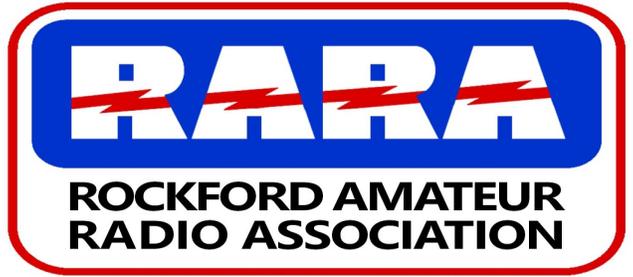


# HAMRAG

Visit our website for more club and area ham information at <http://w9axd.org>, or join us on Facebook at this [LINK](#)



## RARA Mission Statement

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

## September 2022

## Presidents Message

## INSIDE THIS ISSUE

Hello Everyone,

Our September meeting is going to be a get together this next Saturday night, Sept. 10th, at Gerry's Pizza. We are going to have this at 5:00 pm, so that people that do not like driving at night can be there and get home before it gets dark. (yes, it getting to be that time of year) Please join us for this social event and see the other RARA members. You may order off the menu and you are responsible for the charges involved. **Please let me know if you are coming, and how many will be in you party, so I can get an idea of how many tables we will need. Send an email to: [w9axdrara@gmail.com](mailto:w9axdrara@gmail.com) by Friday night to let us know.** If you have any questions, you can email me at [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com). I have posted a map below for reference.

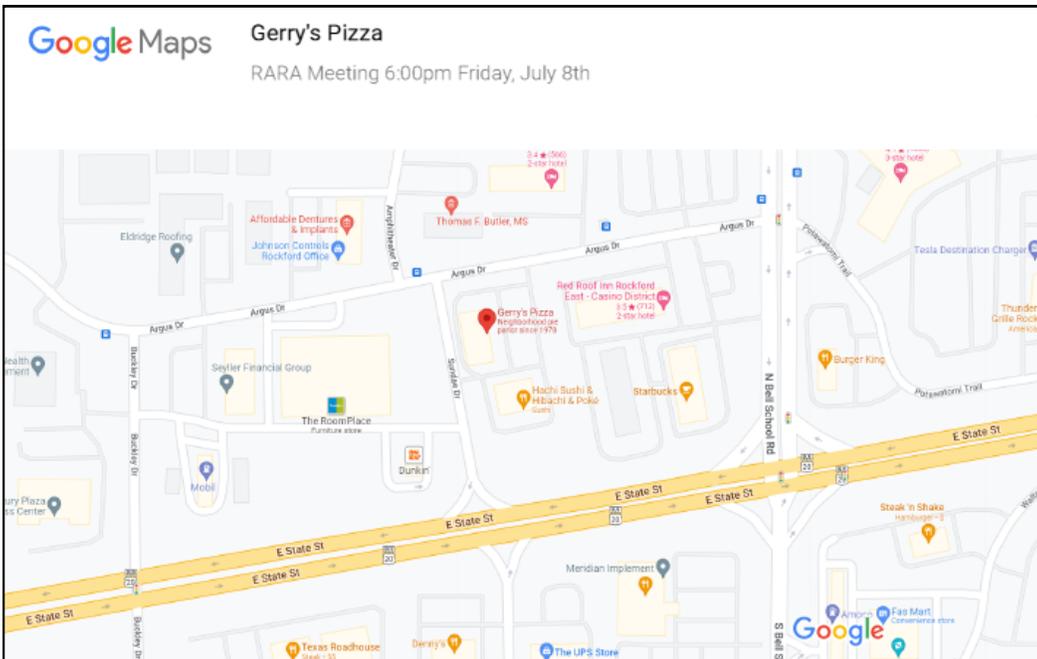
- President's Message - page 1
- Monitoring Aircraft-Page 2-4
- RARA Events & Ect.- page 5
- W9DXCC - page 6
- Operating Events - page 7-10
- Hamfest Info. - page 11 & 12
- Membership Form - page 13

On the air activities for this month include the annual Route 66 special event, and the ARRL September VHF Contest. October brings us the 2022 Illinois QSO Party which is held on Sunday, October 16, 2022 from 1700 UTC to 0100 UTC October 17th. More information on these inside the Hamrag. Contact me if you have any questions on these operating activities.



