ARROWHEAD RADIO AMATEUR CLUB, INC. • DULUTH, MINNESOTA •

The RELAY

May 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

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SPRING 2023

Join us on Facebook!

Artificial Intelligence:

A Convergence Point in Safety Development

As "yours truly" looks over this month's ***Relay*** for final publication, an Associated Press wire flashes across my screen on the subject of our newsletter this month, Artificial Intelligence. The headline? "Godfather of A.I. Geoffrey Hinton Leaves Google, Warns of Tech's Dangers". Though the headline is obviously designed to be provocative, this timely report warrants the focus of this edition. Our original article that examines Artificial Intelligence Machine Learning and its current and future impact on amateur radio, will be the focus of our June edition instead.

So why is news of Hinton changing his focus to ***AI warning*** "front page" worthy across the globe? Because Geoffrey Hinton is not just any tech guy. He's an expert researcher on cutting-edge artificial intelligence and its current and potential uses. Hinton is a pioneer developer of deep machine learning and neural networks. For 45 years, his work has built the instrumental foundation of today's AI technology.

Born in London in 1947, he studied Psychology at Cambridge University in the late 1960's and earned a Bachelor's Degree in 1970. His interest in how Psychology could potentially impact Computer Science, and vice versa, led him on an interesting research journey and as a result, a PhD in Artificial Intelligence from Edinburgh in 1978.

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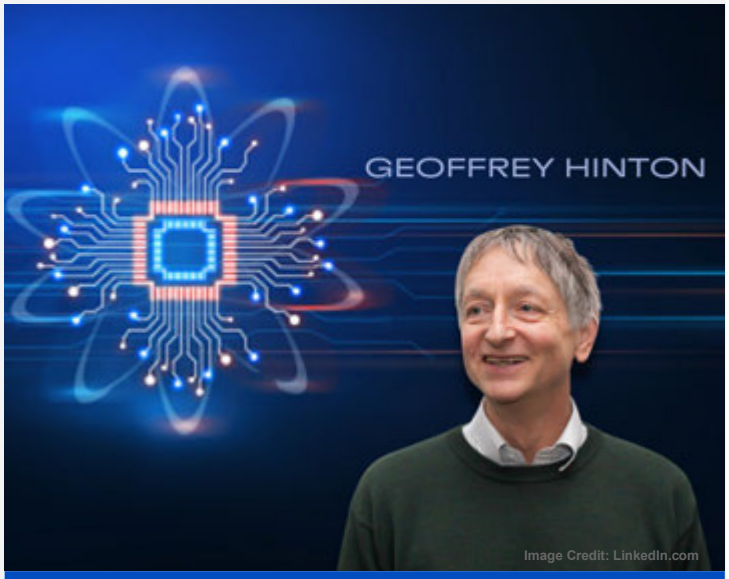

Geoffrey Hinton designed machine learning algorithms. His aim has been to discover a learning procedure that is efficient at finding complex structure in large, high-dimensional datasets and to show that this is how the human brain learns to see. He was one of the researchers who introduced the back-propagation algorithm and the first to use backpropagation for learning word embeddings. His other contributions to neural network research include Boltzmann machines, distributed representations, time-delay neural nets, mixtures of experts, variational learning, products of experts and deep belief nets. His research group in Toronto made major breakthroughs in deep learning that have revolutionized speech recognition and object classification. Mr. Hinton's contributions to the field of Artificial Intelligence research and development for 45 years earned him numerous awards, and the tech world's complimentary title, "The Godfather of AI".

ARAC Board Meeting - April 4, 2023

PRESIDENT

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VICE PRESIDENT

KØDJP
David Pyrlik

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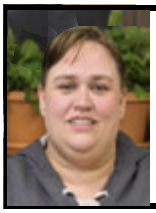
SECRETARY



KFØGJW
Melinda Nelson

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KEØYTM
Sam Frey

ke0ytm@gmail.com

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AAØAC
Dave Davis

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2ND YEAR BOARD

AAØAW
Doug Nelson

aaøaw@arrl.net

1ST YEAR BOARD

WØDIO
Denny Anderson

Present:

Board Members

Gene Ellefsen – N0VRM, Dave Pyrlik – K0DJP, Sam Frey – KC0YTM, Melinda Nelson – KF0GJW, Dave Davis – AA0AC, Doug Nelson - AA0AW

Meeting called to order by President Gene – N0VRM at 18:00 (6:00 pm)

Minutes:

Minutes were sent via email. Motion to approve Doug Nelson – AA0AW. Seconded by Dave Davis – AA0AC, motion passed.

Treasurer's Report:

Checking: $1,779.53
Savings: $1,775.68
Repeater: $3,118.54
Subtotal Cash $6,673.75

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

Assets Subtotal: $8,410.24

Grand Total $8,410.24

Motion to approve by Melinda Nelson – KF0GJW, seconded by Doug Nelson – AA0AW, motion passed.

Testing:

We are all set up for the HamFest testing session. The new General Testing Pool is out and will go into effect on July 1st. As always if you are looking to test or upgrade, or know of anyone that is interested in testing please contact Doug Nelson at AA0AW@arrl.net

Repeater:

Dave Pyrlik – K0DJP the new repeater is ordered and waiting to show up.

New Business:

Skywarn meeting next week. Meeting will start at 18:00 (6:00 pm)
HamFest – May 6th. $10.00 entry fee. Looking for donations for drawings.
Grandma's Marathon – Make sure to sign up or let Doug know if you are not going to be at your spot this year.

