



The RELAY)))

August
2023

The Official Publication of the Arrowhead Radio Amateur Club

A.R.A.C. Inc. P.O. Box 7164 Duluth MN 55807-7164 <http://www.thearac.org> Dues: Member \$20/Family \$25

INDEX

Safeguards	1
Board Mtg Minutes	2
Club Mtg Minutes	4
Prez Sez	6
Testing Sessions	6
CW Abbreviations	7
Band Plan	7
Nets	8
Repeaters	9
Upcoming Events	11
Members' Email	12
Calendar	13
Committee Chairs	14
Contest Calendar	19-24

“Ham Harbor” in a Storm Being a Safeguard to Your Neighborhood

As I think about this month's *Relay* I sensed it is time to discuss how important it is that we interact with the people that live around each of us. Nowadays, it is common for our society to know very little about our neighbors. As hams, however, it's also important we know about our neighbors from a safety standpoint. Why? Because ***we can serve an important role in safeguarding the lives of those in our neighborhood during an emergency.*** Learning who is elderly or disabled is paramount, of course. It's also good to understand any single people and families with young children that may need extra help.

When amateur radio operators take the initiative to introduce themselves and explain the essential role ham radio can play when other communications go down during a storm or national emergency, we start a neighborhood dialog about safety. We can build on this to make a plan to look out for one another—especially in emergencies.

Continued on Page 15



Instead of QSL cards, have some business cards made to hand out to your neighbors as you start a dialog about emergency preparedness & safety in your neighborhood.

The Relay Co-Editors:
Kim & Steve Waller

Kim - KE0NQS Steve - KE0NQT
KE0NQS.mn@gmail.com KE0NQT@gmail.com



Summer 2023



Join us on
Facebook!

IN MEMORIAM



Photo and reflection courtesy AA0AW

Mr. Elmer F. Berg KC0NGY passed away on Tuesday August 1, 2023. Elmer was a very important part of our amateur radio community and has left a void. He was not only a dedicated ham, but he was also a worker. From cooking corn at the annual picnic to helping with health and welfare communications for many local races, helping with grass cutting and tower work, he was a contributor. Elmer was first licensed on May 14, 2002. He upgraded to general on May 24, 2005 and made the final leap to extra class on April 04, 2017. His extra class ticket was something he was very proud of.

May you R.I.P. Mr. KC0NGY and you will be sadly missed.

73 my old friend for now.

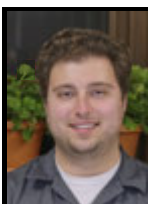
ARAC Board Meeting Minutes - July 13, 2023

PRESIDENT



NØVRM
Gene Ellefsen
3710 Chambersburg Ave
Duluth, MN 55811
218-390-3272
lspitech@mail.com

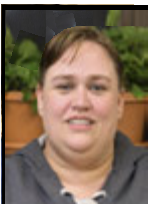
VICE PRESIDENT



KØDJP
David Pyrlík

david.pyrlík@gmail.com

SECRETARY



KFØGJW
Melinda Nelson

TREASURER



KEØYTM
Sam Frey

ke0ytm@gmail.com

3RD YEAR BOARD



AAØAC
Dave Davis

218-348-6649
aaøac@outlook.com

2ND YEAR BOARD



AAØAW
Doug Nelson

aaøaw@arrl.net

1ST YEAR BOARD



WØDIO
Denny Anderson

Present:

President: Gene Ellefsen – NØVRM
Vice President: Dave Pyrlík – KØDJP
Treasurer/Membership: Sam Frey – KEØYTM
Second Year Board: Doug Nelson – AAØAW
Third Year Board: Dave Davis – AAØAC
Special Events: Open/Gene Ellefsen – NØVRM (acting)
Parliamentarian: Grant Forsyth – KCØWUP
Repeater: Dave Pyrlík – KØDJP
Testing: Doug Nelson – AAØAW
Property/Picnic: Scott Ahlgren – NØVYU
Ham Fest/Education: Bob Schulz – KCØNFB

Absent:

Secretary: Melinda Nelson – KFØGJW
First Year Board: Dennis Anderson – WØDIO
Chaplin: Vacant
Web Site: Thomas Dorr – KEØRHA
Newsletter/Historian: Kim Waller – KEØNQS
Newsletter/Historian: Steve Waller – KEØNQT

Meeting was called to order by President Gene Ellefsen -NØVRM, upstairs in the Sanctuary as the Fellowship Hall is occupied by the onsite Daycare, while the Daycare is being remodeled. Minutes are being taken by Robin Davis, Acting Secretary.

New Ham:

Ben – KO4UDI, recently moved to this area. Welcomed Ben!

Minutes:

Minutes are in the newsletter. Motion to accept by many. Motion passed.

Treasurer's Report:

Checking: \$2,443.22
Savings: \$3,575.93
Repeater: \$3,319.30
Subtotal Cash: \$9,338.45

Winter CD: \$1,736.49
Summer CD: \$ 0.00
Subtotal CD: \$1,736.49

Assets Subtotal: \$11,074.94

Minus Checks Outstanding
Checks Subtotal:

Grand Total \$11,074.94

Motion to accept as presented by Bruce Carlson – KEØNIT, seconded by Grant Forsyth – KCØWUP, motion passed.

Continued on Page 3

ARAC Board Meeting Minutes - July 13, 2023

Board Actions:

Board made a motion to spend up to \$300.00 on food for the upcoming Picnic, seconded by Grant Forsyth – KC0WUP. Discussion ensued with 10:00 am set up, 11:00 am start time, August 6, 2023, at Chamber's Grove. The Club provides Brats, Hot Dogs, Corn, Bob's Beans, Bottled Water and ask everyone to bring a dish to share. Reminder that Highway 23 is under construction and there is a Stop Light at the Park Entrance. Motion passed.

Board made a motion to purchase a new Antenna to replace the current Antenna on the WDSE Channel 8 Tower, motion was seconded by Grant Forsyth – KC0WUP. Discussion on being proactive to replace the Antenna prior to it failing. Idea is to get the old Antenna down off the Tower, inspect it and Replace it with a new Antenna. There will be a separate work even to replace the Feed Line, installing new Feed Line. Antenna purchase price is around \$1,000.00 ball park figure. We would be prepared should WDSE decide to hire a Tower Climber this year. Thoughts were to share the costs to the old Antenna taken down and the new one installed at the same time. Discussion around if the old Antenna is still working, could we sell it, keep it for a backup, give it away at the Annual Club Picnic, etc. There is money in the Repeater Fund due to a recent donation. The Motion to purchase a New Antenna to replace the current Antenna on the WDSE Channel 8 Tower was approved.

