THE CHERRY JUICE

Newsletter of the
Cherryland Amateur Radio Club
Traverse City, MI
ARRL Affiliated Club #1082

Club Officers

President
Joe Erlewein N8CN

Vice President
Ernie Abel K8RCT

Recording Secretary
David Poinsett W8APT

Corresponding Secretary
Joe Schnaidt, KC8RLU

Treasurer
Ward Kuhn, N8WK

Directors
Mike Cleary, W8VPC
Dave Hanchett, KJ4KFJ
Chuck Mellberg, W8SGR

Station Manager
Joe Schnaidt, KC8RLU

Cherry Juice Editor
Joe Erlewein N8CN

Club Repeaters

W8TCM/R 146.86- (PL 114.8)
W8ZTB Memorial Repeater

W8TCM/R 442.50- (PL 114.8)
W8NGH Memorial Repeater

Club Radio Nets

MESH NET
Monday Evening Social Hour
Each Monday, 8pm
146.860 MHz (-) (PL 114.8)

SMASH NET
Sunday Morning Amateur Social Hour
Each Sunday, 9am
3.935 MHz

Upcoming Events

General Meeting: Feb 27th - Tuesday 7pm

Program: **ZUMspot Demonstration by Glen K8SGZ**

The Salvation Army - Basement Meeting Hall
1239 Barlow St., Traverse City, MI 49686
(at the intersection of: Barlow st. & Boon st.)

Tuesday Project Nights

At the club station in the lower level of the Salvation Army Building, at the NE corner of Barlow and Boone. 7 p.m. Every Tuesday except the 4 Tuesday of the month which is reserved for regular club meetings.

2018 Club Dues are Due!

Dues this year are $24.00.
Please send your 2017 Dues to:
Ward Kuhn N8WK
PO Box 987
Traverse City, MI 49685

The Cherryland Amateur Radio Club is a 501(c)(3) tax-exempt nonprofit organization

CARC 2018 Elections and Results

Each year at the January board meeting, the CARC board develops a "slate" for as many electable positions as possible to present to the club for voting. This year, the board recommended the following slate:

- President - Joe N8CN
- Vice President - Ernie K8RCT
- Recording Secretary - Dave WB8APT
- Corresponding Secretary - Joe KC8RLU
- Treasurer - Ward N8WK
- Board Position - Dave KJ4KFJ

After this was announced, nominations for all positions were opened. There were no nominations for any open positions. A motion was passed to adopt the slate recommended by the board. This motion passed.

Executive Board for 2018:

- President - Joe N8CN
- Vice President - Ernie K8RCT
- Recording Secretary - Dave W8APT
- Corresponding Secretary - Joe KC8RLU
- Treasurer - Ward N8WK
- Board Positions
  - Dave KJ4KFJ
  - Mike W8VPC
  - Chuck W8SGR

REMINDER:
2018 Dues are Due!

January Club Program Review

The Club Program in January was presented live via Skype® by Edison Fong WB6IQN, designer and creathe DBJ-1 and similar series of low-cost, low-material, efficient and performing J-poles for 2m, 44o, and other bands.

By Edison Fong, WB6IQN

The DBJ-1: A VHF-UHF Dual-Band J-Pole

Searching for an inexpensive, high-performance dual-band base antenna for VHF and UHF? Build a simple antenna that uses a single feed line for less than $10.

Two-meter antennas are small compared to those for the lower frequency bands, and the availability of repeaters on this band greatly extends the range of lightweight low power handhelds and mobile stations. One of the most popular VHF and UHF base station antennas is the J-Pole.

The J-Pole has no ground radials and it is easy to construct using inexpensive materials. For its simplicity and small size, it offers excellent performance. Its radiation pattern is close to that of an "ideal" dipole because it is end fed; this results in virtually no disruption to the radiation pattern by the feed line.

The Conventional J-Pole

I was introduced to the twinlead version of the J-Pole in 1990 by my long-time friend, Dennis Monticelli, AE6C, and I was intrigued by its simplicity and high performance. One can scale this design to one-third size and also use it on UHF. With UHF repeaters becoming more popular in metropolitan areas, I accepted the challenge to incorporate both bands into one antenna with no degradation in performance. A common feed line would also eliminate the need for a duplexer. This article describes how to convert the traditional single band ribbon J-Pole design to dual-band operation. The antenna is enclosed in UV-resistant PVC pipe and can thus withstand the elements with only the antenna connector exposed. I have had this antenna on my roof since 1992 and it has been problem-free in the San Francisco fog.

The basic configuration of the ribbon J-Pole is shown in Figure 1. The dimensions are shown for 2 meters. This design was also discussed by KD6GLF in *QST*.[1] That antenna presented dual-band resonance, operating well at 2 meters but with a 6-7 dB deficit in the horizontal plane at UHF when compared to a dipole. This is attributable to the antenna operating at its third harmonic, with multiple out-of-phase currents.

