

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.

“Surfin” from ARRL April Home Page

Back when I began stinking up my parent's house with the scent of liquefied solder, there were radio and electronic stores in the area where I could buy all the parts to build my projects. But in the 1970s, those stores went the way of the vacuum tube. I had to go the mail order route to buy my parts unless it was a common component that my local RadioShack stocked.

Mail order was painful. Before you could order anything, you had to obtain a catalog from the mail order house in order to find the part number and price of the part you wanted. Then you wrote filled out the order form, mailed in your order (that's why they call it "mail order") and waited weeks for the delivery of the parts.

To rub salt in your wounds, sometimes a part you ordered was out of stock -- but you would not discover this until the other parts were delivered. Then you had to start the mail order process all over again, ordering a substitute part or ordering the part from another source. Meanwhile, dust is gathering on your project.

The Internet has changed all that. Today, you can order from online catalogs that let you know instantly if the widget you want is out of stock. Delivery seems instantaneous, too. I ordered something last Friday and it was delivered on Wednesday.

Are you into making radios? I keep going back to a website that sells an interesting array of parts, breakout boards and kits that you can play with and have some fun: [SparkFun Electronics](#). Their products are not strictly radio-related, but they have enough radio stuff to make things interesting. And if you are an electronics maker like I am, you will find the other stuff they have very tempting.

Editor's note: Stan Horzepa, WAILOU, seeks the unusual in radio. To contact Stan, send [e-mail](#) or add comments to the [WAILOU blog](#).

April 2013

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NEXT MEETING

FRIDAY
April 12, 2013

Location:
Foundation Room

Saint Anthony OSF
5666 East State Street
Rockford, Illinois

Program:

Hints and sources for
antique radio repair
Jim Holich AB9SX

VHF Modulated Continuous Wave Practice Net (MCW)

We have a renewed interest in CW. While some of the members have a lot of experience in this mode, a decent number of members are trying to hone their skills and increase their speed. By using MCW on the 2 meter band, it is possible to not only practice CW, but it also allows people to critique each other by voice on the same frequency. Obviously simplex will be used.

As a reminder to those who hold Technician Class privileges, it is a great opportunity to experience the HF bands. Technicians are allowed to operate on 80 meters (3.525 to 3.600); 40 meters (7.025 to 7.125); 15 meters (21.025 to 21.200) and 10 meters (28.000 to 28.200). It is not necessary to have an expensive transceiver or antenna system to operate on these bands.

The Net will be conducted by some of the more experienced operators. Don't be embarrassed by your assumed shortcomings. Everyone will be extremely patient. A MCW device will be needed to do this on FM. Here are the details for the modulator.

This is the web site (or you can Google ham gadget) for the Pico keyer that will do MCW on 2 meter rigs. We will be using 147.555 as the freq. as soon as we get things together, which should be soon. If anyone has any questions or needs help they can email me at WB9SFG@sbcglobal.net.....

Thank You Rich WB9SFG

http://www.hamgadgets.com/index.php?main_page=product_info&cPath=21&products_id=89&zenid=r0e71gpdh9qt82sl39vj37q2q6

AREA Repeaters

146.610 -	ENC/DEC pl 114.8	W9AXD
147.000 +	ENC/DEC pl 114.8	W9AXD
ATV input 1250 Mhz/ 434 Mhz		W9ATN
	output 421.25 Mhz	
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	

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

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Ham Rag Editor - Jim Holich, AB9SX, 779-552-8796
Repeater Chairman - Gordon Seaman, KC9NEX 815-234-5034

NVIS (Near Vertical Incident Skywave) Antenna

Make A Quick, Easy, Cheap, NVIS Antenna for Roadside Operating.

Or... "K.I.S.S." (Keep It Simple Sherlock)

by D. W. Thorne, K6SOJ, SEC SV Section

As most EMCOMM operators know, most of our communications are regional. (In the 30 to 200 mile range.) We also know that for this range, a NVIS (Near Vertical Incident Skywave) signal usually works best.

After installing the IC-706, and connecting it to my Outbacker Perth 2M through 80M mobile vertical, I was anxious to make a few contacts. The Outbacker is an excellent antenna, but as with all verticals, the radiation angle is towards the horizon. For regional work it left much to be desired.