Field Day:

Good time was had with over 1,000 contacts made, using Digital, Voice and CW. Plans are to do it again next year. Doug Nelson-AA0AW pointed out next year, as it has been in the past, Grandma's Marathon will be on the same weekend.

Education:

Bob Schultz – KC0NBF and Paul Dallavia – KC0WDQ will be holding an Online Technician's class again this year. It will start September 26, 2023 and run through January. Interested folks should contact one of them for additional information.

Testing:

Tested one individual, who obtained his Technician's License. Also tested in Ely, two weeks ago, and that Gentleman went from nothing to Extra in one test session. Congratulations!

New Business:

Mitch Wiss-WA9TRY shared there is a 120-foot guyed tower that ARAC can have for free if we take it down. It located north of town. Brief discussion followed – see Mitch if interested.

Door Prize was won by AA0AW, who donated it back to the Club.

Motion to adjourn by Doug Nelson – AA0AW, seconded by many, motion passed at 19:41 (7:41 pm). Program tonight is an online video.





ARAC Club Meeting Minutes

ARAC Club Meeting

July 13, 2023

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Vice President: Dave Pyrlik – K0DJJ
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Continued on Page 5



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Respectfully submitted by Robin Davis, Acting Secretary



CLUB REPEATER

WØGKP

146.94 (-)

CTCSS TONE

103.5



Prez Sez...

Hi Everyone,

Quick reminder the **ARAC Picnic** is Sunday **August 6** at Chambers Grove Park out in Fond Du Lac, far west Duluth, at 11:00 AM. The Club will provide Brats, Corn on the Cob and Bottled Water. It is a Pot Luck, so bring your favorite dish to share. Hope to see a lot of you there. This is a great time for you "New" Hams to get to know the "Older" Hams, and if you need questions answered they will be happy to do that.

I also heard a rumor that there will be a "Fox Hunt" going on. That is where a Transmitter (the Fox) is hidden and you try to find it!!

The Bands have been pretty active lately, so get on the air and make some contacts. 6 meters has been hot!!

Everyone enjoy your Summer!!

Gene Ellefsen NØVRM



LOOKING for an Amateur Radio License TESTING SESSION?

Schedule your own Testing Session TODAY!

Contact Doug Nelson-AA0AW at aa0aw@arrl.net or 218-391-5874

All Exam Candidates are REQUIRED to have an FCC Registration Number (FRN) before exam day, which will require your email address.

Not Currently Licensed? For New License Candidate FRN registration, go to: www.fcc.gov/new-users-guide-getting-started-universal-licensing-system-uls

Upgrading to General or Expert Class & not sure you have an FRN number?
go to

<https://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>

UPGRADE CANDIDATES:

Please bring a copy of your current license to the exam session.

CW Abbreviations

- | | | | |
|--------------------------|-------------------|--------------------------|-------------------|
| AR End of Message | AS Pse QRX | BK Back to You | SK End of Contact |
| TU Thank You | PSE Please | K Invite to Transmit | |
| QST Calling all Amateurs | QRL Are You Busy? | QRU Have anything for me | |
| QRV Are You Ready? | QRX Standby | QRS Transit Slower | |

A	●■■■	M	■■■■	Y	■■■■●
B	■■■■●	N	■■■●	Z	■■■■●●
C	■■■■●●	O	■■■■■	1	●■■■■■
D	■■■■●●●	P	■■■■●●	2	●●■■■■■
E	●	Q	■■■■■●	3	●●●■■■■
F	●●■■■	R	■■■■●●●	4	●●●●■■■
G	■■■■●●	S	■■■■●●●	5	●●●●●■■
H	●●●■■■	T	■■■■●	6	■■■■●●●●
I	●●	U	●●■■■	7	■■■■●●●●●
J	■■■■■●	V	●●●■■■	8	■■■■●●●●●●
K	■■■■●●●	W	■■■■●●●●	9	■■■■●●●●●●●
L	■■■■●●●●	X	■■■■●●●●●	0	■■■■●●●●●●●

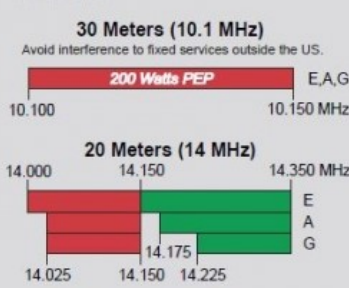
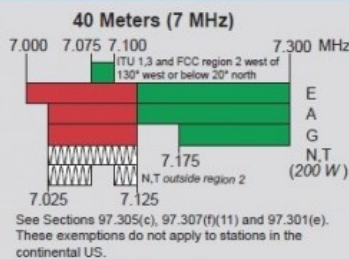
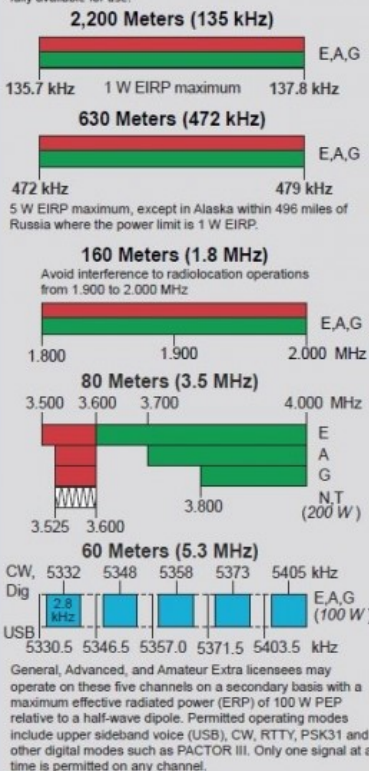


US Amateur Radio Bands

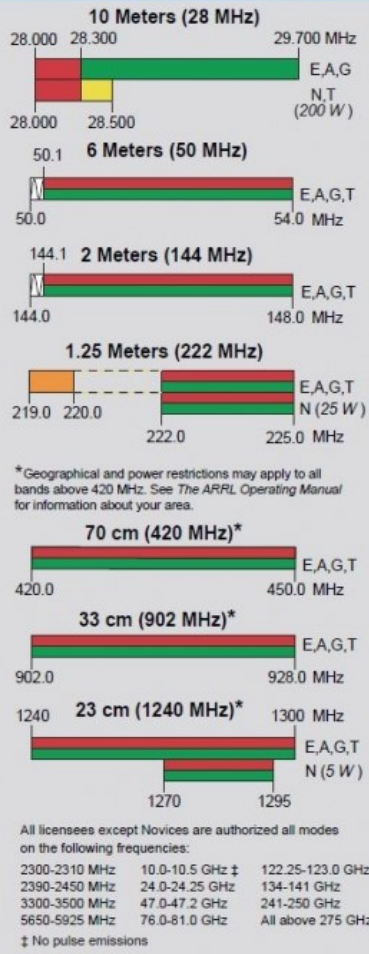
US AMATEUR POWER LIMITS

FCC 97.313 An amateur station must use the minimum transmitter power necessary to carry out the desired communications. (b) No station may transmit with a transmitter power exceeding 1.5 kW PEP.

