HAM RAG

Visit our website for more club and area ham information
In the Rockford area at ***http://www.w9axd.org***

ROCKFORD AMATEUR RADIO ASSOCIATION

September 2013

RARA Mission Statement
A member association with common interest of public service to the community through the use of amateur radio.

An Unofficial History of Amateur Radio Call Signs Before WWII

Before 1912, call signs were just made up by the aspiring Amateur and it wasn't until the Radio Act of 1912 that the first licenses were issued. An HTML version of Early Radio Laws [4] is on-line. Very interesting reading as it defines DE, CQ, Operating Procedures, Morse Code of the day, and many Q Signals we still use. In 1911, Hiram Percy Maxim's assumed call was SNY.

In 1912, Irving Vermilya, 1ZE, [6] received Skill Certificate No. 1, thus considered as the first licensed Amateur Radio Operator. Some sources indicate the code requirement was 5 wpm (how things go around and come around - 5 wpm now in the year 2000!!!). Written exams included essay type questions -- making a diagram of transmitting and receiving apparatus and how they worked! Also of course International and US Law questions.

1913 Amateurs using Audions in their receivers discovered that distances of up to 350 miles were now possible on 200 meters.

1913 - Radio Call Letter Policies [4] issued by the Department Of Commerce listed the USA with call letters of KDA to KZZ - United States, N - All to the United States, W - All to the United States. This document shows other countries as well. However, for Amateurs, "*The call letters for amateur stations in the United States will be awarded by radio inspectors, each for his own district, respectively according to the following system: (a) The call will consist of three items; number of radio district; followed by two letters of the alphabet. Thus, the call of all amateur stations in New England (which comprises the first district) will be the figure "one" in Continental Morse, followed by two letters; in California (in the sixth district) the figure "six" followed by two letters; in South Carolina the figure "four" followed by two letters; in Missouri the figure "nine" followed by two letters, etc. The letters X, Y, Z, must not be used as the first of the two letters".* Examples, 1AW, 6OI, 2MN.

Here is a possible explanation as to how the USA got W and K, no documentation on this but sounds plausible. The USA had unofficially used N for North America (e.g., NBZ, Boston), also A for America. The letter "N" in morse is dah dit, adding a dah to N gives dah dit dah which is "K'. Letter "A" in morse is dit dah, adding a dah to A gives dit dah dah which is "W".

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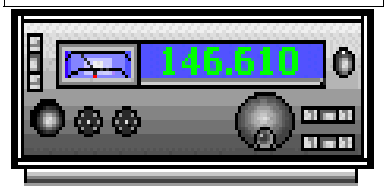

NEXT MEETING

FRIDAY
September 13 ,2013

Location:
Foundation Room

Saint Anthony OSF
5666 East State Street
Rockford, Illinois

Program:
Ham Radio Deluxe
Robert Larson
KC9ICH

Latest news and events on our web page: http://www.w9axd.org

Somewhere in this era, an informal system of prefixes evolved and Amateurs used A for Australia, B for Belgium, C for Canada, etc. This single-letter system worked until Amateur Radio spread around the world and there were too many countries for the system to accommodate. Thus, in 1927, a new system took effect using two-letters with the first letter indicating the continent (E for Europe, A for Asia, N for North America, F for Africa, etc.) and the second letter indicating the country. Stations in the 48 United States used an NU call. These were called "Intermediate Prefixes".

With the advent of the Radio Act of 1912, the first Amateur Radio License is issued. The call letters assigned to the United States were NAA -NZZ, WAA - WZZ, and KDA to KZZ (KAA-KCZ was assigned to Germany and was not given to the United States until 1929). The somewhat puzzling Amateur calls like 1AW, 6OI, 2MN, etc. is explained by the fact that Amateur stations did not qualify for international call signs. At that time, the USA was divided into nine Radio Districts so Amateurs were granted calls consisting of their district number followed by letters, the first letter was from A through W, for example, 1AW, 1TS. Recognition was given to certain land stations, X as the first letter for Experimental licenses (e.g. 1XE), Y for School licenses (e.g. 9YY), and Z for Special Amateur licenses (e.g. 8ZZ). 1x3 calls (like 1AAA) was issued to Amateurs beginning in 1914. For a list of early X, Y, Z callsign issues -- see U.S. Special Land Stations: 1913-1921.[4] It was not until October 1, 1928, that the W and K prefixes were assigned to Amateurs.

