

HAM RAG



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

RARA Mission Statement

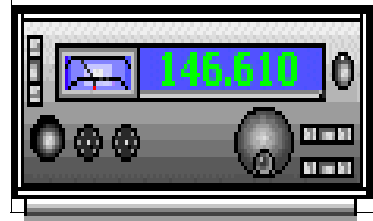
A member association with common interest of public service to the community through the use of amateur radio.

June, 2014

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Midway Village Work Day



NEXT MEETING

FRIDAY
June 13, 2014

Location:
Foundation Room

Saint Anthony OSF
5666 East State Street
Rockford, Illinois

Program:

**HF Operating—What are
all those knobs and
Buttons anyway?**
Presenter:

Jim Holich AB9SX

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

Midway Village Telegraphy Project

About two years ago, the Rockford Amateur Radio Association (RARA) was contacted by the staff of the Midway Village History Museum in Rockford Illinois to see if we were interested in constructing a 1900-1910 telegraphy system for display and operation. The principle audience would be school children, but obviously adults could also enjoy it. The then club president, Tom Shouler, N9VJU, and myself AB9SX went to Midway Village discuss the potential of the project and the boundary conditions needed by the Museum.

The project had been discussed at the museum for many years, but few resources were available. One gentleman was a former railroad telegrapher, not an amateur operator. But his inventory was limited to one key, a sounder, and a relay. The battery was a modern alkaline cell and was limited to operate one key and sounder with no communication possible. His knowledge was invaluable.

Jim Holich, AB9SX, Rich Range, WB9SFG, and John Olson, W9JGO looked at some possible sites for the exhibit. There was no railroad station, and our choice of buildings was finally pared down to two. We needed to use some rationale to make the sites plausible to the visitors. We chose the Bank and the Printing Office. While it would have been nice to have a larger network, we made the assumption that finance and the latest news would be important to that community. Obviously the system would have to be connected to a network, but that was beyond the scope of the project.

We offered to do the project with donations from the club members at no cost to the Museum. We brought the concept to the club meeting for extended discussion. Everyone was excited. We first asked members to look at their inventories to see what we could scrounge. We ended up with several sounders and a few keys. It was around the time of our local Hamfest, so several members went to see what they could find at a reasonable cost. Dennis Johanson, K9VMJ found a sounder amplifier with an articulating stand that was original and in good condition with a nice patina. He also found a nice small power supply that we could hide.

We thought we were “off to the races”. That assumption proved to be wrong. A number of difficulties arose after discussions at a number of meetings. The first issue was the discovery that our CW operators could not decipher the dots and dashes of the sounders. In addition, American Morse, not International Morse was used at the time. A suggestion to parallel code oscillators to the sounders was made. We could hide a wire from an ear piece up the left sleeve of the operators shirt so the patron could not see it. Easy! Right?

We then had another setback when the Museum had to cut staff to meet their budget. The project fell between the cracks. We kept on asking about the progress at our meetings, but we had lost our contact person. Rich Range persisted with e-mails to the Museum which eventually led to Laura Furman, Curator at Midway village. Rich arranged a meeting and we went back to the Museum to re-deliver our pitch for the project. Laura was very excited, so we then resumed activity with increased fervor. Back to the club meeting.

We decided that we needed to discuss circuitry. A number of other members were brought into the widening group. Rich Range, WB9SFG, and John Olson, W9JGO and myself, AB9SX got together to do a mock up. We made a series circuit connecting the keys and sounders using the shorting bars on the keys.

Midway Village Telegraphy Project

One sounder worked and the other didn't. After scratching our heads for a while, we discovered that the resistance of the sounder coils were different. We didn't have enough current to pull down the sounder bar on one sounder. We measured the resistance on both sounders and decided to use a resistor to balance them. By using a decade box, we empirically found the right value. We then tried the circuit again, and "Eureka!!" it worked. Boy, we were in high cotton.

Dennis Johansson, K9VMY had a number of circuit boards printed for the code oscillators. He donated two of them to the project. They worked beautifully by themselves. Now, how do we get these powered into a series circuit? Suggestions flew all over the place. We went from opto-isolators to many other complicated schemes. John Olson, W9JGO suggested that we take a step back and see if we could simplify this. We would have to hide all this 21st century technology and it really did not belong in an early 20th century display anyway. By poking around, we found that the voltage at the Sounders was 12 VDC. All we had to do was watch polarity.

Some woodworking had to be done to make a sounder amplifier for the second sounder. Dave Larsen, N9ZXL responded by fabricating a viable replication.