On March 28, 2017, the Federal Communications Commission adopted rules that will allow Amateur Radio access to 472-479 kHz (630 meters) and to 135.7-137.8 kHz (2,200 meters). However, amateurs cannot use these frequencies until 30 days after the Report and Order is published in the Federal Register and the final procedures for registering stations with the Utilities Telecom Council (UTC) have been approved and announced. At the time this chart was created, the Report and Order had not been published and the UTC online registration site is not yet available. Follow ARRL news for further information. New charts will be published at www.arrl.org/graphical-frequency-allocations when the bands are fully available for use.



Effective Date for 2,200 and 630 Meters to be announced



KEY

Note:
CW operation is permitted throughout all amateur bands.
MCW is authorized above 50.1 MHz, except for 144.0-144.1 and 219-220 MHz.
Test transmissions are authorized above 51 MHz, except for 219-220 MHz

- = RTTY and data
- = phone and image
- = CW only
- = SSB phone
- = USB phone, CW, RTTY, and data
- = Fixed digital message forwarding systems only

E = Amateur Extra
A = Advanced
G = General
T = Technician
N = Novice

See ARRLWeb at www.arrl.org for detailed band plans.

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email: news@arrl.org

Exams: 860-594-0300 email: vec@arrl.org

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NETS

Have a favorite HF/6m/2m/1.25m/70cm net that you check into or listen in on? Also, please send corrections and we will add it to the list below - Kim KEØNQS at my email KEØNQS.mn@gmail.com.

- **Northland Weather Group Net:** Mondays 2000 on the ARAC repeater (146.940 MHz with a tone of 103.5 and standard offset).
- **Minnesota D-Star Net:** Sundays at 19:30 on Reflector 53A
- **Minnesota Section Net** 1200 and 1730 on 3.860 [Net Manager: NØYR] http://www.mn-section.org/dept_stm.html
- The non-non-net: Evenings 2000 144.200 USB except for Sunday evenings.
- Badger WX Net: 0500-0715 on 3.985. Give 24 hour high/low/current temperature, precipitation and snowfall.
- **PICONET:** 3.925 from 0900-1100 CT Mon-Sat and 1600-1700 CT Mon-Fri. Info at: <http://www.piconet3925.com>
- Michigan Upper Peninsula Net: 1600 (CST) on 3.921 MHz Sun-Sat and 1200 Sun. Info: <http://www.michupnet.com>
- Great Lakes Marine/Maritime Mobile Net: Morning 07:30 - 3.932; 08:15 - 7.261 MHz and evening 18:30 - 3.1730927; 19:15 - 7.268 MHz. Weekend extra net: 10:00 - 7.261/7.268 MHz. All CST, LSB and +/- QRM. See: <http://www.sailblogs.com/member/glimmnet/>
- MIDCARS: 07:30-13:00 - 7.258 MHz. See: <http://www.midcars.net>
- Iowa snowbird net on 14.257MHz, M-W-F at 10:00 am Local Time. This is an open net.
- Spider Web Net (Marco Island FL) on 14.347 every morning at 0730 CST/CDT: <http://www.spiderwebnet.net>
- Maritime Mobile Service Network: Daily at 1100—2100 Central on 14.300. <http://mmsn.org> and <http://www.14300.net>
- RV Radio Network: Every day at 1900 Central on 7.265 MHz. Web site: <http://www.rvradionetwork.com>
- Upper Midwest Ten Meter Net: Every Thursday Evening @ 8 PM – 28.480 MHz USB
- Wisconsin Sideband Net: Daily @ 5:15 PM – 3985 [or 3982.5] KHz LSB
- Hobby Helpers Net - Tuesday @ 8 PM – 28.330 MHz USB (Isanti MN) LSB [Net Manager: WOØA].
- Northstar Trader Net: 3.908 +/- at 0830 CST Sundays
- WARFA: 3.908 +/- Sun/Tue/Thu nights at 2200 CST, <http://warfa.org/>
- Youth Net: 14.320-14330 Sundays 1800-1900 UTC, Net Control: AC8PI
- YACHT: Saturdays 1900 CST on EchoLink #481872, <http://yachthams.webstarts.com>
- Northwestern Ontario ARES Net: Evenings at 20:15 (Central) on +/- 3.750Mhz
- The Iron Range Net: Saturdays at 0800 Central time on or near 3.919 Mhz. Look them up on Facebook!
- FORX Net: Mondays at 1900 Central at 3.941 Mhz +/- QRM. WAØJXT — Grand Forks, North Dakota
- HF CW: Fridays 08:00 CST, 7.112 MHz. Informal slow speed CW Net. W8IRT NCS. Email: w8irt@aol.com
- Minnesota ARES Digital Net: Thursdays at 2000 CST, 3.5835 MHz USB +/- QRM, Mode: Olivia 8/500.
- SARA Digital Net: Sundays at 1900 Local, 3.582.150 MHz USB +/- QRM, Mode: BPSK31/BPSK63
- Spider Web Net (Marco Island FL): 14.347 every morning at 0730 CST/CDT: <http://www.spiderwebnet.net>
- Broadcaster Net: 7.231 or 3.855 M/W/F @ 1500 UTC. 14.255 M-F @ 2130 UTC. <http://www.cbsretirees.com/ham.htm>
- Old Military Radio Net: 7.268 +/- nightly at 0200z. Other times/Frequencies too. See: <http://www.mrca.ar88.net/>
- Rag Chew Crew/Tailgaters/Freewheelers Nets: 3.916 +/- nightly at 1900 CST, <http://www.tailgatersnet.com>
- North South Net: 7.214.6 +/- at 0700 CST, Monday-Saturday



DULUTH AREA REPEATERS

ARAC System WØGKP

Frequency	Offset	Tone	Location
146.940	minus	103.5	Duluth
146.940	minus	107.2	Lakeside (recv)
146.940	minus	151.4	Two Harbors (recv)
146.940	minus	100.0	Gary-New Duluth (recv)
146.940	minus	110.9	Cloquet (recv)
147.000	minus	103.5	Mahtowa
444.100	plus 103.5		Duluth UHF Link

N9MMU/N9QWH System (WI)

145.310	minus	110.9	Duluth
145.490	minus	110.9	Solon Springs
147.255	plus 110.9		Hayward
145.110	minus	110.9	Rice Lake
147.345	minus	136.5	Holcombe
145.230	minus	110.9	Eau Claire