I have tested single-band J-Pole configurations constructed from copper pipe, 450 Ω ladder line, and aluminum rod. While all the designs performed well, each had shortcomings. The copper pipe J-Pole matching section would be exposed to the

[1] J. Reynante, KD6GLF, "An Easy Dual-Band VHF/UHF Antenna," *QST*, Sep 1994, pp 61-62.

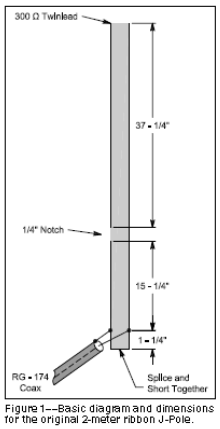


Figure 1—Basic diagram and dimensions for the original 2-meter ribbon J-Pole.

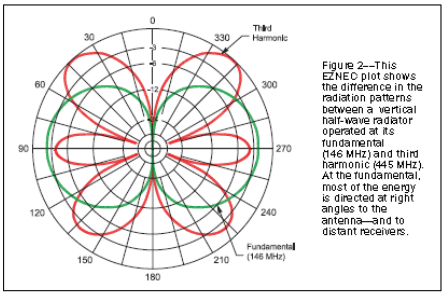
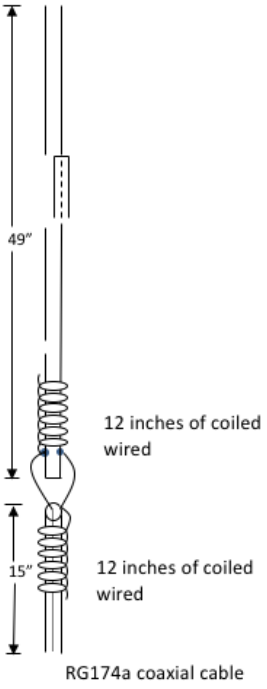


Figure 2—This EZNEC plot shows the difference in the radiation patterns between a vertical half-wave radiator operated at its fundamental (146 MHz) and third harmonic (445 MHz). At the fundamental, most of the energy is directed at right angles to the antenna—and to distant receivers.

38 February 2003 QST

I really hope you didn't miss the club program this month!

Ed gave a very revealing look into what it takes to design and bring to production a product like his different models of modified J-pole design antennas. He dove into the theory and design, focusing on keeping the design simple, portable, low-cost, durable, and buildable. Theory was abundant and he discussed trials and research into squeezing the most efficiency and gain out of the designs.



Throughout the processes and presentation, Ed drew focus back to the electrical characteristics and need for a resonant design that productively utilizes as much of the energy delivered to the antennas as possible. Things like third-harmonic radiative patterns and higher take-off angle components cited as unattractive, he discussed ways that, through design, these could be mitigated and the energy reclaimed to be more productive to the vertical polarization and lower take-off angles desired at VHF and UHF frequencies.

A professor, Ed kept the content exciting, easily understandable, and answering myriad questions during the presentation. We hope to be able to have him back in the future! Although.. he did "rub in" the nice warm weather in California.. maybe we'll let that slide! Thanks Ed for your time and talents!

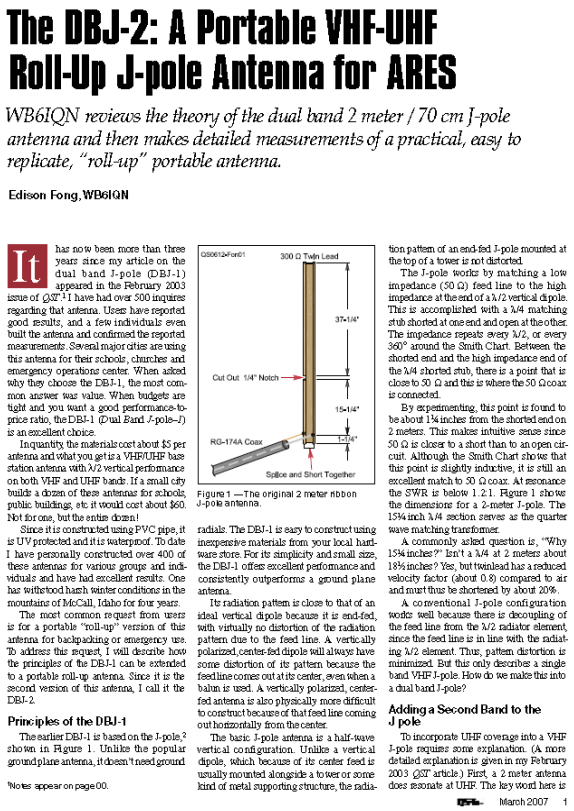
It was quite an event! If you missed this program, be sure to check out the video when it is posted to the Cherryland ARC website!