I hope to see everyone Saturday night,  
Kurt Eversole—KE9N  
President

**NEXT MEETING**  
On  
**Saturday**  
**September 10th, 2022**  
  
**5:00 pm**  
At  
**Gerry's Pizza**  
**7403 Argus Drive**  
**Rockford, IL**  
**61107**



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

## Monitoring Aircraft Communications

### Monitoring HF DL Aircraft Comms, by KD9MAP

Airliners use several radio comm channels that radio listeners can monitor. The best known is the AM radiotelephone comms in the 108-136MHz airband. Then there is ADS-B, which broadcasts aircraft position info digitally on 1090MHz. Also there is ACARS, a digital telemetry and email system which uses several frequencies in the VHF airband. I discussed ACARS in an earlier HamRag article.

All three of those methods use VHF or UHF, so the monitoring is mostly line-of-sight. It turns out that there is also an **HF** comm technology that airplanes use for sending position, telemetry and text messages, which opens for us the ability to monitor aircraft *beyond the horizon* using skip. This mode is called HF DL, and it is transmitted on several designated frequencies in the HF band:

- 1: San Francisco - California Frequencies: 5508 6559 8927 10081 11327 13276 17919 21934
- 2: Molokai - Hawaii Frequencies: 5514 6565 8912 8936 10027 11312 11348 13276 13312 13324 17919 21937
- 3: Reykjavik - Iceland Frequencies: 3900 5720 6712 8977 11184 15025 17985
- 4: Riverhead - New York Frequencies: 5652 6661 8912 11387 13276 17919 21931
- 5: Auckland - Nz 5583 6535 8921 10084 13351 17916
- 6: Hat Yai - Thailand 5655 6535 8825 10066 13270 17928 21949
- 7: Shannon - Ireland 2998 3455 5547 6532 8843 8942 10081 11384
- 8: Johannesburg - South Africa Frequencies: 3016 4681 5529 8834 11321 13321 17922 21949
- 9: Barrow - Alaska Frequencies: 2944 2992 3007 3497 4654 4687 5529 5538 5544 6646 8927 8936 10027 10093 11354 17919 17934 21928 21937
- 10: Muan - South Korea Frequencies: 2941 5502 6619 8939 10060 13342 17958 21931
- 11: Albrook - Panama 5589 6589 8894 10063 13264 17901
- 13: Santa Cruz - Bolivia Frequencies: 4660 6628 8957 11318 13315 17916 21997
- 14: Krasnoyarsk - Russia Frequencies: 5622 6596 8886 10087 13321 17912 21990
- 15: Al Muharraq - Bahrain Frequencies: 5544 8885 10075 13354 17967 21982
- 16: Agana - Guam Frequencies: 5451 6652 8927 11306 13312 17919 21928
- 17: Canarias - Spain Frequencies: 6529 8948 11348 13303 17928 21955

(continued)

### Editors Note

If you would like to have something published , please call me or email me at [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com).

**Cut-off for the October 2022 issue will be Friday, September 30, 2022**

Kurt - KE9N, Editor

## Monitoring Aircraft Communications

You can receive these with any SSB receiver, but to decode them you need to use software. I use inexpensive **RTL-SDR Blog v3** dongle receivers, and free software **dumphfdl**. Here are a couple messages I decoded Aug 18 2022 on 6661KHz:

[2022-08-18 23:44:58 CDT] [6661.0 kHz] [3.5 Hz] [-49.3/-53.0 dBFS] [3.7 dB] [300 bps] [S]

Downlink LPDU:

Src AC: 255

Dst GS: 4

Type: Logon resume

ICAO: 06A129

Frequency data:

Flight ID: QTR75C

Lat: 47.0850889

Lon: -53.7376666

Time: 04:44:52

[2022-08-19 07:35:26 CDT] [6661.0 kHz] [4.9 Hz] [-48.7/-53.6 dBFS] [5.0 dB] [600 bps] [D]

Uplink LPDU:

Src GS: 4

Dst AC: 55 (A789BC)

Type: Unnumbered data

Enveloped data:

ACARS:

Reassembly: in progress

Reg: .N585NW

Mode: 2 Label: RA Blk id: H More: 1 Ack: !

