QSO'er

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December 2025

Winter Edition

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FEATURES

IN EVERY ISSUE

QSO'er

A publication of the
Fox Cities Amateur Radio Club
P.O. Box 2346
Appleton, Wisconsin 54912
www.fcarc.club

FCARC Officers

President— Mike Moore (WI9MMM)

Vice-President— Andy Lawton (AJ9L)

Treasurer— Donna Mendyke (KC9THF)

Secretary— Gene Wall (KE8KWF)

Membership Coordinator— Karen Thorne (WB9ZNA)

Technical Director— Larry Peterson (WA9TT)

Members At Large

Rudy Reynebeau (KD9RPW)

Rod Roller (K6ROD)

Evan Vandenlangenberg (N9DU)

On the cover: Just a simple Christmas tree with a vintage radio set. It might not be the latest Icom or Yeasu, but we'll take it.

Message From the Editor

Another Year In the Books
By Gene Wall (KE8KWF)
FCARC Secretary and QSO'er Editor

As the final calendar page of 2025 turns, it is the perfect time to look back on everything we have achieved together at the Fox Cities Amateur Radio Club. This year has been a testament to the fact that while our hobby relies on airwaves and electronics, it is the people behind the microphones that truly make this club thrive.

Learning From One Another

Our monthly presentations remained the heartbeat of our meetings this year. From deep dives into digital modes and antenna modeling to the fascinating "show and tell" sessions of homebrew gear, these gatherings offered more than just technical data. They provided a space for us to share our successes, troubleshoot our "magic smoke" moments, and learn from the diverse expertise within our own ranks. Whether you were a seasoned Extra or a newly minted Technician, there was always something new to bring home to the shack.

Strengthening Community Ties

Beyond our technical pursuits, 2025 was a standout year for community outreach. Our presence at local public events and our collaboration with other volunteer groups in the area underscored the vital role amateur radio plays in the Fox Cities. By demonstrating our capabilities to the public, we didn't just showcase our equipment—we built bridges, sparked interest in the next generation of hams, and reminded our neighbors that we are always ready to serve when it matters most.

As we talk through the holiday season, thank you for your participation, your mentorship, and your passion. I look forward to seeing you all at our future gathering as we toast to a fantastic 2025 and an even better year ahead.

73 to all!

Gene (KE8KWF)

FCARC 2026 CLUB DUES

The 2026 club dues are now being accepted. You can pay your club dues with a credit card at the club web-site, you can pay by cash or check at a general membership meeting, or mail a copy of the renewal form with a check to the club PO Box. For 2026, our dues schedule will remain the same as 2025.

Full, Associate or Retired - $20.00
Student - $10.00
Family - Full Member, plus $5.00 for each additional family member residing at the same address.

Shack of the Month
Gene Wall (KE8KWF)

Our December Shack of the Month belongs to Gene Wall. Gene's shack is an example of extreme simplicity. The shack doubles as a patio between his house and garage. An extra sofa table from when he moved into the house serves as his "desk," along with an extra dining room table chair. The computer, an 11 year old Dell laptop is connected to a Signalink sound card and a Zumspot Elite digital hotspot. The electronics are all attached to a Yeasu FTM-400. The power supply is a 30A Astra, sitting on the floor. Where is Gene's HF rig? Great question. It is in his wood shop in the back garage. Gene doesn't have his HF rig up an and running all the time. He uses a Wolf River Coil and whip, attached to a Take It Along (TiA) tripod, and sometimes a Wolf River Coil Otophone, all from the driveway. For him, all HF is mobile, even at home.

From this simple location, Gene can participate in and serve as net control on multiple nets, do contesting, and support the Calumet County ARES Skywarn activities. Quoting Leonardo da Vinci, "Simplicity is the ultimate sophistication."

November FCARC General Membership Minutes

By: Gene Wall, KE9KWF

FCARC General Membership
Meeting Minutes
November 17, 2025

Per the organization's bylaws, a quorum was achieved. There was a quorum with a total number of 42 in attendance. Mike Moore (WI9MMM) called the meeting to order at 7:05 pm. Roll call was taken by all members in attendance.

There were no minutes to review from the October meeting. Gene Wall (KE8KWF) was not in attendance to take minutes. A summary of the meeting can be obtained from the published meeting agenda.

The *Elmer of the Evening* was Larry Peterson, WA9TT.

Committee Reports

Secretary – Gene Wall (KE8KWF) – The minutes from October were not taken due to Gene not being available. An abbreviated agenda of the October meeting, along with the November General Membership meeting minutes, will be included in the next newsletter.

Treasurer – Donna Mendyke (KC9THF) – Donna provided an overview of the club finances for the period of January – October 2025. Contact Donna if there are any questions regarding club finances.

Membership Coordinator – Karen Thorne (WB9ZNA) – Karen did not have any new member applications to present to the club membership. Mike Moore (WI9MMM) reminded the club to renew their membership. Members can renew their membership online or in person at our meeting.

Technical Director – Larry Peterson (WA9TT) – KC Ross (KG9JP) gave a presentation on a Rybakov all-band vertical antenna. This antenna is made from a 26-foot fishing pole with a ~25' driven element (20 AWG wire), connected to a 4:1 unun. This antenna is in use at KC's residence up north.

Members at Large – If any member has an idea for a program that you can give or would like to see, please speak to Evan Vandenlangenberg (N9DU), Rudy Reynebeau (KD9RPW) or Rod Roller (K6ROD).

Special Committees

Repeater Committee – Andy Lawton (AJ9L) – Nothing significant to report. The repeaters are working fantastically.

Website Committee – Alex Fraundorf (N9LEX) – The website is up and running.

License testing – Rick Kosiorek (WJ9K) – Rick reported that there were 6 people who tested at Hamfest. 4 people passed. The next testing will be on January 24, 2026, at Fox Valley Technical College.

Public Information – Carol Young (W9PIO) – Nothing significant to report at this time.

Special Business

FCARC Renewal – Renewing online is the simplest way to renew your dues.

Ham of the Year nominations – The process will start in December and continue through January.

New Meeting Room For 2026 - In January 2026, our meeting location will be Room F108 of Fox Valley Technical College.

Plaque presentation – Mike Moore presented Tony Mach a plaque to recognize his many years of service to the Fox Cities Amateur Radio Club, especially organizing our club hamfest.

Financial Audit Report – Roy Hinz, KC9VLP – On November 4, 2025, Joel Kasper (WI4WD), Rudy Reynebeau (KD9RPW), and Roy Hinz (KC9VLP) met at Donna Mendyke's (KC9THF) house to conduct the 2025 audit. They checked her sources of income and expenses. The audit committee concluded that the financial accounts are in good order.

New Business

Build Day in March - Mike mentioned that they are thinking of doing a build day in March.

70cm Net – Rod Roller (K9ROD) - On November 25, 2025, we will have our first 70 cm net. We have 3 net control operators at this time. Rod would like a couple more volunteer net operators. This net will meet on the 4th Tuesday of each month. For deviations from this schedule, check the club calendar on the club website.

November FCARC General Membership Minutes (continued)

Old Business:

FCARC Potluck – The FCARC Potluck will be on December 15th, and will be held at Memorial Park, Neenah, in the George Scherck Shelter.

Winter Field Day, January 24-25 – We still need a champion to organize this year's Field Day.

FCARC Banquet – The next banquet will be on February 28, 2025. Mike Moore (WI9MMM) explained that this year's event will be a little later in the month in order for members to return from Hamcation and other vacations in Florida.