Motion to adjourn by Melinda Nelson – KF0GJW, seconded by Sam Frey – KC0YTM, motion passed at 18:22 (6:22 pm)

April 13, 2023

Present:
President: Gene Ellefsen – N0VRM
Treasurer/Membership: Sam Frey – KE0YTM
Secretary: Melinda Nelson – KF0GJW
First Year Board: Dennis Anderson – W0DIO
Second Year Board: Doug Nelson – AA0AW
Third Year Board: Dave Davis – AA0AC
Special Events: Open/Gene Ellefsen – N0VRM (acting)
Parliamentarian: Grant Forsyth – KC0WUP
Repeater: Dave Pyrlik – K0DJP
Testing: Doug Nelson – AA0AW
Repeater: Randy Wabik – KR0B
Property/Picnic: Scott Ahlgren – N0VYU
HamFest/Education: Bob Schulz – KC0NFB

Absent:
Vice President: Dave Pyrlik – K0DJP
Chaplin:
Web Site: Thomas Dorr – KE0RHA
Newsletter/Historian: Kim Waller – KE0NQS
Newsletter/Historian: Steve Waller – KE0NQT

Meeting called to order at 18:03 (6:03 PM) by President Gene Ellefsen – N0VRM. Forty-four (44) members in attendance.

Minutes:
Minutes are posted on the website and in the newsletter. Motion to approve by Grant Forsyth – KC0WUP, seconded by Bruce Carlson – KN0NUL. Motion Passed.

Treasurer's Report:
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Savings: $1,775.68
Repeater: $3,118.54
Subtotal Cash $6,673.75

Winter CD: $1,736.49
Summer CD: $0.00
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Grand Total $8,410.24

Motion to accept as presented by Robin Davis, seconded by Jeff Nast – KC0MKS, motion passed.

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HamFest:
HamFest will be May 6, 2023. Entry Fee will be $10.00. We are currently sitting at 25 tables. Looking for people to come and help set up. We are looking for Volunteers for the kitchen. Robin is resigning from making the pulled pork so we are looking for someone to take over making this. We are also looking for hourly drawing prizes.

Education:
Nothing scheduled at this time.

Testing:
Doug Nelson – AA0AW Next scheduled one will be May 6th at 10:00 AM during the HamFest. If anyone needs testing contact Doug Nelson at AA0AW@ARRL.net and they will test individually. **Do not forget to get your FRN number prior to testing.** You can go to FCC.gov/uls and register. You will also need an email address going forward.

Repeater:
Dave Pyrlik – K0DJP, waiting for the equipment to show up and weather to cooperate with getting out to Mahtowa and the 94-site.

New Business:
June Meeting will be about Grandma's Marathon.
Grandma's Marathon password this year is Ham23.

Silent Key: (Please keep their family in your thoughts)
Robert Peterson – W0PQX.

Door Prize was won by Mike Lovold – N0PDG.

Motion to adjourn by Jeffery Maker - AD0TH, seconded by Mike Lovold – N0PDG, motion passed at 18:17 (6:17 PM).

CLUB REPEATER
WØGKP
146.94 (-)
CTCSS TONE
103.5

Prez Sez ...

Hi Everyone,

Spring is here (I think) and that means ARAC Hamfest time!

Saturday May 6 2023 9:00 am to 1:00 pm at the Head of the Lakes Fairgrounds on Tower Ave in Superior WI. We need setup help at 6:00 am to get the tables ready for the Vendors who start setting up at 7:00 am. Doors open to the Public at 9:00 am. We also need help at the end of the Hamfest to put away the tables and to clean up!! Hope to see many of you there. It is shaping up to be a good one!

With Grandma's Marathon coming up June 17th, now is a good time to start checking out your equipment to make sure everything is working properly and you have time get replacements if needed. If you would like to help out for the Marathon, let Doug Nelson or Scott Ahlgren know and they can set you up. All Volunteers need to register with Grandma's. Go to the Grandma's Marathon Volunteer Registration page at https://grandmasmarathon.com/support-us/volunteer/ & use the password HAM23.

73,
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.

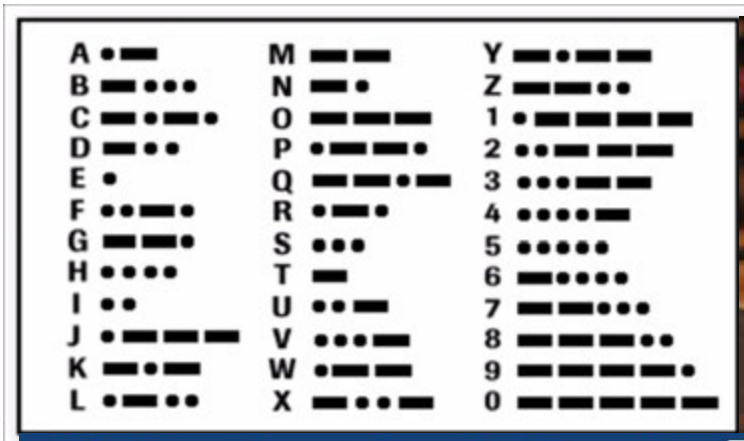
Not Currently Licensed? For New License Candidate FRN registration, go to: www.fcc.gov/new-users-guide-getting-started-universal-licensing-system-uls