Message:

42 RQST DLY REASON^M  
FREE TEXT ADDRESS S.^M  
ENTER ONE BEST P-CODE^M  
IN 1ST FOUR CHARACTERS^M  
AND ADDITIONAL TEXT TO^M  
DESCRIBE FINAL DELAY^M  
REASON BEFORE OUT.^M  
IF NO PCODE APPLIES, ^M  
DESCRIBE VIA TEXT ^M  
COMMENT.^M  
^M  
PAPU-NO AP

# Monitoring Aircraft Communications

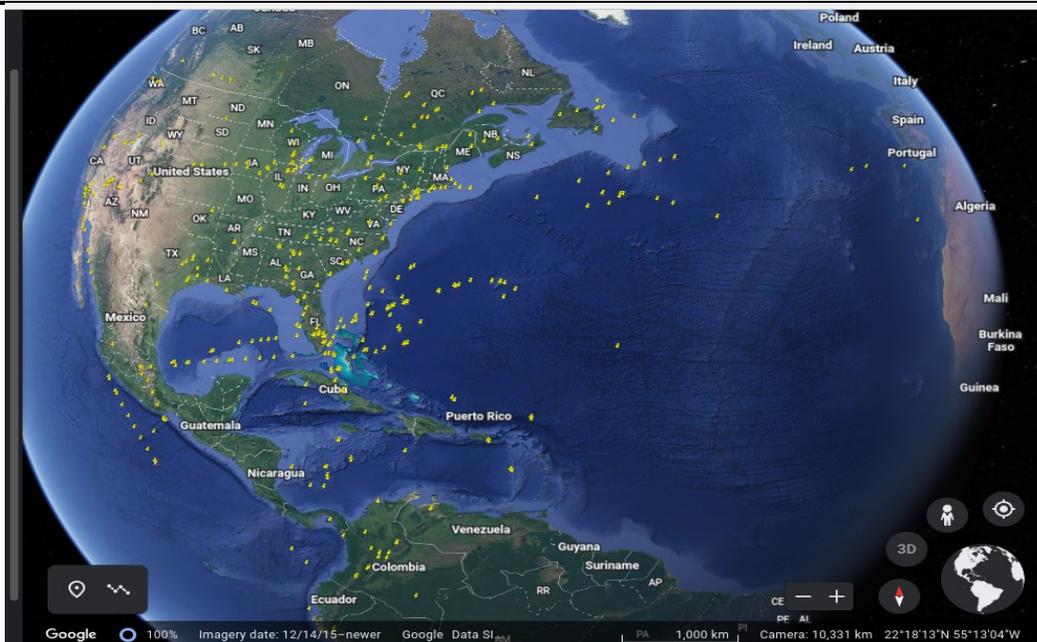
The first message is from flight QTR75C to ground, and gives position info. The second is a text message sent from ground to an aircraft. The messages are error-checked with CRC, so corrupted messages are simply ignored; when you do get a decode, you know it is error-free.

After I accumulated a few hundred of these messages, I wrote a little Python program to extract the position info, convert it to KML format, and then I loaded the KML into Google Earth to map the positions. I gather that the 6661 frequency is used by Atlantic and Western Hemisphere traffic. The little yellow flecks (pushpins) show the aircraft locations at the times the messages were sent. We get lucky sometimes and can see the linear trajectory of a flight in successive reports. As you can see, I was hearing aircraft from at least three continents. I don't know what transmit power HF DL uses, and I don't know what kind of HF antennas airliners have. But clearly the power and antennas are adequate to skip signals long distances, giving us listeners another fun thing to monitor.

For info about RTL-SDR dongle receivers: <https://www.rtl-sdr.com/rtl-sdr-quick-start-guide/>  
dumphfdl software and docs are here: <https://github.com/szpajder/dumphfdl>

HF DL mode overview: [https://www.sigidwiki.com/wiki/High\\_Frequency\\_Data\\_Link\\_\(HF\\_DL\)](https://www.sigidwiki.com/wiki/High_Frequency_Data_Link_(HF_DL))

73, Kerry Tatlow, KD9MAP



## [The July Issue of Digital QST is Now Available!](#)

The April edition of *Digital QST* is now available for viewing on your desktop or laptop. Click [here](#) to open the issue. It is also available for reading on your Apple, Android, or Kindle Fire devices.