FCARC Hamfest - Carol Young (W9PIO) – Carol gave a back brief on the hamfest held on November 2, 2025. Attendance at the event was 340. There were 4 commercial vendors. 91 tables were reserved. A summary of the event financial report is available through Carol Young. Next year's Hamfest will be on Sunday, November 8, 2026, from 8 am to 2 pm, at the Sunnyview Expo Center. Carol thanked the committee chairpersons for their outstanding support and dedication to making this year's hamfest a huge success.

Technical Questions/Topic – None

Show and Tell –

1. Terry (N9AOT) found a 1978 catalog from *Spectronics*, an amateur radio vendor from Oak Park, IL. He passed the catalog around the meeting for members to take a walk through the history of one of the nation's leading ham radio stores.

Program – How to Work With HamClubOnline – Donna Mendyke (KC9THF) gave a presentation and demonstration on how members can use HamClubOnline, in conjunction with the club website, to obtain information regarding personal membership, club roster of members, newsletters, and a variety of other pieces of information.

Adjourn at 8:35 pm

Minutes Prepared by-
Gene Wall (KE8KWF)

Reviewed by-
Mike Moore (WI9MMM)

Fox Valley TECHNICAL COLLEGE®
Knowledge That Works

We are having the January General Membership meetings at

Fox Valley Technical College
Room F108. Enter through Door 3
or Door 8 for easiest access.

See the next page for maps on where to park and enter the building.

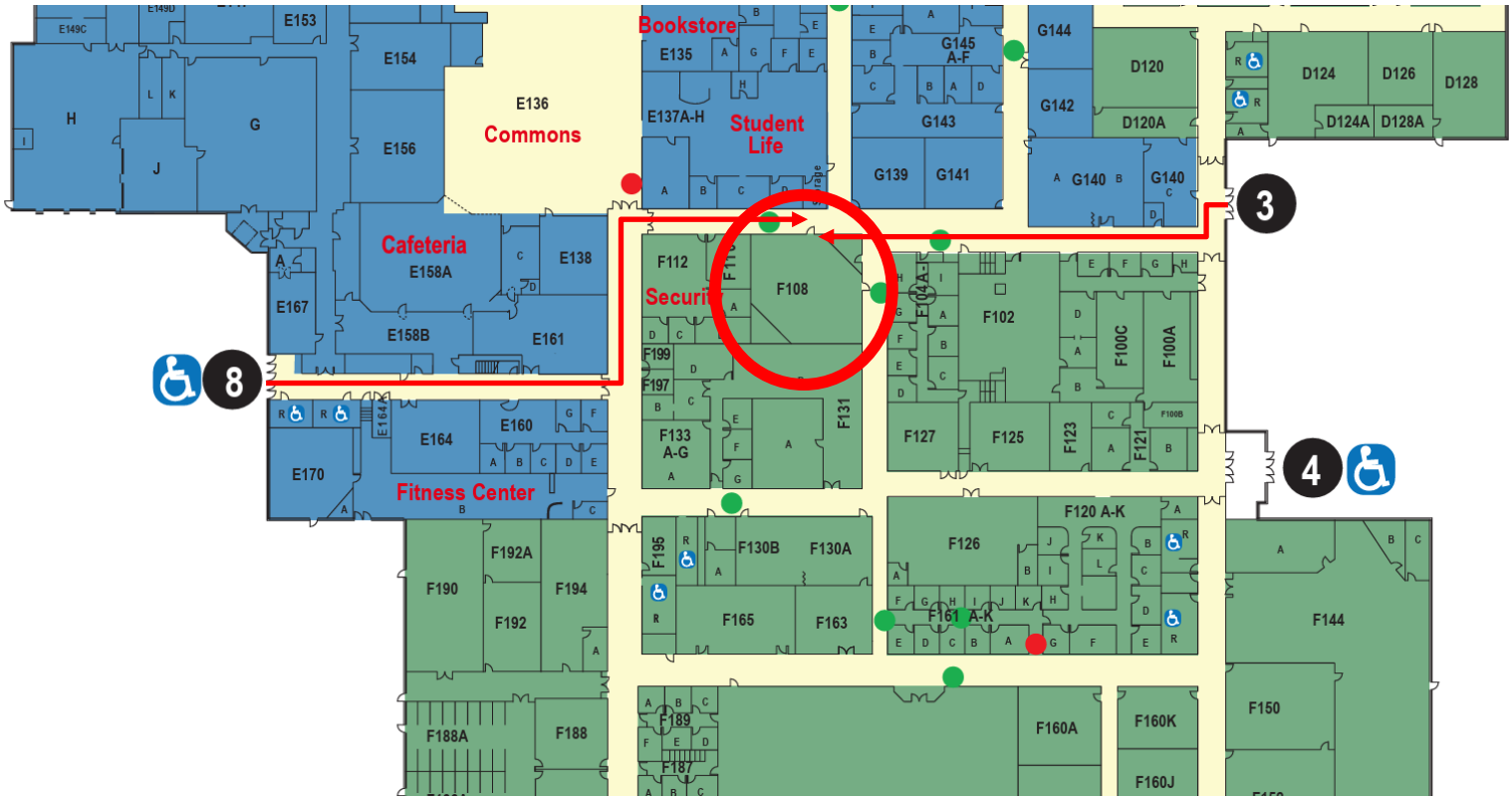


Photo Recap Of the FCARC Hamfest

November 2, 2025
Sunnyview Expo Center
Oshkosh, WI

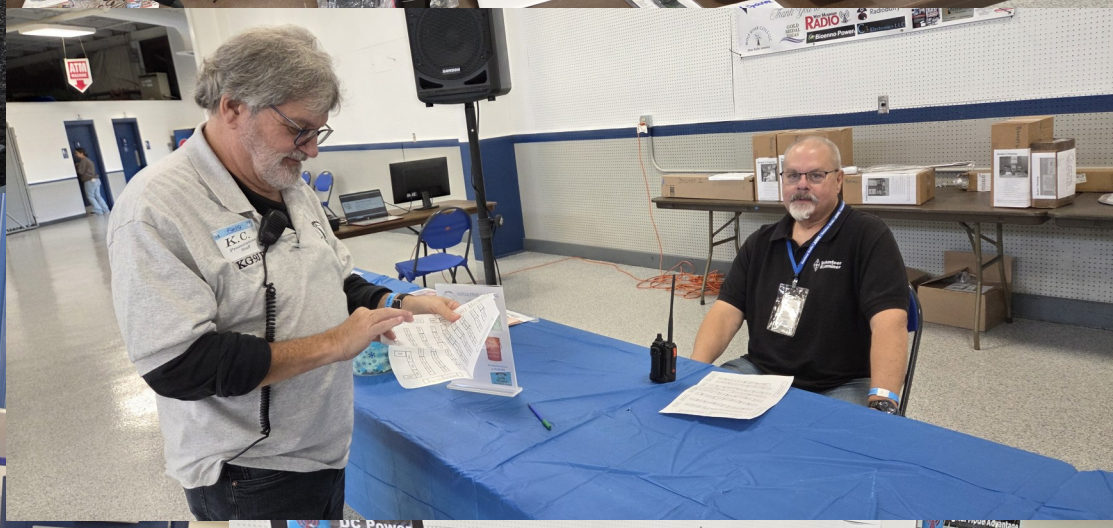


Photo Recap Of the FCARC Hamfest (continued)

Photo Recap Of the FCARC Hamfest (continued)

Photo Recap Of the FCARC Hamfest (continued)

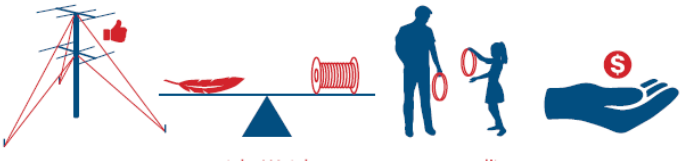
HamThings

HamThings is owned by club member Chris N9CVR. We sell Fuse Blocks and VHF/UHF antennas.

