



# The Hellgate Static

## November 2018



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

### Inside this issue:

- Upcoming Events
- Monthly Meeting Program SKYWARN
- 2018 JOTA Event Review
- Missoula to Nauru EME contact
- SKYWARN Recognition Day
- 2018 Christmas Party
- A letter to HARC Members and Friends
- Items from W7ALW estate
- Classified Advertisements
- October 2018 Meeting Minutes

and more.....

### Officers:

**President:** Mike Leary, K7MSO

**Vice-President:** Eric Sedgwick, NZ7S

**Treasurer:** David Herzberg, K7MTD

**Secretary:** Donna Pecastaing, KC5WRA

### Standing Committees:

**Emergency Coordinator:** Jerry Ehli, N7GE

**QSLs, Awards:** Bob Henderson, N7MSU

**Webmaster:** Mike Leary, K7MSO

**Static Editor:** Terry Cook, KF7BQ

**Radio License Exams Contact VE:**

Paul Shuey, N7PAS

### Repeater Advisory Committee:

Eric Sedgwick NZ7S (Chair)

David Herzberg, K7MTD

Tom Mc Ginley, K7QA

Tom Hellem, K0SN (New / Re-elected)

Paul Shuey, N7PAS (New / Re-elected)

### Upcoming Events

- 12 November – Monthly Meeting  
Program – SKYWARN
- 1-2 December – Skywarn Recognition Day
- 10 December – Meeting / Christmas Party  
Program – Lance W7GJ Dxpeditions
- 14 January 2019 – Monthly Meeting  
Program – Vic K7VK SOTA

### November Meeting Program



Trent Smith of the National Weather Service will present a program about storm spotting and SKYWARN®.

SKYWARN® is a National Weather Service (NWS) program developed in the 1960s that consists of trained weather spotters who provide reports of severe and hazardous weather to help meteorologists make life-saving warning decisions.

This should be an excellent lead-in to SKYWARN recognition day which HARC will participate in next month.

Please make plans to attend and invite your amateur radio friends.

## 2018 Jamboree On The Air

Saturday morning on October 20<sup>th</sup>, Eric NZ7S and Dave began assembling the club Yagi and rotor at Eric's home with Boy Scouts and Scout leaders looking on. Terry KF7BQ arrived during erection of the tower and the Scouts were mentored at each step along the way as the portable HF station was set up.

We encountered a snag along the way when testing the antenna rotor (we believe that the rotor control cable is at fault and may need replacement) luckily the antenna was pointed generally East and still allowed for multiple contacts during the operation.

The scouts attending were able to make contacts on the HF station as well as David's D-Star portable radio/hot-spot combination and Terry's DMR portable radio.

The event was a success with all of the attending scouts earning their radio merit badges, 2018 JOTA patches and a good experience that may whet their interest in amateur radio.

## Nauru to Missoula Earth – Moon -Earth Contact

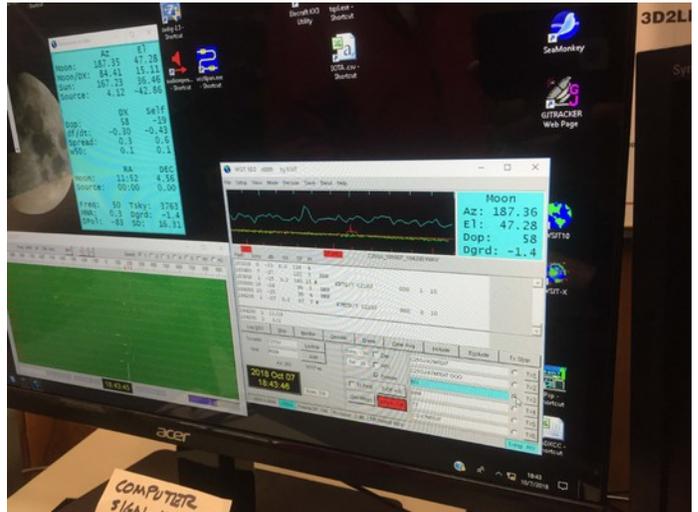
On Sunday, October 7, while Lance Collister W7GJ, was on a Dxpedition to The Republic of Nauru (a tiny island country in Micronesia, northeast of Australia), David K7MTD and Vic K7VK used Lance's 6 meter EME station to make a JT65A digital contact with Lance, who was operating with the callsign C21JG.

For those not familiar with EME, operators use specialized antennas and amplifiers to reflect VHF signals off of the surface of the moon, back to earth to contact other amateur operators.

