is not the expected path of a lightening discharge (as if there was one), since the tower is grounded, and there are insulators in the guy wires. It seems this charge must have been induced voltage due to whatever other major discharges occurred. Lesson - that gu anchor needs to be grounded, even though it obviously can not be a primary discharge path. I could have easily had a fire in the "inaccessable" attic that wouldn't have been discovered until too late.

Second, although no mojor ham equipment was damaged (the antennas were disconnected), most of the remaining damage came in through the power lines. Both the ham antenna rotator and the TV rotator had blown fuses and minor damaged components. The stereo had a blown fuse, two light bulbs died, and four circuit breakers had tripped. In addition, a light dimmer and the speed control for the oven exhaust fan (remember that from earlier?) lost their brains. Ehere does this point me? Protection of some sort on the power lines my nat be a bad idea. You can get surge arrestors to install both at the main circuit breaker box and for individual feed lines. On selected lines this may be appropriate, particularly for equipment that inconvenient or next to impossible to repair, or that you can't live without for a period of time. Lesson - the power line needs as much attention to lightening as our antenna systems.

The main thing pointed out is that there are items beyond the obvious antenna, tower, and feedline concerns that we really should pay some attention. Although this is the only identified thime in ten years of having a tower up out here that I've had lightening damage, some of the potential damage seems to be highly undesireable. For that at least a minimal investment of time and capital is appropriate. The fact that those efforts may end up offering some protection for the VCR, TV, home computer as well as the ham equipment makes looking into this more worthwhile. As I overcome procrastination and research some of the options for these things, I'll pitch the information your way.

Steve, KB9IW

HAM CLASSES:

Beginning on September 20, 1984 at 6 P.M. and continuing for 12 weeks, the *Rockford Amateur Radio Association* will be holding a Novice Class and A General Class at the Harlem Community Center on Roosevelt Road. The classes are three hours each Thursday night and the cost is \$15.00.

The books needed for each class are:

NOVICE

Amateur Radio Novice Class Theory Course (Ameco)	\$ 5.00
License Manual (American Radio Relay League)	4.00
Morse code tape and practice oscillator with key	.10.00

GENERAL

Amateur Radio Theory and Practice (Schrader)	\$20.00
License Manual (ARRL)	

The three books will be available at Canterbury Books in Edgebrook Center, while the tape and practice oscillator for Morse Code can be purchased at the first class.

To learn more about Amateur Radio (at NO expense but time), visit us at our first meeting on Septembe 20th. See some of the equipment, perhaps a film, find out what is involved in earning your own license and getting 'on the air' and talk to some of the Rockford area hams.

For more information:

CAROL HOLMS, KI9G 633-3249 after 3 P.M. GENE MELTON, AK9N 654-0675 after 5 P.M.

Amateur Radio Upgrade tests are being held every third (3rd) Saturday of the month at the North Suburban Library, 6340 North Second Street, (Rt. 251), Loves Park, Illinois 61111.

Tech/General tests are available now, with Advanced expected in August or September.

To request additional information/appointment for a test please send a S.A.S.E. to: ARS KI9G/CBA, Carol C. Holmes, 3010 Lotus Lane, Rockford, Illinois 61111.

Please announce the above on the various nets in your area to let everyone know who is interested in upgrading they no longer have to wait for an FCC appointment in Chicago.

VEC DeVry Institute of Technology, Chicago, Illinois.

VE Northern Illinois Volunteer Examiners.

Thank you and hole to see hams from your area soon.

73, Carol, KI9G - for the N.I.V.E.

FIELD DAY





W1AW SCHEDULE

APRIL 29 - OCTOBER 28, 1984

Normal visiting hours are Mon.-Fri. from 8:30 A.M. to 1 A.M. EDT and on Sat. and Sun. from 3:30 P.M. to 1 A.M. EDT. The station address is 225 Main St., NewIngton, CT 08111 (about 7 miles south of Hartford). Note: ARRL office/visiting hours are 8-5, Mon.-Fri. Maps with local street detail are available upon request. If you desire to operate W1AW, you must have your operator's license with you. W1AW is available for operation by visitors Mon.-Fri., between 1 and 4 P.M., local time. The station will be closed May 28, July 4, and September 3. Staff: Chief operator/Asst. Communications Mgr. C. R.