Talk to Chris, good on QRZ, or HamThings.com,
Use promo codes W9ZLCLUBPRICE and W9ZLHANDDELIVER

MASTRANT
ANTENNA GUYING

WHY GUY WITH SYNTHETIC ROPES?



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HOW?

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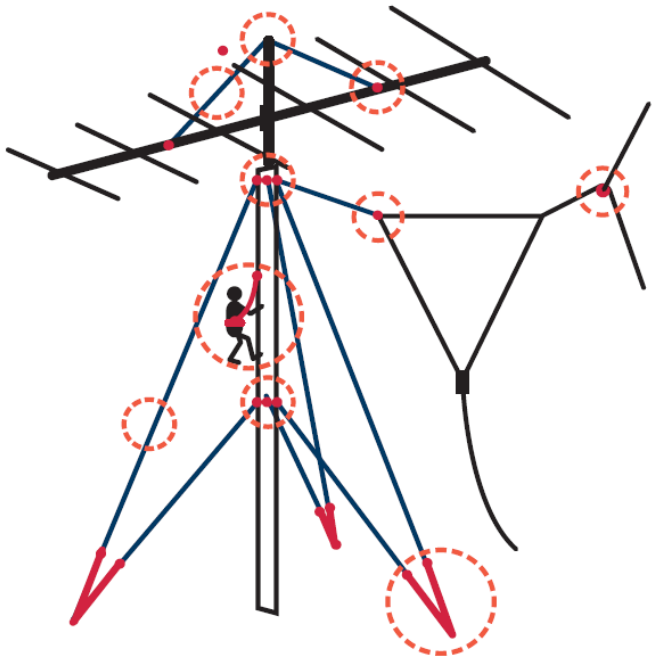
- CALCULATE LENGTHS
- THINK ABOUT IT
- DO IT
- REGULARLY CHECK IT

WHERE WE CAN SUPPORT YOU



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PROJECT BUILD

Build a Bifilar Helix Antenna for Satellite Contacts

An easier-to-construct, less-expensive alternative to the popular quadrifilar helix antenna.

John Portune, W6NBC, and Jim Bailey, W6OEK

Easy-to-build bifilar helix antenna for 2 meters.

Tools and Materials

- Soldering iron and solder, as needed
- Wire cutter and stripper
- Hacksaw
- Drill motor
- Step drill bit (with steps up to 1 inch)
- Pipe center-drilling guide
- Pliers and screwdrivers
- Rat-tailed file or handheld rotary grinding tool and bits
- Heat-shrink tubing or plastic electrical tape
- (11 ft.) AWG 14 stranded insulated house or primary wire
- (5 ft.) ½-in. Schedule 40 PVC pipe
- (3 ft.) ¾-in. Schedule 40 PVC pipe
- (2) 6-32 1¼ in. stainless machine screws with 2 nuts each
- (4) #6 lug ring terminals, crimp or solder type, for 14 AWG
- (1) 10-15 ft. 50 Ohm coax for feed-line pigtail (length to suit)
- (1) Coax connector (type to suit your radio)
- (1) 2-meter/70-cm diplexer (for dual-band radio)

Table 1

Cross-Arms Length	Mast Hole Spacing
13.6 inches	12.7 inches

The QFH (quadrifilar helix) has long been a favorite of ham satellite aficionados. Its two rectangular loops are connected in parallel, twisted half a turn lengthwise, and mounted at right angles on the same axis, to permit it to transmit/receive equally in all directions, side to side and up and down. What's even better is that it is circularly polarized over its entire radiation pattern, making it ideal as an antenna on spacecraft that tumble or rotate in flight. But the QFH is also excellent as a satellite antenna that you can put on your roof without a rotator.

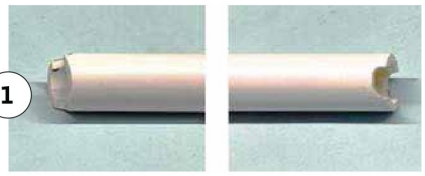
The QFH does not lend itself to the ham home workshop, so we tried to find simplifications that wouldn't compromise performance. The result is the BFH (bifilar helix).

On spacecraft that typically tumble or rotate in flight, radiation pattern *nulls* (directions in which the radiation is weaker) are significant. At a ham's ground station, where the same ham satellite usually passes overhead from the same direction, the nulls can be ignored by simply turning them crosswise to the satellite's orbit.

A good percentage of the satellites hams use for making contacts are *Low Earth Orbiting* (called *LEOs*). They pass over the Earth's poles and then all locations on Earth in a north/south or south/north direction. A 2-degree offset from the poles causes ground station passes to be roughly at the same time each day.

A single-loop bifilar helix antenna, therefore, can be mounted in a fixed position, without the need for a rotator. There is no need to track LEO satellites. One simply fix-mounts the BFH with its top and bottom arms pointed in the direction of the satellite pass. Therefore, with two fix-mounted BFH antennas on your roof — one for 2 meters and one scaled down for the 70-centimeter band — the world of ham LEO satellite contacts is wide open to you.

Table 1 gives dimensions for building the antenna for the 2-meter band. This physical design, using the same wire and the same PVC pipe, easily translates to other bands via scaling. Multiply the overall dimensions by the ratio of the operating frequencies, e.g. 0.33 for the 70-centimeter band, 2.88 for the 6-meter band.



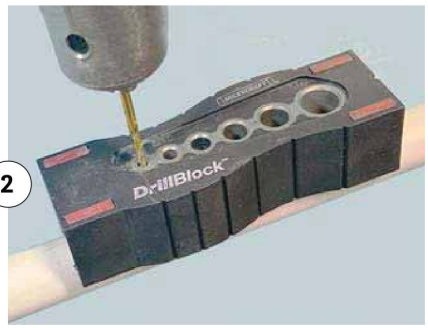
Notches at opposite ends of the center cross-arm, rotated 90 degrees.

Construction

Step One

Cut three equal lengths of ½-inch PVC pipe for the cross-arms, see Table 1. Using a rat-tailed file or a handheld rotary grinding tool, cut two roughly ⅜ × ⅛-inch notches into the opposites ends of the middle cross-arm, (see ①). The notches do not have to be precise in size but must be rotated 90 degrees from each other at opposite ends.

Then cut a length of ¾-inch PVC pipe for the vertical/mast section, twice the spacing between the arms, see Table 1, plus an extra 8-12 inches or more to provide space for a coax balun (see the lead photo and ⑦) and for mounting the antenna. The amount of extra length is, similarly, not critical.



Using a center-drilling guide to accurately drill 1/8-inch guide holes through to both sides of the marked cross-arm positions on the vertical mast section.

Step Two

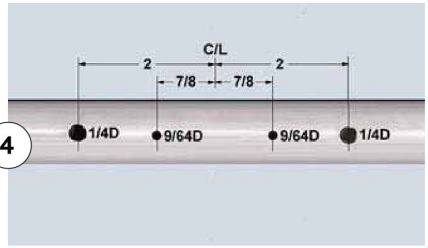
Beginning 1 inch from the top end of the vertical/mast section, mark the locations of the cross-arms on one side of the mast. Table 1 gives the arm spacing. Note that the top and bottom cross-arms lie parallel to each other (in the same plane), but that the center cross-arm is rotated 90 degrees, as can be seen in the lead photo.