Amateurs were relegated to 200 meters and down and shocked the world with making excellent use of these higher frequencies -- see "200 Meters and Down" by Clinton B. DeSoto. 1914 Frederick E. Terman 6AE is operating out of Palo Alto, CA. Later he publishes "Radio Engineering" in 1932 and the Radio Engineers's Handbook in 1943, 1955, which becomes the bible for engineers and technicians alike during the vacuum tube era. . He is also famous for persuading young Bill Hewlett and David Packard to stay in California instead of going East to start their electronics business.

1922 Amateur Radio License Requirements for the two grades of licenses, Amateur first grade and Amateur second grade, were the same except the second grade license was issued only where an applicant could not be personally examined by a US Radio Inspector for the district. Applicants were required to demonstrate technical expertise in adjusting and operating equipment, and a knowledge of International Conventions and US laws . The code requirement was ability to transmit and receive in the Continental Morse at least 10 words per minute and recognize important signal usage of the day (distress and "keep out" signals). General amateur stations were restricted to 200 meters and down with input power not to exceed 1 kW. Amateurs within five nautical miles of a military station were restricted to 500 Watts.[11]

1923, from "200 Meters and Down," by Clinton DeSoto, page 85. "It was expected, then, that every effort would be bent toward putting over the fourth transatlantic tests, to be held from December 21st (1923) to January 10th (1924). The widest possible publicity was accorded these tests on both sides of the Atlantic. To facilitate the international identification, an initial letter was assigned to each country to be used by the amateurs of that country ahead of their calls. The United States was given "U"; an American station would sign itself u1AA, for example. For each of the countries participating in the transatlantics: Australia, Canada, France, Great Britain, Italy, Mexico, Netherlands, Portugal, Spain, United States and New Zealand (z). Cuba was assigned the phonetic Q, Argentina the phonetic R. South Africa was arbitrarily given O." These were not official prefixes assigned by any authority, but an informal convention adopted to avoid confusion when transoceanic communications were first becoming "routinely" possible. Later an additional prefix letter was adopted indicating the continent, "N" being North America, so "1AW" would be "Nu1AW".

1928 - The Federal Radio Commission announces that all old licenses issued by the Department Of Commerce will be terminated on August 31, 1928. Applications under the new licensing system must be submitted no later than July 31, otherwise the applicant must submit to re-examination. Beginning October 1, 1928, the new W and K prefixes were assigned to Amateurs.

Here is a copy of the original letter sent out to radio amateurs:

DEPARTMENT OF COMMERCE

RADIO DIVISION

IN REPLY REFER TO
FILE NO. 8030

June 22, 1928.

OFFICE OF SUPERVISOR OF RADIO
504-508 COMMERCE BUILDING
LAFAYETTE BOULEVARD
DETROIT, MICH.

Sir:

You are herewith advised that amateur call letters are now being assigned preceded by the letter "W". This is in accordance with Section 2, paragraph d, of article 14 of the International Radiotelegraph Convention, Washington, 1927, which provides that the letters "W" and "K" are assigned to the United States. It has been decided that "W" will precede all amateur calls for stations within the Continental limits of the United States and the letter "K" shall precede all such calls for stations in the insular possessions and Alaska.

The use of the "W" before your regular call letters, however, is not to begin until October 1, 1928, after which time should be used for all transmissions.