Ed also offered discounted products and a savings on shipping should the members of the Cherryland ARC wish to place a bulk order. We already have several items on the list to be ordered and plan to place the order following the March board meeting. A complete list of the items you can order follows:

DBJ-1	$30
DBJ-2	$28
TBJ-1	$60
50ft RG8x coax	$25
6ft extension for DBJ-2	$5
BNC male to PL259 adapter	$2
GP60 SSB radio	$60

You can check out the different models and specs over at Ed's page: https://edsantennas.weebly.com

Please contact Bob Kennedy (robert.kennedy02138@gmail.com) if you are interested in ordering.



The DBJ-2: A Portable VHF-UHF Roll-Up J-pole Antenna for ARES

WB6IQN reviews the theory of the dual band 2 meter / 70 cm J-pole antenna and then makes detailed measurements of a practical, easy to replicate, "roll-up" portable antenna.

Edison Fong, WB6IQN

It has now been more than three years since my article on the dual band J-pole (DBJ-1) appeared in the February 2003 issue of *QST*.[1] I have had over 500 inquires regarding that antenna. Users have reported good results, and a few individuals even built the antenna and confirmed the reported measurements. Several major cities are using this antenna for their schools, churches and emergency operations center. When asked why they choose the DBJ-1, the most common answer was value. When budgets are tight and you want a good performance-to-price ratio, the DBJ-1 (Dual Band J-pole–J) is an excellent choice.

Inquantity, the materials cost about $5 per antenna and what you get is a VHF/UHF base station antenna with λ/2 vertical performance on both VHF and UHF bands. If a small city builds a dozen of these antennas for schools, public buildings, etc it would cost about $60. Not for one, but the entire dozen!

Since it is constructed using PVC pipe, it is UV protected and it is waterproof. To date I have personally constructed over 400 of these antennas for various groups and individuals and have had excellent results. One has withstood harsh winter conditions in the mountains of McCall, Idaho for four years.

The most common request from users is for a portable "roll-up" version of this antenna for backpacking or emergency use. To address this request, I will describe how the principles of the DBJ-1 can be extended to a portable roll-up antenna. Since it is the second version of this antenna, I call it the DBJ-2.

Principles of the DBJ-1

The earlier DBJ-1 is based on the J-pole,[2] shown in Figure 1. Unlike the popular ground plane antenna, it doesn't need ground radials. The DBJ-1 is easy to construct using inexpensive materials from your local hardware store. For its simplicity and small size, the DBJ-1 offers excellent performance and consistently outperforms a ground plane antenna.

Its radiation pattern is close to that of an ideal vertical dipole because it is end-fed, with virtually no distortion of the radiation pattern due to the feed line. A vertically polarized, center-fed dipole will always have some distortion of its pattern because the feed line comes out at its center, even when a balun is used. A vertically polarized, center-fed antenna is also physically more difficult to construct because of that feed line coming out horizontally from the center.

The basic J-pole antenna is a half-wave vertical configuration. Unlike a vertical dipole, which because of its center feed is usually mounted alongside a tower or some kind of metal supporting structure, the radiation pattern of an end-fed J-pole mounted at the top of a tower is not distorted.

The J-pole works by matching a low impedance (50 Ω) feed line to the high impedance at the end of a λ/2 vertical dipole. This is accomplished with a λ/4 matching stub shorted at one end and open at the other. The impedance repeats every λ/2, or every 360° around the Smith Chart. Between the shorted end and the high impedance end of the λ/4 shorted stub, there is a point that is close to 50 Ω and this is where the 50 Ω coax is connected.

By experimenting, this point is found to be about 1¾ inches from the shorted end on 2 meters. This makes intuitive sense since 50 Ω is closer to a short than to an open circuit. Although the Smith Chart shows that this point is slightly inductive, it is still an excellent match to 50 Ω coax. At resonance the SWR is below 1.2:1. Figure 1 shows the dimensions for a 2-meter J-pole. The 15¾ inch λ/4 section serves as the quarter wave matching transformer.

A commonly asked question is, "Why 15¾ inches?" Isn't a λ/4 at 2 meters about 18½ inches? Yes, but twinlead has a reduced velocity factor (about 0.8) compared to air and must thus be shortened by about 20%.

A conventional J-pole configuration works well because there is decoupling of the feed line from the λ/2 radiator element, since the feed line is in line with the radiating λ/2 element. Thus, pattern distortion is minimized. But this only describes a single band VHF J-pole. How do we make this into a dual band J-pole?

Adding a Second Band to the J-pole

To incorporate UHF coverage into a VHF J-pole requires some explanation. (A more detailed explanation is given in my February 2003 *QST* article.) First, a 2 meter antenna does resonate at UHF. The key word here is

The Purple Crystal

A column about repeaters

Joe Erlewein N8CN

So, hey! A funny thing happened at the January Cherryland ARC board meeting - we became aware of a program to “upgrade” the club DR-1X repeater systems for $500 each ($300 if we omit the LAN option board) to the new and improved DR-2X repeaters. The program is a trade-in deal and involves us shipping back the original DR-1X units.

The new DR-2X units have been received and are being burned-in with dummy loads and tested with the new controller. All of this is slated to be installed at the same time to minimize work at the repeater site.