**You must be a member of the ARRL to view this.**



## Local Events and Information

### UPCOMING RARA EVENTS

**September 10th, 2022** - General RARA Meeting at Gerry's Pizza 5:00 pm

**September 21, 2022** - RARA Board Meeting 7:00 pm on Google Meet

**October 14, 2022** - General RARA Meeting

**October 26, 2022** - RARA Board Meeting 7:00 pm on Google Meet

### Local Net Information

- Mon** - 7:00pm - RARA Info. Net & CW Lesson, 146.610 (-) offset, pl 114.8  
8:00pm - McHenry Cnty. RACES Net, 146.835 (-) offset, pl 91.5
- Tues** - 7:00pm - Health & Tech Net & CW Lesson , 146.610 (-) offset, pl 114.8  
7:00pm - Rock County Public Service Net, 145.450 (-) offset, pl 123.0
- Wed** - 7:00pm - Stephenson Cnty. ARES Net, 147.390(+)offset, pl 114.8  
7:30pm - Greater Beloit Radio Net, 147.120 (+) offset, pl 123.0
- Thurs** - 7:00pm - Health & Tech Net & CW Lesson, 146.610 (-) offset, pl 114.8  
8:00pm - Stephenson Cnty. SATURN Net, 147.390 (+) offset, pl 114.8
- Fri** - 8:00pm - Friday Night Fun Net, KC9GCR, 146.610 (-) offset, pl 114.8
- Sat** - 8:00pm - Saturday Ragchew Net, 146.610 (-) offset, pl 114.8  
9:00pm - Saturday Night Fun Net Milw., 146.910 (-) offset, pl127.3
- Mon. thru Friday** - 8:00am to 9:00am - Senile Net, 14.287 (HF USB)

### 2022 RARA Officers and Board

#### **Officers:**

President - Kurt Eversole, KE9N, 815-389-2784, [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com)

Vice President - Tom Shouler, N9VJU, 815-633-0089, [n9vju@comcast.net](mailto:n9vju@comcast.net)

Secretary - Jeff Metters, KD9MEC, 815-670-5506, [jeffmetters@gmail.com](mailto:jeffmetters@gmail.com)

Treasurer - Jimmy Curtis, KC9GOL, 779-537-2233, [jimhcurtis7818@yahoo.com](mailto:jimhcurtis7818@yahoo.com)

#### **Directors:**

Mark Broman, N9CNW, 815-218-5514, [markbroman@hotmail.com](mailto:markbroman@hotmail.com)

Larry Lisle, K9KZT, 815-397-9595, [l.lisle@usa.net](mailto:l.lisle@usa.net)

Ron Scott, 815-601-7754, [soccerrefl@charter.net](mailto:soccerrefl@charter.net)

Larry Schubert, AC9GO, 815-624-7772, [larry.schubert@gmail.com](mailto:larry.schubert@gmail.com)

Webmaster - Kerry Tatlow, KD9MAP, [kd9map@gmail.com](mailto:kd9map@gmail.com)

Repeater License Trustee - Gordon Seaman, KC9NEX, 815-262-0294, [kc9nex@gmail.com](mailto:kc9nex@gmail.com)

Hamrag Editor / Repeater Chairman - Kurt Eversole, KE9N, 815-389-2784, [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com)

## 2022 W9DXCC Convention

The W9DXCC convention is held annually in the Chicagoland area. Sponsored by the Northern Illinois DX Association, this convention is one of the premier DX conventions in the country. Enjoy the day filled with quality programs, equipment vendors, QSL card checking, prizes, and socializing. Be sure to end the day by staying for the convention banquet.

### 2022 Convention Dates & Location

<https://w9dxcc.com>

**Friday, September 16th, 2022 (DX & Contest Universities)**

**Saturday, September 17th, 2022 (W9DXCC Convention & Banquet)**

[Chicago Marriott Naperville](#)

1801 North Naper Boulevard

Naperville, Illinois 60563

## 2022 Programs

The following programs have been confirmed for W9DXCC 2022. More are in the works, and will be added as they are confirmed.