We took the mock up to Midway Village for a demonstration. It performed well. A final schematic was documented and we planned an installation day. We had a lot of help. Tom Shouler, N9VJU, John Olson, W9JGO, Jim Holich, AB9SX, Dennis Johansson K9VMJ and his brother, Gordon Seaman KC9NEX, Al Abanes, KD9AHZ, Doug Abrahamson, KC9SDO, Rich Range, WB9SFG and Dan Hunt, N9DCH.

Routing the wire turned out to have its own issues. There were several utility poles for display behind the buildings, and fortunately they were not live. The original plan was to attach the wire to the crossbar between the two buildings. The poles were not safe to climb. The solution was to use an air boss to get the wire over the cross bar of the pole. Entry points to the buildings involved penetrating an outside wall of a historic building. Dan Hunt was a real resource because he is a security system installer and he had many tricks in his bag. The entry point is barely noticeable. The museum maintenance supervisor, Shawn drilled the hole in the masonry wall of the printing office. We ran the wire parallel to an existing conduit.

It was time to test the circuit. It stopped working. John Olson compared the installation to the schematic, and discovered that two wires had been switched. Correcting the mistake, were again operative.

The CW operators were Rich Range and Al Abanes, both veteran Naval Radiomen. The first message sent was the same message that Samuel Morse and Albert Vail sent on January 6th, 1838 across two miles of wire. It was "A patient waiter is no loser". This is not what we were taught in school. The message "What hath God wrought" was sent at the opening of the Baltimore-Washington telegraph line on May 24, 1844. Coincidentally, this was the date that we finished the installation at the Midway Village Museum. We learned some history as well.



AMATEUR RADIO EXAM NOTICE

At a special session following a class sponsored by Big Thunder Radio Club at Fire Station No.2 in Belvidere on May 6, there were 8 applicants resulting in 6 new licensees and 1 upgrade. Congratulations to:

Robert M Binder, Technician
David A Christensen, Technician
Sue L Christensen, Technician
Susan G Simon, Technician– General
Gene Young , Extra

At the monthly session May 17 there were 3 new licensees and 1 upgrade. Congratulations to:

Arthur J Combs, Technician
Rickie L Traeger, Technician
Randy C Trank KD9ASB, Extra
Nathanael P Webber, Technician

Thanks to Jim Holich AB9SX, Alvin Alexander KC9GIO, Shari Harlan N9SH, Joseph Moore KA9LMK and Rich Range WB9SFG for volunteering their time.

Amateur Radio exams are held the 3rd Saturday of every month in Rockford IL. The next session is 9AM June 21, 2014. Walk-ins welcome. Check-in is from 9AM-10AM, no exams started after 10:30. 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

AREA Repeaters

146.610 -	ENC/DEC pl 114.8	W9AXD
147.000 +	ENC/DEC pl 114.8	W9AXD
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	WX9MCS

Linked to FISHFAR

2014 RARA Officers and Board

Officers:

President - Robert Larson, KC9ICH, 815-540-0309
Vice President - Doug Abrahamson, KC9SDO, 815-979-0329
Secretary - John Olson, W9JGO, 815-399-4368
Treasurer - Shannon Larson, KC9QBC, 815-540-0309

Board Members:

Jeff Andrews, KC9ZMR
Ron Callahan, N9SZV, 608-289-0198
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
Repeater Trustee—Scott Francis KG9SF, 815-874-7170

The K7RA Solar Report

ARLP023 Propagation de K7RA

Boy, has solar activity declined this week, and the near term outlook weakened as well.

Average daily sunspot numbers for May 29 through June 4 dropped from 103.3 (for the previous seven days) to just 60.1. Average daily solar flux declined from 110.3 to 104.1. Last week the predicted solar flux for Field Day weekend was 108 and 110, and on June 2 that changed to 95 and 110.

Predicted solar flux for the near term is 110 on June 6-7, 115 on June 8-11, 110 on June 12-13, 120 on June 14-15, 115 on June 16-17, 110 on June 18-20, 105 on June 21-23, then dipping below 100 to 95 on June 26-28, then peaking at 120 on July 6-12.

Predicted planetary A index 8, 10 and 8 on June 6-8, 5 on June 9-17, 8 on June 18-19, 5 on June 20-24, 8 on June 25-26, 5 on June 27, 8 on June 28, 5 on June 29, and 8 June 30.