Then, with a pipe center-drilling guide, accurately drill ⅛-inch pilot holes all the way through the vertical/mast section at the marked cross-arm positions. It is best, however, before using the drilling guide, to first drill an ⅛-inch hole, on the marked side only, to help position the center drill guide for through drilling.

Drilling cross-arm holes in the vertical section/ mast with a step drill.

Step Three

Using a step drill, drill ¾-inch holes on both sides of the vertical/mast section for the three cross-arms, (see ③), using the ⅛-inch guide holes drilled in step 2. These ¾-inch holes as drilled will be slightly too small for the cross-arms to pass through. You will need, therefore, to use a rat-tailed file or a handheld rotary tool with a small grinding-stone bit to enlarge the holes a little at a time until the cross-arms fit and hold snugly in place. Alternatively, you may drill ⅞-inch holes with the step drill and use sheet metal screws or PVC cement to secure the cross-arms.



Feed-point holes in bottom cross-arm. ¼-inch holes in one side only.

Step Four

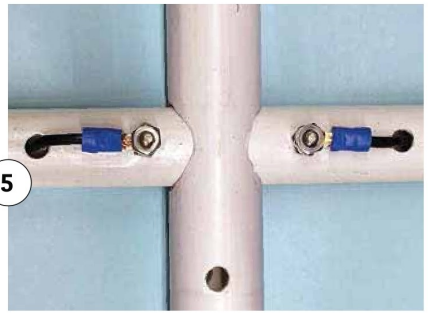
Using the pipe center-drilling guide, drill 9/64-inch holes, (see ④), through the bottom cross-arm, ⅞ inches to both sides of the center of the cross-arm. Also drill ¼-inch holes 2 inches also to both sides of center, but only through one side of the cross-arm.

Install all three cross-arms in the vertical mast section.

Step Five

Cut 10½ feet of 14 AWG stranded insulated primary or house wire. String it loosely through the cross-arms and then between the cross-arm ends as shown in the lead photo. Allow the wire ends to exit from the ¼-inch holes at the center of the bottom cross-arm. Pay close attention to the stringing direction also shown in the lead photo. This establishes the right-hand circular polarization needed for most ham satellites.

Install 1¼-inch 6-32 stainless screw and nuts in each of the 9/64 through holes at the center of the bottom cross-arm. These are the connection terminals for the antenna's feed-line coax, (see ⑤).



Feed-point detail.

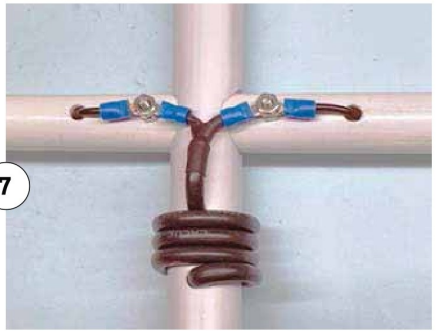
Continues on following page.

PROJECT BUILD

6

Sequence for separating the shield and center conductor into two separate conductors at the feed-point end of the coax pigtail.

Crimp or solder a #6 ring terminal onto one wire end. Attach this ring terminal to one of the two 1¼-inch antenna terminal screws. Then pull the loop wire to remove the slack so that the loop looks as seen in the lead photo. Lastly, trim the loose wire end and install a second ring terminal that will just reach to the other 6-32 terminal screw. Attach the ring terminals to the feed-point screws under the nut.



7

Forming the choke balun.

Step Six

Follow the sequence in (6) to prepare an 8- to 10-foot length of small diameter coax (e.g. RG-mini 8, LMR-200 or similar) as a "pigtail" at the beginning of the feed coax to your shack. Part of this pigtail will also be formed into a 1:1 coax choke balun.

Using a hobby knife, carefully remove an appropriate length (e.g. 2 inches) of the plastic coax jacket, being careful not to nick the braid — it is soft copper and easily cut. Bend the coax away from you as you gently cut through the jacket to help the jacket split.

Unbraid the shield into its individual wires by pulling them outward between your thumb and index finger (see the first image in (6)). Do not remove the plastic dielectric covering the center conductor of the coax.

Twist the fine braid wires together, making a single separate conductor (see the second image in (6)).

To weatherproof the conductors, cover each of them with heat-shrink tubing or plastic electrical tape (see the third image in (6)).

Add ring terminals for #6 lugs to each of the conductors (see the fourth image in (6)).

Add ring terminals, crimp or solder type, for #6 lugs to each of the conductors. (fourth image). Leave the other end of the pigtail without a connector at this time.

Step Seven

One inch below the bottom cross-arm, using the pipe center-drilling guide, drill a ¼-inch hole through the mast. One inch farther down, drill another, (see (7)). These holes will be used to form and secure a 1:1 choke balun for the BFH.

Pass the unprepared end of the feed-line pigtail all the way through both top ¼-inch balun securing holes in the mast. Then wind turns of the coax around the mast to fill up the 1 inch of space between the securing holes. Insert the coax back through the bottom two mast holes, then work the turns of the balun into a tight coil. Lead the coax down the back of the mast and secure it to the mast with a couple of zip-ties. Finally, install a suitable coax connector on the pigtail.

Mounting the Antenna

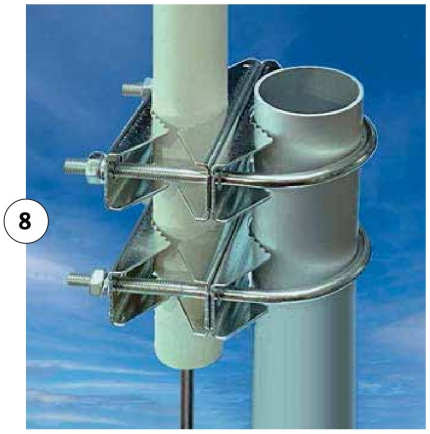
If you plan to mount the antenna other than just above rooftop height, it is best to convert the PVC vertical pipe section to a metal mast with a double TV antenna mast clamp, (see ⑧). Double mast clamps are readily available on the internet or from local electronics parts stores.

Tuning and Matching

As built, the BFH will present a safe and efficient SWR of less than 2:1 across the entire 2-meter band. For frequency adjustment, as is the case for virtually all antennas, the method is to simply change the length of the wire loop. The simplest way, if the frequency is too low, is to shorten both ends of all three cross-arms in small increments (e.g. ¼ inch) and then to add a new ring terminal to the end of the shortened wire loop. If the frequency is too high, three new cross arms can be made. It is not necessary to change the length of the mast. BFHs and QFHs can be any shape, from squares to long thin rectangles.

A Diplexer for Dual-Band Radios

If your 2-meter and 70-centimeter BFHs have separate feed coaxes, you can work through the ham satellites using two separate handheld radios or transceivers. Alternatively, you can use a dual-band transceiver or dual-band handheld radio by adding a *diplexer* to combine the two antennas into the single connector on the dual-band radio. Diplexers like the one shown at right are readily available from ham radio dealers or on the internet. In this case you will switch back and forth between bands on your transceiver for transmit and receive. For more information on diplexers, see "Demystifying Diplexers" in the July/August 2022 issue.



8

Double TV antenna mast clamp.

Example of a 2-meter/70-cm diplexer.

Social Saturday
January 3, 2026
9:00 am

Did you know that ham goes with eggs? Yes, and I'm not talking about the ham of Dr. Suess. I'm talking about ham radio operators.