On 40 meters, initial signal reports were only poor to fair between my home location in Macdoel, CA and KA7RAM, Bill, in Klamath Falls, OR, (30 air miles) and N6SSQ, Fergy, in Alturas, CA, (80 air miles). At the same time of day (1500L), and under the same conditions, good signals reports were received from Spokane, WA. It was nice to talk to the boys in the Evergreen State, but not necessarily useful for regional EMCOMM work.

I don't plan to do a lot of HF mobile operating while actually moving. In the past, for "mobile at rest" HF work, I have erected a 20 ft. (or so) portable mast, and hauled up a G5RV. This works well, but is a lot of hassle and takes more time than I wished. A "dipole" also requires more space, in two different directions, plus additional support. Also, an ATU (antenna tuning unit) of some sort is also required for non-resonant antennas.

I wanted a quick, easy to erect antenna, that would allow me to pull to the side of the road, and quickly get on the air with a NVIS signal.

The solution? Go to the shop junk box! (Or your local electronics supply house.) I found an old 3/8 x 24 antenna mount, and affixed it to the end of the steel light bar on the roof of the Land Cruiser (which is grounded well to the vehicle's body). Next, a 33 ft. long piece of #12 insulated wire was cut and a heavy duty lug (3/8" bore) was soldered to each end. (Make sure the connections are mechanically strong as well as making a good electrical connection.)

Using a short 3/8x24 cap screw and a couple of "jam nuts". One end of the 1/4 wave wire was attached to the center feed point and strung out just above head height, using a length of parachute cord tied through the solder lug on the other end. This distant end can be secured to a tree, a post, a rock, or even a stake in the ground.

The wire can be strung out in any convenient direction. The initial meter readings by the antenna analyzer gave a SWR of 1.5:1, and a impedance of 40-60 ohms depending upon where in the 40 meter band I tuned. Close enough for "government work"!

I decided to give it a try on 7232 kHz. I heard a signal just below that frequency and tuned down to 7230. There was my old friend W6US, Howard, in McArthur, CA (about 60 air miles) calling CQ!

I answered. Howard responded with, "Hello K6SOJ, you are 5 by 9 here." It tuned out that he was also testing a new mobile installation. BINGO! We chatted for awhile. Later K7DXV, Ed, in Klamath Falls chimed in.

"You're 5 x 9 here Dave."

What a simple solution!

I am far from what you would call an expert on antenna theory. What I am mainly interested is being able to quickly communicate from a "mobile" location; not cause any interference; and NOT damage the transceiver.

So...use your ingenuity and make a "quickie, NVIS, roadside portable antenna" for yourself! I'll wager that just about anything could be used for a mounting terminal, and could be mounted to a truck mirror mount, a roof rack, or a homebrew bracket secured to a metal camper, trailer, or motor home. Feed with a piece of RG-58 coax and make sure the mount is grounded well to the vehicle's body and frame. NOTE: If you have a fiberglass or plastic car, this system will not work, unless you also add a 1/4 wave "counterpoise" that can be laid out on the earth.

NVIS (Near Vertical Incident Skywave) Antenna

Oh yes, don't forget to take down your "roadside" antenna before you drive away. And, be sure to park safely, where another vehicle can't zoom by you and get snagged on the contraption!