Thanks all - 73 de Joe N8CN

White Pine Stampede report

Mike Cleary W8VPC

Did you know that the Whitepine Stampede started around 1976? Did you know the original race went from Fredrick to Mancelona? The event started at Mancelona High School in 1981. Ham radio communications have been used since the early 90's, Not sure if there is a record of hams volunteering.

First, I would like to thank everyone that volunteered to help us with communications for the Whitepine Stampede.

2018 was different! Due to lack of snow (and what was on the ground was hard ice, and to make it worse, the exposed brush would be a problem), the White Pine staff decided to drop the 50K portion of the event. They made a last minute decision to move the 10 and 20K portion of the event to Schuss Mountain's groomed trails.

Besides myself, Ernie K8RCT, Terry N8MJE , Nelson W8NWO helped during the event however I would like to include Chuck N8NXP, Glen K8SGZ, Dave KJ4KFJ, Tom K8LZH, Ward N8WK , Jason KE8IIF, Justin N8QVQ for offering to help before the changes were made.

The 10K course was accomplished by doing two laps on the “Pine Cone Trail” With the Winter Brook Trail added on to make 10K. The 20K was 4 laps on the same course.

The plan was to meet at Shirley's in Mancelona for breakfast. However, since the event was moved, breakfast was canceled and we met at Schuss Mountain instead.

There were two road crossings, start/finish line and registration in Ivans which we covered well. There were no incidents requiring EMS which is very good.

So we did what we do best, adapt! Improvise! And get the job done! I was the last person to be released, time was around 15:00.

Looking forward to next year! Thanks!
73 de W8VPC

2018 Swap-N-Shop Report!

Joe Novak W8TVT

Well, we had another great weather day for our 45th annual swap & shop. We filled the entire gym with 44 tables and they all were occupied. 35 of the tables were pre-sold before we even got there.

About 15 people gathered at the Elk's Club for dinner and a social hour. This event turned out to take longer than expected as they didn't arrive at the gym until about 7:20 PM. By that time everything was set up and we were ready to go home!

Some of the set up people had arrived early at the gym and were able to set up the lighter plastic tables without any difficulty. They included W8APT, W8QKP, W8LDR, KC8EXD, KB8RDI & W8TVT.

N8WK, AA8SN, K8RCT, and N8UL showed up to put the final touches on the layout. KC8EXD got the kitchen ready for food service activities. The next day she, KB8RDI and N8RRR served coffee rolls. This year they also served hot dogs for lunch which was well received. Lisa reports and income for the club of $94 compared to $87 for last year. The first person to arrive at 6:30 am on Saturday morning was

K9JP. He promptly set up his two tables. He was followed by AB8RV, WD8AX and N8UL. KC8RLU and W8APT set up the club tables and made arrangements for the drawings for door prizes and the 50/50 drawing. They were able to use the school PA system for announcements. K8RCT had purchased some door prizes for the swap. The ARRL had again donated some gift certificates. The major door prize was a Baofeng HT. This was won by W8WA.

The donation table brought in $44. Our share of the 50/50 was $64. N8WK was there to collect for admissions and table rentals fees. He also collected club dues and passed out club new directories. He was assisted throughout the morning by AA8SN and W8RAK. Paid admission for this year was 209! This is compared to 208, 160 and 140 for the last three years.

AA8SN again ran the test sessions. She was assisted by W8JJD, N8PU, W8QKP, and WB8WZK. Hope reports that there are 12 new hams in our area. They

include 3 new tech's, 5 new generals, 3 new new extras and one reinstated general class license. Our congratulations to you all.

Clean up went very smoothly. Helping out were KC8RLU, W8APT, KB8RDI, KC8EXD, N8RRR, KC8ZAP, K8RCT, KC9ON, Bea, and W8TVT. I was able to lock up the school and get home by 1:15 just

in time to take a nap.

That's my report. Thanks for your involvement!

73 de Joe W8TVT

Donation Received

SWAP DOOR PRIZE!

A special THANKS! to Ted Slater N6QXA who donated the Baofeng HT for the Cherryland ARC door prize this year!