Our next Social Saturday is right around the corner. Enjoy some great conversation, mentorship, and live ragchew, with great food as a bonus.

Golden Corral
1169 North Westhill Blvd.
Appleton, WI 54914

FCARC Club Gear

On sale now at http://www.jse-repair.com

Contact Jeff on his website for information on items that you don't see, but would like. He stocks and makes a wide variety of POTA clothing and flags, hats, club shirts, as well as radio covers.

Optional Name and Callsign Shown

Optional Back of Jacket Embroidery

JSE Est 2009 ★★★★★ Custom Embroidery & DTG Printing
Hats - Jackets - Shirts

FCARC welcomes your donations in support of our mission to serve amateur radio. As a 501(c)(3) organization, your donations are tax-deductible. You can go to the FCARC website and click on the "Donate" button.

Donate

GOT QUESTIONS? CALL our Google Voice Information Phone Number
920-358-0118

If you have an item, rig, QSL card, or anything related to Amateur Radio and want to share it with club members, bring it to the club meeting for **SHOW AND TELL**.

A 2-3 minute section put into the agenda for fellow hams to share items they find useful or promotes Amateur Radio.

Meeting Information

Fox Valley Tech College
1825 N Bluemound Dr
Appleton, WI

Classroom F108
Enter at door 3 (east side) or door 8 (west side)
Meetings start at 7:00 PM

Meetings are held on the third Monday of each month. Check the FCARC calendar for details.

The FCARC Board of Directors meets on the *second Monday* of each month at Fox Valley Tech in room B128. Park and enter entrance 12 on the west side of the building. Club members are welcome to attend.

WOLF RIVER COILS LLC

Silver Bullet Antenna

From the guys who brought you misfit coils, Wolf River Coils LLC now has misfit collapsible whips.

102 inch collapsible SS whips $15.00 or 3 for $40

213 inch collapsible SS whips $25.00

Now that Wolf River Coils LLC has incorporated a CNC Milling machine for coil production their supply of misfit coils is dwindling as we no longer create a misfit. So if you ever wanted to purchase a misfit SB1000 or SB Mini now is the time because when they're gone, they're gone.

SB1000 sells for $20.00 and the SB Mini sells for $15.00.

ARRL needs every radio amateur in the US to send letters to Washington as we continue our nationwide grassroots campaign to pass the Amateur Radio Emergency Preparedness Act. The process is simple; click the "Send Your Letters Now" button at arrl.org/HOA, put in your call sign, and press the red "Send My Letters" button. It takes seconds!

Wisconsin Hamfest Schedule

04/25/2026 - ORC 46th Annual Spring Indoor Swapfest
Location: Cedarburg, WI
Sponsor: Ozaukee Radio Club, Inc.
Website: https://www.ozaukeeradioclub.org

Next FCARC Ham Exam

January 24, 2026 (at FVTC)

Registration starts at 0800. Testing starts at 0830. Room A160. Enter Door 15 from the north parking lot. The exam fee is $15; this goes to the ARRL. You will receive an email from the FCC after testing on how to pay them for your license. You will need two forms of ID at least one of which must be a picture ID. All candidates must use their Federal Registration Number (FRN). No SSN's accepted per the FCC. Email addresses are REQUIRED. If you are upgrading, please bring a printed copy of your license for the VE's to verify your current license level.

Location: Fox Valley Technical College, 1825 N Bluemound Dr, Appleton, WI 54914, USA

Details on each testing date will be posted on the FCARC website.

Cell phones must be silenced and put away during exams. Non cell phone calculators are permitted. Programmable calculator memories must be cleared and are subject to examination by a VE.

If you fail an exam you may take a different version, time permitting, but you will be charged another $15. If you are successful you may take the next element during that session with no charge.

WI9SM 2026 SWAPFEST

The South Milwaukee Amateur Radio Club

www.wi9sm.org

Saturday July 11th, 2026

9327 S Shepard Ave

Oak Creek Wi

Tickets $5.00 per person @ gate Food

and beverages available starting at 6:30 am

"Women's Auxiliary"

Legion Bar opens at 10am

Our contract with the Legion will not permit early marking of selling spaces

Talk-in Frequency 146.910 127.3pl -offset

Featuring "Tower Electronics"

Ticket stubs are to be placed in the ticket drum for random drawings. All winners will be contacted and any prizes will be mailed to you.

Located between Ryan Rd (Hwy 100) and Puetz Rd… East of Interstate 94

Annual Club Auctions

March 4th and Oct 7th 2026

Doors open @5:30 Auction Starts @ 6:30 pm

Questions contact Karen KC9WQJ 414-578-0492

3RD ANNUAL SPRING FEVER AMATEUR RADIO SWAP MEET

- BIGGER VENUE!!
- EVEN MORE DOOR PRIZES!

1ST SATURDAY OF MARCH, 3/7/2026

LOCATION: HOLMEN AMERICAN LEGION
419 1ST AVE., HOLMEN, WI 54636

TIME: 8:00 - 12:00

SET-UP: 7:00 - 8:00

ENTRY: $5.00

TABLE: ADDITIONAL $10.00

VE TESTING: 10:00 A.M. FOR $15.00

TALK-IN: N9ETD REPEATER 147.090 (PL 131.8) OR 146.460 SIMPLEX.

EVENT INFO / TABLE REQUESTS TO :
SBECKER54656@YAHOO.COM OR
CALL / TEXT: 608-487-5810

REQUIRED VE TESTING REGISTRATION:
TIMBERLAND74@GMAIL.COM OR
CALL / TEXT: 608-317-8315

CLUB INFORMATION :
WWW.MVARA.NET / INFO@MVARA.NET

FIND US ON FACEBOOK

Save the Date!

MIDWEST SUPERFEST™

September 19-20, 2026

Three Sisters Park

17189 IL-29, Chillicothe, IL

w9uvi.net · Peoria Area Amateur Radio Club Electronics Expo · 68th Year

Illinois' Oldest Hamfest

Future Dates — Always on the third weekend of September:

September 19-20, 2026

September 18-19, 2027

September 15-16, 2028

Three Sisters Park

Food & Drinks (including adult beverages) available

PEORIA AREA AMATEUR RADIO CLUB W9UVI

STARVED ROCK RADIO CLUB™

AMERICAN RADIO RELAY LEAGUE SANCTIONED HAMFEST 2026

HAM RADIO, RC MODELS, COMPUTER & ALL HOBBIES

AMATEUR RADIO HOBBYIST & COLLECTORS SHOW

SUNDAY, JUNE 7th 2026
FLEA MARKET 6AM-1PM
INDOOR 8AM to 1PM

MENDOTA TRI-COUNTY FAIRGROUNDS
503 1st Ave, Mendota, IL 61342

ARRL VE TESTING 9:30am to 11:00am
GRAND PRIZE CASH DRAWINGS $50-$75-$100 at 12:00noon

TICKETS $8.00 ADVANCED (2 Stubs) or $10.00 AT GATE (2 Stubs)
ALL ADVANCED ORDERS MUST BE RECEIVED BY MAY 29th 2026
GRAND PRIZE WINNERS NEED NOT BE PRESENT TO WIN.

