



The RELAY)))

OCTOBER 2020

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

MARS	1
Board Mtg Minutes	2-3
Club Mtg Minutes	3
Prez Sez / New Ham!	4
MARS Letter	5
CW Abbreviations	6
Band Plan	6
Nets	7
Upcoming Events	8
Repeaters	9
Members' Email	10
Calendar	11
Committee Chairs	12
Urgent Call to Action!	13
FOR SALE	15-17
Contest Calendar	18-21

The Military Auxiliary Radio System Amateur Radio Has Critical Role in Dept of Defense Plan

As hams, we all know the important role that amateur radio plays in public safety. In weather emergencies or a national or local event involving damage to communication infrastructure, we are ready to relay critical information.

This month, October 3rd through the 26th, the **Military Auxiliary Radio System (MARS)** will be interacting with amateur radio groups for emergency communications exercises. MARS' stated focus is "interoperability with ARRL and the amateur radio community." MARS Chief Paul English WD8DBY, explains the operation:

"Throughout the month of October, MARS members will interoperate with various amateur radio organizations that will be conducting their annual simulated emergency tests with state, county, and local emergency management personnel. MARS members will send a DOD-approved message to the amateur radio organizations recognizing this cooperative interoperability effort. This exercise will culminate with MARS Auxiliaries sending a number of summary messages in support of a larger DOD communications exercise taking place October 20 – 26."



MARS is now operated by the U.S. Air Force in cooperation with the U.S. Army. The U.S. Navy & Marine Corps ended their participation in 2015.

According to ARRL.com, during this time MARS members will also train

with the ARRL National Traffic System (NTS) and Radio Relay International (RRI) to send general messages to numerous amateur radio leaders across the US.

So how did MARS come to be as an organization?

Here's how they describe their history and purpose:

"In November of 1925 the Army Signal Corps and the American Radio Relay League (ARRL) joined to activate the Army Amateur Radio System (AARS) providing communications during national disasters. The first "gateway" at Fort Monmouth, call sign "2CXL," activated on 1 November 1925 led by Capt. Thomas C. Rives. When the Air Force and Navy joined later, AARS was renamed to accommodate their membership. MARS is over 90 years old and a changing mission reflects in its longevity.

"Today MARS Members are civilian volunteers whose mission is "to assist with DoD or Civilian authorities, operations during, or response to, any major disruption of DoD or other communications network, such as those associated with official national security or emergency preparedness events or activities," *DODI 4650.02 (December 2009)*.

"The US communication network of today is the internet (cyberspace). All communica-

Continued on page 22



Autumn 2020



Join us on facebook!

Co-Editors:

Kim & Steve Waller

Kim - KEØNQS ● Steve - KEØNQT

KEØNQS.mn@gmail.com
KEØNQT@gmail.com

ARAC Board Meeting Minutes – September 1, 2020

PRESIDENT



NØVRM
Gene Ellefsen
371Ø Chambersburg Ave
Duluth, MN 55811
218-39Ø-3272
lspitech@mail.com

VICE PRESIDENT



NØPDG
Mike Lovold
386Ø Birchwood Rd
Downtown Arnold, MN
558Ø3
lovoldm@gmail.com

SECRETARY



NØCALL
Robin Davis

218-391-3Ø77
davisfam2858@yahoo.com

TREASURER



KEØNIT
Bruce Carlson
9Ø6 Anderson Rd
Duluth, MN 55811
763-315-2967
carlsbr@gmail.com

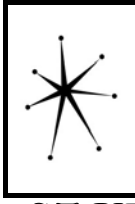
3RD YEAR BOARD



AAØAC
Dave Davis

218-348-6649
aaØac@outlook.com

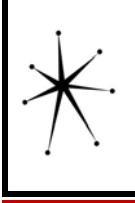
2ND YEAR BOARD



AAØME
Randy Johnson

randy@nsw4x4.com

1ST YEAR BOARD



KD9ABS
Gary Minter
1621 N 26th St
Superior WI 5488Ø

Present: Gene Ellefsen-NØVRM, Mike Lovold-NØPDG, Bruce Carlson-KEØNIT, Robin Davis, Dave Davis-AAØAC, Gary Minter-KD9ABS, Randy Johnson-AAØME, Grant Forsyth-KCØWUP, Bob Schulz-KCØNFB, Doug Nelson-AAØAW, Kim Waller-KEØNQS, Steve Waller-KEØNQT

Guests: Dennis Anderson-WØDIO, Del Minter-KEØCLI

Meeting called to order by President Gene-NØVRM at 6:35 pm

Minutes:

Minutes posted in newsletter and on the web site. Motion to accept by Bruce-KEØNIT, seconded by Gary-KD9ABS, motion passed

Treasurer's Report:

Checking	2,207.41
Savings	773.50
Cash Subtotal.....	\$2,890.91
Outstanding Check (Repeater # 1414)	-1,100.00
Subtotal Checks	-\$1,100.00
Winter CD	1,714.03
CD Subtotal.....	\$1,714.03
Grand Total	\$3,594.94

Expenses for rest of the year? Discuss Ham Fest today, other than that would be the Christmas Party if we can have it. In February, we will owe for our insurance, approximately \$340.00. WDSE donation check cleared, church is paid through end of year. Storage unit? Due this Fall, Gene-NØVRM is checking mailbox often

Motion to approve by Gary-KD9ABS, seconded by Randy-AAØME, motion passed

Committee Reports:

Ham Fest:

Gene-NØVRM talked with Carlton County Health Department, MN State Health Department, Four Seasons Facility about rules, and talked with John Cavanaugh-KCØAFE. No food, no coffee, no donuts. Parking lot is under construction, only half is available

Building entry – need name, address, phone, temperature taken, mask required. Max 250 people at a time including vendors
Twenty-four (24) tables reserved, possibly lower attendance due to COVID
Building rental is \$50.00 an hour, little less than the fairgrounds. We need to sanitize the building before we can leave

Liability to Club. Suggestion to forego it for this year

Continued on page 3

ARAC Board Meeting Minutes – September 1, 2020

Remind members to pay their dues. We never turn down donations and several people have donated to the Club in addition to paying their dues

Suggestion to hold a live auction or via Zoom, as a fundraiser for the Club. It would be a lot of work. Can't touch and see what you're buying

Point of Interest – One of the reservations was for Radio City - selling used and new parts, left over from the closure of the business

Motion to cancel Ham Fest by Randy-AA0ME, seconded by Dave-AA0AC, motion passed

Repeater:

Doug-AA0AW will put a new PA on the link repeater at WDSE, offered to Gene-N0VRM. Larry Anderson-N0XPB will be retiring in forty-five (45) days or so. Gene-N0VRM will make an appointment with Larry-N0XPB and with Doug-AA0AW to get the work done prior to Larry-N0XPB's retirement

New Business:

