



# The Hellgate Static

## March 2022



Hellgate Amateur Radio Club  
P.O. Box 3811, Missoula, MT 59806-3811

### Inside this issue:

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- Free Membership For New Licensees
- Research on Ancient Solar Storms
- March Meeting Program D-Star
- Amateur Radio License Renewals
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- February Testing Results
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- March HARC calendar

### Coming Events

- March 14 Meeting
- April 11 Meeting
- April ?? Grizzly Triathlon
- May 6<sup>th</sup> First Fox Hunt
- May 9<sup>th</sup> Meeting
- May ?? Riverbank Run
- May 16 Fox Hunt
- June 3 Fox Hunt
- June 25-26 Field Day

### Officers:

**President:** Paul Shuey, N7PAS  
**Vice-President:** Eric Sedgwick, NZ7S  
**Treasurer:** Dick Walton W7XT  
**Secretary:** Joe Geldrich, AG7FH

### Standing Committees:

**Emergency Coordinator:** Jerry Ehli, N7GE

**QSLs, Awards:** Mike Leary, K7MSO

**Webmaster:** Mike Leary, K7MSO

**Radio License Exams Contact VE:**  
Paul Shuey, N7PAS

**Static Editor:** Terry Cook, KF7BQ  
Bluetooth\_one@hotmail.com

### Advisory Committee's:

Eric Sedgwick NZ7S (Chair)

HF-D Tom Hellem, K0SN Dec 2021 for (22/23)

HF-V Tom Mc Ginley, K7QA Dec 2020 for (21/22)

V/U-D David Herzberg K7MTD Dec 2021 for (22/23)

V/U-V Gary Duncan KG7WYQ Dec 2021 for (21/22)

This one will be a 1 yr term

### **HARC Meeting March**

**Program:** Digital Modes D-STAR, Mike K7MSO

We are back to having monthly meetings and license class testing in person. The meetings are on the 2<sup>nd</sup> Monday of each Month

Meetings 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.

**Please note: Masks are currently required while in the building.**

Testing will begin promptly at 5:30PM, and end at 6:30PM.

Meeting area will be set up between 6:30-7:00PM and meeting will begin at 7:00PM (Business & Program).

Cleanup and Sanitizing will be done from 9:00-9:30. Volunteers may assist.

## New 2 Meter Social Net

From Dave K7MTD

With the blessing of the HARC, I would like to announce that starting this Saturday Feb 19 at 0900 local time, I will be hosting a new social net on HARC frequency of 147.04 MHz, + 600 Hz offset, no tone. This will be an informal net. You are invited to share with others what you are doing, what fun (and not so fun) projects you are working on, share information or ask questions about something you need help with or your latest trip to Tahiti. There are no hard rules other than the customary FCC rules that we must adhere to. Commentary is always welcome.

Check-ins will be a little different than the Wednesday night formal net. I will call for check-ins and will wait until 3-5 call signs are received. When checking in, just give me your call sign, name, and location. When several are received, I will acknowledge you and then call on you in the order they were received. I will give priority to mobile stations. Typically you will have one time slot to say your piece, unless you have questions. It is not meant to be a ragchew with net control. Re-checks will be taken if you have additional comments or questions that may come up on the net.

This net is open to any licensed amateur radio operator in range of the repeater.

Of course if anyone has any emergency traffic please do not hesitate to break in at any time.

I will also share the general guide-lines of the net in the preamble. If you have comments or questions.

Thank you and I hope to hear from you Saturday.

Dave K7MTD

## Year Free Membership Offered To Newly Licensed Missoula Area Amateur Operators

At The February meeting, a motion was passed, to offer a 1 year free membership to the Hellgate Amateur Radio Club, for any newly licensed amateur radio operator in the Missoula area. The free membership would begin on the day that the operators receives his or her call sign. After the 1<sup>st</sup> year, dues will be pro-rated for the remainder of the second year.

We would like to welcome all new Missoula area amateur radio operators to our club. It is a great place to learn and to find answers to your questions, and to have fun while providing a public service to our community.