- ✓ LARGE INDOOR EXHIBIT BUILDINGS - Indoor Setup: Sat 12noon to 6pm & Sun 6am to 8am
- ✓ TABLES $10.00 ADVANCED OR AT THE GATE WITH FREE ELECTRICITY
- ✓ FREE OUTDOOR FLEA MARKET-TAILGATING AREA 6AM to 1PM
- ✓ ONSITE CAMPING-ELECTRICITY AVAILABLE – FEE BY FAIR BOARD
- ✓ HOURLY DOOR PRIZE DRAWINGS

FOR ADVANCED TICKET AND TABLE SALES OR GENERAL INQUIRIES: SEND A SASE TO
SRRC™ C/O Hamfest Chairman, PO Box 198, Leonore, IL 61332-0198
E-mail: starvedrockhamfest@gmail.com or see our internet site for latest info www.w9mks.org

I39 to Exit 72 US Rte 34, West to 1st Ave, South(Left) to Fairgrounds on Left.
GPS: N41.545580deg W089.108484deg (N41deg 32.735min (44.08sec) W089deg 6.509min (30.54sec))

TALK-IN by SRRC™ Repeater - W9MKS 147.120 +103.5PL or 146.520 Simplex
BREAKFAST and LUNCH ON-SITE BY CATERER

To keep Ticket prices down, DO NOT dispose of unwanted equipment on the fairgrounds. If it doesn't sell or you can't give it away- Take it Home!

MAIL WITH PAYMENT & #10 BUSINESS SASE ENCLOSED TO:
SRRC™ C/O Hamfest Chairman
PO Box 198
Leonore, IL 61332-0198

Make checks payable to SRRC™

	QTY	ITEM	EACH	EXTENDED
Name: _____	____	**Advance Tickets**	**$ 8.00**	**$**_____
Address: _____	_____	**Indoor Tables**	**$10.00**	**$**_____
City: _____ **State:** _____ **ZIP:** _____			**Total**	**$**_____
Phone: _____				

The Ozaukee Radio Club presents its 46th Annual Spring Indoor

Amateur Radio, Electronics & Computer

SWAPFEST

featuring TOWER ELECTRONICS!

Saturday, April 25, 2026

8 AM to 12 PM (setup begins at 6 AM)

Ascension Columbia St. Mary's Center (Milwaukee Curling Club)
W67N890 Washington Ave., Cedarburg, WI 53012

Talk-in: 146.97 MHz – PL 127.3 Hz

Free WIFI Door Prizes! Grand Prize drawing at Noon (must be present to win)

Food and refreshments

Admission: $7.00 at the gate

Children 12 and under FREE, with a paid adult admission

6 ft. Tables: $12.00 in advance, $15.00 at the door, if available

Use the Order Form below, email, or call Tom Trethewey, KC9ONY at 262-421-6351
Email: swapfest@ozaukeeradioclub.org
More information: http://www.ozaukeeradioclub.org/ or http://www.facebook.com/orcwi

Save the date for **2027**: April 24, 2027 !!

For Advance Tickets and Tables, send check with a **SASE** (Business-Size #10 envelope) to:
Tom Trethewey, KC9ONY- W69N905 Evergreen Ct N, #202, Cedarburg, WI 53012-1170

Name: _____ **Call sign:** _____

Address: _____

Phone number: _____ **Email:** _____

No. of Tickets: _____X $7 = _____ **(Advance tickets are double stub)**

No. of Tables: _____X $12 = _____ **Electricity:** Yes (Add $5) _____No _____

Total Amount: _____ **(Please make checks payable to ORC)**

Tickets and flyers printed by Mequon Copy Master https://mequoncopymaster.com/

ORLANDO HamCation®

Central Florida Fairgrounds
4603 West Colonial Drive
Orlando, Florida 32808

(407) 841-0874

February 13, 2026 9:00am to 5:00pm
February 14, 2026 9:00am to 5:00pm
February 15, 2026 9:00am to 1:00pm

info@hamcation.com
www.hamcation.com

- 2nd largest Hamfest in the world, with over 25,000 in attendance.
- 2 air conditioned COMMERICAL buildings with over 200 booths
- Large air conditioned SWAPS building with over 260 swap tables
- Great capacity for TAILGATE with over 300 spaces
- On site capacity for 25 FORUMS over 2 days
- Largest RV area in Southeastern US, on property and within walking distance to all areas. We can accommodate over 200 RVs
- Free parking on site
- Hotel arrangements with specials for HamCation vendors and visitors
- HamCation is close to attractions like all of Disney, Sea World, & Universal Theme Parks, plus several Shopping Malls and much more.

FCARC Lending Library

Chris Reitz, N9CVR
Head Librarian

The FCARC lending library is a repository of references, equipment, and supplies that club members are willing to loan out to other club members. If you would like to borrow an item from the lending library contact the owner and arrange to borrow the item. If you have something you would like to list in the lending library, contact Chris Reitz (N9CVR) to have your item listed.

Library Catalog

Current As Of 12/20/25

Item	Make	Model	Owner	Notes
Coax / Powerpole crimper			N9CVR	contains all required tools for crimping coax and powerpole ends, except wire stripper for
Power Meter	Diamond	SX-200	KD9UH	
RF Preamp	Ameco	PT-3	KD9UH	
Manual Antenna Tuner	MFJ	MFJ-	KD9UH	
TDR pulse generator	-	-	N9CVR	For Time Domain Reflectometry
TDR potentiometer	-	-	N9CVR	For finding characteristic impedance of TX line. Broken as of 2023.01.29, working on fix-
75m/40m NVIS dipole	-	-	N9CVR	Requires a tree or pole and some open space to deploy
2m/70cm tape measure			N9CVR	Portable, directional antenna. SO-239 connec-
offset attenuator	KC9ON		N9CVR	for fox hunting
20ft fishing pole			N9CVR	Good for portable installations where trees
misfit 213in whip	Wolf River Coil		N9CVR	Misfit whip - skinniest section doesn't go up (~6in). 3/8"-24 threaded base
Microbit v2 (x2)	BBC	Microbit	N9CVR	USB/Bluetooth Microcontroller with 2.4GHz radio capability and access to library of pro-
Antenna Analyzer	MFJ	208	WI9MM	2m Only Antenna Analyzer
2m mobile radio	Yaesu	FT-1500M	N9CVR	2m / Analog FM / 50W + WX.
Code Practice Oscillator	Pacific Antenna	CPO	N9CVR	From club build day. There are 3 in my house-hold, so feel free to borrow one!

HAM Radio Trivia

1. Prior to using the RST system, how was Tone described?
A) A Thru Z B) 1 to 5
C) Fair or Good D) PDC or RAC

2. An ARRL-certified VE (volunteer examiner) must officiate at at least one examining session each 3 years, to have his VE certificate renewed by ARRL.

A) True B) False

3. The late Noel Eaton was president of the International Amateur Radio Union (IARU) from 1974 to 1982. What was his call sign?

A) VE3CJ B) W3CJ
C) G3CJ D) W1NE

4. Which part of the FCC rules and regulations cover amateur radio?

A) Part 15
B) Part 95
C) Part 96
D) Part 97

1. D) PDC or RAC | 2. B) False | 3. C) A 3 tube receiver. | 4. D) Part 97.

December 2025 HF Operations Word Search

Circle the HF radio operations related words. The answers are on page 33.