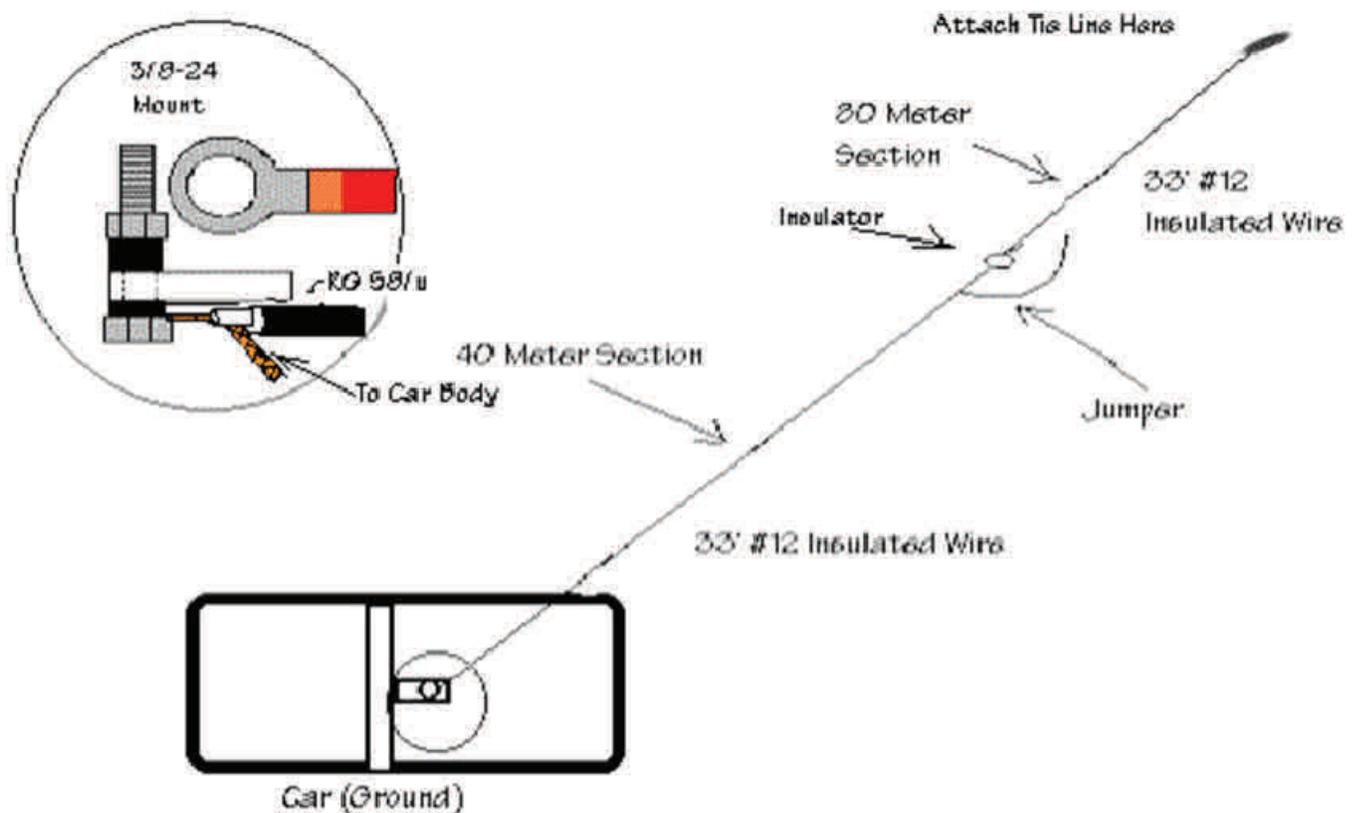
From what little I know, the 1/4 wavelength wire element is one half of this type of antenna, and the 5000 lbs. of steel in the Land Cruiser (or your vehicle) is the other half. I now have a 40M NVIS antenna, with which I can pull off to the side of the road, and be operating in less than five minutes!

For longer distances, and if you can park close enough to a tree or other support that is high enough, and you have enough cord (and a rock and a good throwing arm - HI), you can have a vertical or "sloper" on the air in just a few more minutes.

Since most of HF EMCOMM work is in the 40 and 80 meter bands, the next step was to cut another 33 ft. long wire, solder two more lugs, and use a machine screw, lock washer, and wing nut to convert it quickly for 80M use. Or, install an insulator, and a wire jumper with an alligator clip and you have a quick 'n easy 40-80M antenna.

Be sure to check any antenna for SWR and impedance before transmitting. (I use an MFJ-259 antenna analyzer.)

This antenna is basically nothing more than a unbalanced, 1/4 wavelength, horizontal wire, using a vehicle as the other half of the "dipole". A longer than 1/4 wave "random wire" will also work well if an ATU ("tuner") is used.



NVIS Roadside Antenna

Drawing by W7ARC

From the Secretary

Minutes of January 11,2 013 Meeting

President Doug Abrahamson opened the meeting at 7:06 p.m.

Secretary's Report was read by Jim Holich, AB9SX. A motion to accept the report as read was made by John Olson W9JGO and seconded by Dave Bond W9MG. The motion carried by unanimous vote.

The Treasurers report was then read by Jim Holich, AB9SX. A motion to accept the report as read was made by Kurt Eversole KE9N, and seconded by Steve Miles KC9WBH. The motion carried by unanimous vote.

Under old business, the results of the Illinois QSO Party were presented by Dave Lewis K9YM. A certificate was awarded for a 4 county station delivering 138,128 points. The station operated as W9I.