Bob Boyd-KD0LYN's Sister and Husband donated all his radio gear to the Club. Mike-N0PDG has been selling some of that gear, to the tune of \$970.00. He has eight (8) items left to be sold. Suggestion to use the money for a new 94 Repeater. Motion to earmark the money for the Repeater System by Bruce-KE0NIT, our Treasurer. Suggestion from Mike-N0PDG to put it in the Newsletter For Sale section as well as the remaining items for sale

Motion by Mike-N0PDG, seconded by Gary-KD0ABS, to earmark money from sales to the Repeater along with any additional funds raised from the sale, motion passed

FCC Proposed Change:

The FCC has a put out a notice for changes to their fee structure, looking to charge \$50.00 for any license function including Ham Radio. This will hurt the hobby. Vanity, test to license, upgrade, any transaction will cost. ARRL is taking comments at this time and Matt Holden-K0BBC (ARRL Dakota Regional Director) is whom the comments should be directed to. His email is on the ARRL Web Site

Elections:

Randy-AA0ME was elected to fill Bob-KD0LYN's term. Post that elections need to be at the Club meeting and over the air at weekly nets. Nominations are in October and November with elections in December. Ask what the Church policy is as far as our Christmas Party. No food will be allowed. Bruce-KE0NIT spoke with Anne at the church and discussed that we are about the relationships hence we will continue to give our donation. Gene-N0VRM will contact Anne to see what the Church policies are

Motion to adjourn by Gary-KB9ABS, seconded by Mike-N0PDG, motion passed at 7:08 pm



ARAC Club Meeting Minutes

No September 10th Club Meeting Minutes were taken as our Secretary was not available. However, the following business occurred:

- ◆ The August Meeting Minutes were approved
- ◆ The cancellation of the September Hamfest was announced
- ◆ Reminder of nominations for 2021 Board positions
- ◆ Reminder for Membership Renewals





Prez Sez ...

Hi everyone,

Fall is here and you know what that means! It is time to start the **nomination process** for the **A.R.A.C. Board** positions, which are **President, Vice President, Treasurer, Secretary and First Year Board Member**. You can nominate someone, including yourself, if interested by contacting any of the current people on the Board. There is a list of those people on page 2 of this Newsletter. Nominations are taken in October and November with elections taking place in December.

We are also **seeking nominations** for the **Thomas J. Reibold W9IBM Memorial Award**. This award is presented to someone for their dedication and encouragement of participation in Amateur Radio in the Twin Ports area. Again you can nominate someone by letting one the Board members know the name and a brief reason why they qualify. Thanks.

Remember the October Club meeting will be Thursday October 8 at 7:00PM and will be held again on the 94 repeater.

Enjoy your Fall Season!

Gene Ellefsen NØVRM

Newly Licensed

CONGRATULATIONS

To new hams who have joined our amateur radio community in the last few months, as well as those who have newly upgraded to General or Extra!

- ♦ Tom Maida — KFOALP
is a new Technician as of 6/9/2020!

Tom is Traffic Sergeant for the Duluth Police Department. Welcome!



U.S. AIR FORCE MILITARY AUXILIARY RADIO SYSTEM

Minnesota State MARS Director
Reginald B. Cass / AFS5MN

Gene Ellefsen
NØVRM

Thank you for your time and interest.

Air Force MARS membership could be for you. We do hope that it is.

If you have the following interests, and capabilities, we are interested in recruiting you to become an Air Force MARS member. Completion of the following on line training is mandatory:

Personally, Identifiable Information (PII) <https://iatraining.disa.mil/eta/piiv2/launchPage.htm>
Cyber Awareness https://iatraining.disa.mil/eta/disa_cac2018/launchPage.htm

If you have completed: [Incident Command System](#) (ICS) -100, 200, 700, and 800 training, and have obtained certification for Air Force MARS or are willing to obtain this training, again, Air Force MARS could be for you.

You must be interested in joining a group of individuals that are dedicated to amateur radio, emergency communications, and willingness to learn and used military communications procedures for voice and digital communications.

You must have equipment that will meet the minimum requirements for voice and digital operation. The equipment will be: transmitter, receiver, (transceiver) modified to operate out of amateur radio bands, computer, modem, and antenna's that are designed to operate on military assigned frequencies. (The best antennas will be a dipole cut to the operational frequency. NVIS antennas work best. You will not need a linear amplifier, however if you have one that will operate on out of amateur radio bands that will be a plus)

You must go through and complete training. You are allowed up to 180 days to do so.

Air Force MARS operation's and procedures are based upon "MARS Operating Instruction", (MOI). The MOI manual uses as its basis for instruction a series of Allied Communications Publications (ACP's), Department of Defense Directives, Department of Defense Instructions, and Department of Defense Manual.

If you already belong to a MARS program and would like to consider Air Force MARS, please contact one of the recruiting team members.

Our recruitment team is as follows:

AFA5XK Dave, WB7DRU wb7dru@gmail.com

AFA5ZV Randy, KRØB afa5zv@gmail.com

AFA5JY Reg, KAØRJY reg_cass@msn.com

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

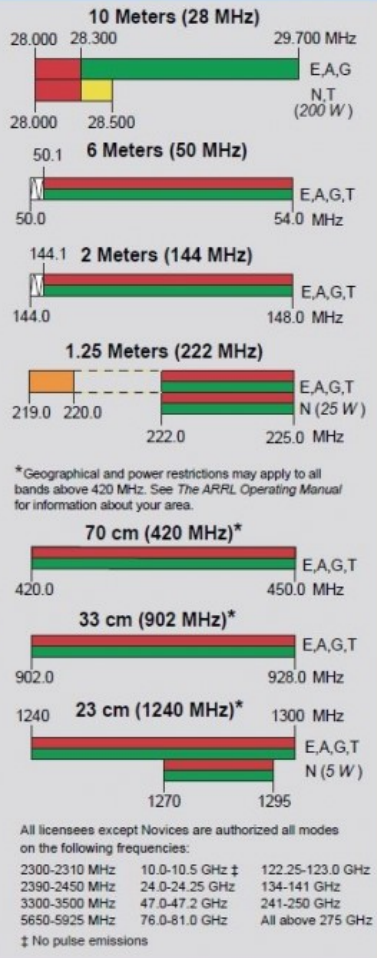
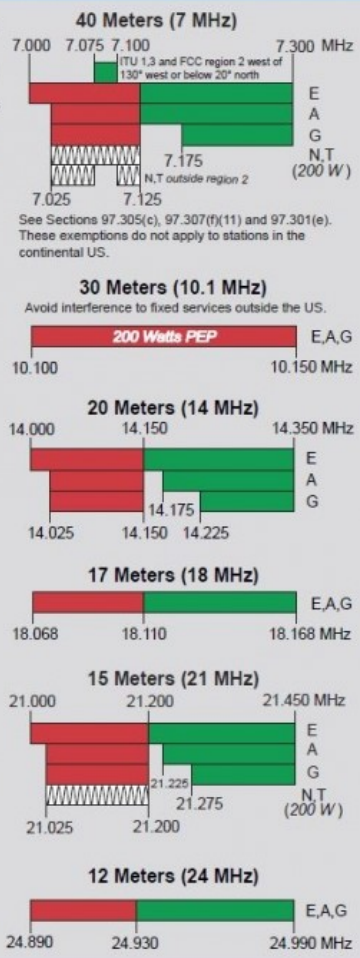
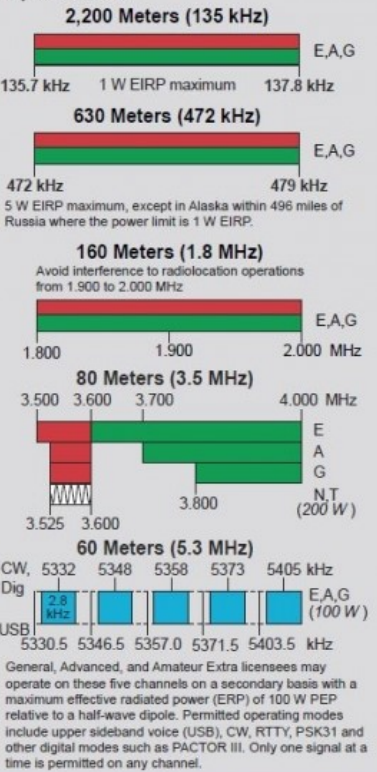
FCC 97.313 An amateur station must use the minimum transmitter power necessary to carry out the desired communications. (b) No station may transmit with a transmitter power exceeding 1.5 kW PEP.