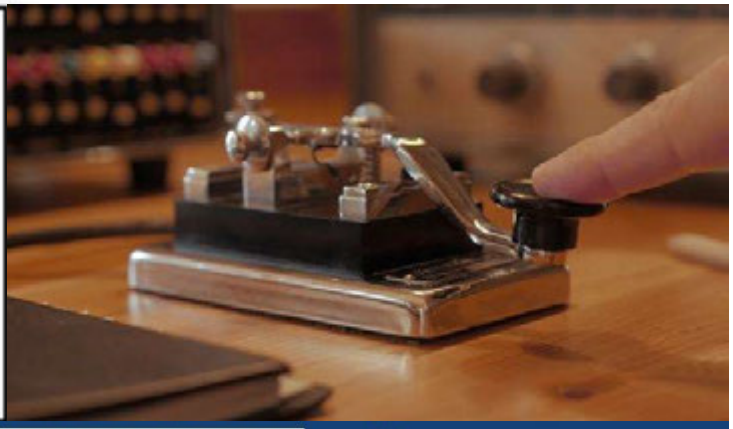
Upgrading to General or Expert Class & not sure you have an FRN number? go to
https://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp

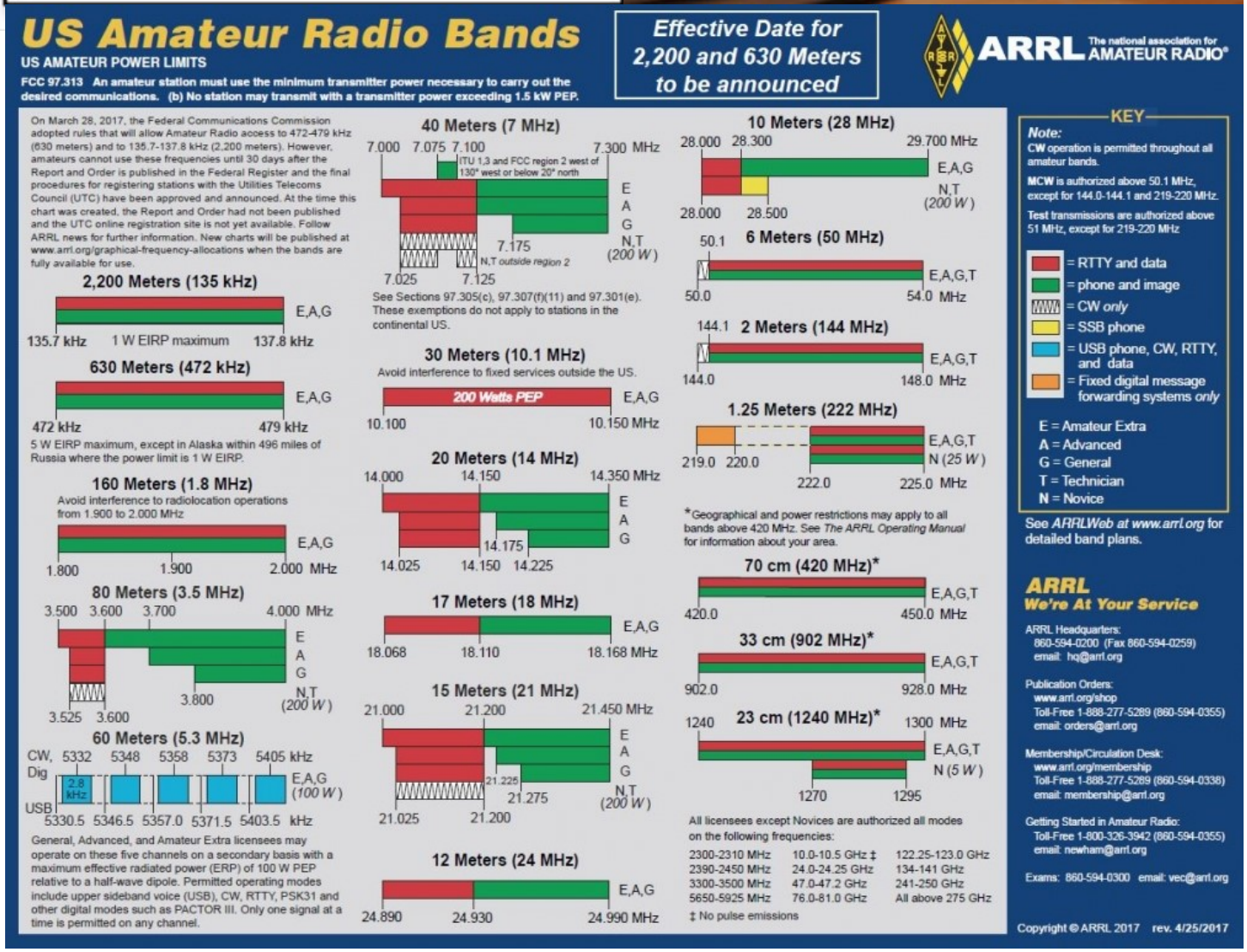
UPGRADE CANDIDATES:
Please bring a copy of your current license to the exam session.