Amateur station licenses already issued will require no change or amendment. After October 1, 1928, however, all Continental United States amateur stations will make use of the prefix "W" for both foreign and domestic communications. Example: Whereas, the present practice in calling is, "nu 6AA 6AA 6AA nu 8AA 8AA 8AA", after October 1, 1928 it will be, "W6AA W6AA W6AA de W8AA W8AA W8AA".

Respectfully,

S. W. EDWARDS,

JCM:FBS

U. S. Supervisor of Radio.

An Unofficial History of Amateur Radio Call Signs Before WWII

1928 - As the transmitting range of amateur stations increased, Hams naturally worked DX and it became necessary to have international call signs, international prefix structure is set by the International Radiotelegraph Conference of 1927-1928.
This call sign structure lasted for the rest of the 1920's and the 1930's. Stations in the 48 States had a 1x2 or 1x3 call sign beginning with W and containing a numeral from 1 to 9. Stations in Alaska, Hawaii, or other US Possessions had a K prefix. See Pre WWII K calls. The zero numeral was not available. Boundaries were considerably different than today - for example the western sections of New York and Pennsylvania were in the 8th call district. See Old District boundaries [4] Note that the suffixes beginning with X was reserved for experimental stations. Eventually, the FCC relaxed their position on the 1x2 and 1x3 X suffix calls, but the 2x3 call signs (such as KB6XYZ) are still reserved for experimental use. W#X calls were also portable calls - a separate authorization was needed for portable operation and their suffixes began with X. Apparently there was a very limited "vanity call" program - if a ham wanted a 1X2 call and met several criteria, such a call would be issued. If a ham moved to a different call area, he/she had to get a new callsign that matched the district of the new location. Unlike today, you could always tell where a ham station was located by the callsign.**
At one time in the 1920's and 30's, college club stations were issued W#Yx calls. So W6YX (1922) is Stanford, W9YB (1920) is Purdue, etc. Many of these are still extant -- try QRZ.com for your college.

Early to mid 1930's -- From W3HF - During a short period of time in the early- to mid-30s, 1x4 callsigns were issued for "permanent" portable stations. They were of the form W#ZZxx (e.g., W2ZZAF). They were only issued for a short time, first appearing in late 1931. (They were not in the June 1931 government callbook, but are listed in the Fall 1931 Flying Horse.) It looks to me like the government was issuing W#ZZx calls (1x3s) to portable stations, and went to 1x4s after they used up the 26 available 1x3s. The last ones seem to have expired by 1936-7. (There are only a few in my Spring 36 callbook.) From W3HF

AREA Repeaters

146.610 -	ENC/DEC pl 114.8	W9AXD
147.000 +	ENC/DEC pl 114.8	W9AXD
ATV	input 1250 Mhz/ 434 Mhz output 421.25 Mhz	W9ATN
146.805 -	ENC/DEC pl 114.8	K9AMJ
224.440 -	ENC/DEC pl 118.8	K9AMJ
147.255 +	ENC/DEC pl 114.8	WX9MCS
444.725 +	ENC/DEC pl 107.2 Linked to FISHFAR	WX9MCS

2013 RARA Officers and Board

Officers:
President - Doug Abrahamson, KC9SDO, 815-979-0329
Vice President - Robert Larson, KC9ICH, 815-540-0309
Secretary - Jim Holich, AB9SX, 779-552-8796
Treasurer - Shannon Larson, KC9QBC, 815-540-0309

Directors:
Kurt Eversole, KE9N 815-389-2784
Richard H. Range WB9SFG— 630-697-1344

Web Master - Robert Larson, KC9ICH, 815-540-0309
Ham Rag Editor - Jim Holich, AB9SX, 779-552-8796
Repeater Chairman - Richard Range, WB9SFG 630-697-1344

From the Secretary

Secretary's Notes for the RARA August 9, 2013 meeting

The meeting was called to order by President Doug Abrahamson, KC9SDO, at 7:15 PM. The meeting opened with introductions, followed by a reading of the secretary's report for July 12,2013. A motion to accept the report as read was made by Steve Miles; KC9WBH . The motion was carried. The treasurer's report was read by Treasurer Shannon Larson, KC9QBC. A motion to accept the report as read was made Steve Miles; KC9WBH ,. The motion was carried.