### **3Y0J Bouvet Preview**

Adrian Ciuperca (K08SCA) will provide a preview of the January 2023 [3Y0J expedition](#) to Bouvet

### **Cycle 25 Propagation Outlook**

Carl Luetzelschwab (K9LA) will present on the the outlook of propagation as cycle 25 begins to ramp up.

### **ARRL Forum**

Central Division Director Carl Luetzelschwab (K9LA), Kermit Carlson (W9XA) and others will provide an update as to the happenings at the ARRL.

### **Crozet Island Preview**

Paul Granger (F6EXV) will give us a preview (via Zoom) of the [upcoming expedition to Crozet Island](#).

### **Operating the CQWW DX Contest From all 40 CQ Zones**

Dick Norton (N6AA) will be providing us insight on the unique situation of having operated the CQWW DX contest from every CQ zone on the planet.

### **50th Anniversary of the NCDXF**

Glen Johnson (W0GJ) will be providing a brief program on the 50th anniversary of the Northern California DX Foundation. The NCDXF will also have an exhibit table displaying their "rock collection" from various DXpeditions.

### **Radio Frequency Interference and the Radio Amateur (RFI Seminar)**

EMI is a problem that affects hams and their neighbors alike. Ed Hare, W1RFI, ARRL Laboratory Manager and one of the editors of the ARRL *RFI Book*, has put together this 30-minute slide presentation to give an overview of politics, personalities and technical issues involved in EMI control. His presentation outlines the standard causes and cures for interference. The question-and-answer session that follows the formal slide presentation turns this into a real RFI workshop.

### **Banquet Keynote Speaker**

Tim Duffy, K3LR – Going forward for DXing Operations

## OPERATING EVENTS

### Route 66 On the Air Special Event

The annual Route 66 On the Air Special Event will take place September 10 - 18, 2022. The purpose of the event is to commemorate the history of the "Mother Road" connecting the east and west United States.

Now in its 23rd year, the Northern Arizona DX Association (NADXA) started the event, which is now coordinated by the Citrus Belt Amateur Radio Club (CBARC) in San Bernardino, California.

There will be 21 stations with 1x1 call signs on the air from Chicago, Illinois, to Santa Monica, California, all with consecutive calls starting with W6. NADXA will operate three of the 21 stations, including W6G (Flagstaff, Arizona), and W6S (Arizona Rover 1). They'll set up at various spots along Route 66 east of Flagstaff, and W6T (Arizona Rover 2) will be set up in Bellemont. Later in the week, the event will be moved to Parks, on old Route 66, west of Flagstaff.

The history of the Mother Road began in 1926, when US Highway 66 was established. It was the first major improvement to the link between the west coast and the nation's heartland. Through stories, songs, and TV shows, the highway came to symbolize the freedom of the open road, inspiring many to see America in its entirety. The demise of Route 66 began in the 1950s, as construction began on the new interstate highway system. US Route 66 was officially decommissioned in 1986, but today, small portions of the highway still exist in several states.

For more information on participating stations, certificates and decals, and the Route 66 On the Air Special Event, visit the [Citrus Belt Amateur Radio Club \(CBARC\)](#) and [Northern Arizona DX Association \(NADXA\)](#) websites.

Visit the ARRL Special Event Stations database at [www.arrl.org/special-event-stations](http://www.arrl.org/special-event-stations) to find other on-the-air events and commemorations.



# OPERATING EVENTS

## September VHF Contest Rules

### Introduction and How to Operate

**Contest Objective:** To contact amateur stations in different 2 degrees x 1 degree grid squares on the amateur bands above 50 MHz.

**Contest Period** (All dates are maintained in the ARRL contest calendar): January: Third or fourth full weekend in January as announced, 1900 UTC Saturday through 0359 UTC Monday  
June: Second full weekend in June, 1800 UTC Saturday through 0259 UTC Monday. September: Second full weekend in September, 1800 UTC Saturday through 0259 UTC Monday. There are no operating time restrictions in any category.

**Log Deadline:** Upload your log at [contest-log-submission.arrl.org](http://contest-log-submission.arrl.org) no later than TEN (10) days after the contest is over at 0259 or 0359 UTC. Paper log forms are available via the ARRL Contests web page.