WECOMM – WI Statewide Linked System WE9COM

147.075	plus 110.9		Meteor Hill (closest repeater to Duluth)
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LSAC System # 1

147.330	plus 151.4		Proctor
147.330	plus 103.5		Duluth (recv for Proctor)
147.270	plus 114.8		Two Harbors
147.270	plus 103.5		Wales
147.090	plus 114.8		Silver Bay
145.410	minus	114.8	Finland
147.300	plus 114.8		Isabella
145.150	minus	103.5	Washburn, WI
146.700	minus	103.5	Bayfield, WI
443.850	+5.00	none	Bayfield, WI
147.165	plus 110.9		Hurley, WI
146.640	minus	151.4	Ely
443.500	+5.00	141.3	Gilbert
147.060	plus 103.5		Virginia
147.360	plus 162.2		Cook
147.165	plus 114.8		Coleraine
443.925	+5.00	110.9	Brainerd
443.200	+5.00	114.8	Tamarack
147.360	plus 203.5		Aitkin
146.865	minus	146.2	Giese
147.570	simplex	146.2	Hinckley
444.575	+5.00	146.2	Hinckley
443.325	+5.00	146.2	Isanti



DULUTH AREA REPEATERS, continued

NARC System NAØRC

147.135 plus 103.5 Knife River
 145.450 minus 114.8 Park Point (rcv)
 147.135 plus 114.8 Knife River - Park Point (rcv)

Stand Alone Repeaters

145.210 minus 110.9 Clam Lake, WI
 146.880 minus 123.0 Grand Rapids, MN
 146.910 minus 146.2 Duxbury, MN
 146.955 minus 146.2 Askov, MN
 147.105 plus 110.9 Chaffey, WI
 444.850 +5.00 141.3 Cloquet, MN

Fusion

Fusion (Analog has tone and C4FM digital with no tone)

147.150 plus 151.4 NTØB Gilbert, MN Fusion Repeater
 145.170 minus 110.9 WA9KLM Superior, WI – Douglas County RACES/ARES Fusion Repeater (Digital only) Fusion Room 28373

145.250 minus 103.5 KBØYHX Cloquet, MN – Carlton County RACES/ARES Fusion Repeater

444.300 +5.00 103.5 NØEO Duluth, MN – Spirit Valley Amateurs Fusion Repeater WIRES-X NØEO (Analog only) Fusion Room 40494

444.400 +5.00 103.5 NAØRC Knife River, MN – Wires X Connected to NØEO Room 40494
 444.500 +5.00 103.5 NØLCR Two Harbors, MN – Wires X Connected to NØEO Room 40494
 444.600 +5.00 103.5 NØLCR Silver Bay, MN – Wires X Connected to NØEO Room 40494
 444.800 +5.00 103.5 NØLCR Grand Marais, MN – Wires X Connected to NØEO Room 40494

D-Star

147.375 plus NØEO D Star
 442.200 plus NØEO D Star

Rev. KCØWDQ as of 10/1/22 For ARAC Newsletter

Elmers

El-mer / el-mər/ [el-mer]

1. a male given name: from Old English words meaning "noble" and "famous."
2. an adhesive used to bond like or unlike materials
3. An experienced ham radio operator who mentors new and prospective hams.

Name	Call Sign	Expertise
Jeff Nast	KCØMKS	APRS, EchoLink, WinLink, Fusion, Contesting
Bob Schulz	KCØNFB	Contesting
Jim Anderson	NØJWA	QsoNet
Doug Nelson	AAØAW	HF, VHF/UHF, Contesting, Packet, APRS, Morse Code, VE testing, Echolink, Allstar, EmCom...



UPCOMING EVENTS

Next ARAC Board Meeting

Tuesday, August 1, 2023 @ 6:30 p.m. - Sammy's Spirit Valley

NEXT ARAC CLUB MEETING

Thursday, August 10, 2023 @ 7:00 p.m. - Coppertop Church

ARAC CLUB PICNIC

Sunday, August 6th

11:30 a.m. - 1:30 p.m.

Chambers Grove Park Fond du Lac

Please bring a Pot-Luck dish to share!

The Club will furnish brats, corn-on-the-cob & water



**WE'RE
HAVING A
PICNIC!**

Membership E-mail Directory

Ahlgren, Scott NØVYU
sahlgren01@msn.com
Anderson, Jim NØJWA
kcØmko@centurylink.net
Anway, Allen KC9LJN
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Contact Kim or Steve Waller to include your name in this listing!

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Members, please check your name and email address for accuracy. If you are not on this list and want to be on the list, contact us with your info. If you need to make a change, please let us know at KEØNQS.mn@gmail.com OR KEØNQT@gmail.com




SUNDAY NIGHT NETS
 1930 - CW - 28.125 MHz USB-CW
 2000 -USB 28.450 MHz
 2100 - Southern St. Louis County
 Emergency Services Net
MONDAY NIGHT NETS
 2000- Northland WX Net - ARAC Repeater

AUGUST

CLUB EVENTS

TUESDAY NIGHT NETS
 2000 -Douglas Cty 145.490 MHz
 2030 -Central Carlton County
WEDNESDAY NIGHT NETS
 1900 -Lake County - LSAC1
 2nd & 4th Wednesdays
 2100 -BWAR

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 ARAC BOARD MEETING Sammy's Pizza 6:30 pm DC Net 2000 CC Net 2030	2	3	4	5
6 CW 1930 AAØAW USB 2000 NØVRM ES 2100 KEØYTM	7 WX 2000 KCØMKS	8 DC Net 2000 CC Net 2030	9 Lake County ARES/RACES Meeting 1800 Lake County Net 1900 2100 -BWAR	 10 ARAC Club Meeting Coppertop Church 7:00 PM	11	12
13 CW 1930 NØPDG USB 2000 NØPDG ES 2100 AAØAW	14 DC ARES/RACES Mtg 1900 DC EOC WX 2000 KCØMKS	15 DC Net 2000 CC Net 2030	16 St Louis County ARES/RACES Meeting 1800 2100 -BWAR	17	18	19
20 CW 1930 AAØAW USB 2000 AAØAW ES 2100 KD9VKI	21 WX 2000 KCØMKS	22 DC Net 2000 CC Net 2030	23 Lake County Net 1900 2100 -BWAR	24 Carlton County ARES/RACES Meeting 1900 CC EOC	25	26 ARAC Club Breakfast The Chalet 8 am
27 CW 1930 NØPDG USB 2000 KB9WLB ES 2100 KCØWDQ	28 WX 2000 KCØMKS	29 DC Net 2000 CC Net 2030	30 2100 -BWAR			

Get this newsletter *faster*
via email!