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



The national association for
ARRL AMATEUR RADIO

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.



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.

ARRL
We're At Your Service

ARRL Headquarters:
860-594-0200 (Fax 860-594-0259)
email: hq@arrl.org

Publication Orders:
www.arrl.org/shop
Toll-Free 1-888-277-5289 (860-594-0355)
email: orders@arrl.org

Membership/Circulation Desk:
www.arrl.org/membership
Toll-Free 1-888-277-5289 (860-594-0338)
email: membership@arrl.org

Getting Started in Amateur Radio:
Toll-Free 1-800-326-3942 (860-594-0355)
email: newham@arrl.org

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

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.rvradionet.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
- Upper Midwest Ten Meter Net: Every Thursday Evening @ 8 PM – 28.480 MHz USB
- 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



Next ARAC Board Meeting

Tuesday, October 6, 2020
@ 6:30 p.m.

House of Refuge Church - 115 W Myrtle St, Duluth

Next ARAC Club Meeting

Thursday,
October 8th
7 p.m.

on the 94 Repeater

October Zoom Program

Mike Lovold NØPDG

Step-by-Step Grounding
Project

Special Presentation via Zoom

Mike will send out a link to join
the Zoom presentation via the
web or by telephone

**You do not need a Zoom ac-
count to participate!**

*Interested in providing a pro-
gram, or have an idea for one?*

Contact Mike NØPDG at
lovoldm@gmail.com

CLUB REPEATER

WØGKP

146.94 (-)
CTCSS TONE
103.5

2020
Spectrum Defense Fund

Protect Your Frequencies.

Donate Today by visiting
<https://www.arrl.org/arrl-donation-form>



THANK YOU, ARRL Members!

Because of you, ARRL has maintained constant vigilance
and taken decisive action throughout the years, includ-
ing:

- Defeating the threat that Little Leo satellites posed to the 2-meter and 70-cm bands;
- Removing high-powered international broadcasting stations from the heart of the 40-meter band - doubling the size of the worldwide band and making it more useful than it had been in 70 years;
- Working with our colleagues in the International Amateur Radio Union to gain global allocations at 135 kHz and 472 kHz (domestic implementation is the next step);
- Battling the Broadband Over PowerLine (BPL) interference for six years including successfully challenging the FCC in court on its prejudice that tainted the rulemaking process; and
- Defending microwave allocations against the onslaught of commercial wireless broadband;
- Seeking an international allocation at 60 meters (5 mHz).

Your contribution to the Spectrum Defense Fund ensures that ARRL will have the resources to meet future challenges when they appear and to protect your operating privileges!

Duluth Area Repeaters



ARAC System WØGKP

Freq.	Offset	Tone	Location
146.940	minus	103.5	Duluth
146.940	minus	107.2	Lakeside (rcv)
146.940	minus	151.4	Two Harbors (rcv)
146.940	minus	100.0	Gary-New Duluth (rcv)
146.940	minus	123.0	Solway (rcv)
146.940	minus	110.9	Cloquet (rcv)
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 (rcv for Proctor)
147.330	plus	156.7	Duluth (North) (Fish Lake)
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

NARC System NAØRC

145.45Ø	minus	1Ø3.5	Solway Twp
145.45Ø	minus	114.8	Park Point (rcv)
147.135	plus	114.8	Park Point (rcv)
147.135	plus	1Ø3.5	Knife River

Stand Alone Repeaters

145.21Ø	minus	11Ø.9	Clam Lake, WI
146.88Ø	minus	123.Ø	Grand Rapids
146.91Ø	minus	146.2	Duxbury, MN

Fusion and D Star

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

147.15Ø	plus	151.4	NTØB Gilbert Fusion Rptr
145.17Ø	minus	11Ø.9	WA9KLM Superior – Douglas County RACES/ARES Fusion Repeater

443.1ØØ +5.ØØ 1Ø3.5 KBØYHX Cloquet – Carlton County RACES/ARES Fusion Repeater

444.3ØØ +5.ØØ 1Ø3.5 NØEO Spirit Valley Amateurs Fusion Repeater WIRES-X NØEO

147.375 plus NØEO D Star
442.2ØØ plus NØEO D Star

[Repeater list compiled by Dr. Frequency—KCØWDQ]

ST. Louis County Department of Emergency Services Net Control Roster

N9DMG	Scott Swanson	NØVRM	Gene Ellefsen
AAØAW	Doug Nelson	KCØWDQ	Paul Dallavia
WØNWO	Dave Miller	WØDIO	Dennis Anderson
KØDSL	Diane Saunders	AAØME	Randy Johnson

Sunday Nights at 21ØØ on the ARAC System
(See Calendar for net control schedule)

Ten Meter SSB Net Control Roster

AAØAW	Doug Nelson	WØLWU	Joe Meese
NUØW	Gary Hanson	K9KDK	Al Babcock
WØDIO	Dennis Anderson	NØVRM	Gene Ellefsen
AAØME	Randy Johnson	KØDSL	Diane Saunders

Sunday Nights at 2ØØØ on 28.45Ø MHz USB

Ten Meter CW Net Control Roster

AAØAW	Doug Nelson	NØPDG	Mike Lovold
-------	-------------	-------	-------------

Sunday Nights at 193Ø on 28.125 MHz

Northland Weather Group Net Control Roster

KCØMKS Jeff Nast

Monday Nights at 2ØØØ on the ARAC System

Douglas County Net

Tuesday Nights at 2ØØØ on 145.49Ø (N9QWH System)

Central Carlton County Net

Tuesday Nights at 2Ø3Ø on the ARAC System

Lake County RACES/ARES Net

2nd & 4th Wednesday Nights at 19ØØ on the LSAC 1 System

Elmers

El-mer / el-mær/ [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	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...