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	







NETS

Have a favorite HF/6m/2m/1.25m/7Øcm 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 2ØØØ on the ARAC repeater (146.940 MHz with a tone of 103.5 and standard offset).
- **Minnesota D-Star Net:** Sundays at 19:3Ø on Reflector 53A
- **Minnesota Section Net** 12ØØ and 173Ø on 3.86Ø [Net Manager: NØYR] http://www.mn-section.org/dept_stm.html
- The non-non-net: Evenings 2ØØØ 144.2ØØ USB except for Sunday evenings.
- Badger WX Net: Ø5ØØ-Ø715 on 3.985. Give 24 hour high/low/current temperature, precipitation and snowfall.
- **PICONET**: 3.925 from Ø9ØØ-11ØØ CT Mon-Sat and 16ØØ-17ØØ CT Mon-Fri. Info at: http://www.piconet3925.com
- Michigan Upper Peninsula Net: 16ØØ (CST) on 3.921 MHz Sun-Sat and 12ØØ Sun. Info: http://www.michupnet.com
- Great Lakes Marine/Maritime Mobile Net: Morning Ø7:3Ø - 3.932; Ø8:15 - 7.261 MHz and evening 18:3Ø - 3.173Ø927; 19:15 - 7.268 MHz. Weekend extra net: 1Ø:ØØ - 7.261/7.268 MHz. All CST, LSB and +/- QRM. See: http://www.sailblogs.com/member/glmmnet/
- MIDCARS: Ø7:3Ø-13:ØØ - 7.258 MHz. See: http://www.midcars.net
- Iowa snowbird net on 14.257MHz, M-W-F at 1Ø:ØØ am Local Time. This is an open net.
- Spider Web Net (Marco Island FL) on 14.347 every morning at Ø73Ø CST/CDT: http://www.spiderwebnet.net
- Maritime Mobile Service Network: Daily at 11ØØ—21ØØ Central on 14.3ØØ. http://mmsn.org and http://www.143ØØ.net
- RV Radio Network: Every day at 19ØØ Central on 7.265 MHz. Web site: http://www.rvradionetwork.com
- Upper Midwest Ten Meter Net: Every Thursday Evening @ 8 PM – 28.48Ø MHz USB
- Wisconsin Sideband Net: Daily @ 5:15 PM – 3985 [or 3982.5] KHz LSB
- Hobby Helpers Net - Tuesday @ 8 PM – 28.33Ø MHz USB (Isanti MN) LSB [Net Manager: WOØA].
- Northstar Trader Net: 3.9Ø8 +/- at Ø83Ø CST Sundays
- WARFA: 3.9Ø8 +/- Sun/Tue/Thu nights at 22ØØ CST, http://warfa.org/
- Youth Net: 14.32Ø-1433Ø Sundays 18ØØ-19ØØ UTC, Net Control: AC8PI
- YACHT: Saturdays 19ØØ CST on EchoLink #481872, http://yachthams.webstarts.com
- Northwestern Ontario ARES Net: Evenings at 2Ø:15 (Central) on +/- 3.75ØMhz
- The Iron Range Net: Saturdays at Ø8ØØ Central time on or near 3.919 Mhz. Look them up on Facebook!
- FORX Net: Mondays at 19ØØ Central at 3.941 Mhz +/- QRM. WAØJXT — Grand Forks, North Dakota
- HF CW: Fridays Ø8:ØØ CST, 7.112 MHz. Informal slow speed CW Net. W8IRT NCS. Email: w8irt@aol.com
- Minnesota ARES Digital Net: Thursdays at 2ØØØ CST, 3.5835 MHz USB +/- QRM, Mode: Olivia 8/5ØØ.
- SARA Digital Net: Sundays at 19ØØ Local, 3.582.15Ø MHz USB +/- QRM, Mode: BPSK31/BPSK63
- Spider Web Net (Marco Island FL): 14.347 every morning at Ø73Ø CST/CDT: http://www.spiderwebnet.net
- Broadcaster Net: 7.231 or 3.855 M/W/F @ 15ØØ UTC. 14.255 M-F @ 213Ø UTC. http://www.cbsretirees.com/ham.htm
- Old Military Radio Net: 7.268 +/- nightly at Ø2ØØz. Other times/Frequencies too. See: http://www.mrca.ar88.net/
- Rag Chew Crew/Tailgaters/Freewheelers Nets: 3.916 +/- nightly at 19ØØ CST, http://www.tailgatersnet.com
- North South Net: 7.214.6 +/- at Ø7ØØ 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)

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

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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 / ɛl-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…

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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
193Ø - **CW - 28.125 MHz USB-CW**
2ØØØ -**USB 28.45Ø MHz**
21ØØ - **Southern St. Louis County Emergency Services Net**

MONDAY NIGHT NETS
2ØØØ- **Northland WX Net -** ARAC Repeater

MAY
CLUB EVENTS

TUESDAY NIGHT NETS
2ØØØ -**Douglas Cty 145.49Ø MHz**
2Ø3Ø -**Central Carlton County**

WEDNESDAY NIGHT NETS
19ØØ -**Lake County - LSAC1**
2nd & 4th Wednesdays
21ØØ -**BWAR**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 WX 2000 KCØMKS	2 ARAC BOARD MEETING Sammy's Pizza 6:30 pm DC Net 2000 CC Net 2030	3	4	5	6 Hamfest 9 am—1 pm Head of the Lakes Fairgrounds 4700 Tower Ave Superior, WI
7 CW 1930 NØPDG USB 2000 AAØAW ES 2100 NØVRM	8 DC ARES/ RACES Mtg 1900 DC EOC WX 2000 KCØMKS	9 DC Net 2000 CC Net 2030	10 Lake County ARES/RACES Meeting 1800 Lake County Net 1900 21ØØ -BWAR	11 ARAC Club Meeting Coppertop Church 7:00 PM	12	13
14 CW 1930 AAØAW USB 2000 KB9WLB ES 2100 KEØYTM	15 WX 2000 KCØMKS	16 DC Net 2000 CC Net 2030	17 St Louis County ARES/RACES Meeting 1800 21ØØ -BWAR	18	19	20
21 CW 1930 NØPDG USB 2000 K9KDK ES 2100 AAØAW	22 WX 2000 KCØMKS	23 DC Net 2000 CC Net 2030	24 Lake County Net 1900 21ØØ -BWAR	25 Carlton County ARES/RACES Meeting 1900 CC EOC	26	27 ARAC Club Breakfast The Chalet 4833 Miller Trunk Hwy Hermantown, MN 8 AM
28 CW 1930 AAØAW USB 2000 NØVRM ES 2100 KD9VKI	29 WX 2000 KCØMKS	30 DC Net 2000 CC Net 2030	31 21ØØ -BWAR			

Get this newsletter *faster* via email!
Email Doug AAØAW at
aaØaw@arrl.net

Next Club Meeting:
Thursday,
May 11th, 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.