Email Doug AAØAW at
aa0aw@arrl.net

Next Club Meeting:
Thursday,
August 10th, 2023 - 7 pm
at the *Coppertop Church!*

ARAC Committee Chairs



Club License Trustee:

Ray Barnes KEØZN

Control Operators:

AAØAW - NØKXT - KCØNFB

Newsletter/Historian:

Kim KEØNQS & Steve KEØNQT
Waller

Education Chair:

Bob Schulz KCØNFB

Hamfest Chair:

Bob Schulz KCØNFB

Chaplain:

Rollie Bockbader KBØCK

Visiting Chaplain:

Parliamentarian:

Grant Forsyth KCØWUP

Website:

Thomas Dorr KEØRHA

Membership:

Sam Frey KEØYTM

Property Chair:

Scott Ahlgren NØVYU

Testing:

Doug Nelson AAØAW

Field Day:

Picnic Chair:

Scott Ahlgren, NØVYU

Repeater Chairs:

Randy Haglin NØBZZ
Randy Wabik KAØJZV

Contest Calendar at www.contestcalendar.com

National Contest Journal at www.ncjweb.com

QSO Party Note: State/Province/National QSO Parties are abbreviated with the 2 or 3 letter abbreviation for the state/province/national designation followed by QP for QSO Party:

Examples: Minnesota QSO Party is MNQP
British Columbia QSO Party = BCQP

QRZ web site at www.qrz.com

VHF Propagation site at www.aprs.mountainlake.k12.mn.us

Reminder: The Contest Corral monthly listing of contests can be found in each issue of QST. ARRL sponsored contests can be found in Contest Corral, highlighted, or on the ARRL's web site at arrl.org.

This starts with you going around the neighborhood to connect with neighbors. Instead of handing out your QSL card to the people living around you, we'd actually recommend having a "business card" version of your info as a ham radio operator for the public. This would be your name, call sign, address, and additional contact info such as phone #, email, twitter/X account, facebook, etc. If you are married, be sure to include your spouse's name even if they aren't a ham. Indicate your call sign after your first name in that case. Have your spouse go with you as you walk your neighborhood during the beautiful summer air and introduce yourself as you go.

Just start with your block if you live in town and make note of addresses where no one is home to come back later. If you live in a more rural setting, swing by your closest neighbors and do the same.

Let your neighbors know you are able to be a communication resource for the neighborhood in the event of an emergency and tell them you're making an emergency plan for your own household to be ready for various situations. Encourage them to make a plan for their family and ask if they'd be interested in a neighborhood meeting to discuss exchanging some info with each other. If you can host the meeting in your yard or driveway some evening after dinner and just serve some fresh cookies & water outside, it makes for an inexpensive and easy meeting.

Making a Neighborhood Safety Plan

You'll need to think through a safety plan for your neighborhood for various situations. Tornadoes, floods, fires, civil unrest & simple power outages are examples. Share some thoughts at your meeting on what your household resources are and listen to your neighbors' comments.

Next, you'll need to discuss creating a neighborhood directory with names, addresses and contact info to share with each other. This directory should ideally also include an emergency contact family member for each household who lives outside your neighborhood.

In your directory, make note of anyone who may need special assistance because of a medical condition or age, and if they have a medical device that requires electricity to operate.

Discuss ideas on having additional medication, water, food, fuel, and pet supplies available for emergency use in each of your households.

Talk to each other regarding emergency equipment you all currently have, such as power generators, LP tanks, heaters, stoves, solar chargers,

lights, batteries, "walkie-talkies", and so on. It is also very important to understand special home features or equipment each of you may have that can be shared with one or more neighbors in an emergency. For example, noting which neighbors may not have a basement to go to in a tornado helps you make a plan for them to take shelter with a next door neighbor if possible. Knowing what kind of heat sources each of you have available is essential in winter. **Side note: This is an excellent time of year to add an emergency switch to your furnace, so that in a power outage you**



Continued on Page 16

can switch the power input source to a portable generator. Whether your furnace is natural gas, LP or electric, it needs electricity to run. This of course means that if you don't have a portable generator, you'll need to get one. This goes for pellet stoves & wood stoves with a power exhaust as well. In a power outage you'll need at least one generator. Add up your minimum electrical requirements and choose a generator (or two) that meets this needs. Lighting should not be part of this equation as you should plan for smokeless "oil" lanterns and rechargeable LEDs. OK. Back to our discussion:

Household Safety Plans

As you dialog with neighbors on how to work together in an emergency, it's essential that you stress the need for each household to develop a robust safety plan of their own. **First, Documents: They each need to assemble a "Grab & Go" folder or tote of essential information and small items.** In addition to a digital list of these on the cloud, a **printed list** of their insurance policy information for home, auto and medical is a must. Bank account and investment account info should also be in the folder. Take snapshots of the printed lists or screenshots and save all the info as photos on your phone in the event you cannot access cloud files. Redundancy is key. **Next, Contact Lists: They need to be sure that contact information for family, friends, work, etc. are up to date on their phone and on the cloud.** Then consider taking snapshots of essential people and saving them as

photos on their phone. And this means every family member's phone in that household.

Air drop or text the contact photos to each other as needed. Then print out a list of essential Contacts and put it into the old-fashioned paper folder.

Children & Pets

Every parent of an infant or toddler has at least one diaper bag with all the essentials, whether you're going for walk to the park or traveling. When you get home from an outing, make it a habit to re-supply anything you've used immediately. Also prepare an emergency duffel for your child with everything they will need for a few-day trip, including clothes, diapers, wipes, formula, snacks, toys, meds and a blanket. Having these at-the-ready at all times makes it much faster to respond to an emergency.

A "grab & go" system for pets is also necessary. A carrier should be pre-packed with an extra leash and/or harness. Collapsible food & water dishes and bedding should also be inside.

Continued on Page 17

These items should be ***in addition*** to the leash, food dish, bed, etc. that you use everyday, because you don't want to have to run and round these up in an emergency. Place a duffle bag with pet food and bottled water on top of the carrier to grab as you go also. For cats, you may need to pack a pop-up litter box as well. Several varieties of leak-proof foldable ones are available on Amazon for about \$20, or you can get entire carrier kit one for around \$32. Baby wipes or pet wipes are a must for both cats and dogs, as well as pet waste bags.

1 Get a Kit

2 Make a Plan

3 Be Informed

Be Red Cross Ready

American Red Cross

The Red Cross has forms and advice to help families prepare for a variety of emergencies. Visit redcross.org for more details.

FUEL

Of course we need fuel for travel, heating, cooking and even lighting. A variety of fuels are available for those purposes, including gasoline, diesel, natural gas, propane, fuel oil, butane, kerosene, smokeless paraffin indoor lamp oil, outdoor torch fuel (refined petroleum), to name a few. Olive oil is safe for indoors, but expensive.