Lance W7JG is a veteran of countless Dxpeditions to remote regions of the world, and is a internationally known for his expertise in EME communication. You can visit his Nauru Dxpedition website at <http://www.bigskyspaces.com/w7gj/Nauru%202018.htm>



David K7MTD operating 6 Meter EME.



JT65A modem interface.

## **Coming in December - Skywarn Recognition Day**

SKYWARN™ Recognition Day was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that SKYWARN™ volunteers make to the NWS mission, the protection of life and property. Amateur radio operators comprise a large percentage of the SKYWARN™ volunteers across the country. The Amateur radio operators also provide vital communication between the NWS and emergency management if normal communications become inoperative. During the SKYWARN™ Special Event operators will visit NWS offices and contact other radio operators across the world.

HARC participates in this event every year. December 1 and 2. Contact Eric NZ7S for specifics.

## **Christmas Party December 10th**

We will be deciding on the menu for the Christmas dinner at the November HARC meeting this coming Monday, November 12th. Please bring money / checkbook to the meeting so that you can pay David K7MTD for your meal at the meeting, while it is on your mind.

The meeting will be held at the Eagles Lodge, 2420 South Avenue West, at 6:30 p.m. on December 10th. Our guest speaker will be W7GJ, Lance Collister, who will once again share with us some of his latest DXpedition experience to some far flung warm, exotic outpost.

## **A letter to HARC Members and Friends**

October 10, 2018  
HARC members & friends,

In the past 12 months HARC has twice charged its HF Committee with the task of drafting a letter to Northwest Division Director Jim Pace, K7CEX. The first of those letters (Jan. 10, 2018) expressed the club's concern about proposed changes to the ARRL's Articles and Bylaws. The second letter (May 17, 2018) primarily concerned the ARRL's continued push for the passage of H.B. 555, a deeply flawed bill roundly criticized by two very prominent experts in antenna siting law. Those men are both very active radio amateurs.

Jim Pace declined to run for reelection as Director. By now you will have received a ballot from the ARRL for the Northwest Division Director and Vice-Director positions. I have read the candidate statements for all six of those seeking one of these offices. The only one of them who says anything about necessary reforms of the ARRL's governance is Mike Ritz, W7VO. He shares the concerns that we expressed, concerns also strongly expressed by many other amateurs, some among the most prominent members of our hobby. I recommend that you examine Mr. Ritz's supporting literature on his website ([www.w7vo.com/election.html](http://www.w7vo.com/election.html)).

I think that we would be well served by Mike Ritz.

Dick Walton, W7XT

## Donna's HF Antenna is Up

The antenna party at Donna WC5WRA's home was successful and she can be heard on HF and checking into the Montana Traffic Net. Thanks to all who helped with this project.

### Items From The *W7ALW* Estate

Lance Collister, W7GJ, Dick Walton, W7XT, Vick Applegate, K7VK, and Tom McGinley, K7QA, have accepted the responsibility of assisting in the disposal of Barry Smith's extensive collection of ham radio equipment. To date we have just begun the task of identifying items and preparing an accurate inventory. The table below lists a few items we think would be of interest to local hams. We offer these now at a discounted price before they are posted on national ham classified ad sites, like *QRZ*. Most of the gear listed will be displayed at the November HARC meeting, and purchase can be arranged there.

N.B.: Most of this equipment has not been tested. Some of it was clearly in use when the station was last being operated; other of it shows no signs of ever having been used; nothing that has been tested and found defective is included in the list.

If you are seeking some particular piece of equipment not included in the table we suggest contacting one of the members named above. We will make up a "wanted" list if that seems warranted.

|                                      |                             |       |
|--------------------------------------|-----------------------------|-------|
| MFJ Antenna Analyzer Filter          | Paired with MFJ 269         |       |
| MFJ-269 Antenna Analyzer             |                             | \$250 |
| MFJ-616 Speech Intelligence Enhancer | May never have been used    | \$100 |
| Rigblaster Plus                      | May lack cables             | \$80  |
| Rigblaster Advantage                 | May lack cables             | \$100 |
| Rigblaster Pro                       | May lack cables, has manual | \$150 |
| B&W FL-10-1500                       | Low Pass Filter             | \$25  |
| Nye Low Pass Filter                  |                             | \$30  |
| MFJ-941E Versa Tuner                 | Popular antenna tuner       | \$100 |
| Grove Tun-3 MiniTuner                | QRP Antenna tuner           | \$25  |
| Coax Switch                          | 4 position                  | \$55  |
| Philmore stereo phones               |                             | \$10  |
| Beats "Dr Dre" stereo phones         | Very stylish                | \$35  |
| MFJ-422B keyer-paddle combo          | Genuine Bencher paddle      | \$100 |
| AEA "MorseMatic"                     | Goes with keyer above       |       |
| D-104 Microphone                     | Classic "Lollipop"          | \$75  |
| Astron RS-70M Power Supply           |                             | \$250 |
| Astron RS-12A Power Supply           |                             | \$40  |
| Staco Variac                         | Looks a little rough        | \$35  |
|                                      |                             |       |