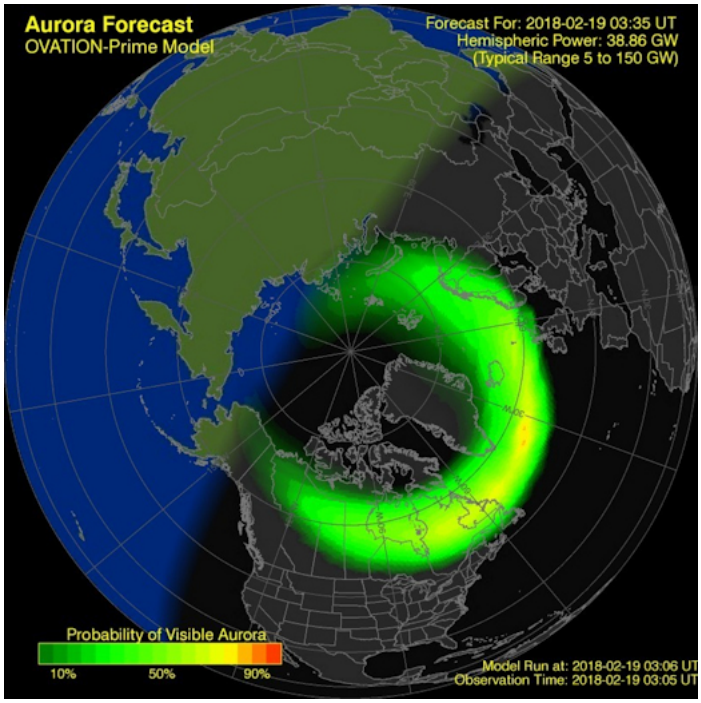
Geomagnetic Storm in progress

Space Weather News for Feb. 19, 2018

http://spaceweather.com

https://www.facebook.com/spaceweatherdotcom

A G1-class geomagnetic storm is underway on Feb. 19th as Earth enters a stream of fast-moving solar wind. G1-class storms are relatively minor and have little effect on satellites or global power grids. However, they can spark bright auroras around the Arctic Circle and confuse migratory animals that navigate using magnetism at high latitudes.



Hamvention is Coming!

SWAP DOOR PRIZE!

Hamvention 2018 Tickets Now Available Online

(Posted date: January 04, 2018)

Tickets for Dayton Hamvention® 2018 now are available online.

"Both Inside Exhibits and Flea Market committees are working hard to have space sales open as soon as possible," said Hamvention spokesperson Henry Ruminski, W8HJR.

Hamvention 2018 will take place May 18-20 at the Greene County Fairgrounds and Expo Center in Xenia, Ohio.

Tickets are $22 in advance, and $27 at the gate. Tickets are good for all 3 days. In addition to admission to Hamvention, a ticket covers parking, all testing sessions, all forums and speakers, and the prize drawings. Tickets also are available by mail order.

ARRL Foundation Announces Joel R. Miller (W7PDX) and Martha C. Miller STEM Scholarship

ARRL Letter, 2/8/18

The ARRL Foundation has announced a new scholarship, the Joel R. Miller (W7PDX) and Martha C. Miller STEM Scholarship. Endowed through the generosity of Joel R. Miller, W7PDX, and Martha C. Miller, this scholarship is intended to supplement the educational expenses of an Amateur Radio operator pursuing higher education. The ARRL Foundation will administer the scholarship, which is $1,000 annually to fund the costs of tuition, books, fees, and other educational expenses. The first scholarship from this endowment will be awarded in 2019.

Applicants must be a US citizen, without regard to gender, race, national origin, or handicap status, residing in the ARRL Northwestern Division (Alaska, Idaho, Montana, Oregon, and Washington). Those applying must be pursuing an associate's or higher degree in the fields of science, technology, engineering, or mathematics (STEM) at an accredited institution of higher education and have a 3.0 or higher grade point average at a high school or an accredited institution of higher education for the academic year immediately prior to the application period.

The ARRL Foundation Scholarship Committee will submit its nomination to the ARRL Foundation Board of Directors to approve by majority vote. The Board will disburse the scholarship funds to the winner's school of choice.

The Joel R. Miller (W7PDX) and Martha C. Miller STEM Scholarship will be endowed with a gift of $25,000. Earnings on the endowment will fund the annual scholarship award.

A Better Way to put a PL-259 on RG-58 Coax

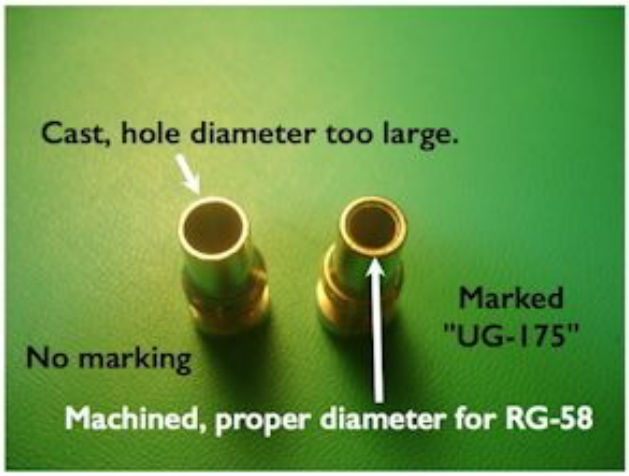
from http://www.kb6nu.com/a-better-way-to-put-a-pl-259-on-rg-58-coax/ , april 17, 2017 by dan kb6nu

My friend, Jon Titus, KZ1G, sent this to me a couple of days ago. He writes:

> "Here's a presentation I gave at our club meeting on Saturday. One of our members gave me some PL-259s he bought at a junk shop. Probably from old military equipment. I couldn't take them apart so I cut one apart to see why. They used this soldering technique that seems to simplify assembly of PL-259s with RG-58 cable. I have used it with good results."