Membership E-mail Directory

Ahlgren, Scott NØVYU
sahlgren01@msn.com

Anderson, Jim NØJWA
kcØmko@centurylink.net

Anway, Allen KC9LJN
allen@a2d2.com

Bakke, Richard KDØQHE
rabakke46@aol.com

Barnes, Ray KEØZN
KEØZN@outdrs.net

Blodgett, Warren KDØXI
kdØxi@aol.com

Blotti, Nick KBØMHD
NickBlotti@hotmail.com

Bockbrader, Jonah KEØCXD
jØpelirrojo.ninja

Bockbrader, Rollie KBØCK
Rollie.bockbrader@q.com

Clemens, Butch KBØSMG
kbØsmg@2z.net

Currier, Barb
bjcurrier@peoplepc.com

Dall, Jim WDØGVW
Dall, Teresa KAØCDO
wdØgvw@gmail.com

Dallavia, Paul KCØWDQ
kcØwdq@yahoo.com

Daly, Ed KØYMF
eddalymn@aol.com

Ellefsen, Gene NØVRM
lspitech@mail.com

Ferch, Tim AKØTF
akØtf@aol.com

Ferguson, Tom WBØDHB
tferg5@msn.com

Fleischman, Bill KCØZZL
wfleisch@d.umn.edu

Forsyth, Grant KCØWUP
forsythgrantc@gmail.com

Frederick, Jerry NØBNG
nØbng@mchsi.com

Frederick, Julie NØPIE
jfreds@mchsi.com

Gibbs, Rex NØKXT
nØkxt@yahoo.com

Godbout, Med WØEEZ
wØeezmedgodbout@centurytel.net

Hanson, Gary NUØW
captaingary@chartermi.net

Harstad, Ben KEØJDB
coast_guard_aux_duluth@yahoo.com

Hawkinson, Garry WØELH
garryhawkinson@yahoo.com

Hegrenes, Bruce KØOE
Hegrenes@charter.com

Jakubek, Patrick KDØSGK
kdØsgk@gmail.com

Johnson, Randy AAØME
randy@nsw4x4.com

Leslie, Shirl KBØSBM
dsleslie@centurytel.net

Makowski, Cletus KBØLBS
kbØlbs52@msn.com

Makowski, Karen NØWEZ
k-wez1@hotmail.com

Marchetti, Jim KEØLHX
jimmarchetti@live.com

Mattson, Bing KCØKRA
, Kathy KCØTIV
HamToHam@msn.com

McCorison, Derek WØDNF
derek1Ø68@hotmail.com

Meese, Joe WØLWU
rxcpd@yahoo.com

Miller, Dave WØNWO
dmiller@nwoutlet.com

Mullozzi, Anthony (Nick)
AJ KDØYQA
Ben KDØYPZ
Joe KDØYQB
KDØYQC
amulloz@hotmail.com

Murray, Edwin W1ELM
w1elm@arrl.net

Nast, Jeffrey KCØMKS
kcØmks@gmail.com

Nelson, Doug AAØAW
aaØaw@chartermi.net

Nelson, Glen KAØGGG
mgnelsonØ1@gmail.com

Nelson, John KBØSUW
jon275@q.com

Nordin, Al WBØDBQ
anordin@aol.com

Olson, Lloyd Jr. KC9JTC
kc9jtc@yahoo.com

Pearson, Wayne WØKRH
meppsy@netzero.net

Pettit, Kathy KCØYVM
kcØyvm@gmail.com

Pomroy, Deb KCØUKC
dpomroy@d.umn.edu

Pyrlík, David KØDJP
David.pyrlík@gmail.com

Reger, Bernard KB9KQZ
Mike KB9KRA
Brian KB9KUX
Chris KB9WJQ
bjr5488@yahoo.com

Rosell, Dawson KEØHEL
rosel032@d.umn.edu

Saunders, Diane KØDSL
kØdslae@gmail.com

Scholz, Greg KDØUYN
kdØuyn@gmail.com

Schreyer, Dave WAØAWZ
kaØfyb@mediacombb.net

Contact Kim or Steve Waller to include your name in this listing!

Contact Kim or Steve Waller to include your name in this listing!

Schulz, Robert KCØNFB
kcØnfb@charter.net

Snyder, Mark ACØLE
snyds1118@msn.com

Stark, John KCØYVH
johnvinyl@yahoo.com

Swanson, Scott N9DMG
sswanson6749@charter.net

Waller, Kim KEØNQS
keØnqs.mn@gmail.com

Waller, Steve KEØNQT
keØnqt@gmail.com

Whelan, Jacqui KBØJIM
cndymx@gmail.com

Whelan, John KØJRW
jr-whelan@hotmail.com

Winterscheidt, Heinz
KD6FSA
alter.skipper@gmail.com

Wulf Gar WU1FGR
wu1fgr.ham@gmail.com

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

Co-Editors,
Kim & Steve Waller
KEØNQS & KEØNQT



OCTOBER

CLUB EVENTS

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

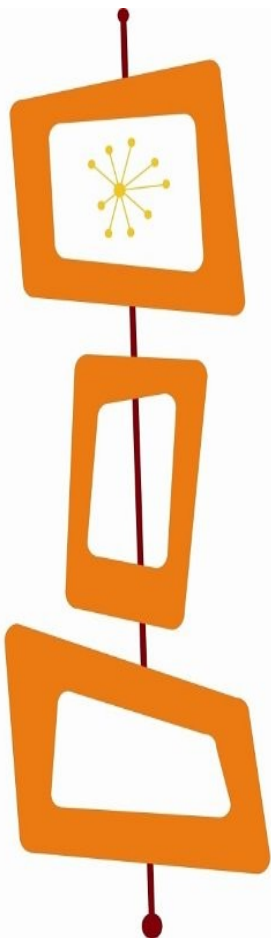
TUESDAY NIGHT NETS
 2000 - Douglas Cty 145.490 MHz
 2030 - Central Carlton County
WEDNESDAY NIGHT NETS
 1900 - Lake County - LSAC1
 2nd & 4th Wednesdays
 2100 - BWAR