**Bands and Modes:** Use any amateur band above 50 MHz. Contacts may be made using any mode. Contact stations only once per band.

**Categories:** Single Operator (High and Low Power); Single Operator Portable; Single Operator, 3-Bands, and Single Operator, FM-Only. Classic, Limited, and Unlimited Rover. Limited and Unlimited Multioperator. Single Operator (High and Low Power); Single Operator Portable; and Single Operator, 3- Bands entrants may enter in either All Mode or Analog Only mode sub-categories.

**Contacts:** W/VE stations may contact any other station. DX stations may only contact W/VE stations.

**Exchange:** Send 4-character Maidenhead grid-square locator ([www.arrl.org/grid-squares](http://www.arrl.org/grid-squares)). A signal report is optional.

This is a typical contest contact:

CQing Station: CQ test from KOØZ

Answering Station: W9SZ

CQer: W9SZ EM48

Answer: EN50

CQer: Thanks KOØZ

As the answering station, it is not necessary to send the CQing station's call before the exchange unless you think there might be some confusion about which station you are responding to.

**Scoring:** Contacts count for different points based on band: Count one point for each complete 50- or 144-MHz QSO. Count two points for each 222- or 432-MHz QSO. Count three points for each 902- or 1296-MHz QSO in Sept. All contest queries should be directed to [contests@arrl.org](mailto:contests@arrl.org) or 860-594-0232.

## OPERATING EVENTS

### Announcing the 2022 Illinois QSO Party

*Sponsored by the Western Illinois Amateur Radio Club*

**Date/Time:** 1700 UTC October 16 to 0100 UTC October 17, 2022

**Bands:** 160 through 2 meters, excluding WARC bands (60, 30, 17 and 12 meters)

**Exchange:** IL stations give RS/T and county; others give RS/T and state, province or country

**Scoring:** Phone QSO: 1 point; CW/digital QSO 2 points. No repeater QSOs. All stations are limited to one transmitted signal at a time. (*But see new "Unlimited" category below*). SO2R operation is permitted. Stations may be worked once per band and mode (phone and CW/digital) and once per band/mode/county for IL Mobile and Rover stations. Each Mobile or Rover vehicle is considered one station and must use only one call. Contacts with/by stations at the border of 2/3/4 counties count as 2/3/4 counties and 2/3/4 QSOs. IL stations multiply points by the sum of IL counties, US states, VE provinces and DXCC countries (maximum 5) worked. Canada, KH6 and KL7 do not count as DX entities. Additional DX contacts count for points but not multipliers. Non-IL stations multiply points by the number of IL counties worked.

#### **Entry Classes:**

**IL Fixed Station, High Power.** Permanent station location, single county, transmitter power exceeding 100 watts PEP. (*Note change...was 200 watts PEP*)

**IL Fixed Station, Low Power.** Permanent station location, single county, transmitter power under 100 watts PEP. (*Note change....was 200 watts PEP*)

**Illinois Portable:** Not a permanent station location; antennas erected for the purpose of the contest; may be on a county line or corner. (NOTE: County lines established by waterways *may not be activated* for ILQP).

**Illinois Mobile:** Station capable of motion while operating though may be stationary. *Entrants are encouraged to utilize a separate driver and choose operating procedures with safety uppermost in mind!* Mobile entrants may operate from *only one county at a time*. Simultaneous operation from multiple counties will result in reclassification as a "Rover".

**Illinois Rover:** Station operating from more than one non-permanent location. Single-county, county line and county corner operations are permitted. Any type of mobile or portable antennas may be used. Any power source may be used (auto, generator or commercial mains). Rover stations may operate when moving or stopped.

**Outside Illinois, High Power:** Any fixed, portable or mobile station operating from outside the state of Illinois with transmitter power exceeding 100 watts PEP (*Note change: was 200 watts*)

## OPERATING EVENTS

**Outside Illinois, Low Power:** Any fixed, portable or mobile station operating from outside the state of Illinois with a transmitter power not exceeding 100 watts PEP (*Note change: was 200 watts*).