IN A COMMUNICATIONS EMERGENCY monitor WIAW for bulletins as follows: Phone, on the hour. RTTY, 15 minutes past the hour. CW, on the half hour.

Code practice and bulletin transmissions are sent on the following schedule: MTWThFSSn = Days of Week Dy = Daily

UTC	Slow Code Practice Fast Code Practice Cw Bulletins Teleprinter Bulletins Voice Bulletins	MWF: 0200, 1300, 2300; TThSSn: 2000; Sn: 0200 MWF: 2000; TTh: 0200, 1300; TThSSn: 2300; S: 0200 Dy: 0000, 0300, 2100; MTWThF: 1400 Dy: 0100, 0400, 2200; MTWThF: 1500 Dy: 0130, 0430
EDT	Slow Code Practice Fast Code Practice Cw Bulletins Teleprinter Bulletins Voice Bulletins	MWF: 9 A.M., 7 P.M.; TThSSn: 4 P.M., 10 P.M. MWF: 4 P.M., 10 P.M.; TTh: 9 A.M.; TThSSn: 7 P.M Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M. Dy: 6 P.M., 9 P.M., 12 P.M.; MTWThF: 11 A.M. Dy: 9:30 P.M., 12:30 A.M.
CDT	Slow Code Practice Fast Code Practice Cw Bulletins Teleprinter Bulletins Voice Bulletins	MWF: 8 A.M., 6 P.M.; TThSSn: 3 P.M., 9 P.M. MWF: 3 P.M., 9 P.M.; TTh: 8 A.M.; TThSSn: 6 P.M. Dy: 4 P.M., 7 P.M., 10 P.M.; MTWThF: 9 A.M. Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M. Dy: 8:30 P.M., 11:30 P.M.
PDT	Slow Code Practice Fast Code Practice Cw Bulletins Teleprinter Bulletins Voice Bulletins	MWF: 6 A.M., 4 P.M.; TThSSn: 1 P.M., 7 P.M. MWF: 1 P.M., 7 P.M.; TTh: 6 A.M.; TThSSn: 4 P.M. Dy: 2 P.M., 5 P.M., 8 P.M.; MTWThF: 7 A.M. Dy: 3 P.M., 6 P.M., 9 P.M.; MTWThF: 8 A.M. Dy: 6:30 P.M., 9:30 P.M.

Code practice, Qualifying Run and CW bulletin frequencies: 1.818, 3.58, 7.08, 14.07, 21.08, 28.08, 50.08, 147.555 MHz.
Teleprinter bulletin frequencies: 3.625, 7.095, 14.095, 21.095, 28.095, 147.555 MHz.
Voice Bulletin frequencies: 1.89, 3.99, 7.29, 14.29, 21.39, 28.59, 50.19, 147.555 MHz.
On MWF, 1300 through 2100 UTC, transmissions are beamed to Europe on 14, 21 and 28 MHz; on W at 2230 UTC they are beamed south.
Slow Code practice is at 5, 7%, 10, 13 and 15 WPM.
Fast code practice is at 35, 30, 25, 20, 15, 13 and 10 WPM.
Code practice texts are from CS7 and the source of each practice is given at the beginning of each practice and at the beginning of elements of the practice of the segment of the se

W1AW Qualifying Runs 10-35 wpm

Qualifying runs are sent on the listed code practice, Qualifying Run and cw bulletin frequencies, and replace the code practice normally sent during the time period.

Universal Coordinated Time (UTC)		Local Time	Eastern Daylight Time	Central Daylight Time	Pacific Daylight Time
Apr. 29 May 12 May 23 June 10 (10-40 wpm) June 26 July 16 (35-10 wpm) July 25 Aug. 7 Aug. 25 Sept. 12 Sept. 21 Oct. 11 (10-40 wpm) Oct. 28	2300Z 0200Z 2000Z 0200Z 1300Z 0200Z 2300Z 0200Z 2000Z 1300Z 0200Z 2400Z 2400Z	Apr. 29 May 11 May 23 June 9 June 26 July 15 July 25 Aug. 6 Aug. 25 Sept. 11 Sept. 21 Oct. 10 Oct. 28	7 P.M. 10 P.M. 10 P.M. 10 P.M. 10 P.M. 7 P.M. 10 P.M. 4 P.M. 10 P.M. 9 A.M. 10 P.M. 9 A.M.	6 P.M. 9 P.M. 9 P.M. 9 P.M. 8 P.M. 6 P.M. 3 P.M. 9 P.M. 8 A.M. 9 P.M. 6 P.M. 6 P.M.	4 P.M. 7 P.M. 1 P.M. 7 P.M. 6 A.M. 7 P.M. 4 P.M. 1 P.M. 1 P.M. 7 P.M. 6 A.M. 7 P.M. 4 P.M. 7 P.M. 4 P.M. 7 P.M.

