

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.

President's Message

RARA Members,

In just a couple of weeks it will be spring and almost time to start thinking about those outdoor projects.

Last month's meeting was well attended and we are continuing to grow in membership and meeting attendance.

This month's meeting will be about the ridiculously inexpensive Baofeng Chinese hand held transceivers that are flooding the market. We will be covering the radios, cables, software, and some of the quirks of these imported HT's.

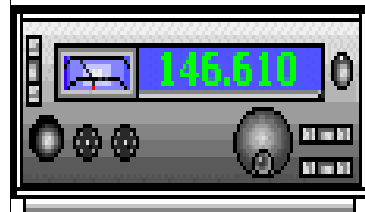
Robert A. Larson – KC9ICH



March, 2014

INSIDE THIS ISSUE

President's Message	page 1
Short Wave Listening	page 2
Technician Lic. Class	page 3
HOTY & VE Test	page 4
KR7RA Solar Rpt	page 5
KR7RA Solar Rpt	page 6
Hamfest Info	page 7



NEXT MEETING

FRIDAY
March 14, 2014

Location:
Foundation Room

Saint Anthony OSF
5666 East State Street
Rockford, Illinois

Program:

BaoFeng HT
Programming and
Usage Tips
Robert Larsen
KC9ICH

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

Short Wave Listening

Shortwave listening, or **SWLing**, is the **hobby** of listening to **shortwave radio** broadcasts located on **frequencies** between 1700 kHz and 30 MHz. Listeners range from casual users seeking international news and entertainment programming, to hobbyists immersed in the technical aspects of radio reception and collecting official confirmations (**QSL cards**) that document their reception of distant broadcasts (**DXing**). In some developing countries, shortwave listening enables remote communities to obtain regional programming traditionally provided by local **medium wave** AM broadcasters. One 2002 estimate placed the number of shortwave listeners worldwide in the hundreds of millions.

The practice of long-distance radio listening began in the 1920s when shortwave broadcasters were first established in the US and Europe. Audiences discovered that international programming was available on the shortwave bands of many consumer radio receivers, and a number of magazines and listener clubs catering to the practice arose as a result. Shortwave listening was especially popular during times of international conflict such as **World War II**, the **Korean War** and the **Persian Gulf War**.

Radios for shortwave reception generally have higher performance than those intended for the local **AM** or **FM broadcast band**, since dependable reception of shortwave signals requires a radio with increased sensitivity, selectivity, and stability. Your Ham transceiver will most likely cover all the bands

Serious hobbyists may use expensive **communications receivers** and outdoor antenna located away from electrical noise sources, such as a **dipole** made from wire and insulators.

Features typical of modern **solid state** communications receivers:

- 500 kHz to 30 MHz frequency coverage **Superheterodyne** type - double, triple or quad conversion multiple **RF** and **IF** stages
- A crystal controlled IF stage **BFO product detector** for **SSB** and **CW** reception **Signal strength meter** RF gain control; AVC/**AGC** adjustments
- BFO tuning; audio limiters or attenuators. Frequency display dials - analog or digital.[†]
- Older **vacuum tube**-based communications receivers are affectionately known as **boatanchors** for their large size and weight. Such receivers include the **Collins** R-390 and **R-390A**, the **RCA** AR-88, the **Racal** RA-17L and the **Marconi** Elettra. However, even modern solid-state receivers can be very large and heavy, such as the **Plessey** PR2250, the Redifon R551 or the **Rohde & Schwarz** EK070.

A feature coming into wide use in modern shortwave receivers is DSP technology, short for **digital signal processing**. DSP is the use of digital means to process signals, and a primary benefit in shortwave receivers is the ability to tailor the bandwidth of the receiver to current reception conditions and to the type of signal being listened to. A typical analog-only receiver may have a limited number of fixed bandwidths, or only one, but a DSP receiver may have 40 or more individually selectable filters.

Another important trend in modern shortwave listening is the use of "PC radios", or radios that are designed to be controlled by a standard **personal computer**. These radios as the name suggests are controlled by specialized PC software using a serial port connected to the radio. A PC radio may not have a front-panel at all, and may be designed exclusively for computer control, which reduces cost. In pure **software defined radios**, all filtering, modulation and signal manipulation is done in software, usually by a PC soundcard or by a dedicated piece of DSP hardware.[†]

Future of shortwave listening

The rise of the **internet** influenced many **broadcasters** to cease their shortwave transmissions in favor of broadcasting over the **world wide web**. When **BBC World Service** discontinued service to **Europe**, **North America**, **Australasia**, and the **Caribbean**, it generated many protests and activist groups such as the Coalition to Save the BBC World Service. In the US, the shifting of resources from shortwave to Internet and television by the Broadcasting Board of Governors, which oversees U.S. international broadcasting, has also resulted in reduced broadcasting hours in the English language. Although most of the prominent broadcasters continue to scale back their analog shortwave transmissions or completely terminate them, shortwave is still very common and active in developing regions such as parts of **Africa**.