OK1HH predicts geomagnetic conditions will be quiet to active June 6, quiet to unsettled June 7-8, mostly quiet June 9-10, quiet to unsettled June 11, quiet on June 12, mostly quiet June 13, quiet June 14-17, quiet to active June 18-19, quiet on June 20-24, mostly quiet June 25-26, quiet June 27, quiet to unsettled June 28-29, and quiet to active June 30.

Randy Crews, W7TJ, has been thinking about where we are in this sunspot cycle, and what we might see in the near future.

He wrote, "It is now common knowledge that Cycle 24 is the lowest cycle in 100 years, and also being one of the slowest starts of any cycle in our radio lifetime. (Historically - with no exceptions - cycles that begin slowly are very low in peaks; the opposite of cycles that get off to a fast start.) Of the double peaked cycles (Cycle 22 and Cycle 23) this is the first cycle where the second peak has been higher than the first. November 2011 SF=153, February 2014 SF=170.

"The second peak has also afforded us a higher extended elevated solar flux, averaging 150 for the six months from November 2013 through April 2014. Quite a performance to say the least, and finally igniting 10 and 12 meters.

"However, prior to making plans to put up 10 and 12 meter stacked Yagis, we all need to be aware we are probably past the peak of Cycle 24 because we are approximately 70 months into this cycle from the low of the lows set in August of 2008. (The official low is booked as December 2008, however whatever date is used, it is late in this cycle.)

"What is really behind the recent surge we had last spring and winter is not only the great combination of consistent monthly sunspots, but most importantly - the size and magnetic complexity was the largest of this cycle and mirrored many of the 200+ Solar Flux days we saw in Cycle 23 and 22.

"This trend is now on the decline, and aligning with Penn and Livingston's studies and measurements citing a steady decline in magnetic strength and complexity of sunspots since 1995. (We basically experienced a pause in a downtrend.) Livingston projects a continuation of the trend will result in virtually no sunspots by 2016, and Cycle 25 being even lower than Cycle 24.

"NASA says we may be heading into a mini Maunder Minimum. Putting all this together, we will be hard pressed to see good 10 and 12 meter DX propagation going forward. 15, 17 and 20 meters will most likely be the workhorse high-bands."

May is done, so let's look at our 3-month moving average of sunspot numbers. Centered on October 2013 through April 2014, the average daily sunspot number was 102.9, 123.7, 123.3, 138.5, 146.4, 148.2 and 129.6. This is just a simple arithmetic average for three months of activity. As we complete a new month and add that data in, an old month falls off.

Jeff Powers, KD9AGN is a Technician class ham in Janesville, Wisconsin, and is very excited to be on HF for the first time via the 10 meter band. Jeff wrote: "May 24, 2014 was a big day in my ham adventure. It was the day of my first HF QSO! I got my ticket in January and with the Wisconsin winter we had we could only put up a 10 meter wire dipole in my garage. Many days I have sat at my radio and listened to 10 meters with nothing but static and called CQ until I was hoarse. Nothing.

"Imagine my surprise May 24 when W1AW/0 came booming in! At 19:35 after about half a dozen tries I got through the pileup. MY FIRST QSO! (Yes, I think even my neighbors heard me get excited. And that wasn't all. 10 was alive!) I made six QSOs that day and even bagged my first DX QSO, I worked HK3TK in Columbia, 2783 miles. I struck out on the 25th. Then on May 26 I worked ZP5DBC in Paraguay 5107 miles! My rig is an old Kenwood TS-520 and my wire is about 10-12 feet off the ground."

The K7RA Solar Report

Eric Guzman, NP3A of San Juan, Puerto Rico wrote about an interesting backscatter effect, and provided us with audio too. "Would like to share the most crazy propagation effect I have experienced in my 24 years as a ham. It happened during the CQ World Wide WPX CW Contest on 10 meters last weekend. Antenna setup was a 3/3 Stack pointing to Europe and a Q52 (N6BT 2El Yagi) pointing USA Headings between EU and USA from KP4 are approximately 90 degrees apart.

"While calling CQ on the stack (EU) on 10M on 5/25/2014 at 1430z and after working several EU stations, WY3P called in. Since it was a US station, I switched to the Q52 (on US) to send the exchange. When he came back, he was unreadable on the Q52. Was it LY3P or some other fancy EU prefix? Switched back to the stack and asked for a repeat. He was lot stronger again on the stack. I was so confused and surprised I asked to repeat the call before logging the QSO. The call was confirmed. WY3P looked like coming from EU. This must have been the craziest backscatter. I mean, backscatter is the way we usually work other Caribbean stations on high bands, but this one was a W3. There was like a wall over the Atlantic bouncing back the signals. Amazing.