# AMATEUR RADIO ANTENNA LENGTH CHART

|                      | FREQUENCY<br>(Mhz) | 1/4λ<br>(Feet) | 1/2λ<br>(Feet) | 1λ<br>(Feet) | 1/2λ Inv Vee<br>90° (Feet) |
|----------------------|--------------------|----------------|----------------|--------------|----------------------------|
| <b>160</b><br>METERS | 1.800              | 130' 0"        | 260' 0"        | 558' 4"      | 257' 5"                    |
|                      | 1.850              | 126' 6"        | 253' 0"        | 543' 3"      | 250' 5"                    |
|                      | 1.900              | 123' 2"        | 246' 4"        | 528' 11"     | 243' 10"                   |
|                      | 2.000              | 117' 0"        | 234' 0"        | 502' 6"      | 231' 8"                    |
| <b>80</b><br>METERS  | 3.500              | 66' 10"        | 133' 9"        | 287' 2"      | 132' 5"                    |
|                      | 3.750              | 62' 5"         | 124' 10"       | 268' 0"      | 123' 7"                    |
|                      | 3.900              | 60' 0"         | 120' 0"        | 257' 8"      | 118' 10"                   |
|                      | 4.000              | 58' 6"         | 117' 0"        | 251' 3"      | 115' 10"                   |
| <b>40</b><br>METERS  | 7.000              | 33' 5"         | 66' 10"        | 143' 7"      | 66' 2"                     |
|                      | 7.150              | 32' 9"         | 65' 5"         | 140' 7"      | 64' 10"                    |
|                      | 7.300              | 32' 1"         | 64' 1"         | 137' 8"      | 63' 6"                     |
| <b>30</b><br>METERS  | 10.100             | 23' 2"         | 46' 4"         | 99' 6"       | 45' 10"                    |
|                      | 10.150             | 23' 1"         | 46' 1"         | 99' 0"       | 45' 8"                     |
| <b>20</b><br>METERS  | 14.000             | 16' 9"         | 33' 5"         | 71' 9"       | 33' 1"                     |
|                      | 14.150             | 16' 6"         | 33' 1"         | 71' 0"       | 32' 9"                     |
|                      | 14.300             | 16' 4"         | 32' 9"         | 70' 3"       | 32' 5"                     |
|                      | 14.350             | 16' 4"         | 32' 7"         | 70' 0"       | 32' 3"                     |
| <b>17</b><br>METERS  | 18.068             | 12' 11"        | 25' 11"        | 55' 7"       | 25' 8"                     |
|                      | 18.168             | 12' 11"        | 25' 9"         | 55' 4"       | 25' 6"                     |
| <b>15</b><br>METERS  | 21.000             | 11' 2"         | 22' 3"         | 47' 10"      | 22' 1"                     |
|                      | 21.200             | 11' 0"         | 22' 1"         | 47' 5"       | 21' 10"                    |
|                      | 21.450             | 10' 11"        | 21' 10"        | 46' 10"      | 21' 7"                     |
| <b>12</b><br>METERS  | 24.890             | 9' 5"          | 18' 10"        | 40' 5"       | 18' 7"                     |
|                      | 24.990             | 9' 4"          | 18' 9"         | 40' 3"       | 18' 6"                     |
| <b>10</b><br>METERS  | 28.000             | 8' 4"          | 16' 9"         | 35' 11"      | 16' 7"                     |
|                      | 28.500             | 8' 3"          | 16' 5"         | 35' 3"       | 16' 3"                     |
|                      | 29.700             | 7' 11"         | 15' 9"         | 33' 10"      | 15' 7"                     |
| <b>6</b><br>METERS   | 50.000             | 4' 8"          | 9' 4"          | 20' 1"       | 9' 3"                      |
|                      | 54.000             | 4' 4"          | 8' 8"          | 18' 7"       | 8' 7"                      |
| <b>2</b><br>METERS   | 144.000            | 1' 8"          | 3' 3"          | 7' 0"        | 3' 3"                      |
|                      | 148.000            | 1' 7"          | 3' 2"          | 6' 9"        | 3' 2"                      |