Kurt Eversole reported on the reservations and plans for 2013 Field Day. The committee will apply for a Special Event Call sign K9K.

New Business.

The repeater committee will meet and have a work day to repair the controller for the 147.000 repeater. The need for a new Chairman was discussed, and plans were made to accomplish that.

There was a short period of socialization and fellowship before the presentation.

The presentation on QRO operating was made by Rich Range WB9SFG and Dave Larsen K9ZXL. We played with some of the "toys" they brought. And we were enlightened about the fun that could be had by turning down the power of our stations.

50/50 drawing was held and won by Dave Larsen N9ZXL again. He donated the proceeds to the club treasury. Thank you Dave!!

We then had a motion to adjourn by Tom Shouler N9VJU and seconded by Rich Range WB9SFG. The motion carried by unanimous vote.

The meeting stood adjourned.

Submitted by Jim Holich—AB9SX
Secretary

AMATEUR RADIO EXAM NOTICE

March 16th there was 1 upgrade. Congratulations to:

Upgrade:
Mark T Germain KC9FOC, General

Thanks to Jim Holich AB9SX and Shari Harlan N9SH for volunteering their time.

Amateur Radio exams are held the 3rd Saturday of every month in Rockford IL. The next session is 9AM April 20, 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 document used for element credit). 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 will be held in the St Francis Room (Main Entrance then turn right).

Rusty Cordell WB9QYV
wb9qyv@aol.com

The K7RA Solar Report

Propagation Forecast Bulletin 14 ARLP014

From Tad Cook, K7RA

Seattle, WA April 5, 2013

To all radio amateurs

Solar activity increased over the past week, with average daily sunspot numbers up 32 points to 81.6, and average daily solar flux increasing more than 16 points to 113.4. The geomagnetic field was active on March 29, due to solar wind.

The predicted solar flux is 130 on April 5-7, 125, 115 and 110 on April 8-10, 105 on April 11-12, 120 on April 13-14, 115 on April 15, 110 on April 16-17, 105 on April 18-19, 100 on April 20-21, 105 on April 22 and 110 on April 23-24.

The predicted planetary A index is 5 on April 5, 8 on April 6, 5 on April 7-9, 8 on April 10-12, 5 on April 13-22, then 12, 8, 18 and 15 on April 23-26, 5 on April 27-29, and 8 on April 30 through May 4.

OK1HH predicts the geomagnetic field will be mostly quiet April 5, quiet to active April 6, quiet to unsettled April 7, mostly quiet April 8-9, quiet April 10, quiet to unsettled April 11-12, quiet to active April 13-14, mostly quiet April 15, active to disturbed April 16-17, mostly quiet April 18-19, quiet April 20-22, active to disturbed April 23, quiet to unsettled April 24, quiet to active April 25, quiet to unsettled April 26, and mostly quiet April 27.

Our three month moving average of sunspot numbers for January through March was 80.7. To review recent numbers, the three-month moving average of sunspot numbers centered on January, 2012 through February, 2013 were 83.3, 73.7, 71.2, 87.3, 91.5, 96.5, 91.9, 89.9, 81.2, 82.3, 74.4, 82.8, 73.6, and 80.7.

NBC ran an interesting report this week about modeling of the Sun's interior on a supercomputer. Read it at, http://science.nbcnews.com/_news/2013/04/04/17603918-suns-magnetic-heartbeat-is-discovered.

Jon Jones, N0JK reports: "I was in Hawaii during the weekend the CME impact March 17 mentioned by Bill, W3XO occurred. There was no significant VHF enhancement from the CME and geomagnetic propagation that day. If anything, conditions seemed worse on 6 meters. The day before the KH9 Wake Island beacon, H4 and 3D2 were in for hours.

"A day after the geomagnetic field started to settle down, propagation picked up. On March 22 the KH9/WA2YUN/b was in again for about 5 hours, and I worked stations in Australia and FK8CP on TEP around 0545 UTC. I was heard by BV2DQ in Taiwan. The KH9 beacon was back almost every evening until we left for home on March 23."