# Research on Ancient Massive Solar Storms Suggest a Need to Prepare for the Next Ones

02/02/2022 ARRL News

Numerous powerful X-class solar flares occurred last fall as Solar Cycle 25 activity picked up. Jon Jones, N0JK, covered the event in his *QST* column, “The World Above 50 MHz,” in the February issue, and he pointed out, “More powerful flares than these have taken place, such as the Carrington Event of 1859, during which aurora was seen in the South Pacific and in Cuba, and it sparked electrical fires.”

Similar events took place in the 20th century, but, as Jones notes, scientists are researching spectacular solar storms that took place as early as 7176 BC and in 5259 BC. The huge solar flare some 9,200 years ago has convinced researchers that we are not ready for the next one, and our modern technology would take a major hit.

“Also worrisome is that Earth may have narrowly dodged a ‘Carrington-level event’ in 2012,” Jones said. Daniel Baker of the University of Colorado — speaking at a NOAA Space Weather Workshop — said, “If it had hit, we would still be picking up the pieces.”

Jones said his reading has led him to conclude that these solar superstorms occur more frequently than people think. “As more ice cores and tree rings are sampled, scientists are finding there have been more of these [major solar storms],” he said.

In his February column, Jones cited a 2013 Royal Academy of Engineering report that discussed the risks of a Carrington-level event.

“An extreme space weather event, or solar superstorm, is one of a number of potentially high-impact, but low-probability natural hazards,” said Paul Cannon, a Royal Academy of Engineering fellow and chair of the study working group that developed the report. “Extreme space weather [can have] impacts on engineered systems and infrastructure.”

Cannon said the hazard and risks of extreme space weather on the electricity grid, satellites, and air passenger safety had not previously been critically assessed. His group’s report attempts to address that omission.

The *Live Science* article, “Ancient solar storm smashed Earth at the wrong part of the sun’s cycle — and scientists are concerned,” cites a study, “Cosmogenic radionuclides reveal an extreme solar particle storm near a solar minimum 9125 years BP.” Study co-author Raimund Muscheler, a geology researcher at Lund University in Sweden, said, “These enormous storms are currently not sufficiently included in risk assessments. It is of the utmost importance to analyze what these events could mean for today’s technology and how we can protect ourselves.”

“A Carrington Event taking place today could destroy orbiting satellites, disrupt GPS, and damage undersea cables and internet infrastructure on the ground,” Jones said in his *QST* column. “An event in 775 AD was believed to have been 100 times stronger than the Carrington Event.”

## March Meeting Program

At the March 14<sup>th</sup> meeting Mike Leary K7MSO will present a short program about D-Star digital mode. Digital Smart Technologies for Amateur Radio, is an open standard digital communication protocol established by JARL and adopted by several amateur radio manufacturers. D-star can be used on HF, VHF and UHF in several modes. It is one of the digital modes being considered for a local repeater.

## **Check Your License Renewal Date**

You can renew your license up to 90 days prior to its expiration. The FCC is expected to enact the new \$ 35 license / renewal fee sometime this year. An early renewal might save you from having to pay a renewal fee.

### **Filing Renewal Electronically using the Universal Licensing System**

Renew your license through the Universal Licensing System (ULS) at any time within 90 days of the expiration date for the license and up to two years after the license expires.

To renew, go to the ULS Home, select Online Filing, and follow the instructions below.

1. Login to the ULS License Manager with your FCC Registration Number (FRN).
2. From your License At A Glance page, choose the Renew link in the right hand menu called Work on this License. When your license is within the renewal period of 90 days before the expiration date until the expiration date, or within the 2 year grace period allowed there after the Renew link will appear. If your license is not eligible for renewal the link will not appear.
3. On the Select Updates page, review the licensee information displayed beneath the table of license information. If any of the data is missing or out of date you must update it. Click on the box to the left of the Licensee Information heading to insert a checkbox and select it.
4. When ready click Continue.
5. Answer the questions on the Applicant Questions page, and click Continue when ready.
6. On the Licensee Information page, review and update all of your licensee information. Make any corrections that are necessary.
7. On the Summary page review the information you have entered. If you wish to make additional changes, click the Edit button next to the section of your application you wish to Edit. You will be able to return to that page of the application. Make the desired change and select the Return to Summary button.
8. When ready to submit your update to the Commission, choose the Continue to Certify button.
9. After reading the certification, enter your first and last names in the boxes at the bottom of the page. You **MUST** sign the application. When finished choose the Submit Application button.
10. From the ULS Confirmation screen, we recommend you print a copy of your application and/or the Confirmation screen itself from your web browser.