Q Y U W L N M D Y R L Z R I G S X F O L X I Y X C C H B X L
T S J P O M O D D P I G R A Y L I N E N E O H H K V W Y J S
X R U K S N F G J I D Z R O Z J O V N X T N P U S S U M U N
G U A N H B V I T G J B R C B X K N V C U O R D Y K N X U K
C I M N S B E I L E H H A R M O N I C Q O S L L Z A I J K F
K F C P S P B E S I C H L S G U T C J M C P P T P V I P E K
O N H D N C O P Z S D X L N I T L K L D I H A F H I X Z D X
H H S P F I E T A M O J U U R R Q K L A E E X G J G Y C D Y
H E V M R K B I S Z I Z Q L X J G S U U M R N B S B M X C K
E H T E I Q Y B V V V J E A R D Z C E D O E V U E J U E L C
Q J T E N J S X P E Z C U H Z S N Z W F I N J I C T M G U T
W R L B R Z U V M S R I R X G S I Q J H O D Z M A P T V N I
M F J Y K O N B S C X H W J U X O R F Q S H S O M C R L J U
R U N A J O D F T I D C V S Y B M L H E X Z H D X P M F M G
X Q S N N E C Y A I A Y Z R Y M P H A A K F L X J J W T Z A
J B N T D F I C N C L R K X L A L T M R D P F M F L C I H P
M F D E M W X N D E P O R G C E G F P H F U P K Q F W G W F
V V R N P J U X I E L N T B B C K F J Z E L Z P V J W E L A
W T Z N W R J Z N L A J M N C D K D L X N D U W H W N K K V
W H Z A C B O L G P Z P C Z D C M J E A C U D X D D L A H X
G L K T Q U W P W D R E Y Z T Z Z S J C Y C S H I D B D M B
Z R E U Z F C J A X L K Q R K R A W W V L E D S V N K D M X
S P L N D P D Y V G X M K W N B V U U B V P R Q K L D P Z H
X X C E A Q G U E G A B K W A Y G C W G I Q Z J Q Y A E X P
J Q S R C V D L R O J T H O X E G G D X B Z I T G I W G X G
P R R D D T X K A K A Q I H C I Y O P E Y D C E R N S A C H
D V R Y J Y J T T S F C C O S E W L V O Y Z S S Q P R C V U
B K Z E J F D X I Z S J U Y N U V I E Z P A N X P Z Z P P E
I P A Z G P X P O H X B N L P M D R F A E R D M Y E G O C M
D Y E K K P N F R F A D B A L U N B K D C V B N Q R P K N M

STANDINGWAVERATIO
SOLARFLUXINDEX
SKIP
ANTENNATUNER
TRANSCEIVER
PROPAGATION
MUF
IONOSPHERE
HETERODYNE
SUNSPOTS
NVIS
GRAYLINE
SKYWAVE
HARMONIC
QRP
FLAYER
BALUN
CW
SSB
DX

Elmer's Contact List

This is a listing of hams who are willing to help other hams out in special areas. Feel free to contact these fellow hams with any questions. **Contact a board member to be an Elmer.**

Call / Name	Specialty Area
N9LVS - Dan	FCC Personal Data Changes
WA9TT- Larry	SSTV (analog)
N9AOT -Terry	Wires X / Digital
KB9AIT - Gary	Wires X
KC9YL- Anne	CW
W1GCS - Greg	Net Control Operators
WJ9K - Rick	Getting on the Air
KG9JP - KC	Contesting

FCARC Repeaters

Frequency (MHz)	Offset	Tone	Remarks
145.330	- 0.600 MHz	100.0	Yeasu System Fusion
145.690	Simplex		Yeasu System Fusion Analog Node
146.760	-.600 MHz	100.0	
146.760	-.600 MHz	107.2	This is a receiver station at Oneida Heights.
443.650	+5.000 MHz	100.0	

FCARC Member Repeaters

Frequency (MHz)	Offset	Tone	Remarks
224.500	-1.6	100.0	1.25 m repeater owned by WJ9K
1282.200	-12.0	146.2	23 cm repeater
442.475	+5.0	146.2	70 cm repeater owned by AJ9L
442.175	+5.0	100.0	70 cm repeater owned by WJ9K

FCARC Nets

Net Name	Frequency	Schedule and Extra Information
2-Meter	146.760	Wednesdays at 8:00 pm. Coordinator: John (KC9TFM)
2-Meter Digital	145.330	First Tuesday of the month at 8:00 pm. You can also use the FCARC's Fusion Room 40216, the W9ZL room. Coordinator: Mike (KD9QHQ).
2-Meter SSTV	146.760	Second Sunday of the month at 6:00 pm. Coordinator: Larry (WA9TT)
70 cm	443.650	Last Tuesday of the month at 8:00 pm. Coordinator: Rod (K6ROD)
222 Net	224.500	2nd Tuesday of the month. Coordinator: Dave (KB9RPH)
6-Meter	52.550	Third Tuesday of the month. Coordinator: Larry (WA9TT)
Morning Coffee Klatch	146.760	Monday, Wednesday, Friday at 9:30 am.

FCARC Club Calendar

January 2026
1- Social Saturday 9 am & Fox Hunt 7:30 am
6 - 2 meter digital net 8 pm
7 - 2 meter net 8 pm (AJ9L)
11 - 2 meter SSTV net 6 pm (TBD)
12 - Board of Directors meeting 7 pm
13 - 220 Mhz Monthly Net 8 pm
14 - 2 meter net 8 pm (KC9TFM)
19 - General Membership Meeting 7 pm
20 - 6 meter net 8 pm (TBD)
21 - 2 meter net 8 pm (KE8KWF)
24 - Ham Radio License Exam (@ FVTC)
27 - 70 cm net 8 pm (N9DU)
28 - 2 meter net 8 pm (WI4WD)

February 2026
3 - 2 meter digital net 8 pm
4 - 2 meter net 8 pm (K6ROD)
7 - Social Saturday 9 am
8 - Super Bowl Sunday
8 - 2 meter SSTV net 6 pm (TBD)
9 - Board of Directors meeting 7 pm
10 - 220 Mhz Monthly Net 8 pm
11 - 2 meter net 8 pm (N9TNW)
17 - 6 meter net 8 pm (TBD)
18 - 2 meter net 8 pm (WI9MMM)
24 - 70 cm net 8 pm (KC9THF)
25 - 2 meter net 8 pm (TBD)
28 - **FCARC Annual Banquet**

March 2026
3 - 2 meter digital net 8 pm
4 - 2 meter net 8 pm (WA9TT)
7 - Social Saturday 9 am
8 - **Wisconsin QSO Party 1 pm**
8 - 2 meter SSTV net 6 pm (TBD)
9 - Board of Directors meeting 7 pm
10 - 220 Mhz Monthly Net 8 pm
11 - 2 meter net 8 pm (AJ9L)
16 - General Membership Meeting 7 pm
17 - 6 meter net 8 pm (TBD)
18 - 2 meter net 8 pm (KC9TFM)
24 - 70 cm net (K6ROD)
25 - 2 meter net 8 pm (KE8KWF)

Calendar items in red require membership participation or volunteer support to make the event happen.