It's a good idea for every household to have a mix of fuel sources available for flexible use. For example, we often use LP tanks for our backyard grills, but we should also consider having a couple of heaters that use the same type of LP tanks. Also, the same mini LP tanks you may use for a camping stove you can use for a mantle lantern, with proper ventilation for safe use.

Gasoline is used to fuel our cars, RVs, motorcycles, lawn equipment and portable generators. Keeping our vehicles full is our best gasoline storage strategy for emergencies. Always have

a manual or battery-operated siphon pump to transfer fuel from your vehicle to an appropriate gas container for use in a portable generator. Likewise, keeping fuel oil tanks and large LP tanks as full as possible during the cold months is advised.

For indoor emergency lighting, it is still best to have some fuel-based choices along with your rechargeable and battery-operated light sources. Smokeless paraffin lamps & fuel are not expensive and very efficient. Long-burning emergency candles in an appropriate holder are also important. These items should always be safely used, up and out of the reach of children and pets. Outdoor solar lights can also be brought indoors for the night as additional illumination.

Don't forget the "miscellaneous" items! Be sure to have some old-fashioned wooden matches, butane lighters of several sizes and an extra supply of lantern wicks. Various batteries, hand & foot warmers, and a good-sized first aid kit should be included as well.

RECHARGEABLES

Today's average family has a LOT of rechargeable items that we plug in regularly for continued use. Our phones are likely the number one priority, along with any small medical devices like mini oxygen generators, etc. Also of great importance in emergencies are our LED flashlights & lanterns, so having portable power banks for recharging these items is a must. Some power banks are, they themselves, rechargeable. Others work on AA batteries that you can replace or are solar. Like fuel, it is always good to have a mix of recharging sources. Every family should review their needs and make a plan for what works best for them.

Continued on Page 18

HAM SHACK

Whether you have a large ham shack in a separate building or a corner of your office or family room, make an emergency plan. Take note of what you'll need for power generation of your home ham shack, your vehicle's mobile radio, as well as a hand-held radio "go bag". There are lots of great tips online from seasoned hams, but the best idea is talking to an elmer from our Club to get his advice.

ADDITIONAL CIVIL EMERGENCY PLANS & SUPPLIES

Of course, not all public safety incidents are weather related. Some are nature-related, such as "bear on the loose" or "moose on the loose" occurrences, so don't leave those out of your discussions.

Others are area infrastructure disasters such as the Husky refinery fire a few years back. Still others have a malevolent human component, such as the riots we have seen across the globe. Household safety and corresponding neighborhood protection against lawless individuals or groups intending to cause us harm is a discussion that we absolutely must have with our neighbors. If law enforcement cannot get to us in a timely manner, what are we equipped to do as families and as neighbors?

Being frank with each other about our defensive skills, policies and available gear is important. For some, this is an uncomfortable discussion, but the reality is that each household should have a plan of what to do in a home invasion situation, and each neighborhood should have a plan in place to respond to a neighborhood invasion. Discuss with your neighbors and find out what kind of a plan works for you.

Our discussion today is definitely not an exhaustive list of things to consider in your neighborhood emergency preparedness. Be sure to do research on what local resources are available from your city or county on forming a neighborhood watch group if you don't have one. That can be a good place to start in some cases, and you may be able to pick up some free folders and guides, including making a neighborhood contact database. See below for some images of a csv file you can start with and add more details as needed.

As hams, we have a proud heritage of serving our communities in public safety situations, so bringing it closer to home, to our neighborhoods, is a natural fit. This also brings public awareness, neighborhood by neighborhood, of the importance of amateur radio to our communities, now and in the future. This will undoubtedly spark a new generation of hams with first-hand knowledge of the importance of amateur radio even when they don't have parents who are hams. There's always room for more hams in the neighborhood, so let's inspire some young people to join the proud ranks of amateur radio operators! ★

	A	B	C	D	E	F	G
1	NEIGHBORHOOD DIRECTORY						
2	NAME(s) - Head(s) of Household	Home Address	House Description/Location	Cell Phone #s	Other Phone (landline, work)	Additional Household Members	Pets
3	John (KE0XY) & Jane (KE0XX) Smith	1234 Myrtle Ln	Blue ranch-style on corner	491-0000 (John) 491-0000 (Jane)	218-000-0000 (home landline)	Jordan and Olivia (minor children)	Sunny (Golden Retriever)
4	Ellie Nelson	1236 Myrtle Ln	White Cape Cod style, yellow trim	591-0000	218-222-0000 (home landline)	None	None
5	Ted Pho	1238 Myrtle Ln	Grey Mid-century modern style	491-1111	218-222-1111 (work cell)	None	None
6	Chad & Kelli Toma	1240 Myrtle Ln	Yellow Victorian-style, green trim	491-2222 (Chad) 491-2221 (Kelli)		None	Cookie, Creamy (b&w cats)
7	Jason & Sheila McKenna	1242 Myrtle Ln	Brown Split-level, fountain in front yard	491-3333 (Jason) 491-3331 Sheila	218-222-2222 (home landline)	None on premises, 2 grown children	Rollo (Black Labrador)

Here's a sample Neighborhood Directory spreadsheet with columns A-G above, and H-K below. Not only is it a contact directory, but it records other key details you'll need in planning with your neighbors.

	H	I	J	K
1				
2	Assistance Priority Level	Medical Notes	Special Skills	Special Feature(s)
3	2 (2 children under 12); pet		IT (John) Nurse (Jane); Both are amateur radio operators	Large basement, home equiped with built-in power backup, ham shack in garage
4	1 (elderly, ambulatory with cane)	pacemaker, heart meds		Has wood-burning fireplace in family room
5	5 (30 y/o fitness trainer, single)		CPR Certified, Former US Army Medic	Property has private well with operational hand pump (legacy before city hook-up)
6	4 (early 20's couple with 2 indoor pets)		Social Media Content Creators	Have 19' Scamp 5th Wheel trailer, home has old roof cellar & can hold extra supply totes
7	3 (50's couple, Jason: double knee replacemnt & ambulatory); 10 y/o pet		HS Football Coach (Jason) Nutritionist & Physical Therapist (Sheila)	Have 2 portable gas generators, outdoor backyd kitchen w/ LP appliances & wood firepit