A call for old business was made. An update for the Midway village project was given We will be ready to install the system for the fall season, 2013.

The SteppIR was repaired and an attempt was made to sell it at the Belvidere Hamfest. There were no offers

Rich Range WB9SFG won the 50/50 drawing and donated his part of the proceeds to the Club Treasury. Thank you Rich.

After a short pause for socializing, a presentation on Mobile installation was made. It seemed to have wide acceptance.

At 8:45 PM a motion was made by Robert Larson KC9ICH to close the meeting. It was seconded by Rich Range WB9SFG and the motion was carried.

Respectfully submitted by Jim Holich, AB9SX

AMATEUR RADIO EXAM NOTICE

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August 17th there was 1 new licensee. Congratulations to:

New: Jeff A Andrews, Technician

Thanks to Steve Twigg W9SWT, Alvin Alexander KC9GIO and Scott Fry N9FRY for volunteering their time.

Amateur Radio exams are held the 3rd Saturday of every month in Rockford IL. The next session is 9AM August 17, 2013. Walk-ins welcome. Check-in is from 9AM-10:30AM. We require two signature ID's and one photo. If you are a licensed Amateur Radio operator bring your current license and a copy. If you are using a CSCE for an element credit, bring the original and a copy (We need to see the originals & keep a photocopy of each). No copier on site. The test fee is $14.00. Bring a non-programmable calculator.

Location:
OSF St Anthony Medical Center
5666 E State St (Bus US20)
Rockford IL

Exams are held in the St Francis Room (Main Entrance then turn right).

Rusty Cordell WB9QYV
wb9qyv@aol.com

The K7RA Solar Report

Propagation Forecast Bulletin 36 ARLP036
From Tad Cook, K7RA

Conditions were quieter again this week. Average daily sunspot numbers declined from 77 to 69, and average daily solar flux was off by 9.5 points to 106.9, when compared to the previous seven days, August 22-28.

Predicted solar flux for the near term is 105 on September 6-10, 100 on September 11-12, 110 on September 13, 120 on September 14-15, 115 on September 16-17, 110 on September 18, 105 on September 19-20, 110 on September 21-22, 105 on September 23-24, and 100 on September 25-28. It then is expected to reach a minor peak of 115 on October 4-5, then 120 on October 9-12.

These predictions come from a 45-day forecast. Yesterday, September 5, the solar flux was 110.1. The first prediction for that date in this series pegged it at 135, which maintained from July 22-28, then 105 on July 29 through August 4, 115 on August 5-11, 105 on August 12-18, 110 on August 19-28, 112 on August 29, 115 on August 30, 118 on August 31, 112 on September 1-2, and then they nailed it at 110 again on September 3-4. Note that these aren't the flux readings on those dates. They are the predicted values for September 5, as they varied from day to day in the daily forecast for the previous 45 days.

You can see those daily forecasts here:
http://www.swpc.noaa.gov/ftpmenu/forecasts/45DF.html

The planetary A index is in the same forecast. The latest has predicted planetary A index at 5 on September 6-8, 10 on September 9-10, 12 on September 11, 8 on September 12-14, 5 on September 15-16, then 12, 18 and 15 on September 17-19, 5 on September 20-22, and 8 on September 23-24.

The Autumnal Equinox (September 22 at 2044 UTC) is a little over two weeks away. Fall is always a great time for HF DX, when the suncasts an even glow over our northern and southern hemispheres. Although solar activity is weak, if this is Cycle 24's peak, now may be the best time for enjoying HF propagation for some years to come. Or the Sun could fool us again. Remember that day-to-day variations in solar activity can swing wildly above and below any predicted smoothed or averaged sunspot or solar flux number. But we haven't
seen much of that lately.