Some international broadcasters have turned to a digital mode of broadcasting called **Digital Radio Mondiale** for their shortwave outlets. One reason is that digital shortwave broadcasts using DRM can cover the same geographic region with much less transmitter power — roughly one-fifth the power — than traditional AM mode broadcasts, significantly reducing the electricity cost of operating a station. A traditional AM (analog) international shortwave station can have a power rating of 50 kilowatts to as much as one million watts per transmitter, with typical power levels in the 50–500 kilowatt range. Endorsed by the **ITU**, it has been approved as an international standard for digital broadcasts on the HF (shortwave) bands. A DRM broadcast rivals FM mono quality and can also send graphic images and web pages via a separate information channel.[†]

Shortwave listening also remains popular with some **expatriates** who tune in shortwave transmissions from their homeland. Additionally, a number of remotely controlled shortwave receivers located around the world are available to users on the web. While radio hobbyists report that the number of shortwave listening clubs has diminished and printed magazines devoted to the hobby are few, enthusiasts such as **Glenn Hauser** and others continue to populate web sites, and originate podcasts dedicated to the pursuit.

Technician Class License Instruction

The Big Thunder Amateur Radio Club (BTARC) is pleased to offer a technician class license course for those interested in earning a ham radio license. This entry level license is your start to an exciting and challenging hobby. Where you take this hobby is up to you.

Classes will be held at Boone County Fire Protection District 2, 1777 Henry Luckow Ln. Belvidere from 7pm through 10pm Tuesday evenings April 1st through May 6th. Our course schedule is tailored to emergency responders with flexibility to accommodate call-outs.

Please contact Joseph Moore at joseph.moore@comcast.net or 608-208-0630 to register for the course.

Course material is “The ARRL Ham Radio License Manual” ISBN: 978-0-87259-097-7 which is available via the American Radio Relay League (ARRL) directly or through the course instructor at a discounted price.

If you are interested in purchasing the course materials through the instructors, please contact Jim Holich at (260) 433-0219 or Joseph Moore at 608-208-0630

Best wishes from the members of the Big Thunder Amateur Radio Club.

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 Linked to FISHFAR	WX9MCS

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, 608-289-0981
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

2013 Ham of the Year Kurt Eversole, KE9N



The photo to the left is Kurt Eversole, KE9N with Robert Larson, KC9ICH, 2014 President of RARA presenting the award.

**Congratulations
Kurt!**
Thank you for
all that you do.

The photo to the right is Kurt Eversole, KE9N during his presentation describing an innovative design of a 2 band J-pole



AMATEUR RADIO EXAM NOTICE

February 15 there were 2 new licensees and 2 upgrades. Congratulations to:

Michael A Beach KD9AFU, Extra
Harry D Larson KD9AIB, General
Byron L Nielson, Technician
Nathan T Snow, Technician

Thanks to Rich Range WB9SFG, Steve Twigg W9SWT, Jim Holich AB9SX and Joseph Moore KA9LMK for volunteering their time.

Amateur Radio exams are held the 3rd Saturday of every month in Rockford IL. The next session is 9AM February 15, 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 exam 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

SB PROP ARRL ARLP010

ARLP010 Propagation de K7RA

Average daily sunspot numbers were up for the recent reporting period (February 27 through March 5) and average daily solar flux decreased slightly, compared to the previous seven days. Average daily sunspot numbers increased nearly 29 points to 202.4, and average daily solar flux was off a little more than four points to 162.9.

The latest predictions for solar flux over the near term have steadily declined over the past ten days. The predicted average solar flux for the ten day period between March 7-16 was 161.5 in the February 25 forecast, 156 in the March 1 outlook, 138.5 on March 3, 135.5 on March 5, and 132 on March 6.

Predicted solar flux is 145 on March 7, 135 and 130 on March 8-9, 125 on March 10-11, 130 on March 12, 135 on March 13-14, 130 on March 15-17, 135 on March 18-20, 145 on March 21, 155 on March 22-24, and peaking at just 160 on March 25-27. It then declines to a low of 120 on April 11-13.

Predicted planetary A index is 5 on March 7, 12 on March 8, 10 on March 9-10, 8 on March 11, and 5 on March 12 through April 4.

F.K. Janda, OK1HH predicts quiet geomagnetic conditions on March 7, mostly quiet March 8-9, quiet to active March 10, quiet to unsettled March 11, mostly quiet March 12, quiet March 13-14, mostly quiet March 15, active to disturbed March 16-17, mostly quiet March 18, active to disturbed March 19, quiet to unsettled March 20-21, quiet to active March 22, quiet March 23-24, quiet to active March 25, quiet March 26, quiet to active March 27, and mostly quiet March 28 through April 1.

NASA has a new prediction for the current solar cycle, slightly revised from a month earlier. The current version updated March 3, 2014 is here:

<http://solarscience.msfc.nasa.gov/predict.shtml>

The revision is a smoothed sunspot peak of 69 late last summer (2013) from 67 earlier in the same summer in the report a month earlier. These numbers are only recently known because the smoothed sunspot number uses a whole year of data. If activity continues to increase, then it will drag this smoothed maximum further out, perhaps to early this year. But there definitely is a strong second peak happening now, stronger than the first.