Contest Calendar - August 2023

<u>+ Worldwide Sideband Activity Contest</u>	0100Z-0159Z, Aug 1
<u>+ ICWC Medium Speed Test</u>	0300Z-0400Z, Aug 1
<u>+ QCX Challenge</u>	0300Z-0400Z, Aug 1
<u>+ ZL Sprint</u>	0800Z-0829Z (CW), Aug 1 and 0830Z-0859Z (SSB), Aug 1
<u>+ Phone Weekly Test</u>	0230Z-0300Z, Aug 2
<u>+ A1Club AWT</u>	1200Z-1300Z, Aug 2
<u>+ CWops Test</u>	1300Z-1400Z, Aug 2
<u>+ Mini-Test 40</u>	1700Z-1759Z, Aug 2
<u>+ VHF-UHF FT8 Activity Contest</u>	1700Z-2100Z, Aug 2
<u>+ Mini-Test 80</u>	1800Z-1859Z, Aug 2
<u>+ CWops Test</u>	1900Z-2000Z, Aug 2
<u>+ Walk for the Bacon QRP Contest</u>	0000Z-0100Z, Aug 3 and 0200Z-0300Z, Aug 4
<u>+ CWops Test</u>	0300Z-0400Z, Aug 3
<u>+ CWops Test</u>	0700Z-0800Z, Aug 3
<u>+ NRAU 10m Activity Contest</u>	1700Z-1800Z, Aug 3 (CW) and 1800Z-1900Z, Aug 3 (SSB) and 1900Z-2000Z, Aug 3 (FM) and 2000Z-2100Z, Aug 3 (Dig)
<u>+ SKCC Sprint Europe</u>	2000Z-2200Z, Aug 3
<u>+ NCCC FT4 Sprint</u>	0100Z-0130Z, Aug 4
<u>+ QRP Fox Hunt</u>	0100Z-0230Z, Aug 4
<u>+ NCCC RTTY Sprint</u>	0145Z-0215Z, Aug 4
<u>+ NCCC Sprint</u>	0230Z-0300Z, Aug 4
<u>+ K1USN Slow Speed Test</u>	2000Z-2100Z, Aug 4
<u>+ Batavia FT8 Contest</u>	0000Z, Aug 5 to 2359Z, Aug 6
<u>+ HARC Anniversary QSO Party</u>	0001Z, Aug 5 to 2359Z, Aug 6

Continued on Page 20



Contest Calendar - August 2023

<u>+ 10-10 Int. Summer Contest, SSB</u>	0001Z, Aug 5 to 2359Z, Aug 6
<u>+ European HF Championship</u>	1200Z-2359Z, Aug 5
<u>+ ARRL 222 MHz and Up Distance Contest</u>	1800Z, Aug 5 to 1800Z, Aug 6
<u>+ North American QSO Party, CW</u>	1800Z, Aug 5 to 0559Z, Aug 6
<u>+ SARL HF Phone Contest</u>	1400Z-1700Z, Aug 6
<u>+ K1USN Slow Speed Test</u>	0000Z-0100Z, Aug 7
<u>+ ICWC Medium Speed Test</u>	1300Z-1400Z, Aug 7
<u>+ OK1WC Memorial</u>	1630Z-1729Z, Aug 7
<u>+ ICWC Medium Speed Test</u>	1900Z-2000Z, Aug 7
<u>+ Worldwide Sideband Activity Contest</u>	0100Z-0159Z, Aug 8
<u>+ ARS Spartan Sprint</u>	0100Z-0300Z, Aug 8
<u>+ ICWC Medium Speed Test</u>	0300Z-0400Z, Aug 8
<u>+ ZL Sprint</u>	0800Z-0829Z (CW), Aug 8 and 0830Z-0859Z (SSB), Aug 8
<u>+ DARC FT4 Contest</u>	1900Z-2000Z, Aug 8
<u>+ NAQCC CW Sprint</u>	0030Z-0230Z, Aug 9
<u>+ Phone Weekly Test</u>	0230Z-0300Z, Aug 9
<u>+ A1Club AWT</u>	1200Z-1300Z, Aug 9
<u>+ CWops Test</u>	1300Z-1400Z, Aug 9
<u>+ Mini-Test 40</u>	1700Z-1759Z, Aug 9
<u>+ VHF-UHF FT8 Activity Contest</u>	1700Z-2100Z, Aug 9
<u>+ Mini-Test 80</u>	1800Z-1859Z, Aug 9
<u>+ CWops Test</u>	1900Z-2000Z, Aug 9
<u>+ CWops Test</u>	0300Z-0400Z, Aug 10
<u>+ CWops Test</u>	0700Z-0800Z, Aug 10
<u>+ EACW Meeting</u>	1900Z-2000Z, Aug 10
<u>+ NCCC FT4 Sprint</u>	0100Z-0130Z, Aug 11
<u>+ QRP Fox Hunt</u>	0100Z-0230Z, Aug 11

Continued on Page 21



Contest Calendar - August 2023

<u>+ NCCC RTTY Sprint</u>	0145Z-0215Z, Aug 11
<u>+ NCCC Sprint</u>	0230Z-0300Z, Aug 11
<u>+ K1USN Slow Speed Test</u>	2000Z-2100Z, Aug 11
<u>+ FISTS Saturday Sprint</u>	0000Z-2359Z, Aug 12
<u>+ WAE DX Contest, CW</u>	0000Z, Aug 12 to 2359Z, Aug 13
<u>+ ARRL EME Contest</u>	0000Z, Aug 12 to 2359Z, Aug 13
<u>+ MMonVHF/DUBUS 144 MHz Meteorscatter Sprint Contest</u>	0400Z, Aug 12 to 0359Z, Aug 14
<u>+ SARL Youth QSO Party</u>	1200Z-1300Z, Aug 12
<u>+ SKCC Weekend Sprintathon</u>	1200Z, Aug 12 to 2400Z, Aug 13
<u>+ Kentucky State Parks on the Air</u>	1400Z-2200Z, Aug 12
<u>+ Maryland-DC QSO Party</u>	1400Z, Aug 12 to 0400Z, Aug 13
<u>+ SARL HF Digital Contest</u>	1400Z-1700Z, Aug 13
<u>+ K1USN Slow Speed Test</u>	0000Z-0100Z, Aug 14
<u>+ 4 States QRP Group Second Sunday Sprint</u>	0000Z-0200Z, Aug 14
<u>+ ICWC Medium Speed Test</u>	1300Z-1400Z, Aug 14
<u>+ OK1WC Memorial</u>	1630Z-1729Z, Aug 14
<u>+ ICWC Medium Speed Test</u>	1900Z-2000Z, Aug 14
<u>+ Worldwide Sideband Activity Contest</u>	0100Z-0159Z, Aug 15
<u>+ ICWC Medium Speed Test</u>	0300Z-0400Z, Aug 15
<u>+ ZL Sprint</u>	0800Z-0829Z (CW), Aug 15 and 0830Z-0859Z (SSB), Aug 15
<u>+ Phone Weekly Test</u>	0230Z-0300Z, Aug 16
<u>+ A1Club AWT</u>	1200Z-1300Z, Aug 16
<u>+ CWops Test</u>	1300Z-1400Z, Aug 16
<u>+ VHF-UHF FT8 Activity Contest</u>	1700Z-2100Z, Aug 16
<u>+ Mini-Test 40</u>	1700Z-1759Z, Aug 16
<u>+ Mini-Test 80</u>	1800Z-1859Z, Aug 16
<u>+ CWops Test</u>	1900Z-2000Z, Aug 16