**QRP competition:** A QRP entrant shall certify that the operation was with transmitter power at all times not exceeding 5 watts by indicating QRP in the entry class in the Cabrillo file or checking the QRP box on the summary sheet.

***Unlimited: (New category) Stations wishing to employ multiple transmitted signals simultaneously at a single site may enter as "Unlimited". This class is created as an experiment to encourage groups to train new operators and allow several the opportunity to participate.***

**Awards:** Plaques will be awarded to the highest-scoring IL Fixed Station High Power, IL Fixed Station Low Power, IL Mobile, IL Rover, IL Portable, 2-County Line Portable, Outside IL High Power and Outside IL Low Power stations. Plaques will also be awarded, regardless of entry class or station location, to the stations making the highest number of raw phone QSOs, raw cw QSOs and raw mixed-mode QSOs.

Certificates will be awarded to the 2<sup>nd</sup> through 5<sup>th</sup> place IL Fixed Stations High Power, the 2<sup>nd</sup> through 5<sup>th</sup> place IL Fixed Stations Low Power, 2<sup>nd</sup> through 5<sup>th</sup> place IL Mobiles, 2<sup>nd</sup> through 5<sup>th</sup> place IL Rovers, the top IL and Outside IL QRP entrants, the top 3 IL single-county portables, 2<sup>nd</sup> and 3<sup>rd</sup> place IL 2-county portables, top 3 IL 3-county portables, top 3 IL 4-county portables and the highest-scoring (reporting at least 25 contacts) stations in each US State, VE province and DXCC country. As certificates are delivered in electronic format via e-mail, all entrants are requested to provide a valid e-mail address in the Cabrillo file or on the summary sheet.

**Illinois Club Competition:** Illinois entrants are encouraged to include the name of their local club on their entries. ILQP Outstanding Achievement Award: Non-IL stations working at least 200 contacts or 75 IL counties will receive a special certificate.

**Logs:** All entrants who use computerized logging are required to submit logs in electronic format. *Do NOT submit a computer-printed log from a logging program without also providing the electronic file (Cabrillo file), as the scoring and verification process starts by transferring all log data into a master Excel file.* Hand-written paper logs accompanied by an official ILQP summary sheet will be accepted for transcription by the ILQP committee. Those who submit paper logs absolve the committee of all responsibility for miscopied log information. (See below)

**Electronic logs:** Cabrillo format is preferred. Those entrants using a program that does not provide Cabrillo files for submission should contact the committee concerning acceptable formatting. Use of the fill-in Excel file available on the ILQP site <https://w9awe.org/ilqp/> under Sample\_Excel\_Log is encouraged for non-Cabrillo logs.

Electronic logs should be sent as attachments [to n9jf@arrl.net](mailto:n9jf@arrl.net).

# 2022 Radio Expo

## Northern Illinois' Largest Hamfest

### Sunday

## September 25th, 2022

Dealers!

Radios!

Computers!

Electronics!

Raffles!

### Talk-In Repeaters

146.760 – 107.2 CFMC

Boone County Fairgrounds

8791 IL-76, Belvidere, IL 61008

Indoor Market 8am-3pm

Flea Market 6am-3pm

Breakfast - Lunch

Bring The Family

Hourly Drawings

### VEC Testing 9am-Noon

RV's or Motor Homes

Camping

Water-Electric \$35



### MAKING HAM RADIO FUN

Advance Tickets - \$8.00 – At the Gate - \$10.00 - Kids under 12 Free Tickets required with Tables

Name & Call \_\_\_\_\_ # of Tickets \_\_\_\_\_ x \$8 = \_\_\_\_\_

Address \_\_\_\_\_ All tables \_\_\_\_\_ x \$15 = \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_ \$10.00 – Inside Electric \_\_\_\_\_ Outside Electric \_\_\_\_\_

For event questions: Call 773-614-4733  
Email [wa9orc@gmail.com](mailto:wa9orc@gmail.com)

Make Check payable to: \_\_\_\_\_ Total \_\_\_\_\_

Chicago FM Club  
3619 S. 54TH CT.  
CICERO, IL. 60804

Flyer on website <http://www.chicagofmclub.org>

CFMC reserves the right to make any necessary changes required

Vendor setup is Saturday, September 24th from 9:00 – 4:00 PM with security over night.