F.K. Janda, OK1HH offers his geomagnetic forecast. Mostly quiet conditions September 6-7, quiet to unsettled September 8, quiet to active September 9, quiet to unsettled September 10, quiet to active September 11, active to disturbed September 12, quiet September 13, mostly quiet September 14, quiet September 15-16, quiet to active September 17, active to disturbed September 18, quiet to unsettled September 19-21, mostly quiet September 22, quiet to active September 23, quiet September 24-25, mostly quiet September 26, active to disturbed September 27, quiet to active September 28, mostly quiet September 29, quiet September 30, quiet to active October 1, and quiet on October 2.

Last week's Propagation Forecast Bulletin ARLP035 mentioned average sunspot numbers, but we were missing two days of data (from August 30-31) to get the complete average. As it turns out, those two days had low enough sunspot numbers that it actually dragged the 3-month
moving average and the monthly average for August lower.

So the three month moving averages of sunspot numbers for periods ending in January through August 2013 were 82.8, 73.6, 80.7, 85.2, 106.4, 106.4, 97.5 and 85.6. The average daily sunspot number for the month of August was 90.2, up from 80.2 and 86.2 in June and July.

The K7RA Solar Report

Thanks so much to Scott Bidstrup, TI3/W7RI in Costa Rica who sent a link to a fascinating article in Phys.Org News and Astronomy and Astrophysics about yet another failure to replicate earlier studies claiming a correlation between planetary positions and solar activity. In this case, the authors found several serious statistical errors in the earlier analysis. Read the article and abstract at, http://phys.org/news/2013-09-evidence-planetary-solar.html and http://www.aanda.org/index.php?option=com_content&task=view&id=966&Itemid=277.
Note that for a limited time, the full text of the paper is available for free by clicking on the "Register Now" button on that last page.

NASA has an updated prediction for sunspot Cycle 24, and like last month, they predict the peak for Summer 2013 (that's now!) but they have downgraded the expected smoothed sunspot number from 67 to 66. Read it and weep at, http://solarscience.msfc.nasa.gov/predict.shtml. They do not have any archive of past predictions, but never fear, I have been keeping careful track.

A year ago, they sounded an optimistic note, when the September 2012 update changed from a peak of 60 in Spring 2013 to a peak of 76 in Fall 2013.

A month later in October it changed to a peak of 75 in Fall 2013, then in November it dropped to 73 in Fall 2013. In December the number was revised to 72, and in January 2013 the predicted peak was changed to 69. February's prediction was unchanged, and then March 2013 revised the peak down again to 66. April and May were unchanged, andin June the prediction was revised upward from a peak of 66 in Fall 2013 to a peak of 67 in Summer 2013. July and August were unchanged, and now we have the number back down a point in again to 66 in September.

Monthly propagation charts between four USA regions and twelve overseas locations are at http://arrl.org/propagation.

Sunspot numbers for August 29 through September 4 were 55, 62, 60, 71, 84, 74, and 77, with a mean of 69. 10.7 cm flux was 108.8, 107.5, 107.5, 103.8, 105.6, 106, and 109.3, with a mean of 106.9. Estimated planetary A indices were 3, 8, 11, 9, 10, 7, and 6, with a mean of 7.7. Estimated mid-latitude A indices were 4, 7, 11, 10, 11, 8, and 9, with a mean of 8.6.

FRIDAY MORNING BREAKFAST

Meets every Friday morning from 8 am until about 9:30 am. An informal gathering of ham folks, no affiliations necessary, good food and good company.

Everyone is welcome to attend.

"Morning Glory Restaurant"
9155 Alpine Street
Rockford, IL 61108

For Sale or Trade

Code Practice Oscillator MiniKits

For sale. $10 each, includes schematic. All boards are assembled and tested. Circuit will easily drive headphones or a small speaker. Each board measures approximately 1.25" square and is great for mounting in a small project box or on a wooden board. See Dennis K9VMY at the next club meeting. or contact via e-mail k9vmy@arrl.net. Note: shipping is not included.