The average of daily sunspot numbers for February 2014 was the highest of the current solar cycle at 174.6. In fact, the last time it was higher was the month of September 2002, when it was 206.4.

We've been running our own smoothed 3-month moving average of sunspot numbers, and now that February is over we know the average for the three months centered on January 2014: 138.5. This is also a high for this solar cycle. You may recall that this cycle seemed to have an earlier peak based on this moving average toward the end of 2011, when the averages centered on September through December 2011 were 98.6, 118.8, 118.6 and 110. Compare that to this most recent peak, with these 3 month averages centered on August 2013 through January 2014: 77.4, 91.2, 102.9, 123.7, 123.3, and 138.5 mentioned earlier.

The K7RA Solar Report

Here is an article from a reliable source noting this second peak is larger than the first, and that this slow cycle may have a much broader peak than earlier cycles:

<http://sidc.oma.be/news/240/welcome.html>

We got a late report on 6 meter propagation from Fred Honnold, KH7Y, who is on the south side of Hawaii's big island, which of course, is the island of Hawaii.

He sent this a week ago, February 28, after this bulletin was put to bed:

"Good morning from Hawaii. Forgot to send this on Monday to you. Sunday morning (February 23) at about 1830 I worked A45XR and EA8DBM on 6 meters CW. There was a good opening to HK and CE, and at the time my antenna was pointed about 120 degrees. I was calling CQ on 50.105, a W4 answered me and also a very weak signal behind the W4.

I worked the 4 and kept hearing A so I thought it might be a AC or something like that, but he came out of the noise and it was A45XR (Oman, at the mouth of the Persian Gulf) a rare catch for me. His signals built to 529 on CW and then he asked for SSB and we made the QSO. Chris, A45XR was using a 30 meter delta loop with very high SWR

so he could only run 100 watts. About a half hour later was called by EA8DBM with 559 signals looking the same direction. I talked to Jim, K6MIO about the QSOs and he told me they were TPL, transpolar long path. It really did not make much difference where I pointed the antennas, a pair of 8 elements. A45XR was also in Monday the February 24 and was much stronger as he put his 6 meter delta loop up. He also was in Tuesday morning 0830 very weak. Yesterday was a bust on 6 meters one strong DU and two JAs worked on back scatter looking to VK (245 deg)."

The Spring Equinox is only two weeks away! Hope for continued high solar activity here at the peak of the cycle. Plenty of great 10 meter propagation is in store.

Sunspot numbers for February 27 through March 5 were 227, 279, 177, 170, 191, 171, and 202, with a mean of 202.4. 10.7 cm flux was 175.7, 170.6, 164.6, 161.3, 161, 158, and 149.1, with a mean of 162.9. Estimated planetary A indices were 24, 13, 7, 5, 7, 8, and 7, with a mean of 10.1. Estimated mid-latitude A indices were 15, 10, 6, 3, 6, 8, and 6, with a mean of 7.7.

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

Saturday 04/12/2014
Madison, Wisconsin

Location: Mandt Community Center
400 Mandt Parkway
Stoughton, WI 53589

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

Sponsor: Madison Area Repeater Association

Type: ARRL Hamfest

Talk-In: 147.150 (PL 123.0)

Public Contact: Paul Toussaint , N9VWH
3835 County Road A Stoughton, WI 53589
Phone: 608-205-1994

Email: w9hsy@execpc.com

Sunday 05/04/2014
DeKalb, Illinois

Location: Sandwich Fairgrounds
1401 Suydam Road
Sandwich, IL 60548

Website: <http://www.karc-club.org>

Sponsor: Kishwaukee Amateur Radio Club

Type: ARRL Hamfest

Talk-In: 146.73- (PL 100); 146.52 Simplex

Public Contact: Robert Bob Yurs , W9ICU
1107 Commercial Street Sycamore, IL 60178
Phone: 815-895-7584

Email: w9icu@arrl.net

Saturday 04/05/2014
Noble Illinois

Location: Lions Club
110 West South Avenue
Noble, IL 62868

Website: <http://www.whereradio.webs.com>

Sponsor: WHERE Amateur Radio Club

Type: ARRL Hamfest

Talk-In: 146.760- (PL 94.8)

Public Contact: Steven Hamilton , KC9GMX
207 South Washington Street Geff, IL 62842
Phone: 618-919-0536

Email: steveton17@hotmail.com

Sunday 06/01/2014
Princeton, Illinois

Location: Bureau County Fairgrounds
811 West Peru Street
Princeton, IL 61356

Website: <http://www.w9mks.org>

Sponsor: Starved Rock Radio Club

Type: ARRL Hamfest

Talk-In: 146.955- (PL 103.5)

Public Contact: Matthew Weaver , KB9VZH
319 Desoto Street Ottawa, IL 61350
Phone: 815-313-5924

Email: kb9vzh@mchsi.com

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

Type: ARRL Hamfest

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 01/13/2014
Fox River Radio League

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

Website: <http://frrl.org>

Sponsor: Fox River Radio League

Type: ARRL Hamfest

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@frrl.org



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

March, 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