It seems to me that this would work just as well when putting PL-259s with the UG-176 reducer onto RG-59 and RG-8X coax.

UG-175/U Differences



How to Prepare and Solder a PL-259

1. Screw a UG-175 all the way into a PL-259.
2. Mark one hole position on the UG-175.

3. Unscrew UG-175 and drill *through* it at the mark.
4. Insert the UG-175 and check alignment.

Suggestion: Use a #29 drill, a drill press, and a vise.

5. Place UG-175 on coax!
6. Prepare coax as shown.
7. Tin center conductor.

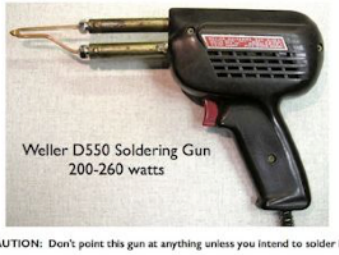
8. Put flux on all exposed coax braid.

9. Splay braid slightly away from center insulator.

10. Slide UG-175 so braid shows through both holes.

11. Solder UG-175 to braid through both holes.

To solder big things, use a big gun.

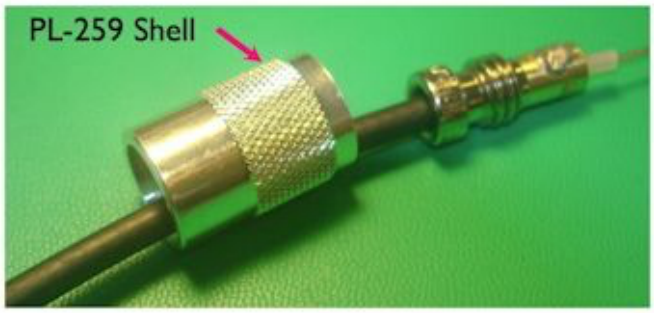


CAUTION: Don't point this gun at anything unless you intend to solder it!

12. Screw UG-175 into PL-295 and solder at exposed UG-175 positions.

Solder should flow and appear shiny when cool. No gray lumps!

Remember to slide me onto your cable!



Voila!

CARC Board Meeting Minutes

Catching you up! Minutes from May to October have been approved. Apologies for the late publish!

Minutes for Cherryland Amateur Radio Club Board Meeting: 11/7/2017
Present: Dave KJ4KFJ, Mark KC8ZAP, Dave K8WPE, Glen K8SGZ, Tom KE8CVM, Joe W8TVT, Chuck W8SGR, Ward N8WK, Ernie K8RCT, Dave W8APT, Joe, KC8RLU, Hope AA9SN

1. Review Minutes from last month – Dave W8APT **(Ward N8WK motion to approve, Dave KJ4KFJ seconds, approved)**
2. Treasurer Report – Ward N8WK **(No changes since general meeting)**
3. TBARG report – Glen K8SGZ
    a. "PROGRAMMING PROGRAM" at next meeting

District 7 conference call. Universal channels good idea, but need final approval from CEC. Expect to be ready by Jan or Feb. Maybe do it at swap in Feb. 911 exercise coming up, but not yet scheduled.

    b. Radio give-away? **No radio give-away.**
        i. Joe N8CN to publicize, etc
4. Announcements / Meetings / Events
    a. Silent Key – Mick Glasser W8EYC (Joe W8TVT/Ward N8WK announcements?) **Obituary said donations could go to CARC**
    b. Nov 2 - TBI – Joe KC8RLU
        i. Started, runs Nov 2 – 30. **Rules on CARC web site.**
        ii. Logs due within 14 days of close.
    c. Nov 4 - VE session report – Hope AA8SN **2 new techs, 1 general. Next test Nov 11.**
    d. Welcome Committee Hope, Ward, Joe Schnaidt to introduce new people to members, email a welcome packet, ask for new people at meetings
    e. Need new name tags, Joe. Ernie will send email to ask if anyone needs nametags.
    f. Nov ? – 20M/40M/$M W8QPO-Vee construction (project nights?)
        i. Publicize
        ii. Mass-orders
        iii. Details to membership!
        iv. Ernie to coordinate email to come on Tuesday to sign up. Have costs figured out if possible.

g. Nov 28 - General Meeting
    i. Program: Dave KJ4KFJ (digital? Or packet?) **FUSION and WiresX**
h. Dec 5 – Tuesday – CARC XMAS PARTY
    i. Ham of the Year still pending at this time.
i. Swap – Feb 10, 2018.
    i. Joe has a flyer made. (attachment)
j. FOUR CW practice oscillators donated to #GOREC! Thank yous!
k. Project Night Closure - follow club policy on nights like Halloween