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4 CW 1930 AA0AW USB 2000 N0VRM ES 2100 N9DMG	5 WX 2000 KC0MKS	6 ARAC BOARD MEETING - 18:30 House of Refuge DC Net 2000 CC Net 2030	7 2100 - BWAR	 8 ARAC Club Meeting 94 Repeater 7 pm	9	10
11 CW 1930 N0PDG USB 2000 N0PDG ES 2100 AA0AW	12 DC ARES/ RACES Mtg 1900 DC EOC WX 2000 KC0MKS	13 DC Net 2000 CC Net 2030	14 Lake County ARES/RACES Meeting 1800 Lake County Net 1900 2100 - BWAR	15	16	17 WILD DULUTH RACE
18 CW 1930 AA0AW USB 2000 AA0AW ES 2100 KC0WDQ	19 WX 2000 KC0MKS	20 DC Net 2000 CC Net 2030	21 St. Louis County ARES/ RACES Mtg 1630 Pike Lake EOC 2100 - BWAR	22 Carlton County ARES/RACES Meeting 1900 CC EOC	23	24
25 CW 1930 N0PDG USB 2000 W0LWU ES 2100 W0NWO	26 WX 2000 KC0MKS	27 DC Net 2000 CC Net 2030	28 Lake County Net 1900 2100 - BWAR	29	30	31 Club Breakfast @ The Chalet 0800-0900

Get this newsletter *faster*
via email!
Email Doug AAØAW at
aa0aw@arrl.net

Next Meeting: Thursday,
October 8, 2020 - 7 pm
On the 94 Repeater

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

Chaplains:

Visiting Chaplain:

Denny Anderson WØDIO

Parliamentarian:

Grant Forsyth KCØWUP

Website:

Thomas Dorr KEØRHA

Membership:

Bruce Carlson KEØNIT

Property Chair:

Wulf Gar WU1FGR

Testing:

Doug Nelson AAØAW

Field Day:

Dennis Anderson WØDIO

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.



ATTENTION MEMBERS: URGENT CALL TO ACTION!

As you may have heard, the FCC has made a proposal to add service fees on Amateur Radio transactions. Please read the detail below and go to <https://www.fcc.gov/ecfs/filings> to express your opposition to this Proposal during the official comment period.

FCC Proposes to Reinstate Amateur Radio Service Fees

08/28/2020

[UPDATED 2020-09-01 @1845 UTC]

Amateur radio licensees would pay a \$50 fee for each amateur radio license application if the FCC adopts rules it proposed this week. Included in the FCC's fee proposal are applications for new licenses, renewal and upgrades to existing licenses, and vanity call sign requests. Excluded are applications for administrative updates, such as changes of address, and annual regulatory fees.

The FCC proposal is contained in a *Notice of Proposed Rulemaking (NPRM)* in MD Docket **20-270**, which was adopted to implement portions of the "Repack Airwaves Yielding Better Access for Users of Modern Services Act" of 2018 — the so-called "**Ray Baum's Act**."

The Act requires that the FCC switch from a Congressionally-mandated fee structure to a cost-based system of assessment. In its *NPRM*, the FCC proposed application fees for a broad range of services that use the FCC's Universal Licensing System (ULS), including the Amateur Radio Service that had been excluded by an earlier statute. The 2018 statute excludes the Amateur Service from annual regulatory fees, but not from application fees.

"[A]pplications for personal licenses are mostly automated and do not have individualized staff costs for data input or review," the FCC said in its *NPRM*. "For these automated processes — new/major modifications, renewal, and minor modifications — we propose a nominal application fee of \$50 due to automating the processes, routine ULS maintenance, and limited instances where staff input is required."

The same \$50 fee would apply to all Amateur Service applications, including those for vanity call signs. "Although there is currently no fee for vanity call signs in the Amateur Radio Service, we find that such applications impose similar costs in aggregate on Commission resources as new applications and therefore propose a \$50 fee," the FCC said.

The FCC is not proposing to charge for administrative updates, such as mailing address changes for amateur applications, and amateur radio will remain exempt from annual regulatory fees. "For administrative updates [and] modifications, which also are highly automated, we find that it is in the public interest to encourage licensees to update their [own] information without a charge," the FCC said.

The FCC also proposes to assess a \$50 fee for individuals who want a printed copy of their license. "The Commission has proposed to eliminate these services — but to the extent the Commission does not do so, we propose a fee of \$50 to cover the costs of these services," the FCC said.

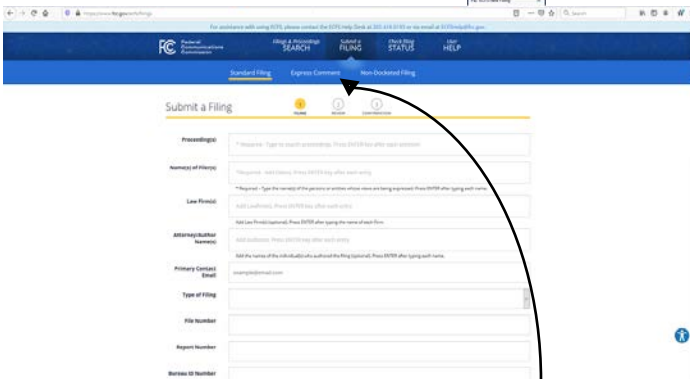
The Ray Baum's Act does not exempt filing fees in the Amateur Radio Service. The FCC dropped assessment of fees for vanity call signs several years ago.

Continued on Page 17

URGENT CALL TO ACTION, continued from p 16

Deadlines for comments and reply comments will be determined once the *NPRM* appears in the *Federal Register*. Interested parties may file comments by using the FCC's Electronic Comment Filing System (**ECFS**), posting to MD Docket No. **20-270**. This docket is already open to accept comments, even though deadlines have not yet been set.

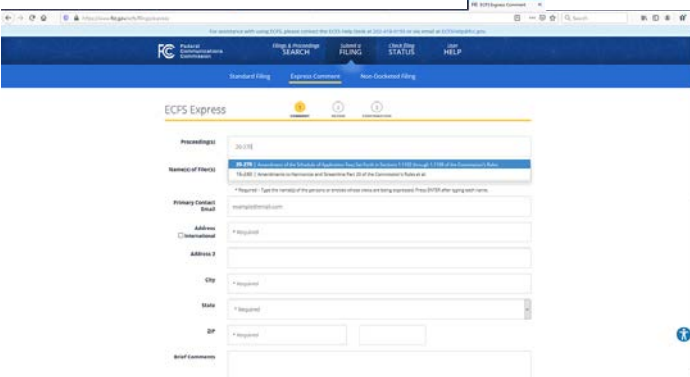
To comment, go to the FCC ECFS at <https://www.fcc.gov/ecfs/filings> and do the following:



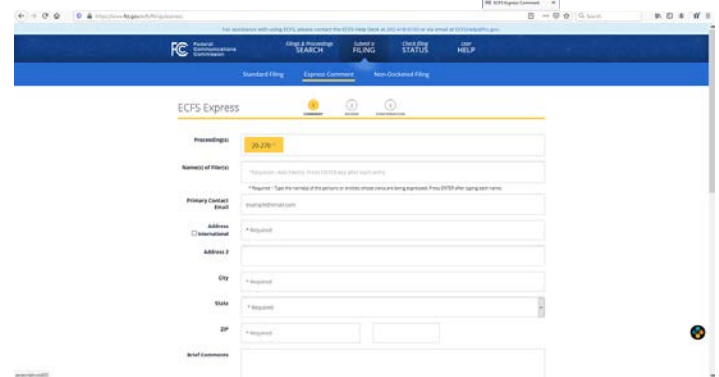
1. Go to the web address <https://www.fcc.gov/ecfs/filings> and you will see the FCC "Submit a Filing" page first, per the ARRL. Do not enter anything on this page. Click on the "Express Comment" text.