The K7RA Solar Report

Jim Smith, K3RTU sent in another report from the field, working DX from his backpack-based radio. He writes, "Last emailed you on 2/25/2013 after working EA8BVP in the Canary Islands, with both of us running QRP. I had been operating from Ridley Creek State Park in FM29 (southeast PA). Since then I have made a number of good contacts from the same location, but yesterday April 3 I hit the jackpot on 17 meters. From 2045 UTC until 2124 UTC I worked the following stations using CW: R7AY and SV2JAO, then worked the following stations using SSB: S57DX, W7FE and IK4GRO. Both R7AY and SV2JAO gave me 559 reports and got a 5x6 from S57DX, 5x4 from IK4GRO, but W7FE could barely hear me. I was using my FT-817 and Buddistick again. To say the least, 17 meters was red hot but not the weather in FM29. Had to finally pack everything up into my backpack and head back to the car, which was a mile away, because of the mid 40s temperature and wind chill that made it feel like 30. It's hard to send CW when your fingers are stiff from the cold!"

Jim mentioned working W7FE, who is in Henderson, Nevada. Check out the W7FE page at <http://www.qrz.com/db/W7FE> to see what's inside the little building behind his house.

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service web page at, <http://arrl.org/propagation-of-rf-signals>. For an explanation of the numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>. An archive of past propagation bulletins is at <http://arrl.org/w1aw-bulletins-archive-propagation>.

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

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for March 28 through April 3 were 49, 73, 70, 83, 84, 103, and 109, with a mean of 81.6. 10.7 cm flux was 98.7, 105.1, 108.4, 113.3, 119.1, 122.1, and 127, with a mean of 113.4. Estimated planetary A indices were 9, 23, 17, 4, 6, 4, and 3, with a mean of 9.4. Estimated mid-latitude A indices were 10, 19, 12, 3, 6, 4, and 3, with a mean of 8.1.

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.

"The Stockholm Inn"
2420 Charles Street



HamFest Information

Madison Hamfest
Madison Area Repeater Association
Sunday, April 14

Mandt Community Center
400 Mandt Parkway
Stoughton, WI 53589

Paul Toussaint, N9VWH
3835 County Road A
Stoughton, WI 53589
608-205-1994
w9hsy@execpc.com
Talk-in 144.150 +600 PL 123.0

DeKalb Hamfest
Kishwaukee Amateur Radio Club
Sunday, May 5

Sandwich Fairgrounds
1401 Suydam Road
Sandwich, IL 60548

Bob Yurs, W9ICU
1107 Commercial Street
Sycamore IL, 60548
608-205-1994
w9icu@arrl.net
Talk-in 146.730 minus (PL 100)

Starved Rock Radio Club Hamfest
Starved Rock Amateur Radio Club
Sunday, June 2

Bureau County Fairgrounds
811 West Peru Street
Princeton, IL 61356

Matthew Weaver, KB9VZH
319 DeSoto Street
Ottawa, IL 61350
815-313-5924
mweaver@vactor.com
Talk-in 146.955 minus (PL 103.5)

Six Meter Club of Chicago Hamfest
Sunday, June 16

Wheaton Fairgrounds
2015 Manchester Road
Wheaton, IL 60187

Mike Huedepohl, WD9GJK
3532 Raymond Avenue
Brookfield, IL 60513
708-485-5481 (after 1800)
wd9jjk@atll.net
Talk-in 146.52;146.37/97 (PL 107.2)

Ozaukee Radio Club Swapfest
Saturday May 4, 2013

Circle-B Recreation Center
6261 St Hwy 60 and Oz City Hwy 1
8 am to 1 pm
Tom Nawrot AA9XX
262-232-1029

Treasurers' Report



ROCKFORD AMATEUR RADIO ASSOCIATION INC.

MARCH 25, 2013

PRIMARY CHECKING:

Beginning Balance 2/28/13	1,615.63
Deposits	189.00 *
Withdrawals	0
Ending Balance 3/25/13	1,804.63

ORGANIZATION SAVINGS:

Beginning Balance 2/28/13	3,222.57
Ending Balance 3/25/13	3,222.98

REPEATER COMMITTEE CHECKING:

Beginning Balance 2/28/13	300.00
Ending Balance 3/25/13	300.00 **

* Deposit: 50/50 Raffle Donation 39.00
Mar. 23 Membership Dues 150.00
Total..... 189.00

** Received notice from bank that account is dormant and requires account holder signature to reactivate.

Submitted by Shannon Larson—KC9QBC RARA Treasurer



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
	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

April 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