The Hellgate Static
July 2025

Hellgate Amateur Radio Club
P.O. Box 3811, Missoula, MT. 59806-3811
Web: www.w7px.org

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HARC July Meeting Program:
Programming and linking our new DR-2X repeaters.

Officers:

President: NZ7S
Vice-President: W7RPG
Treasurer: KJ7YHG
Secretary: K7MSO

Appointed Positions:
Emergency Coordinator: contact_us@w7px.org
QSLs, Awards: contact_us@w7px.org
Webmaster: contact_us@w7px.org
Asst Webmaster:
License Exams Contact VE:
harc.ve.testing@gmail.com
Static Editor: editor@w7px.org

AD-HOC HC Committee:
W7XT, K0SN, K7QA, K7MTD, N7NHS
Buy-Sell Operations hfc@w7px.org

AD-HOC Club Librarian:
K7MTD

RADIO; TESTING EXAMS AND MEETING

The testing and meeting are on the 2nd Monday of each Month.
We are having in-person, electronic testing and monthly meetings.
The Radio license Exams are from 5:30-6:30PM.

Meetings start at 7:00PM and may last till 9:00PM depending on Program & Business.

Both will be held at:
The Church of Jesus Christ of Latter Day Saints, 3026 South Avenue West,
across the street from Big Sky High School.

Use the North entrance as all others will be locked.

Published: 02 July 2025 @ 10:00 PM by KK7RWD

09 June 2025 Exam Testing Results

Congratulations to:

1. **Doug Pugh KM7AOO** of Superior passed his **General** exam**.**

09 June 2025 Minutes

Attendance: AG7FH, W7RPG, K7MTD, K7MSO, NZ7S, K7VK, KK7BIP, N7NHS, KK7RWD, N7BIO, KK7YBW, KQ6TT, K7QA, KK7QJH, N7DLP, KF7GZR, AI7XI, KK7VVN

Visitors: N7GE, KM7AOO, N5JIL

NOTE: 18 Members / 3 Visitors present.

Meeting called to order at 19:02.

Last meetings minutes for April approved.

Treasurer's report: Tabled, not present.

Repeater Committee report: 146.96 repeater is unplugged because it was apparently causing RFI to other systems on site. Two new repeaters are on order for 146.90 and 146.96 repeaters.

HF Committee: Club received a donation of 600 watt amplifier and 600 watt autotuner from Bob N7MSU. Sold an Elecraft K3.

Events for 2025

- 27-29 June Field Day: Setup starting Friday afternoon on University Mountain with SSB and CW stations. $25 processing fee and $200 site fee (might be waived), plus liability insurance will be obtained for $200 per year. Google sheet for signing up to setup, operate, and tear down will be sent out via email.
- 4th of July Special Event: Cancelled due to lack of volunteer coordinator.
- 6 September Fox Hunt: not discussed.
- 11-12 Oct Dirt Derby: we have been invited to help.

HARC Discussion List

- We have a new *The Static* editor, KK7RWD
- HARC Net every Saturday morning at 9:00 A.M. on 147.04 repeater.
- A moment of silence was observed for long time club member Morris Cambell, WA7W, now a silent key.

VHF Net Control Station assignments

- June 11 K7MSO
- June 18 W7RPG
- June 25 K7MSO
- July 02 N7PAS
- July 09 K7MSO

Meeting adjourned at 20:04.

Presentation: Go Boxes. Four club members displayed and talked about some impressive off-grid go boxes they have designed and built.

Secretary - K7MSO

HELLGATE AMATEUR RADIO CLUB
AGENDA – 14 July 2025

PROGRAM: Programming and linking our new DR-2X repeaters.

Meeting called to order at 7:__ PM **(10 needed for business)**
Introductions. Please make sure you signed the attendance sheet Quorum Y/N ____

Last meeting minutes, June: _____ Motion to approve minutes: 1St_____ 2nd____
Discussion _____ Vote: P/F/T

Treasurer's report: KJ7HYG, _____Motion to approve report: 1St _____2nd _____
Discussion_____ _ Vote: P/F/T

Repeater Committee Report: W7RPG, _____Motion to approve report: 1St _____2nd _____
Discussion_____ _ Vote: P/F/T

HF Committee Report: K0SN, _____Motion to approve report: 1St_____2nd_____
Discussion _____ Vote: P/F/T

Events for 2025:

HARC Net every Saturday morning @ 9:00 AM on 147.040 Repeater – Buy/Sell – During.