HamFest Information

W9DXCC Convention

Hamfest/Convention

Friday / Saturday September 20/21 2013

Holiday Inn Elk Grove Village
1000 Busse Road

Elk Grove Village,IL 60007

Talk-In**:** 146.36 minus (PL 136.5)
Contact**:** Paula Uscian K9IR
4965 Castaway Lane, Hoffman Estates, IL 60010

Phone—847-358-6644

Email**:** pmusician@sbcglobal.net

Ozaukee Radio Club Fall Swapfest

Hamfest/Convention

Saturday September 28, 2013

Fireman's Park

796 Washington Avenue

Cedarburg, Wisconsin 53012

Talk-In**:** 146.97 plus (PL 127.30)
Contact**:** Thomas Ruhlmann
465 Beechwood Drive, Cedarburg Wisconsin, 53102

Phone—262-377-6945

Email**:** teruhlmann@wi.rr.com

Peoria Superfest 2013

Hamfest/Convention

Friday / Saturday September 21/22 2013

Exposition Gardens

1601 West Northmoor Road

Peoria, IL 61601

Talk-In**:** 147.075 plus (PL 103.55)
Contact**:** Merle Joiner, KB9VQH
705 East Frye Avenue, Peoria IL 61603

Phone—309-393-3378

Email**:** kb9vqh@icloud.com

SEWARS Swapfest

Hamfest/Convention

Sunday October 13, 2013

Richfield Chalet

1271 Highway 175

Hubertus, Wisconsin 53033
Talk-In**:** 146.820 plus (PL 127.30)
Contact**:** Darrell Welch
4006 Monches Road Colgate Wisconsin 530172

Phone—414-899-6010

Email**:** dw@charter.net

Treasurers Report

ROCKFORD AMATEUR RADIO ASSOCIATION Inc.

August 26, 2013

Primary Checking:

Beginning Balance 7/30/13	1,513.63
Deposits	71.00 *
Withdrawals	0
Ending Balance 8/26/13	**1,584.63**

Organization Savings:

Beginning Balance 7/30/13	3,223.78
Interest Earned	0
Ending Balance 8/26/13	**3,223.78**

Repeater Committee Checking:

Beginning Balance 7/30/13	300.00
Ending Balance 8/26/13	**300.00**

* Deposit:	50/50 Raffle Donation July.....	28.00
	50/50 Raffle Donation August	18.00
July 12	Membership Dues.....	25.00
	Total	71.00

Shannon K. Larson KC9QBC Treasure, RARA

ROCKFORD AMATEUR RADIO ASSOCIATION

P.O. Box 8465, Rockford, IL 61126
Website: www.w9axd.org
E-mail: jholich@comcast.net

	Nets	
Monday 8 PM	RARA Info.	146.610 - 114.8 PL
	RARA	147.000 - 114.8 PL
Monday 9 PM	10M SSB Net	28.375 +/- USB
Daily 6 PM	Illinois Traffic Net	3.905 LSB

place address label here

September, 2013

ROCKFORD AMATEUR RADIO ASSOCIATION MEMBERSHIP APPLICATION

Single Adult: $25.00 Adult w/Family: $30.00
Single Senior: $15.00 Senior w/Family: $20
Student: $15.00

Above rate includes the RARA monthly newsletter, Ham Rag, via email.

Name _____ Call Sign _____

Address _____

City _____ State _____ Zip _____

Home Phone _____

Work Phone _____

Email _____

Renewal _____ New _____ Retired _____

Radio Interests _____

_____

Other Interests _____

_____

Suggestions: _____

RETURN COMPLETED FORM TO:

ROCKFORD AMATEUR RADIO ASSOCIATION
P.O. BOX 8465
ROCKFORD, ILLINOIS 61126