"I made a simple video with the recording. It can be seen at <http://youtu.be/Tyyn2eFBA-0>

"Besides that, propagation was spotty to EU. Sometimes it looked like it opened to Germany only. Missed a lot of usually easy EU countries. However, long path to ZL (very long shot) over South EU was there."

Sunspot numbers for May 29 through June 4 were 55, 56, 55, 68, 56, 61, and 70, with a mean of 60.1. 10.7 cm flux was 102.7, 101.6, 103.7, 103.3, 105.3, 107, and 105.4, with a mean of 104.1. Estimated planetary A indices were 7, 9, 4, 5, 5, 7, and 5, with a mean of 6. Estimated mid-latitude A indices were 8, 8, 4, 5, 5, 5, and 6, with a mean of 5.9.

FRIDAY MORNING BREAKFAST

Meets every Friday morning from 8:30 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"
915 South Alpine Road
Rockford, IL 61108



HamFest Information

Sunday: 06/15/2014
Six Meter Club of Chicago

Location: Du Page County Fairgrounds
2015 Manchester Road
Wheaton, IL 60187

Website: <http://k9ona.com>

Sponsor: Six Meter Club of Chicago

Talk-In: 146.97 (PL 107.2); 146.52 Simplex
Public Contact: Mike Huedepohl , WD9GJK
3532 Raymond Avenue Brookfield, IL 60513
Phone: 708-485-5481 (after 6 PM)
Email: wd9gjk@arrl.net

Sunday 07/13/2014
**Fox River Radio League Hamfest
& Electronics Market**

Location: Aurora Central Catholic High School
1255 North Edgelawn Drive
Aurora, IL 60504

Website: <http://fril.org>

Talk-In: 147.210 +600 (PL 103.5)

Public Contact: Dawn Williams , KC9LQS
PO Box 673 Batavia, IL 60510
Phone: 630-531-1670
Email: hamfest@fril.org

Friday and Saturday 09/19/2014
W9DXCC Convention
Northern Illinois DX Association

Location: Hyatt-Regency Schaumburg
1800 East Golf Road
Schaumburg, IL

Website: <http://w9dxcc.com>

Talk-In: None

Public Contact: Coley Casey , W9LP
28083 North High Ridge Road Barrington, IL 60010
Phone: 847-304-8797
Email: casey@w9lp.com

Saturday 07/12/2014
SWAPFEST '14
Sponsor: South Milwaukee ARC

Location: American Legion Post #434
9327 South Shepard Avenue
Oak Creek, WI 53154

Website: <http://www.qsl.net/wa9txe>

Talk-In: 146.52 Simplex (most local Milwaukee area repeaters)

Public Contact: Robert Kastelic , WB9TIK
7410 South Clement Avenue Oak Creek, WI 53154
Phone: 414-764-3871
Email: wb9tik@sbcglobal.net

Saturday 09/13/2014
Radio Expo 2014
Sponsor: Chicago FM Club

Location: Boone County Fairgrounds
8791 IL Route 76
Belvidere, IL 61008

Website: <http://www.chicagofmclub.org>

Talk-In: 146.76- (PL 107.2); 147.255+ (PL 114.8);
444.725+ (PL 107.2); Echolink to 146.76-
Public Contact: Steve Bosnyak , K9VO
6778 West Ardmore Avenue Chicago, IL 60631
Phone: 773-817-2744
Email: k9vo@arrl.net

Saturday and Sunday 09/20/2014
Peoria Superfest
Peoria Area Amateur Radio Club

Location: Exposition Gardens
1601 West Northmoor Road
Peoria, IL 61601

Website: <http://www.w9uvi.org>

Talk-In: 147.075+ (PL 103.5)

Public Contact: Deb Suhs , KA4DEB
25857 Longview Road Hopedale, IL 61747
Phone: 309-453-9331
Email: ka4deb@arrl.net

Items for Sale

ICOM 706MKIIG, 160M - 70CM, (HF + 6M + 2M + 70CM),

Standard hand mic, Heil single-side headphone with boom mic and manual.
Asking \$700.00.

Contact Gene, KA9BOD Phone: 815-226-1806. Email: ka9bod@arrl.net



P.O. Box 8465, Rockford, IL 61126

Website: www.w9axd.org

E-mail: jholich@comcast.net

<u>Nets</u>		
Monday 8 PM	RARA Info.	146.610 - 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

June, 2014

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