ARRL NEWS
The national association for AMATEUR RADIO®

ARRL Year-Long Operating Event Recognizing Volunteers

As announced in the January 2023 issue of *QST*, ARRL is celebrating a year-long operating event honoring all ARRL volunteers: Volunteers On the Air.

In similar fashion to the 2014 ARRL Centennial Celebration, and the 2018 International Grid Chase, this event will be exclusively driven only by QSOs uploaded to Logbook of The World (LoTW).

Highlights of the event include:

- **Earning Points for contacting W1AW Portable Stations:** There will be week-long activations of portable W1AW/# stations in all 50 states, and in several US Possessions/Territories, that will generate on-air activity to earn points. Each state will be activated twice. The schedule of when which states will be activated as posted in the ARRL dashboard at https://vota.arrl.org/ and will be updated as changes/additions occur. See the POINTS TABLE for the full list of points.

- **Contacting ARRL Volunteers or Members on the air:** ARRL Officers, Directors, Section Managers (and their appointees), Staff, and even Members domestically (and DX) can be contacted for points. See the POINTS TABLE for the full list of points.

- **Using Logbook of the World** (LoTW - see http://www.arrl.org/logbook-of-the-world) as the QSOs data source, the 2023 Volunteers On The Air event features W1AW activations from all 50 states (twice) and several territories during 2023. Weeks will begin on a Wednesday and end on a Tuesday. Some weeks will be shown as off weeks to avoid other major operating events.

- **Participants will work W1AW portable stat**ions and ARRL volunteers to earn QSO points.

- **Participants do not need to upload to, or participate in LoTW**. Uploads to LoTW by W1AW portable stations and by the volunteers will feed the points scoring system.

- **A Leaderboard will be activated after the event ramps up**, and Certificates will be availble during and after the event concludes. Once the year is completed, a final summary will be released.

ARRL Minnesota Section Manager Bill Mitchell AE0EE gives details on how to participate. He says:

Coming up May 10-16, W1AW/0 will be in Minnesota! Thanks to the hard work of MN Affiliated Club Coordinators Don Kelly, WA6ZMT, and Jim Froemke, K0MHC, and in partnership with Oklahoma section manager Mark Kleine, N5HZR, we are ready to announce the sign-up process.

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To sign up, you will need: the 6-character Maidenhead grid square where you intend to operate, and to figure out the UTC time when you would like to operate---all sign-up times listed are UTC.

* ON APRIL 1ST, ARRL Affiliated Clubs may begin signing up for time slots (here meaning a specific 2-hour time/band/mode slot). Each day on/after April 1st, clubs may sign up for up to two time slots. Clubs should use the /CLUB suffix on their callsign during sign-up.

* ON APRIL 15TH, ARRL Members may begin signing up for time slots. Each day on/after April 15th, clubs may sign up for one time slot.

ARES and public service clubs are particularly encouraged to consider signing up for voice slots on 2 m and/or 0.70 m (440 MHz) using FM, and to announce those times in advance so local hams know when they might hear W1AW/0. Although repeater contacts are not allowed as part of the event (though you can announce on a repeater that you are operating simplex; satellite is allowed), a W1AW/0 activation following a net could be a fun exercise.

Because accurate and complete logging is essential for the success of this event, all contacts should be logged electronically and ADIF files sent promptly to the coordinators. You will have further instructions on the upload process from them.

More details on the W1AW/0 MN event, the W1AW/P events in general, and the year-long Volunteers on the Air celebration can be found here:
https://www.arrl.org/attachments/view/Group/109778

Minnesota's sign-up page is here: https://ok.arrl.org/w1awmn

Further national information about the events can be found at: https://arrl.org/vota

Affiliated clubs should also check that their information is up to date in the club directory:
https://arrl.org/clubs

If you have questions, contact Don Kelly (arrl_mn_acc@donkelly.biz) and Jim Froemke jim.k0mhc@gmail.com) for help.

On behalf of Don, Jim, and myself, thank you to all the ARRL members, clubs, and volunteers who do so much for the organization and our hobby. We look forward to hearing you on the air!

73,
Bill Mitchell AE0EE

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He then worked on a variety of computer science college research projects successively at Sussex University, University of CA San Diego, Carnegie-Mellon University, Canadian Institute for Advanced Research, University of Toronto and University College London. Hinton went on to split his time between Google's world headquarters in Mountain View, CA and the Google Canada HQ campus in Toronto. This brings us to present day, where upon we learn that Hinton has decided it's time to leave his Google team.

In a statement to *MIT Technology Review* he says he resigned from Google so that he could speak openly about the potential risks of artificial intelligence as someone who no longer works for a tech giant. "I want to talk about AI safety issues without having to worry about how it interacts with Google's business," he said. "As long as I'm paid by Google, I can't do that."

Artist's concept image, depicting modes of human interaction with Chat GPT, a Microsoft-funded artificial intelligence product created by OpenAI

Hinton is known for his straightforward assessment of technology and is comfortable voicing his true, unvarnished view. He sees the next phase of his life as a crucial outgrowth of his life's work, that he, as a prevailing subject matter expert, has an important role in educating technology experts, and society as a whole, at this convergence point of artificial intelligence development.

He notes that this does not reflect any rift or concern with Google in particular, but rather, Google has "acted very responsibly" regarding AI and there are a lot of good things about Google that he would want to talk about as examples.