West Coast Qualifying Runs. Runs by W60WP (prime), W62RJ (alternate), will be transmitted simultaneously on approximately 359077990 kHz at 0400Z May 3, June 6, July 5, Aug. 1, Sept. 6 and Oct. 3. The Aug. 1 transmission will include 40 WPM. Please note that 0400Z represents 9 P.M. PST the "evening before." (See other side for Qualifying Run Procedure).

Micro/Digital Corner:

This month I'd like to introduce you to the "SINGLE CHIP MICROCOMPUTER". What is meant by "single chip"? Everyone knows that inside ALL computers (Vic, Apple, Atari, etc.) that you will find many integrated circuits chips, not just one.

A single chip microcomputer is a microprocessor chip that contains memory (ROM or EPROM, and RAM), input and output lines (I/O), clock divider circuits, in other words, just about everything needed to make a microcomputer (NOTE: A microprocessor is the I/C chip itself, a microcomputer is a working system). Let's take a look at one example, a Motorola 6801. In this microcomputer you will find:

- Enhanced 6800 instruction set
- 8x8 multiply instruction
- Serial Communication interface
- 16 bit, three function programmable timer
- Single chip or expandable to 64K byte address space
- 2048 bytes of ROM
- 128 bytes of RAM (64 bytes retainable on power down)
- 29 parallel I/O and 2 handshake control lines
- Internal clock generator with devide by four output
- TTL compatable inputs and outputs
- Single +5 volt power supply
- External and internal interrupts

Now, I'd say for a single chip that this contains quite a bit!!! You won't find this kind of microcomputer in your common home computer as they need more memory. Their best useage is in such things as small machines, games, or in a car where the program would not be any longer than 2K bytes long. Some other ideas might be:

- Dish washer
- Clothes washer or dryer
- C/W keyer with auto messages
- RTTY send/receive
- Computerized antenna direction control
- Automatic antenna tuner
- Home lawn watering control
- Heating/cooling control

The best applications would be the type where "if something happens then this should happen" as opposed to the type of application where a keyboard is involved entering data as there is only 128 bytes of RAM to handle the flow of changing data (however more RAM can be added).

In summary, I hope I've been able to introduce a type of microcomputer that some of you were not familliar with. Ther are many on the market such as the Motorola 6805 family and the Intel 8048 family with many revisions of each. If anyone is interested in learning more, contact Intel or Motorola for literature and or application notes.

Secretary's Log:

Our last meeting before the sumer recess was June, 1984 at Harlem Community Center. There were 29 present.

Gene, WB9MMM, asked what the status was on Father Moran. Kay, N9DRL reported that she had been in contact with the gentleman in charge of the trip. Father Voran will visit the club this fall. (Since then the date has been set as November 23, 1984).

Shari, WB9SFT told us that Steve, KB9IW had an article published in the June issue of "HAM RADIO". Congratulations, Steve !!!

Frank, 8s9X gave a report on a Ham Radio on the Road presentation to scout leaders at Gloria Dei Lutheran Church. Dave, KZ9U was his capable assistant. Aparently, the scout leaders are interested om a short course on what Amateur Radio is like.

Gene, K9IKP and Gary, K9LJN gave us a program on Field Day. All the details needed for a successful day were discussed.

Sunday, August 12, the annual RARA pig roast was help at the Towering Pines Shelter in Hononegah Forest Preserve. It was well attended. We did miss seeing some familiar faces though. Jo Ann, KA9DNQ and Dale KB9WD did their usual superb job with the pig and dressing. There were plenty of other goodies for people to eat too. No one should have gone away hungry. After letting the food settle a bit, some energetic people played a volletball game. If you missed the picnic, you missed a great time. We were also fortunate to have as guests a ham from Austrailia and one from Germany. Glad to see them!