Continued on Page 22



Contest Calendar - August 2023

[+ Walk for the Bacon QRP Contest](#)

[+ CWops Test](#)

[+ CWops Test](#)

[+ NTC QSO Party](#)

[+ NCCC FT4 Sprint](#)

[+ QRP Fox Hunt](#)

[+ NCCC RTTY Sprint](#)

[+ NCCC Sprint](#)

[+ K1USN Slow Speed Test](#)

[+ SARTG WW RTTY Contest](#)

[+ ARRL 10 GHz and Up Contest](#)

[+ Russian District Award Contest](#)

[+ Keyman's Club of Japan Contest](#)

[+ Feld Hell Sprint](#)

[+ North American QSO Party, SSB](#)

[+ CVA DX Contest, CW](#)

[+ FISTS Sunday Sprint](#)

[+ ARRL Rookie Roundup, RTTY](#)

[+ Run for the Bacon QRP Contest](#)

[+ K1USN Slow Speed Test](#)

[+ ICWC Medium Speed Test](#)

[+ OK1WC Memorial](#)

[+ ICWC Medium Speed Test](#)

[+ Worldwide Sideband Activity Contest](#)

[+ ICWC Medium Speed Test](#)

0000Z-0100Z, Aug 17 and

0200Z-0300Z, Aug 18

0300Z-0400Z, Aug 17

0700Z-0800Z, Aug 17

1900Z-2000Z, Aug 17

0100Z-0130Z, Aug 18

0100Z-0230Z, Aug 18

0145Z-0215Z, Aug 18

0230Z-0300Z, Aug 18

2000Z-2100Z, Aug 18

0000Z-0800Z, Aug 19 and

1600Z-2400Z, Aug 19 and

0800Z-1600Z, Aug 20

0600 local, Aug 19 to 2400 local, Aug 20

0800Z, Aug 19 to 0800Z, Aug 20

1200Z, Aug 19 to 1200Z, Aug 20

1600Z-1759Z, Aug 19

1800Z, Aug 19 to 0559Z, Aug 20

2100Z, Aug 19 to 2100Z, Aug 20

0000Z-2359Z, Aug 20

1800Z-2359Z, Aug 20

2300Z, Aug 20 to 0100Z, Aug 21

0000Z-0100Z, Aug 21

1300Z-1400Z, Aug 21

1630Z-1729Z, Aug 21

1900Z-2000Z, Aug 21

0100Z-0159Z, Aug 22

0300Z-0400Z, Aug 22

Continued on Page 23



Contest Calendar - August 2023

[+ ZL Sprint](#)

[+ SKCC Sprint](#)

[+ Phone Weekly Test](#)

[+ A1Club AWT](#)

[+ CWops Test](#)

[+ Mini-Test 40](#)

[+ Mini-Test 80](#)

[+ CWops Test](#)

[+ CWops Test](#)

[+ CWops Test](#)

[+ NCCC FT4 Sprint](#)

[+ QRP Fox Hunt](#)

[+ NCCC RTTY Sprint](#)

[+ NCCC Sprint](#)

[+ K1USN Slow Speed Test](#)

[+ Hawaii QSO Party](#)

[+ ALARA Contest](#)

[+ World Wide Digi DX Contest](#)

[+ W/VE Islands QSO Party](#)

[+ YO DX HF Contest](#)

[+ Kansas QSO Party](#)

[+ Ohio QSO Party](#)

[+ CVA DX Contest, SSB](#)

[+ 50 MHz Fall Sprint](#)

[+ SARL HF CW Contest](#)

[+ NJQRP Skeeter Hunt](#)

0800Z-0829Z (CW), Aug 22 and

0830Z-0859Z (SSB), Aug 22

0000Z-0200Z, Aug 23

0230Z-0300Z, Aug 23

1200Z-1300Z, Aug 23

1300Z-1400Z, Aug 23

1700Z-1759Z, Aug 23

1800Z-1859Z, Aug 23

1900Z-2000Z, Aug 23

0300Z-0400Z, Aug 24

0700Z-0800Z, Aug 24

0100Z-0130Z, Aug 25

0100Z-0230Z, Aug 25

0145Z-0215Z, Aug 25

0230Z-0300Z, Aug 25

2000Z-2100Z, Aug 25

0400Z, Aug 26 to 0400Z, Aug 28

0600Z Aug 26 to 0559Z, Aug 27

1200Z, Aug 26 to 1200Z, Aug 27

1200Z, Aug 26 to 0300Z, Aug 27

1200Z, Aug 26 to 1200Z, Aug 27

1400Z, Aug 26 to 0200Z, Aug 27 and

1400Z-2000Z, Aug 27

1600Z, Aug 26 to 0400Z, Aug 27

2100Z, Aug 26 to 2100Z, Aug 27

2300Z, Aug 26 to 0300Z, Aug 27

1400Z-1700Z, Aug 27

1700Z-2100Z, Aug 27

Continued on Page 24

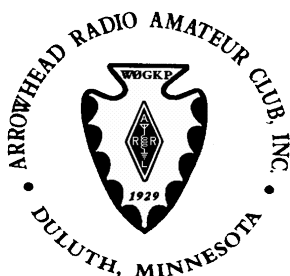
Contest Calendar - August 2023

+ K1USN Slow Speed Test	0000Z-0100Z, Aug 28
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 28
+ QCX Challenge	1300Z-1400Z, Aug 28
+ OK1WC Memorial	1630Z-1729Z, Aug 28
+ QCX Challenge	1900Z-2000Z, Aug 28
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 28
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 29
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 29
+ QCX Challenge	0300Z-0400Z, Aug 29
+ ZL Sprint	0800Z-0829Z (CW), Aug 29 and 0830Z-0859Z (SSB), Aug 29
+ Phone Weekly Test	0230Z-0300Z, Aug 30
+ A1Club AWT	1200Z-1300Z, Aug 30
+ CWops Test	1300Z-1400Z, Aug 30
+ Mini-Test 40	1700Z-1759Z, Aug 30
+ Mini-Test 80	1800Z-1859Z, Aug 30
+ CWops Test	1900Z-2000Z, Aug 30
+ CWops Test	0300Z-0400Z, Aug 31
+ CWops Test	0700Z-0800Z, Aug 31

Our thanks to **Bruce Horn, WA7BNM**
for use of this calendar!

Visit Bruce at www.contestcalendar.com/contestcal.html

The ARAC RELAY



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