5. Committees
    a. Joe KC8RLU - #GOREC equipment recommendations
        i. Work with W8VPC to provide "wish list" of needed things. Still working on list. **Ward N8WK moves to table until next meeting, Dave KJ4KFJ, approved.**
    b. SATC station grounding (W8APT)
        i. Do we modify the station grounding or leave it be?
        ii. Waiting for further input from John Gordon. Dave KJ4KFJ suggests Phase 1 to ground tower and coax. Ernie K8RCT moves to table until March, Ward N8WK seconds, approved.
6. Adjourn – **Chuck W8SGR moves to adjourn, Jo KC8RLU seconds, approved.**

Minutes for Cherryland Amateur Radio Club Board Meeting: 12/12/2017

Present: Joe N8CN, Neil KE8IGC, Dave KJ4KFJ, Mike W8VPC, Dave K8WPE, Rick W8RRL, Joe KC8RLU, Glen K8SGZ, Ward N8WK, Dave W8APT, Ernie K8RCT, Joe W8TVT, Tom KE8CVM, Brad W8QPO

1. Review minutes (Dave W8APT) Ward N8WK moves to approve minutes as submitted, Dave KJ4KFJ seconds, motion carries

2. Treasurer report (Ward N8WK)
Ward N8WK distributed an updated financial statement Jan 1, 2017 through Dec 12, 2017. Income $8,078.00. Expenses $4,307.29. Cash on Hand: $5,866.48. Wards suggests adding club dues reminder to upcoming Cherry Juice.

3. TBARG report (Glen K8SGZ)
TBARG members need to update credentials. 911 exercise coming up. Need to develop a digital messaging strategy. Glen wants to do an exercise in January. Glen will offer free re-programming of mobile radios to new channel assignments at swap in February.

4. Interlochen station (Brad W8QPO and Ernie K8RCT)
Interlochen Radio engineer Gary Langley contacted Joe N8CN asking for information on our agreement to operate a repeater on their tower. Gary has been informed that the agreement is between Chuck W8SGR and Interlochen Radio.

5. Nominations and slate for elected positions

All club officers will run again for the same positions. Dave KJ4KFJ's term as at-large board member expires. He says he will run again. Brad W8QPO will ask Chuck W8SGR if he wants to step down due to his extended absence. If he does, Glen K8SGZ will run.

6. TBI contest report (Joe KC8RLU)
No contest reports at this time.

7. Project night antenna report (Brad W8QPO)
Brad W8QPO reports 16 people on first night, 12 on second night, other inquires via email. Keep it going until no one wants it. Next project is Ed Fong antenna. Tie in with Ed Fong Skype on program night. Glen K8SGZ suggests digital/audio interface project $10, plus some soldering. Joe KC8RLU suggests pine board AM transmitter. Dave W8APT suggests an FT8 demo.

8. Swap prep - budget for ordering door prizes, etc. Joe made a flyer, will print 200 copies to mail.
Ernie will inquire about bulk mailing service. ARRL has donated $150 gift certificate for door prize.
Other prize ideas: soldering station, PL-259 crimper, Power Pole crimper, Yaesu FT 170DR DMR radio, Baofeng radio, mini blow torch, VHF mobile antenna, raffle. $220 total spent last year on prizes. After discussion, decision to have more smaller items rather than a few bigger ones.
Ward N8WK moves to authorize up to $225 for prizes, Ernie K8RCT seconds. Motion approved.
Joe W8TVT has made arrangements with Immaculate Conception Church for the February Swap setup on Friday at 7:00 pm. The club will be out by Sunday at 1:00 pm.

9. Salvation Army Donation
Ward N8WK moved to give $300 to Salvation Army, Dave W8APT seconds. Motion carries. (This is a follow-up on informal email poll to board members on November 13, 2017.) The check has been delivered.

10. January program - Ed Fong Skype

11. Classes
April CERT training also includes "Technician license in a day." Normally this is an 11 module program. Dave W8APT suggests a monthly demo of amateur radio. N8CN suggests it could be done at Greilick GOREC. Ask in newsletter if people are interested in a class. Joe N8CN and Joe KC8RLU will brainstorm demos and outreach. Dave W8APT suggests a 1/2-day NMC Ext Ed demo class. Joe N8CN will send survey to members.

12. Miscellaneous items
Ernie K8RCT moves to up to $50 on to replace club solder station. Joe N8CN seconds. Motion carries. Glen will delay purchasing Field Day tent to ensure that a return is possible if necessary.

13. Adjourn
Ernie K8RCT moves to adjourn. Joe N8CN seconds. Motion carries. Meeting adjourned.

The Wexaukee Amateur Radio Club Presents the 57th Annual

Cadillac Amateur Radio and Computer Swap

Saturday May 5, 2018
Doors Open at 8 AM
Admission $5.00
Cadillac Junior High School

Onsite Radio Raffle Available

Meetings for The UP Net And QCWA

Talk In on 146.980 K8CAD Cadillac Repeater

Lots of Vendors

Door Prizes

ARRL Card Checker --- Bring your Cards!