Note: The address and contact information you have entered in CORES registration will not be automatically associated with your licenses. To change the address or other contact information on your license, you must update your information in ULS.

## Some New Rules Going into Effect this Year for ARRL Field Day

02/09/2022 ARRL News

After taking a few detours over the past couple of years due to the COVID-19 pandemic, ARRL Field Day rules are being updated starting this summer. ARRL conducted a Field Day community survey with invitations propagated far and wide, and direct emails sent to more than 15,000 individuals and ARRL-affiliated clubs. After sorting through, reviewing, and discussing the survey results, the ARRL Programs and Services Committee recommended a number of rule changes for ARRL Field Day, which will take place this year over the June 25 – 26 weekend.

Starting this year, the maximum PEP output for a transmitter used by anyone submitting a Field Day log will be 100 W. The power multiplier of 2 will remain in place, and the high-power category will be removed from the rules. Until this year, the maximum low-power limit had been 150 W for most ARRL-sponsored operating events. The power multiplier will remain at 5 for QRP participants running a maximum of 5 W or less. As previously announced, 100 W is now the low-power category limit for all ARRL and IARU HF Contests, effective January 1, 2022.

A couple of changes instituted initially as accommodations for the COVID-19 pandemic will remain. Class D (Home) stations will continue to be able to earn points for contacts with other Class D stations. The club aggregate scoring change initiated in 2020 as a temporary measure will become part of the permanent rules. In the aggregate scoring plan, the scores of individual stations are combined under the score of a single club.

Another change, involving Rule 7.3.2 Media Publicity, has been modified. Rules to date have offered 100 bonus points for attempting to obtain publicity and demonstrating same. With the ease of posting via Facebook, Twitter, Instagram, and various other media websites, Field Day participants will now be required to obtain publicity, not just try to do so. Any combination of bona fide media hits would qualify for the bonus points. For example, posting the details of your upcoming or ongoing Field Day activity, or your Field Day results, on a club or news media site, on Facebook, or via Twitter and Instagram would meet the bonus criteria. Photos and videos are encouraged as part of media posts.

### University Mountain DMR Repeater

**Repeater particulars:**

448.9 MHz, minus 5 MHz offset

DMR admission: Color Code 1

DMR Radio ID: 313003

**Location:**

1.5 miles east of Missoula, on University Mountain. Site sits high above I-90, looking down on East Missoula, with a great view of the Missoula Valley. 5404 feet above sea level.

The University Mountain DMR repeater is owned and maintained by the Mac Pass Repeater Group.

**Static talk groups:**

Time Slot 1

31302 MPRG2,

31303 BGV,

8 MPRG Cluster

3130 Montana Statewide *Saturday only* 7PM to 8PM

Time Slot 2

31301 MPRG1 Mac Pass Repeater Group

**Dynamic talk groups:**

Time Slot 1 All BrandMeister talk groups

Time Slot 2 PLEASE DO NOT USE TIME SLOT 2 for dynamic talk groups

## Testing Results For February 2022

Congratulations to James Bosshardt, who passed his Technician exam, his Callsign is KK7DTD, and also to Tom McCall upgrading to a General class, he has a new vanity call sign K2TRM.

## February 2022 Meeting Minutes

**Attendance:** Joe Geldrich AG7FH, Paul Shuey, N7PAS, Jerri Shuey N7JGS, Doug Hemphill KC7BOG, Terry Cook KF7BQ, David Herzberg K7MTB, Gary Duncan KG7WYQ, Aaron Nelson N7BIO, Bill Reese KJ7PCR, Sandra Pond KF7GZR, Dean Pond N7DLP, Mike Leary K7MSO, Mike Hiscock K5MH, Tom Hellem K0SN, Eric Sedgwick NZ7S, Tom McGinley K7QA, Dick Walton W7XT, Visitor Jeff Reeder

The meeting was called to order by President Paul N7PAS at 7:05 PM.

Paul N7PAS requested that the Static come out the last full week of the month.

Motion to approve the minutes from the last meeting was approved.

Repeater Committee: Tabled the motion to replace the 147.04 repeater at this time.