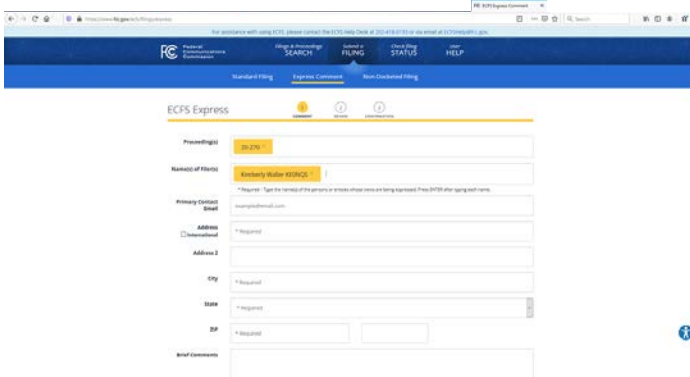
2. You will now be at the FCC's official page to express your comment. Be sure "Express Comment" is underlined in amber.



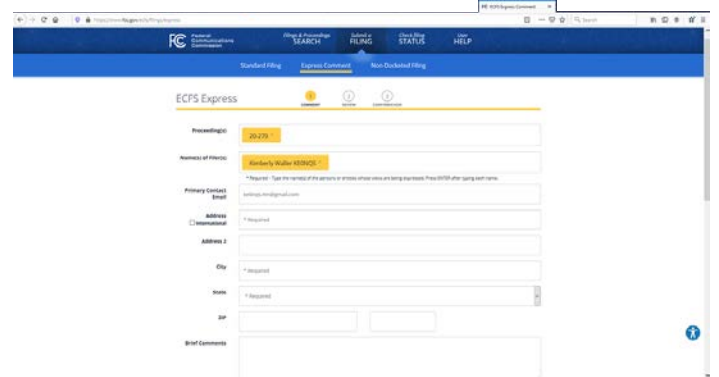
3. In the "Proceeding" box enter the official docket number only, which is 20-270. A drop down menu will appear, then click 20-270.



4. The docket number should now turn to amber. Click the enter button on your keyboard to lock it in & go to the next line.



5. Enter your name & call sign, then click your enter button when it turns amber.



6. Enter your email address. This will stay a white background as shown, then move your cursor each time to fill out the remaining address fields, which will remain as a white background.

7. Express your opinion in "Brief Comments" section and then click the tiny "Email Confirmation" box to be sure the FCC sends you a confirmation they've received your comments. Now click the Aqua box at the bottom to continue to the review screen. Double check that everything is right and submit your official comment.

We hope all of you take a few minutes to make your voice known to the FCC in this matter ! Family members who are not hams can comment too. It is important that they understand that Amateur Radio operators perform a tremendously important role in public safety, including during emergencies, and should be free of additional financial encumbrances in executing this valuable voluntary public service.★

FOR SALE



Our thanks to the family of Bob Boyd KDØYLN, who have graciously donated Bob's ham shack equipment to the ARAC.

Bob became a silent key on May 31, 2020 & was serving the club as a 1st Year Board Member. N0PDG found sales for 3 items totaling \$970 thus far.

The Board has voted to earmark all proceeds from Bob's equipment toward replacement of our aging repeater.

THE FOLLOWING ITEMS ARE AVAILABLE FOR SALE:

We are taking offers on non-priced items & will present offers for discussion on all items for consideration as appropriate. Contact N0PDG at lovoldm@gmail.com to make offer.

YAESU 767GX, built in power supply. Comes with matching speaker (no cables to hook up the speaker). This radio has an issue with all the lights coming on all the time. Sometimes they come on, sometimes not.

MAKE OFFER

KENWOOD TS-940S Receives Great! No mic, built in power supply, power button missing. Unit powers up by pushing the display button, likely had work done to it. Unknown on power output.

MAKE OFFER

ICOM 718 RADIO with mic and power cord. No manual. New are selling for \$625.

ASKING \$400

Morse code book with a cd for learning. Also oscillator, no keyer.

ASKING \$20

ICOM IC-Z1A Handheld dual band. Comes with manual. Unknown if works as there is no power cord or charger. Worked fine when gifted to Bob by Randy Johnson AA0ME.

MAKE OFFER

ADDITIONAL ITEMS FOR SALE ON PAGE 16 & 17!

FOR SALE



Larry Mattfield KEØPJW, of Bovey, Minnesota became a silent key July 25, 2020. NØVRM was contacted by Minton Miller NØNWO who is handling the sale of the radio equipment benefiting Larry's wife of 48 years, Betsy.

Please contact Minton Miller NØNWO at mdfamily@mchsi.com or 218-256-6708 with questions or offers on the following items:

Icom 7300 \$935.00

Icom sm30 desk mic \$119

Samlex sec1235m \$110.50

LDG AT 600 Prow II auto tuner for Icom \$ 314.50

Yaesu 857d hf/vhf/uhf \$680

Yaesu ft70d 2m ht \$148.75

Yaesu SBH-28 rapid charger \$25.50

Yaesu SBR-24Li batteries (2X) \$34 each or \$68 for both.

MFJ 941E manual antenna tuner \$119

Ameritron ALS 500m mobile 500 watt amp \$850

Ameritron ALS 500 rc mobile amp remote \$55.25

Ameritron SPS 75MV switching power supply \$246.50

vantage pro 2 weather station. \$990.25

diamond 2m/440 X50A bass antenna \$80.75

Solarcon A 99 cb antenna with GPK-1 Ground Plane \$123.25

Alpha Delta DELTA 4b coax switch. \$89.25

**MORE ITEMS
FOR SALE on p.17!**

FOR SALE

Denny Burt KB0SPA has a close friend—Lynn Johnson KB9PFF of Siren, WI—who became a Silent Key. KB9PFF's radio equipment is now located in Barnum at the house of KB0SPA.