Tech billionaire Elon Musk has been voicing concerns about AI safety for the past 10 years. A basic internet search yields many statements and video interviews regarding various safety concerns he has for humans as artificial intelligence continues to get smarter and smarter. Though many people have viewed Musk as part of the problem in AI advancement, citing his research and development of self-driving cars and neural-network medical implants, Musk has made it clear that "the good guys" in research and development have to be ahead of any bad actors in the field of artificial intelligence.

Musk's critics also point to his involvement with OpenAI early on. He helped found the AI lab in 2015 as a nonprofit to ethically develop artificial intelligence that benefits humanity, but resigned its Board in 2018. He said he grew disillusioned with OpenAI because it no longer operates as a nonprofit as promised and is building technology that, in his view, takes sides in political and social debates. This creates a very subjective, manipulated and artificial view of the world that allows OpenAI's Chat GPT to make ***value judgments of humans*** based on their opinions, interests and worldviews. That results in Chat GPT categorizing, labeling and ***sometimes negatively describing particular humans or groups of humans*** as statements of fact, when actually the descriptions are based on what many would call "rogue" developers' subjective view of those individuals or groups. This is a problem, because artificial intelligence must view all humans neutrally, as simply part of the human race, and that the ***human race itself is the utmost valued component of all things in existence***.

Continued on Page 16

In fact, Musk has been on the forefront of research with the goal of understanding fully how AI can be applied to help humanity in pivotal breakthroughs in transportation safety technology and also medical technology for spinal cord and brain injuries. And he has "put his money where his mouth is", with huge investments from his personal fortune. As a result of this research, it has become much clearer where potential weaknesses are in AI, and how and where to focus on building counter measures against "bad actors" trying to exploit technology to threaten the well-being of humans. This realization leads to research and development of AI "kill switch" coding and training models for various applications, as well as forming ethical standards of AI use and suggested federal regulations for artificial intelligence.

In April 2023 Elon Musk visited Washington, DC to meet with Congress Members to suggest federal regulation of artificial intelligence as a matter of public safety, just like a variety of other sectors. Well known for his opposition to government over-reach in the matters of U.S. citizens' Constitutional rights, Musk's earnest tone urging the awareness and creation of AI regulations for the sake of public safety is credible. He is certainly an AI expert who has spent a fortune on AI safety research and development.

With the release of the Microsoft-funded OpenAI chatbot called Chat GPT4 in March 2023, the general public was shocked at how advanced artificial intelligence as a technology currently is. A chatbot is a software application that aims to mimic human conversation through text or voice interactions, typically online. These chatbots are artificial intelligence systems that are capable of maintaining a conversation with a user in natural language and simulating the way a human would behave as a conversational partner. Such technologies often utilize aspects of deep machine learning (more about this next month) and natural language processing.

As everyday people and tech experts alike asked Chat GPT4 questions and gave it assignments, they were astounded and sometimes very unnerved at the replies. Shortly thereafter, more than 1,000 technology researchers, developers, and AI experts signed a letter calling for a six-month pause on AI development, expressing concern that safeguard coding and learning need to be priorities in AI to avoid potential future "profound risks to society and humanity." Elon Musk was one of these signers. Did Geoffrey Hinton sign? Of that I am not sure, but based on his recent statements to the world, he concurs. "I have suddenly switched my views on whether these things are going to be more intelligent than us," Hinton said in his recent interview with *MIT Technology Review*. "I think they're very close to it now and they will be much more intelligent than us in the future... How do we survive that?"

Hinton's choice to pose that chilling question to the world for maximum impact is brilliant. Arguably, there is no one else on Earth that the tech community would take more seriously on the topic, and they are indeed taking note for the sake of humanity. At this moment, AI R&D teams are beginning to connect to review each other's work and have changed their focus to develop AI safeguards ***together***. Hinton has already scheduled conferences and collaborative workshops to share his expertise to tech teams, answering their questions and posing important questions for them to apply to their work. This is a very encouraging "about face" in the history of technological development, and possibly one of the swiftest we've ever experienced.

Actually, humanity has been down this road before, in a sense. And as with any technological existential threat to humanity in the past, (chemical warfare, atomic bomb, nuclear warheads, bio-weapons, to name a few in past 100 years), we rise to the occasion by recognizing the threat and taking counter-measures.

The truth is AI is destined to have a huge impact on quality of life treatments for disease and injury, as well as greater safety for workers in many industries. It is likely that a whole new sector of lucrative technology entrepreneurship will consist of developing AI applications that detect and conduct threat assessment from AI in order prevent malevolent actors intending to harm infrastructure and humans. Much like IT as an industry created teams dedicated to virus/malware detection in the 1990's to thwart "bad actors" that arose using the internet, the tech community will continue to develop, train and actively oversee artificial intelligence activity to safeguard the private and public interests in our world. And just like we're all aware of best practices to avoid malware and what to do if detected, we the Public, will learn to understand and be aware of AI and its proper functions in our world. So we will continue, as the human race, to live our lives to the fullest, with awareness—but not fear—of AI.★

Arrowhead Radio Amateur Club

2Ø23 Hamfest

Saturday May 6th, 2023 9am – 1pm

HEAD OF THE LAKES FAIRGROUNDS, MULTI-PURPOSE BUILDING

47ØØ Tower Ave (WI HWY 35), Superior WI 54880

The fairgrounds are located next to the Superior Airport

Admission $1Ø (12 and under FREE)

Free parking for most vehicles

Used and like new radios, electronic equipment, tools, vendor reps, parts, and computer items.