# UPCOMING HAMFESTS

## HRO Superfest, ARRL Central Division Convention

**Start Date:** 09/23/2022

**End Date:** 09/24/2022

**Location:** Ham Radio Outlet  
5710 W. Good Hope Rd.  
Milwaukee, WI 53201

**Website:** <https://www.hamradio.com/locations.cfm?storeid=21&cmp=1>

**Sponsor:** Ham Radio Outlet

**Talk-In:** 145.130 127.3 pl

**Email:** [milwaukee@hamradio.com](mailto:milwaukee@hamradio.com)

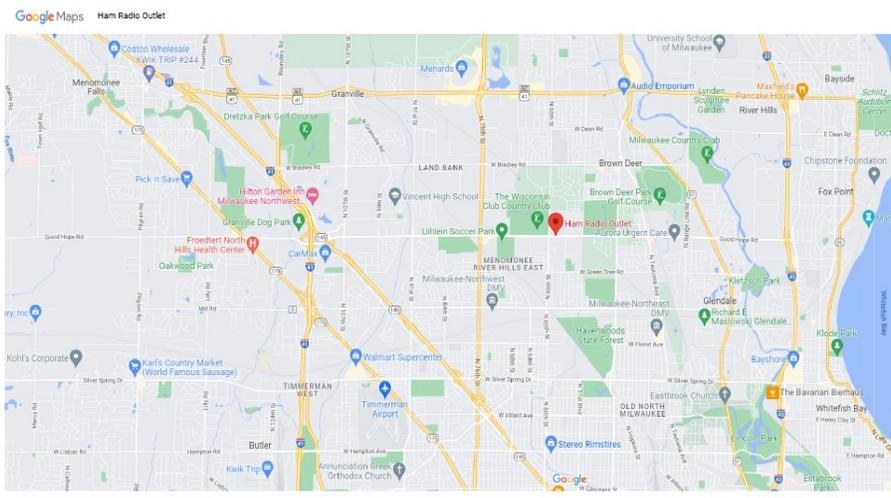
Meet manufacturers, attend forums and win prizes. Local clubs will also be at the show.  
License testing Saturday from 8:30am to 11am.  
Parking: Free parking will be at the HRO Milwaukee store.

### Confirmed vendors

ABR Cable  
ARRL  
Cable Xperts  
Chameleon Antennas  
Compactenna (Saturday Only)  
Icom  
Pulse Larsen  
RT Systems  
SDRplay  
Times Microwave  
Unified Microsystems  
West Mountain Radio  
Yaesu

### Forums (Schedule TBA)

Compactenna  
Chameleon Antennas  
Receiving Antennas For All Yards - W9XT  
West Mountain Radio  
ARRL Update - Central Division  
Solar Cycle 25 - K9LA  
Best Soldering Techniques for beginners  
Parks on the Air - N9EEE



Ham Radio Outlet  
4.7 ★★★★★ 200 reviews  
Electronics store

# RARA MEMBERSHIP FORM

If you would like to join the Rockford Amateur Radio Association, please fill out the form below and mail it (with the membership fee payment) to the address shown at the bottom of the form. If you have any questions contact our treasurer, Jimmy Curtis, KC9GOL, at 779-537-2233, [jimhcurtis7818@yahoo.com](mailto:jimhcurtis7818@yahoo.com)  
**Thank you for your support!**



## 2022 RARA Membership Form

### Dues are \$15.00

Name: \_\_\_\_\_ Callsign: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Phone – Home: \_\_\_\_\_ Cell: \_\_\_\_\_

Can we release your e-mail and phone number to members only? Yes \_\_\_\_\_ NO \_\_\_\_\_

What things do you like to do with ham radio? \_\_\_\_\_

\_\_\_\_\_

What things do you want to do, but need more information to do so? \_\_\_\_\_

\_\_\_\_\_

Would you be available to make a presentation on some part of our hobby and what?

\_\_\_\_\_

\_\_\_\_\_

Do you have any questions that we can help you with presently? If so, explain below.

\_\_\_\_\_

\_\_\_\_\_

Please fill out all the information on the form and mail it with \$15.00 to the following address:

Rockford Amateur Radio Association

P.O. Box 8465

Rockford, IL 61126