HARC Discussion List

1. _____
2. _____
3. _____

VHF Net Control Station assignments:

July	02	N7PAS	August	06	N7PAS
July	09	K7MSO	August	13	?_____
July	16	?_____	August	20	?_____
July	23	?_____	August	27	?_____
July	30	?_____			

Reminder: Backup is always the next person in line as the net control.

Good and Welfare.

_____

***** Next Club meeting: August 11 2025**

Is there any other business?

_____

_____ **Meeting Adjourned at _:__ PM.**

July 2025

Hellgate Amateur Radio Club

Calendar of Events

Board: NZ7S, W7RPG, KJ7THG, K7MSO

Editor – KK7RWD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 ERC Net 7:30 on 146.900-88.5T BARC Net 8:15 on 146.720-203.5T HARC Net 9:00 on 147.040-No Tone	3	4 Fourth of July	5 HARC Saturday Net 9:00AM on 147.040 Repeater.
6	7	8	9 ERC Net 7:30 on 146.900-88.5T BARC Net 8:15 on 146.720-203.5T HARC Net 9:00 on 147.040-No Tone	10	11	12 HARC Saturday Net 9:00AM on 147.040 Repeater.
13	14 HARC Testing 5:30 & Meeting 7:00PM	15	16 ERC Net 7:30 on 146.900-88.5T BARC Net 8:15 on 146.720-203.5T HARC Net 9:00 on 147.040-No Tone	17	18 Glacier Waterton Hamfest	19 HARC Saturday Net 9:00AM on 147.040 Repeater Glacier Waterton Hamfest
20 Glacier Waterton Hamfest	21	22	23 ERC Net 7:30 on 146.900-88.5T BARC Net 8:15 on 146.720-203.5T HARC Net 9:00 on 147.040-No Tone	24	25	26 HARC Saturday Net 9:00AM on 147.040 Repeater
27	28	29	30 ERC Net 7:30 on 146.900-88.5T BARC Net 8:15 on 146.720-203.5T HARC Net 9:00 on 147.040-No Tone	31		

Silent Key

Morris Alexander Campbell

June 24, 1939 - June 2, 2025

WA7W Morey was born on June 24, 1939, and was preceded in death by his parents, Dean (Connie) Campbell and Jesse Williamson; his sisters, Penny (Jay) Stevens and Trudy Campbell.

He is survived by his loving wife of 22 years, Sue (Hoell); his sister, Pam (Gary) Smith; his brother, Barry (Penny) Campbell; his children, Marty, Moe, Kim, Shelly, Nikki, and BJ (Marcey); and many grandchildren.

Morey was a devoted husband, father, uncle, and grandfather. He drove a chip truck for over 40 years, retiring after a long and dedicated career. He led labor efforts in the trucking industry and was awarded Montana's Drive of the Year in 1996, by Governor Mark Racicot. He had a deep love for HAM radios, motorcycles, hunting, BYU sports, and, of course, his cappuccinos and baked potatoes. Morey also had a talent and passion for music - whether singing or playing string instruments. He touched countless lives and always left everyone with a smile.

A huge amount of gratitude goes to Sue and her sister, Sandy, for the incredible care they gave Morey in his final days.

A celebration of life will be announced at a later date in Missoula.

International Dog Day Radio Event

On August 26, ham radio operators celebrate International Dog Day, raising awareness for abandoned, abused, and homeless dogs. Started by Colleen Paige, the event promotes adoption and support for dogs in need. In 2022, Hanz YL3JD launched the amateur radio component with YL1DOG. By 2025, operators in Latvia, the UK (G5VZ, G4YVM), the US (K2D), Germany, and beyond join in, using CW, SSB, VHF/UHF, DMR, and Echolink.

Many operators, like Hanz and Ed DD5LP, are rescue advocates who've adopted dogs from streets or shelters. They share stories and offer certificates like "Full Kennel" for contacting all stations. Visit https://dogdayradio.org/ for callsigns, schedules, and dog stories.