April 2026
1 - 2 meter net 8 pm (WI4WD)
4- Social Saturday 9 am & Fox Hunt 7:30 am
7 - 2 meter digital net 8 pm
8 - 2 meter net 8 pm (K6ROD)
12 - 2 meter SSTV net 6 pm (TBD)
13 - Board of Directors meeting 7 pm
14 - 220 Mhz Monthly Net 8 pm
15 - 2 meter net 8 pm (N9TNW)
19 - General Membership Meeting 7 pm
20 - 6 meter net 8 pm (TBD)
22 - 2 meter net 8 pm (WI9MMM)
25 - **Walk MS Appleton**
28 - 70 cm net 8 pm (WI9MMM)
29 - 2 meter net 8 pm (WA9TT)

May 2026
2- Social Saturday 9 am & Fox Hunt 7:30 am
5 - 2 meter digital net 8 pm
6 - 2 meter net 8 pm (AJ9L)
9 - Appleton Sole Burner 5K Walk-Run
10 - 2 meter SSTV net 6 pm (TBD)
11 - Board of Directors meeting 7 pm
12 - 220 Mhz Monthly Net 8 pm
13 - 2 meter net 8 pm (KC9TFM)
18 - General Membership Meeting 7 pm
19 - 6 meter net 8 pm (TBD)
20 - 2 meter net 8 pm (KE8KWF)
26 - 70 cm net 8 pm (N9DU)
27 - 2 meter net 8 pm (WI4WD)

June 2026
2 - 2 meter digital net 8 pm
3 - 2 meter net 8 pm (K6ROD)
6 - Social Saturday 9 am & Fox Hunt 7:30 am
8 - Board of Directors meeting 7 pm
9 - 220 Mhz Monthly Net 8 pm
10 - 2 meter net 8 pm (N9TNW)
13 - **Appleton Flag Day Parade**
14 - 2 meter SSTV net 6 pm (TBD)
15 - General Membership Meeting 7 pm
16 - 6 meter net 8 pm (TBD)
17 - 2 meter net 8 pm (WI9MMM)
23 - 70 cm net 8 pm (N9DU)
24 - 2 meter net 8 pm (WA9TT)

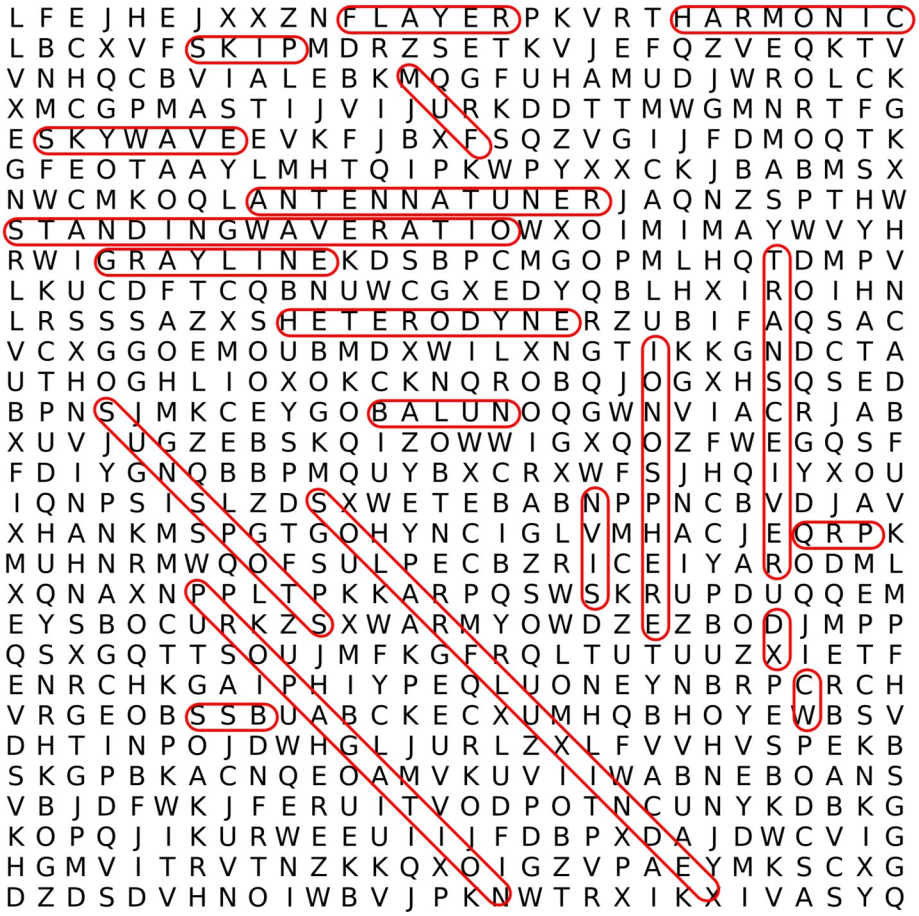
FCARC General Membership Meeting – 12/15/2025

Sign-in Sheet

Name	Callsign
Andy Lawton	AJ9L
Evan Vandenlangenberg	N9DU
Jerry Schilling	N9AOT
Gene Wall	KE5KWF
Gary Hahne	KB9WIT
Bernie Hengels	N9YMC
Darlene Hengels	KB9JGW
TONY MACH	AB9IO
JOHN VERWIEL	KC9TFM
KAREN THORNE	WB9ZNA
Dale Sprangers	NUD9DW
JOHN IOVZINSKY	K9KI
Eric Bjorkquist	KC5RE
CHRIS REITZ	N9CVR
Elizabeth Reitz	KE9DZD
Rick Kosiorek	WJ9K
MICHAEL KRAUS	KE9ADEJ
MICHAEL HOFFMANN	KD9ZTP
KIRT KRAUSE	N9WVD

Name	Callsign
Sarah Cornish	AD9FA
Daniel Sandahl	KB9QOU
Stacie Sandahl	KE9BGZ
Kenna Sandahl	KE9BGY
Andrew Sandahl	KD9ZAH
Joshua Sandahl	KD9ZGO
Anna Sandahl	KE9BGX
[illegible]	
ROY HINZ	KC9VLP
Rudy Reynolds	KD9RPW
ERIC JOHNSON	NW9L

Word Search Solution From Page 30.



STANDINGWAVERATIO

SOLARFLUXINDEX

SKIP

ANTENNATUNER	PROPAGATION	TRANSCEIVER	NVIS
IONOSPHERE	HETERODYNE	SUNSPOTS	MUF
GRAYLINE	HARMONIC	SKYWAVE	QRP
FLAYER	BALUN	SSB	CW
DX			

Submit your ideas for content, contributions, or items for sale for future editions of QSO'er to Gene Wall (KE8KWF) at ke8kwf@gmail.com. There are no special formatting requirements. All ideas are welcome. Together we can make our newsletter a useful addition to your shack.

FOX CITIES AMATEUR RADIO CLUB, INC.

FCARC, PO Box 2346, Appleton, WI 54912
920-415-2ham (2426) - www.fcarc.club - fcarcw9zl@gmail.com

Membership Application

Date _____ ☐ New member ☐ Renewal

☐ Full / Associate / Retired ☐ Student

Call Sign _____ License Class _____ ARRL Member? ☐ Yes ☐ No

Name _____ Phone _____

Address _____

City _____ State _____ ZIP _____

Email _____

$20.00	_____	Full, Associate (non ham), Retired
$10.00	_____	Student School_____
Free	_____	New Ham (FCARC VE certificate required)
$5.00 each	_____	Additional Family Members
	_____	Donation (Optional)
Total	_____	

My Family Member is Joining or Renewing:

☐ New member ☐ Renewal

Call Sign _____ License Class _____ ARRL Member? ☐ Yes ☐ No

Name _____ Phone _____

Email _____

☐ New member ☐ Renewal

Call Sign _____ License Class _____ ARRL Member? ☐ Yes ☐ No

Name _____ Phone _____

Email _____

Note: Family members must reside at the same address

Note: Please see the treasurer for an ARRL dues form. Our club will receive a portion of those dues if you sign up or renew through us.

Fox Cities Amateur Radio Club, Inc. is a 501(c)3 non-profit corporation.
Your contribution supports our community service and public safety activities.
All donations are tax-deductible to the fullest extent of the law. Please consult your tax advisor.

Treasurer Use:

Amount Paid $_____
Check # or method of payment _____
Paid through 12/31/_____
Date Deposited _____

QuickBooks Updated _____
Website Updated _____
HamClubOnline Updated _____