<<**QSL card checking** for ARRL awards programs by: Mike Cizek WØVTT>>

Mike's Email: mgcizek@gmail.com

ARRL The national association for AMATEUR RADIO

This is an A.R.R.L. sanctioned event.
Come meet your ARRL representatives!

Talk-in on WØGKP Repeater:
146.94Ø (-) [1Ø3.5] Duluth
146.94Ø (-) [151.4] 2 Harbors

Dealer / Vendor Tables:
4 foot table: $5 8 foot table: $1Ø
Vendor setup starts at: 7am

Testing on site!

1Øam 4-H Building
Contact: Doug AAØAW
218-391-5874
AAØAW@ARRL.NET

Table Reservations

Robert Schulz, KCØNFB
115 Eden LN, Duluth, MN 558Ø5-1533
715-817-82ØØ (please use email below)
arac_hamfest@charter.net

WWW.THEARAC.ORG

Hourly Drawings! Grand Prize: $500

Contest Calendar - May 2023

+ K1USN Slow Speed Test	0000Z-0100Z, May 1
+ ICWC Medium Speed Test	1300Z-1400Z, May 1
+ AGCW QRP/QRP Party	1300Z-1900Z, May 1
+ OK1WC Memorial	1630Z-1729Z, May 1
+ ICWC Medium Speed Test	1900Z-2000Z, May 1
+ Worldwide Sideband Activity Contest	0100Z-0159Z, May 2
+ ARS Spartan Sprint	0100Z-0300Z, May 2
+ ICWC Medium Speed Test	0300Z-0400Z, May 2
+ Phone Weekly Test	0230Z-0300Z, May 3
+ A1Club AWT	1200Z-1300Z, May 3
+ CWops Test	1300Z-1400Z, May 3
+ Mini-Test 40	1700Z-1759Z, May 3
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, May 3
+ Mini-Test 80	1800Z-1859Z, May 3
+ CWops Test	1900Z-2000Z, May 3
+ Walk for the Bacon QRP Contest	0000Z-0100Z, May 4 and 0200Z-0300Z, May 5
+ CWops Test	0300Z-0400Z, May 4
+ CWops Test	0700Z-0800Z, May 4
+ NRAU 10m Activity Contest	1700Z-1800Z, May 4 (CW) and 1800Z-1900Z, May 4 (SSB) and 1900Z-2000Z, May 4 (FM) and 2000Z-2100Z, May 4 (Dig)
+ SKCC Sprint Europe	2000Z-2200Z, May 4
+ MIE 33 Contest	2300Z, May 4 to 0300Z, May 5
+ NCCC RTTY Sprint	0145Z-0215Z, May 5
+ NCCC Sprint	0230Z-0300Z, May 5

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Contest Calendar - May 2023

+ K1USN Slow Speed Test	2000Z-2100Z, May 5
+ 10-10 Int. Spring Contest, CW	0001Z, May 6 to 2359Z, May 7
+ RCC Cup	0300Z-0859Z, May 6
+ SBMS 2.3 GHz and Up Contest and Club Challenge	0600 local, May 6 to 2359 local, May 7
+ Microwave Spring Sprint	0800-1400 local, May 6
+ ARI International DX Contest	1200Z, May 6 to 1159Z, May 7
+ F9AA Cup, Digi	1200Z, May 6 to 1200Z, May 7
+ 7th Call Area QSO Party	1300Z, May 6 to 0700Z, May 7
+ Indiana QSO Party	1500Z, May 6 to 0300Z, May 7
+ Delaware QSO Party	1700Z, May 6 to 2359Z, May 7
+ New England QSO Party	2000Z, May 6 to 0500Z, May 7 and 1300Z-2400Z, May 7
+ WAB 7 MHz Phone	1000Z-1400Z, May 7
+ K1USN Slow Speed Test	0000Z-0100Z, May 8
+ ICWC Medium Speed Test	1300Z-1400Z, May 8
+ OK1WC Memorial	1630Z-1729Z, May 8
+ ICWC Medium Speed Test	1900Z-2000Z, May 8
+ RSGB 80m Club Championship, SSB	1900Z-2030Z, May 8
+ Worldwide Sideband Activity Contest	0100Z-0159Z, May 9
+ ICWC Medium Speed Test	0300Z-0400Z, May 9
+ Phone Weekly Test	0230Z-0300Z, May 10
+ A1Club AWT	1200Z-1300Z, May 10
+ CWops Test	1300Z-1400Z, May 10
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, May 10
+ Mini-Test 40	1700Z-1759Z, May 10
+ Mini-Test 80	1800Z-1859Z, May 10
+ CWops Test	1900Z-2000Z, May 10

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Contest Calendar - May 2023

+ CWops Test	0300Z-0400Z, May 11
+ CWops Test	0700Z-0800Z, May 11
+ EACW Meeting	1900Z-2000Z, May 11
+ NCCC RTTY Sprint	0145Z-0215Z, May 12
+ NCCC Sprint	0230Z-0300Z, May 12
+ K1USN Slow Speed Test	2000Z-2100Z, May 12
+ Portuguese Navy Day Contest - CT1DBS Memorial	0900Z, May 13 to 0900Z, May 14
+ SKCC Weekend Sprintathon	1200Z, May 13 to 2400Z, May 14
+ CQ-M International DX Contest	1200Z, May 13 to 1159Z, May 14
+ VOLTA WW RTTY Contest	1200Z, May 13 to 1200Z, May 14
+ FISTS Saturday Sprint	1600Z-1800Z, May 13
+ Canadian Prairies QSO Party	1700Z, May 13 to 0300Z, May 14
+ 50 MHz Spring Sprint	2300Z, May 13 to 0300Z, May 14
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, May 15
+ K1USN Slow Speed Test	0000Z-0100Z, May 15
+ ICWC Medium Speed Test	1300Z-1400Z, May 15
+ OK1WC Memorial	1630Z-1729Z, May 15
+ ICWC Medium Speed Test	1900Z-2000Z, May 15
+ Worldwide Sideband Activity Contest	0100Z-0159Z, May 16
+ ICWC Medium Speed Test	0300Z-0400Z, May 16
+ Phone Weekly Test	0230Z-0300Z, May 17
+ A1Club AWT	1200Z-1300Z, May 17
+ CWops Test	1300Z-1400Z, May 17
+ Mini-Test 40	1700Z-1759Z, May 17
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, May 17
+ Mini-Test 80	1800Z-1859Z, May 17