500 Chestnut Street ***** Cadillac, Michigan
Parking and Food at location

See: http://www.wexaukeearc.org/

No Firearms are Allowed on School Grounds

The Wexaukee Amateur Radio Club Presents the 57th Annual

Table Information

Table Rental:
$12.00 per 8ft table
Payment due with reservation

Table Request Forms Available at
http://www.wexaukeearc.org/

For Reservations or Information

Wexaukee Amateur Radio Club
PO Box 163
Cadillac, Mi 49601

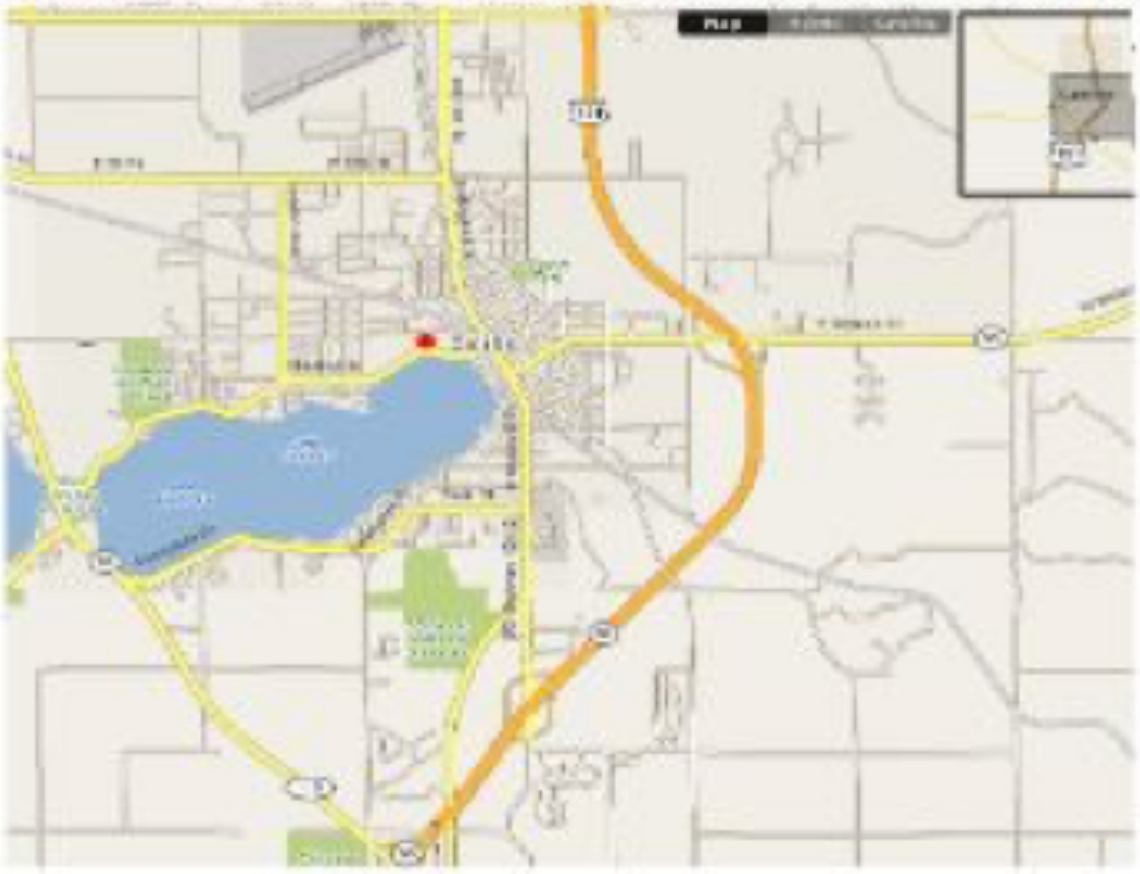
Testing Information

Testing for all License Classes will be held onsite.

Registration at 8:30

Test session at 10:30

Session limited to 50 applicants please.



Cherryland ARC Information:

Club Meetings:

The official CARC Club Meeting occurs on the **Fourth Tuesday** of each month at 7pm. Anyone is welcome.

Board Meetings:

The CARC Board meets on the **First Tuesday** of each month at 7pm. Board meetings are open all.

Project Night:

The CARC meets for a "project night" on **all other Tuesday nights** at 7pm. Anyone is welcome to come and use the tools, parts, resources, and "elmers" in the project room / SATERN station.

All Meetings occur at the **Salvation Army building** on **Barlow St. (**at Boon st.**) in Traverse City.**
The project room is on the **basement level.**

To become a member of the CARC:

1. Fill out a membership form.

You may fill out a form at any meeting, fill out the form online via the website, or you can email cherrylandarc@gmail.com to receive a form via email.

2. Submit dues with your form.

Dues are $24 per year and are due January 1 each year or with your membership form submission. (pro-rated)
(Family Memberships available for $26)

That's all for the February 2018 issue of The Cherry Juice! As always, if you have any suggestions or comments, I'm all ears! — joe@n8cn.org

73, Joe N8CN

<SK>