For those interested in the following items, please send texts to KB0SPA
at **218-341-4033**

1. a pair of uniden frs or gmrs radios, with cradle charger 20.00
- 2.lafayette swr field strength meter. with box. 30.00
- 3.radio shack 2 meter mobile radio model htx-242 60.00
4. ic-2000 2 meter mobile lcom, 65.00
- 5.ic-2100 2 meter mobile icom 65.00
- 6.Yaesu 2800 2 meter mobile 65.00
7. yaesu 2900 2 meter mobile 75.00
8. Kenwood ts-480 200 watt radio hf-6 meters. 500.00
- 9.palamar tx-100 3-30 mhz mobile hf amp 50.00
10. hygain 2.5 amp power supply 15.00
11. yaesu 757gx hf radio 200.00
12. astron ss-25m with meters built in, 45.00
- 13.kenwood at-200 tuner. 60.00
14. astron rs-20a power supply. 65.00
15. mirage 35 watt 2 meter fm amp 30.00
- 16.uniden 40 channel cb radio 10.00
17. sears roadtalker base mic 30.00
18. realistic pro 2023 scanner 10.00
19. mfj 259 analyzer 150.00
20. mfj 862 144/220/440 swr watt meter.25.00
- 21.realistic 2024 scanner 10.00
22. bc60xlt handheld scanner x2 of these 20.00 a peace.
- 23.tv antenna rotor with 3 wire wire. 35.00
24. realistic pro 2003 scanner. 15.00
25. 2 vintage regency scanners crystal operated. 10.00 each.
26. auto rotator tra rotor with control box 45.00
27. lil tarheel screwdriver 225.00
28. 50 feet raw coax on a spool 10.00
29. 1/4 inch guy wire cable 80-100 feet. 20.00

Contest Calendar - October 2020

+ CWops Mini-CWT Test	0300Z-0400Z, Oct 1 1700Z-1800Z, Oct 1 (CW) and 1800Z-1900Z, Oct 1 (SSB) and 1900Z-2000Z, Oct 1 (FM) and 2000Z-2100Z, Oct 1 (Dig)
+ NRAU 10m Activity Contest	1700Z-1900Z, Oct 1
+ RTTYOPS Weeksprint	1700Z-2000Z, Oct 1
+ SARL 80m QSO Party	1900Z-2100Z, Oct 1
+ SKCC Sprint Europe	0145Z-0215Z, Oct 2
+ NCCC RTTY Sprint	0230Z-0300Z, Oct 2
+ NCCC Sprint	0000Z, Oct 3 to 2359Z, Oct 4
+ Portable Operations Challenge	0600Z, Oct 3 to 1800Z, Oct 4
+ TRC DX Contest	0600Z, Oct 3 to 0600Z, Oct 4
+ Oceania DX Contest, Phone	0700Z-1000Z, Oct 3
+ German Telegraphy Contest	1200Z, Oct 3 to 1159Z, Oct 4
+ Russian WW Digital Contest	1400Z, Oct 3 to 1400Z, Oct 4
+ IARU Region 1 UHF/Microwaves Contest	1400Z, Oct 3 to 0200Z, Oct 4
+ YLRL DX/NA YL Anniversary Contest	1600Z-1959Z, Oct 3
+ RTTYOPS Weekend Sprint	1600Z, Oct 3 to 2200Z, Oct 4
+ California QSO Party	1600Z-1800Z, Oct 3 (80m) and 0900Z-1100Z, Oct 4 (40m)
+ International HELL-Contest	1700Z-2100Z, Oct 3
+ FISTS Fall Slow Speed Sprint	1800Z, Oct 3 to 1800Z, Oct 4
+ SKCC QSO Party	0500Z-2300Z, Oct 4
+ RSGB DX Contest	0600Z-0900Z, Oct 4
+ UBA ON Contest, SSB	2200Z-2359Z, Oct 4
+ Peanut Power QRP Sprint	0000Z-0100Z, Oct 5
+ K1USN Slow Speed Test	1900Z-2030Z, Oct 5
+ RSGB 80m Autumn Series, CW	0100Z-0159Z, Oct 6
+ Worldwide Sideband Activity Contest	0100Z-0300Z, Oct 6
+ ARS Spartan Sprint	1700Z-1900Z, Oct 6
+ RTTYOPS Weeksprint	

Continued on Page 19

Contest Calendar - October 2020, Continued from p.18

+ Phone Fray	0230Z-0300Z, Oct 7
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 7
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Oct 7
+ 432 MHz Fall Sprint	1900 local - 2300 local, Oct 7
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 7
+ UKEICC 80m Contest	2000Z-2100Z, Oct 7
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 8
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 8
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 9
+ NCCC Sprint	0230Z-0300Z, Oct 9
+ QRP ARCI Fall QSO Party	0000Z-2359Z, Oct 10
+ ARRL EME Contest	0000Z, Oct 10 to 2359Z, Oct 11
	0000Z-0800Z, Oct 10 and
	1600Z-2400Z, Oct 10 and
	0800Z-1600Z, Oct 11
+ Makrothen RTTY Contest	0001Z-2359Z, Oct 10
+ 10-10 Int. 10-10 Day Sprint	0300Z, Oct 10 to 2100Z, Oct 11
+ Nevada QSO Party	0600Z, Oct 10 to 0600Z, Oct 11
+ Oceania DX Contest, CW	0800 local - 1400 local, Oct 10
+ Microwave Fall Sprint	1200Z, Oct 10 to 1200Z, Oct 11
+ Scandinavian Activity Contest, SSB	1200Z, Oct 10 to 2400Z, Oct 11
+ SKCC Weekend Sprintathon	1500Z, Oct 10 to 0500Z, Oct 11
+ Arizona QSO Party	1600Z, Oct 10 to 0400Z, Oct 11
+ Cosack's Honor VHF/UHF Contest	1600Z, Oct 10 to 0500Z, Oct 11 and
	1300Z-2200Z, Oct 11
+ Pennsylvania QSO Party	1700Z-2100Z, Oct 10
+ FISTS Fall Unlimited Sprint	1800Z, Oct 10 to 1800Z, Oct 11
+ South Dakota QSO Party	2000Z, Oct 10 to 2000Z, Oct 11
+ PODXS 070 Club 160m Great Pumpkin Sprint	0530Z-0800Z, Oct 11
+ UBA ON Contest, CW	0800Z-1000Z, Oct 11
+ UBA ON Contest, 6m	0000Z-0100Z, Oct 12
+ K1USN Slow Speed Test	0000Z-0200Z, Oct 12
+ 4 States QRP Group Second Sunday Sprint	