Antenna length calculations are based on the following formulas:  
 1/2 wave dipole (feet) = 468/frequency in Mhz  
 Full wave loop (feet) = 1005/frequency in Mhz  
 Inverted Vee with 90 degree included angle is 99% the length of 1/2 wave dipole

Note:  
 Cut wire slightly longer to allow for connecting insulators and pruning.  
 Height above ground, nearby wires, trees, etc. will change tuning slightly.

MILLENNIA  
ARTS

## **Coming to the January Meeting**

Vic Applegate K7VK will present a program highlighting “Summits On The Air,” and his ongoing participation activating many SOTA locations. Vic will explain how you can join in the fun by activating SOTA stations or chasing SOTA awards.

## **Classified Advertisements**

### **Collins HF 80xx Equipment for Sale**

Selling Vietnam war era portable radio set container contents.

Included are two each: HF8054A receiver, HF-8014A transmitter, HF-8064B preselector, HF-8023 1 KW solid state amplifier, HF 8032 power supply, HF 8040A antenna coupler.

One each items: power control panel, jack field plug panel, monitor/switching panel, VOX/Control/Modem panel. set of 6 manuals.

Two antenna coupler control cables and other stuff are included

All transmitter and receiver functions and frequency selection can be controlled through an RS-232 port. I used a laptop computer and it worked great! The control codes are in the included manual set. The HF-8032 amplifier power supplies are for 3 phase. They also work just fine on single phase. This equipment is in Missoula, MT.

If you are interested, please make an offer.

Call Dave at 406 543-73niner fiver K7PGY



## October 2018 Attendance and Tentative Meeting Minutes

**Attendance:** Donna Pecasting KC5WRA, Terry Cook KF7BQ, Eric Sedgwick NZ7S, Paul Shuey N7PAS, Jim Hoffman N5CY, Elaine Case KS7LDS, Gary Bruce K7OIJ, Jerry Ehli N7GE, Larry Stipe K7GIS, David Herzberg K7MTD, Rich Kingdon K7QNA, Tom McGinley K7QA, Dick Walton W7XT

**Testing:** We had no candidates testing today.

**Approval of last month's meeting minutes:** Minutes of the September meeting were corrected to reflect that Paul N7PAS was not tasked with converting the power supply on the club's TS520 Transceiver. They were approved as corrected on a motion by Donna and a second by Paul.

**Approval of Treasurer's Report:** Moved by Donna and seconded by Terry. Approved

**Repeater Committee:** By Eric and Paul. The 146.80 repeater at Blanchard Mountain is still at the site and needs to be brought down before winter. The impending move of the 146.90 repeater from the County building will wait until next year.

**HF Committee:** Dick and Tom reported on disposition of the Barrie Smith's (SK) equipment. Vick Applegate and Lance Collister will inventory the collection, and set suggested values, later this month. The club will assist Barrie's Wife in trying to get fair value for the equipment.

Dick also commented on Vick Applegate's ongoing Summit On The Air activities.

**Additional Discussions:** Gary Bruce reported on the changes being made at the Pat's Knob repeater site. The Forest Service is requiring those currently housed in the look-out basement, to find new quarters. Gary's repeater will be moving to a new structure that will some other tenants.

Plans were finalized for an antenna raising party at Donna's home. Thanks to all who contribute to this project.

David reported that he has received a donation to the club, of some older Yaesu radios and accessories. He is currently storing it in his garage until the club determines what will be done with it.

David also reported that the M.P.R.G. University Mountain site now has a functional APRS / Packet Radio Messaging Node.

**Monthly Program:** JOTA and The Scouting Radio Merit Badge. Eric Sedgwick put on a program about the Scouts BSA, "Jamboree On The Air," coming up later this month and also showed us what the Radio Merit Badge award requires, and how he educates and evaluates merit badge candidates.

**Upcoming Events:**  
Antenna Party at Donna's Oct 15  
JOTA at Eric's home Oct 20  
Next Meeting November 12

**VHF Net Schedule:**  
10 October Jerri N7JGS  
17 October David K7MTD  
24 October Eric NZ7S  
31 October Eric NZ7S  
7 November Donna KC5WRA