International Cat Day runs two weeks earlier at https://catdayradio.org/ For updates, schedules, and certificates, check: https://hamlog.online/idd/ or https://hamlog.online/icd/

W7PX HARC Field Day 2025

Our field day effort this year was primarily an attempt to surpass the big score and fun we had last year at our favorite University Mountain site. And we did manage to achieve that goal in spite of more challenging propagation this year. As we've found in many past FDs using this superb low noise site, the steep drop-off below the ridge facing east adds at least another 10 dB to our transmitted signals.

A total of 8 HARC members participated this year, including. NZ7S, K0SN, W7RPG, K7QA, KK7BIP, KK7NOM. KK7YBW, and Gary Watson W7EE/AH6AA, our old Missoula ex-pat friend and former HARC member now living in Bigfork in the summer and the Big Island of Hawaii in winter.

With sunspot cycle 25 passing maximum this past winter and 10 meters performing rather poorly in recent months we figured 20 and 40 meters would be the money bands. And we hoped 15 would play as well as last year and 80 meters would contribute better. But alas our hopes were dashed with somewhat marginal conditions, except for 20 meters which provided 75% of all QSOs. 80 meters was a huge disappointment with high QRN and limited activity.

We had hoped to deploy a GOTA station for members new to Field Day and/or contesting, but no takers stepped up. We also noticed a huge increase in FT8 activity on all bands this year as the revised FD rules allowed 2 points per FT8 QSO which hardly seems fair with SSB QSOs still getting only one point. CW QSOs still got 2 points

The FT8 wave continues to attract many new operators to our fabulous hobby so K7QA is suggesting we consider adding an FT8 station next year to attract more participation. The new rules also expanded the FD operating period from 24 hours to 27 hours.

The main SSB station used the club's Elecraft K3 driving the club's 20/15 yagi at 35 ft on the trailer mounted crankup tower. That 3 element 20 meter beam designed and constructed by K0SN certainly dominated their QRG while running up 2386 QSOs. Sadly, the 15 meter 2 elements did not perform as expected with a poor match plus propagation on 15 was not nearly as productive as last year.

The 40 meter dipole used for SSB last year was again deployed but did not tune up properly so NZ7S decided to build and erect a replacement 40 meter dipole using coax feedline at 3AM. It tuned fairly well but SSB activity on 40 by then was almost non-existent. SSB operators included, NZ7S, W7RPG, K0SN, KK7BIP, and KK7NOM. 1279 total SSB QSOs were recorded in the N1MM log.

The main CW station used the club's "new" Elecraft K3 driving the other K0SN designed 2 band yagi using 2 elements each on 20 and 15. IT was again supported by K0SN's 30ft sectionalized aluminum tower provided by K0SN. Last year we raised the tower using ropes and pulleys with manpower to lift it up but this year we made the job easier using W7RPG's motorized winch on his Jeep.

We again erected a ladder line fed dipole for 40 meters CW between 2 70ft pine trees assisted by K0SN's tennis ball air cannon. We again had problems making it match properly until we added another 30 feet of ladder line. It then performed as expected. Running stations on 40 and 20 was easy. Pileups came often and were a fun challenge.
K0SN and K7QA decided to deploy a top loaded 50 ft wire vertical ground plane with 4 elevated radials for 80 meters this year. We also added a 500 ft BOG (Beverage On the Ground) strung out to the east for receiving. 80 has always been lackluster from here in past Field Days so we wanted to punch a louder signal to the eastern US where 75% of all FD stations exist. Building the antenna was fun and easy and it matched perfectly with some extra inductance hung across the base driving point. Sadly we could only muster 25 QSOs on 80 CW, working almost everything we heard. Hopefully 80 will perform better as the sunspots fade out.
W7EE and K0SN ran CW during daytime hours with K7QA running the 10PM to 5 AM nighttime hours plus 2 hours at the end. 1609 CW QSOs were recorded in the N1MM log.
Here are the totals:

Band	CW	SSB
80	25	
40	378	5
20	722	1366(!!)
15	384	0
Total	1509	1371

CW and SSB combined QSO totals 2880
Total Score without bonus points 8,778 (NZ7S should be able to figure out those)
Adding to the fun was again some friendly competition between the two modes. With poorly performing 15 and 40 meter antennas, the SSB crew certainly was handicapped, but they can certainly claim the 20 meter QSO crown for 2025. Our #1 priority next year is to make sure all antennas for both modes work properly!
We were able to have both stations up and running hard at the 12N Saturday starting bell. When we decided to stop at 2PM Sunday, the remaining crew of 6 quickly and efficiently broke down the entire operation including all antennas and got all loaded up by 5PM. We celebrated with a few cold beers sitting in the shade and recapped the 2025 FD experience. Next year we may consider doing a BBQ as many other clubs hold at the end of FD if we can get more participation. KK7NOM again made a list of actionable items to improve our FD efforts going forward.
Special accolades are most certainly deserved for both K0SN and NZ7S who provided the operating trailers and did much of the prep work and heavy lifting for this event. We also want to thank Gary, W7EE/AH6AA who drove down from Bigfork and joined K0SN at the site Thursday afternoon. Both stayed at the site fulltime to erect antennas and make sure everything was working well.

Pictures of the 2025 W7PX HARC FD event provided by NZ7S.

For those who may be still interested in statistics, here are some from recent years:

Year	Location	QSO's
2016	Ft Missoula 2A	687
2019	University Mtn 2A	2075
2020	Bitterroots, Victor, MT 2A	2169
2021	University Mtn 1A	2262
2022	Ft Missoula 2A	755
2023	Ft Missoula 2A	759
2024	University Mtn 2A	2752
2025	University Mtn 2A	2880

K7QA

SSB Site before setup

SSB OPS

Beverage Antenna

CW Station

K7QA

KK7BIP

Looking W to Missoula

40M Dipole

20M 15M Assembly

20M 15M Beam

80M Vertical

80M Vertical

Tom's Tower Setup

W7RPG

Field Day 2025 After Action Review

Here are our notes from field day. Please look these over and make any changes that you think might be needed.

The setup for field day this year went smoothly with the volunteers that came to help set up.

Set Up - CW operators station

To set up the antenna for the CW operators we used W7RPG's jeep winch to erect the tower. This made things really easy. The antennas that we used for the CW operators were a 20 Meter beam Yagi, 40 meter Dipole wire antenna, and a 15 meter yogi antenna for transmitting. We also used a 500 foot wire antenna that was stretched down the hill for receive only if needed. This is sometimes call a beverage antenna. Some of their contacts included operators from Europe and Hawaii.
The radios that were used came from the kits that the HARC keeps for events. This winter KK7NOM and K0SN arranged and labeled the equipment. This is to help with radio set up by operators that are unfamiliar with the radios.

Set Up - Voice (SSB)

This year we had a flat tire on the antenna trailer when we pulled it up the mountain. We were not sure if it was flat from sitting all summer or if it happened on the road up the mountain. We did notice that the lug nuts were loose on the tire. A pre event inspection would be a good thing to do in the future. Also noticed with the antenna was that we were missing the hairpin match for the 15 meter band. This prevented the Single Side Band operators from using that band during the event. We did set up a 40 meter wire dipole antenna that broke and came down out of the tree during the night. Since the 40 meter band was not working well this was not a big problem.

During the event

All of the operators were busy until about 1:30 in the morning when the bands temporary closed down. The CW operators had more luck trying different bands to operate on.
After the event a suggestion to repair and build new antennas was brought up. The ladder line antenna's seem to be not working as good as they can be. Building new antennas out of coax cable has been suggested. This could be a good meeting activity for later this year.

To help with recruitment, both for field day and club membership, is to set up stations to operate on competitions or activities other than field day. Parks on the Air is one example that was brought up.
We also did not have a data station operating during the event. K7QA said that he would help with a data station if we had more interest in operating one.
Last but not least is that we had 3 extra hours to operate this year. We tried to stick it out however we shut down about an hour before the end of the contest. All of the operators were getting tired and we needed to take down the antennas.

When all was said and done we felt that the event had gone well and that we should include a BBQ.
Our location contributed a lot to our ability to operate for the long hours that we did.

KK7NOM