Continued on Page 20

Contest Calendar – October 2020, Continued from p.19

+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 13
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 13
+ NAQCC CW Sprint	0030Z-0230Z, Oct 14
+ Phone Fray	0230Z-0300Z, Oct 14
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 14
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Oct 14
+ RSGB 80m Autumn Series, Data	1900Z-2030Z, Oct 14
+ AGCW Semi-Automatic Key Evening	1900Z-2030Z, Oct 14
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 14
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 15
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 15
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 16
+ NCCC Sprint	0230Z-0300Z, Oct 16
+ Araucaria World Wide VHF Contest	0000Z, Oct 17 to 1600Z, Oct 18
+ JARTS WW RTTY Contest	0000Z, Oct 17 to 2400Z, Oct 18
+ 10-10 Int. Fall Contest, CW	0001Z, Oct 17 to 2359Z, Oct 18
+ New York QSO Party	1400Z, Oct 17 to 0200Z, Oct 18
+ Stew Perry Topband Challenge	1500Z, Oct 17 to 1500Z, Oct 18
+ Worked All Germany Contest	1500Z, Oct 17 to 1459Z, Oct 18
+ Feld Hell Sprint	2000Z-2359Z, Oct 17
+ Argentina National 7 MHz Contest	2130Z-2230Z, Oct 17
+ Asia-Pacific Fall Sprint, CW	0000Z-0200Z, Oct 18
+ UBA ON Contest, 2m	0700Z-1000Z, Oct 18
+ Classic Exchange, Phone	1400Z, Oct 18 to 0800Z, Oct 19 and 1400Z, Oct 20 to 0800Z, Oct 21
+ Illinois QSO Party	1700Z, Oct 18 to 0100Z, Oct 19
+ RSGB RoLo CW	1900Z-2030Z, Oct 18
+ Run for the Bacon QRP Contest	2300Z, Oct 18 to 0100Z, Oct 19
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 19
+ ARRL School Club Roundup	1300Z, Oct 19 to 2359Z, Oct 23
+ Telephone Pioneers QSO Party	1800Z-1900Z, Oct 19 (Digital Only) and 1900Z, Oct 19 to 0300Z, Oct 20 (All Modes)
+ RSGB FT4 Contest Series	1900Z-2030Z, Oct 19

Continued on Page 21

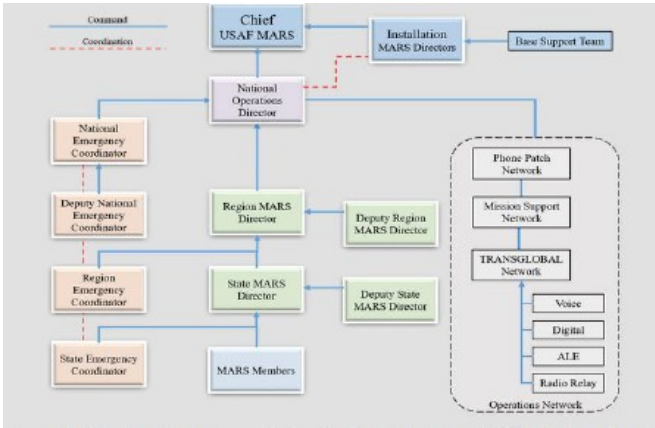
Contest Calendar - October 2020, Continued from p.20

+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 20
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 20
+ Phone Fray	0230Z-0300Z, Oct 21
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 21
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 21
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 22
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 22
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 23
+ NCCC Sprint	0230Z-0300Z, Oct 23
+ CQ Worldwide DX Contest, SSB	0000Z, Oct 24 to 2359Z, Oct 25
+ Kentucky State Parks on the Air	1400Z-2200Z, Oct 24
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Oct 24
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 26
+ QCX Challenge	1300Z-1400Z, Oct 26
+ QCX Challenge	1900Z-2000Z, Oct 26
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 27
+ QCX Challenge	0300Z-0400Z, Oct 27
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 27
+ SKCC Sprint	0000Z-0200Z, Oct 28
+ Phone Fray	0230Z-0300Z, Oct 28
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 28
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 28
+ UKEICC 80m Contest	2000Z-2100Z, Oct 28
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 29
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 29
+ RSGB 80m Autumn Series, SSB	2000Z-2130Z, Oct 29
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 30
+ NCCC Sprint	0230Z-0300Z, Oct 30
+ Zombie Shuffle	1600-2400 local, Oct 30
+ UK/EI DX Contest, SSB	1200Z, Oct 31 to 1200Z, Nov 1
+ Russian WW MultiMode Contest	1200Z, Oct 31 to 1159Z, Nov 1
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Oct 31

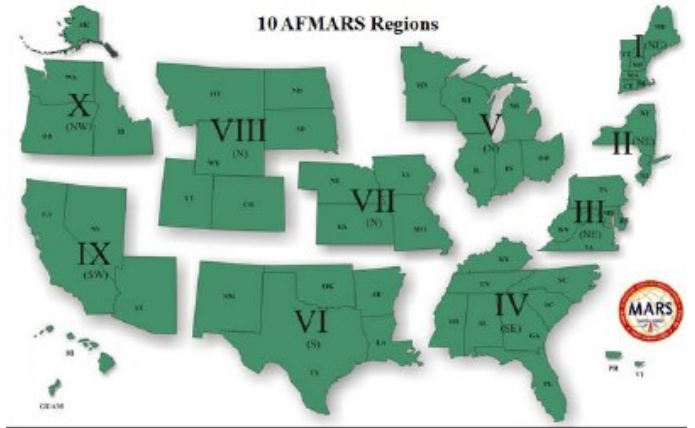


tions use cyberspace technology. The threat to cyberspace is from everywhere, nature, individuals, terrorist organizations (state sponsored, or otherwise), and from the cyberspace technology itself. One of MARS strategic missions is providing communications backup in the event of a cyberspace outage, local, state, regional, or nationally.”

In 2009, the Department of Defense changed MARS to an official civilian auxiliary, giving it equal status to the Coast Guard Auxiliary and the Civil Air Patrol. MARS is mainly comprised of amateur radio operators who have completed the MARS volunteer instructional program. Once a ham is an official MARS member they are eligible to assist in military communication both regionally and nationally when normal digital communication infrastructure is compromised. The various MARS programs also include active duty military service members, reserve, and National Guard units. In all, MARS has over 3,000 amateur radio operators ready to serve our nation when called upon.



U.S. Air Force MARS Command Structure & Organization



U.S. Air Force MARS Regions; Great Lakes Region 5

Is MARS membership for you?

Review the MARS Mission, Vision and Values statements below to see if you're interested:

MISSION - The United States Air Force Military Auxiliary Radio System provides contingency communications support on behalf of the men and women of the Department of Defense and other U.S. Government users in support of their important and diverse national security missions whenever, however and wherever required

VISION - To support the Department of Defense and U.S. Government in any manner within our capability by providing first-rate, on-demand contingency communications services that rival far more complex and expensive systems' levels of service and quality, and to do so in peacetime or times of national crisis, on an around-the-clock basis, and at no expense to the US taxpayer. Members will utilize their own resources and time to provide these service

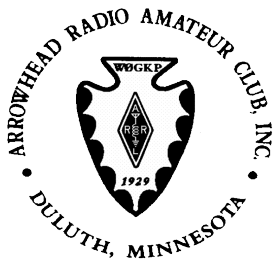
VALUES - We, the members, view our services as a patriotic duty. We utilize our God given talents and resources to meet this obligation. At all times we strive to provide our communications services in a manner consistent with the finest traditions of the United States Military.

If you would like to join MARS, start with reading their membership PDF at the web address below:

<https://www.mars.af.mil/Portals/59/documents/MARS%20Guide%20to%20new%20Membership%20v1.pdf>

To apply for MARS membership, call **888-778-6277** or email afmars@us.af.mil Also, see the MARS letter on page 5 of this newsletter to for additional recruiter email contacts. There are several ways to serve at MARS, so talk to a MARS representative to discuss what's right for you! ★

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.