Treasurer report: Dick W7XT, reports that \$203.08 was paid to Paul for the projector. Tom H. sold equipment for \$44.34. Dick made a motion to pay him for \$40.00 to the IRS and \$20.00 to the Montana Secretary of State. Sandra 2<sup>nd</sup> the motion, motion passed.

Paul made a motion for 1 year free membership to newly licensed people with no voting at meetings, Gary 2<sup>nd</sup>. After much discussion Paul made another motion for free 1 year membership for newly licensed personnel from the time of receiving their call sign, then pay discounted by month for the remainder of the 2<sup>nd</sup> year. They will be able to participate as a full member. They will be deemed as members in good standing if attending at least 4 meetings within their year. Dean 2<sup>nd</sup> the motion, motion passed.

David K7MDT requested that the club start a Social Net on Sat. morning at 9 AM on the 147.04 repeater. Several members thought that was a good idea and will start this Sat.

Arron N7BIO gave an informative presentation on Digital Mobile Radio, including a demonstration of local and worldwide contacts.

Meeting closed at 8:45 PM.

Sec. Joe Geldrich

### March Wednesday Night VHF Net Control

- 02 Mar Jerri N7JGS / Aaron N7BIO
- 09 Mar Aaron N7BIO / Eric NZ7S
- 16 Mar Eric NZ7S / Mike K7MSO
- 23 Mar Mike K7MSO / Paul N7PAS
- 30 Mar Paul N7PAS /

# HELLGATE AMATEUR RADIO CLUB

## AGENDA – 14 Mar 2022 meeting

Introductions. Make sure you sign the attendance sheet

Approval of last meeting minutes: 1<sup>st</sup> \_\_\_\_\_ 2<sup>nd</sup> \_\_\_\_\_ Discussion P/F/T \_\_\_\_\_

Approval of Treasurer's report: 1<sup>st</sup> \_\_\_\_\_ 2<sup>nd</sup> \_\_\_\_\_ Discussion P/F/T \_\_\_\_\_

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Repeater Advisory Committee Report: Discussion on Digital Repeater–Tabled for more info.

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Approval of Committee report: 1<sup>st</sup> \_\_\_\_\_ 2<sup>nd</sup> \_\_\_\_\_ Discussion P/F/T \_\_\_\_\_

### Events for 2022:

14 Mar – Meeting

11 Apr – Meeting

?? Apr – Grizzly Triathlon

6 May – Fox Hunt – 1 st

9 May – Meeting

?? May – Riverbank Run

16 May – Fox Hunt

3 Jun – Fox Hunt

### HARC Discussion List

1. Special meetings for learning about soldering, kit building, antenna's, or other interests,

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2. Training programs for Emergency Response Communications, Go Kits, etc.

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3. How about an updated preamble for Wednesday night net.

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4. \_\_\_\_\_

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### VHF Net NCS assignments:

Mar. 2 N7JGS Backup N7BIO Apr. 6 \_\_\_\_\_ Backup

Mar. 9 N7BIO Backup NZ7S Apr. 13 \_\_\_\_\_ Backup

Mar. 16 NZ7S Backup K7MSO Apr. 20 \_\_\_\_\_ Backup

Mar. 23 K7MSO Backup N7PAS Apr. 27 \_\_\_\_\_ Backup

Mar. 30 N7PAS Backup \_\_\_\_\_

Program: Using Digital Operation - DStar. (K7MSO-Mike)

Good and Welfare. 1.Membership Drive–Year Long

**\*\*\* Next Club meeting: March 14.**

Adjournment: 1<sup>st</sup> \_\_\_\_\_ 2<sup>nd</sup> \_\_\_\_\_ P/F/T \_\_\_\_\_

# >>> March 2022

Goal of the month: ...Invite others to the meetings...

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	1	2 ERC NET 7:30 BARC NET 8:15 HARC NET 9:00	3	4	5
6	7	8	9 ERC NET 7:30 BARC NET 8:15 HARC NET 9:00	10	11	12
13	14 HARC Test 5:30 & Mtg 7:00	15	16 ERC NET 7:30 BARC NET 8:15 HARC NET 9:00	17 St. Pactricks'	18	19
20	21	22	23 ERC NET 7:30 BARC NET 8:15 HARC NET 9:00	24	25	26
27	28	29	30 ERC NET 7:30 BARC NET 8:15 HARC NET 9:00	31	1	2