I sure hope we see a lot of you at our meeting in September!

73, Kay, N9DRL

The Northern Illinois DX Association once again invites all amateurs with an interest in DX to attend the annual W9DXCC Convention on Saturday, September 15, 1984. The location will be the Holiday Inn in Glen Ellyn, Illinois. One registration covers the full day including the banquet. The registration is \$19.50 for those post marked by September 8 and \$22.50 after that date. Banquet registration for guests is \$15.00. Send reservations to: Howard Huntington, K9KM, 65 South Burr Oak Drive, Lake Zurich, Illinois, 60047. Make checks payable to "W9DXCC".

Radio Expo 84 will be held September 22nd and 23rd at the Lake County Fairgrounds, Rz. 45 & 120, Grayslake, Illinois. \$4.00 for both days. \$3.00 in advance. Radio Expo, Box 1532, Evanston, Illinois, 60604.

Potpourri

On July 1st, the Bakers, WB9OGD and N9CNB, invited a bunch of Hams to their QTH to help N9CCH and his XYL celebrate their 60th Wedding Anniversary. The actual date was June 27th which was also Chuck and Franks birthday. The food and weather was great for the occasion. Everything made the honored guests wish that anniversaries could happen more often. The beautiful and delicious cake made by Sheri, WB9SFT, with 60 wedding aniversary congratulations on it was beyond description. Those of you who could not be there sure missed out on a good time. Thanks to everyone.

Fred, W9PGO, keeps busy with some kind of project going. His latest is building a trap vertical for 10, 15 and 20 meters. Fred always does things right but we will be anxious to hear how well it worked and we hope the TVI problem he had previously was eliminated.

Did you miss the R.A.R.A. pig roast and picnis in August? If you did you lost out on a good outing and a feast fit for a king!

N9DRL and KC9WF were injured in a motorcycle accident August 17th. They were on their way to the Amanas when the accident happened. Hopefully both are on the mend.

A year ago, Marvin, KC9WF had frequent chats on the air with NIBTF, Fred TRECARTIN of Lynn, Mass. Fred and his wife Mary visited the Beckers during their vacation in July. Kay, N9DRL invited several Hams over to meet their guests and as usual a good time was had by all. Nobody ever leaves Beckers hungryl Marv and Kay expect to visit their friends in Lynn next year. We hope that Fred and Mary enjoyed their stay in our city and had a safe and pleasant trip back to their home state.

Some people just live right or are plain lucky. Shari, WB9SFT, was given four tickets to the Chicago Bears - St. Louis Cardinals night football game at soldiers field. Sheri and Gene, WB9MMM invited Dale, KB9WD and Jo Ann, KA9DNQ to go in with them. It was too bad that the Bears lost but they saw a good game. Who wouldn't enjoy an evening out like that. Heaven only knows what time they got back. I'll bet they stopped enroute home for Pizzal

Our good friend Lee Shelain, W9ZZL has been in the hospital and undergone surgery. Several have stopped in there to cheer him up or have sent cards wishing him a speedy recovery. Lee has lost a little weight but otherwise is looking good and expects to be going home soon. We all wish him the best and are anxious to see the day when he is back home and keying the Mic once again.

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Ham Mart

FOR SALE: IF INTERESTED, MAKE AN OFFER 1 Shure mike, 505C (mobile) works good 1 Jones Micro match and vswr #261.1-meter w/coupler unit 520hm-.5-225 mcs. 1 CDR 302 ham rotator w/control 1 master mobile control coil-low bands 1 24K ohm trimm head-set 1 B&K tube tester mod.600 (in case) 1 millen hi-voltage R/F switch #51001 1 B&K color generator #1245 (transistor) 1 master mobile ant. switch 1 VTVM meter instructograph morse code mchn w/tapes' 1 R.L.Drake low pass filter, 1000W, 52 ohm 1 Heathkit VTVM EUW-24 1 Heathkit sig. generator (R.F.) #1.A.102 1 Collins mobile power supply 516 E-1, connectors/manual 1 XFMR-Ham-M control rotator 1 Ringo Ranger 2-meter ant. Call: Jack Stuman, K9UWN 399-3890

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