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Contest Calendar - May 2023

+ RSGB 80m Club Championship, Data	1900Z-2030Z, May 17
+ CWops Test	1900Z-2000Z, May 17
+ Walk for the Bacon QRP Contest	0000Z-0100Z, May 18 and 0200Z-0300Z, May 19
+ NAQCC CW Sprint	0030Z-0230Z, May 18
+ CWops Test	0300Z-0400Z, May 18
+ CWops Test	0700Z-0800Z, May 18
+ QRP Minimal Art Session	1400Z-2200Z, May 18
+ NTC QSO Party	1900Z-2000Z, May 18
+ NCCC RTTY Sprint	0145Z-0215Z, May 19
+ NCCC Sprint	0230Z-0300Z, May 19
+ K1USN Slow Speed Test	2000Z-2100Z, May 19
+ SARL VHF/UHF Digital Contest	0300Z-0500Z, May 20 (6m) and 0500Z-0700Z, May 20 (2m) and 0700Z-0900Z, May 20 (70cm) and 0300Z-0500Z, May 21 (2m) and 0500Z-0700Z, May 21 (6m) and 0700Z-0900Z, May 21 (70cm)
+ UN DX Contest	0600Z-2100Z, May 20
+ NZART Sangster Shield Contest	0800Z-1100Z, May 20 and 0800Z-1100Z, May 21
+ EU PSK DX Contest	1200Z, May 20 to 1200Z, May 21
+ His Maj. King of Spain Contest, CW	1200Z, May 20 to 1200Z, May 21
+ Arkansas QSO Party	1400Z, May 20 to 0200Z, May 21
+ Feld Hell Sprint	1600Z-1759Z, May 20 and 2000Z-2159Z, May 20
+ Baltic Contest	2100Z, May 20 to 0200Z, May 21

Continued on Page 22

Contest Calendar - May 2023

+ FISTS Sunday Sprint	2100Z-2300Z, May 21
+ Run for the Bacon QRP Contest	2300Z, May 21 to 0100Z, May 22
+ K1USN Slow Speed Test	0000Z-0100Z, May 22
+ QRP ARCI Hootowl Sprint	0000Z-0100Z, May 22
+ ICWC Medium Speed Test	1300Z-1400Z, May 22
+ OK1WC Memorial	1630Z-1729Z, May 22
+ RSGB FT4 Contest	1900Z-2030Z, May 22
+ ICWC Medium Speed Test	1900Z-2000Z, May 22
+ Worldwide Sideband Activity Contest	0100Z-0159Z, May 23
+ ICWC Medium Speed Test	0300Z-0400Z, May 23
+ SKCC Sprint	0000Z-0200Z, May 24
+ Phone Weekly Test	0230Z-0300Z, May 24
+ A1Club AWT	1200Z-1300Z, May 24
+ CWops Test	1300Z-1400Z, May 24
+ Mini-Test 40	1700Z-1759Z, May 24
+ Mini-Test 80	1800Z-1859Z, May 24
+ CWops Test	1900Z-2000Z, May 24
+ CWops Test	0300Z-0400Z, May 25
+ CWops Test	0700Z-0800Z, May 25
+ RSGB 80m Club Championship, CW	1900Z-2030Z, May 25
+ NCCC RTTY Sprint	0145Z-0215Z, May 26
+ NCCC Sprint	0230Z-0300Z, May 26
+ K1USN Slow Speed Test	2000Z-2100Z, May 26
+ CQ WW WPX Contest, CW	0000Z, May 27 to 2359Z, May 28
+ K1USN Slow Speed Test	0000Z-0100Z, May 29
+ ICWC Medium Speed Test	1300Z-1400Z, May 29
+ QCX Challenge	1300Z-1400Z, May 29

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Contest Calendar - May 2023

+ Worldwide Sideband Activity Contest	0100Z-0159Z, May 30
+ QCX Challenge	0300Z-0400Z, May 30
+ ICWC Medium Speed Test	0300Z-0400Z, May 30
+ Phone Weekly Test	0230Z-0300Z, May 31
+ A1Club AWT	1200Z-1300Z, May 31
+ CWops Test	1300Z-1400Z, May 31
+ Mini-Test 40	1700Z-1759Z, May 31
+ Mini-Test 80	1800Z-1859Z, May 31
+ CWops Test	1900Z-2000Z, May 31

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

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

The ARAC RELAY

Published monthly and distributed free to members, "The RELAY" is the official publication of the Arrowhead Radio Amateur Club, Inc. Members are encouraged to submit articles, opinions, and classifieds. Your submission will be placed as soon as possible providing it does not conflict with the bylaws of the Arrowhead Radio Amateur Club, Inc. The editors reserve the right to omit any submission that is not a required item. If a submission is questionable, it will be presented to the Board of Directors at the next scheduled board meeting for authorization.