2024-04-02 Hamlet Net - Spotting Sites

Announcements:

- Test Session Info
  - Next VE session is April 27th in the Clover Building at the Boulder County Fairgrounds, and starts at 10 am. ~~It is a PVET session, so there is no fee to test.~~ For more info, and to pre-register, see the Licensing/Testing page on the club web site, https://w0eno.org/, under the Education menu..

- We have some volunteer opportunities available where you can help out LARC:

  - Photographer / videographer - record team activities and upload to web site / YouTube

  - Newsletter Editor - put together the monthly Splatter newsletter

- There are several Board positions that will be available in October. Currently, the Treasurer and Secretary are planning to make this their last year of service. If you are interested in serving on the board of a 501(c)3 non-profit, please consider running for one of these positions. The current members would be more than happy to "show you the ropes" during the year, so you wouldn't start with zero experience.

- Also looking for volunteers to help with LARCFest on April 6. If interested, please check out web site and contact Bob Smith (N0OM) for more information. Tables are also being sold if you have stuff to get rid of.

- Our sister club up in Nederland is looking for some help with events they are running. They have a weekly Monday night net with no predetermined agenda, so you can lead it however you want. They are also planning a Field Day site at Golden Gate State Park and are welcoming anyone who wants to participate. Finally, they are looking for operators for the Ned Gravel run on July 8th. They have signup links for all these events, so head over to their web site https://w0ned.org/ for more information!

- You can start earning your 2024 membership or future renewal by acting as NCS for at least 5 nets this year. You can run either this Tuesday night net or the Thursday night net (or both). We have scripts available for both, so all you need is a good connection into the repeater, and somewhere to keep track of names and call signs as people check in. If you're going to be on the net anyway, why not save some dough at the same time! There are four free memberships available for 2023, so don't wait to get started!

- Chuck has set a goal for the Club of running at least one activity a month. This can be a hands-on construction activity, an operating activity like Field Day, a fox hunt, or a special event station. The goal is to get people together to have fun with amateur radio! We have multiple locations at our disposal, as well as lots of Club equipment, so if you

have an idea for something you think others hams would like to do, please let us know, and if you're willing to run it, even better!

- The Club is also looking for presentation topics for 2024. If you have any ideas, or better yet, would like to present, please let Chuck know and we'll get you on the schedule!

- All club activities are open to anyone - members and non-members. If you have questions, ask them on a net or **send email to elmer@w0eno.org**

Presenter: Bryan, AF0W

Topic: Spotting Sites
- Spotting sites are web sites where amateurs can post reports of contacts with stations to share with others

    a. May also be called "spotting clusters" or "DX Clusters"

    b. For example, if I'm on 20 meters and make a voice contact with a station in South Africa, I can post a spot on one of these sites. If some of you are monitoring the spotting sites, you can see that there is apparently a propagation path from Colorado to South Africa, so you can jump on the spotted frequency and see if you can add them to your logbook as well.

- They can be helpful if you are in a contest and are looking for stations to contact, or are trying to get contacts for an award (like Worked All States or DX Century Club)

- Spotting information typically contains call signs of both stations, date and time, band, frequency, mode, and an optional comment

    a. Comment can indicate a station's participation in a contest or other activity

- In pre-Internet days, spotting nets were run over VHF packet radio

    a. In fact, the Kenwood TS-2000 HF/VHF/UHF radio has the capability to monitor a packet frequency for spotting information, show received information on its display, and can tune to a spotted frequency with a keypress

- Before spotting sites became a thing, some hams had a system where when one of them heard a desirable DX station, they'd call their friends and just let the phone ring twice. That was a signal to them to get on the local repeater or a simplex frequency, where the actual contact details were discussed.

- Some clusters today can be accessed via telnet, but many are web-based

- Many spotting sites, both telnet and VHF packet, are linked together and exchange spotting information

a. This does not mean that all spotting sites are connected, so you may have to do some research and observation of different sites to find the ones that have the information you're looking for

b. There is a web site at: http://www.hamcluster.net/ that shows a map with a bunch of cluster nodes - if you click on a node, it will show you the version of software running on that node, the uptime for the node, or how long it has been running, and the number of other nodes to which it is connected

- A node with a low uptime may have reliability issues, and is not a good choice to use

- The more connections a node has, the better the coverage for spots

- The closest node to us appears to be in Littleton with a callsign of WD4IXD. It currently has an uptime of 157 days and links to 6 other nodes

- One node, VE7CC-1 currently has 1500 directly-connected users, and W1NR has been online for 2100 days!

● Spotting sites are integrated into many computer logging programs

a. Logging programs can submit your logged contacts as spots automatically

b. Logging programs can display active spots, and some will tune your radio to the spot's frequency (if radio CAT control is supported)

● Some programs, such as WSJT-X, have functionality for automatically reporting heard stations to spotting sites

● Many CW spots are the result of stations running CW Skimmer software and publishing the stations they hear

a. CW Skimmer can decode all CW signals in the passband that is presented to it - up to 700 signals can be simultaneously decoded

● Use of spotting networks is prohibited in many contests (or restricted to certain entry classes)

a. Even if allowed, contests generally prohibit the use of information from the spotting network to complete missing information from a QSO (i.e. call sign, etc.)

b. Contests also typically ban self-spotting - that is, spotting yourself on a site. Someone else must spot you instead.

- Spotting sites usually allow you to filter contacts by various criteria, such as spot and spotter locations, band, and mode

  a. If you are using a DX cluster directly (say, via telnet), you can likely set up filtering on the cluster itself

  b. For example, you may not want to receive any spots from Europe because you know that propagation conditions are such that you will not be able to contact them anyway

  c. Also, while knowing someone in New York has had a QSO with a station in England, you may realize that with the particular antenna setup you are using, you will not be able to hear them

  d. If you are using spotting sites through your logging program, it may be able to filter on things like whether you need a spot for an award you are chasing

- They usually allow you to search for spots by call sign - this is useful if you are trying to find out where a DXpedition or special event station is operating

  a. This functionality is needed during large contests, where there may be thousands of spots per minute!

- Some allow you to set up alerts for certain call signs, etc.

  a. There's also a web site called HamAlert that monitors multiple sites for your desired call signs and then sends you notifications via push notifications to a Ham Alert app on your IOS or Android smartphone or tablet, SMS, or via a GET or POST to a URL.

- They can be useful to see which bands currently have the most activity - especially when you're sitting down to operate your radio, and you want to find out which band to use to get the highest probability of making a contact

- Since they show real time information, they also allow you to get in on brief propagation conditions such as meteor scatter or VHF ducting

- So-called reverse beacon sites can also be used to gauge band activity, as well as to see how far your signal is making it

  a. These sites, such as the Reverse Beacon Network, aggregate data from stations that are monitoring the airwaves and report on the stations they hear

  b. These reports usually include some sort of metric to show the strength of the received signal

      c. You can call CQ and see in real time which reverse beacon stations can hear you, and how well - for example, the reverse beacon network site shows the received signal-to-noise ratio

- There is even a tool you can access via APRS to both spot stations and retrieve spot lists called APRSPOT

  a. It supports SOTA, POTA, and SiOTA (Silos on the Air)

- If a station has been spotted recently, there is no need for you to re-spot them

- Remember that all information on a spotting site is subject to errors - I've seen many times where a call sign was entered incorrectly, or a wrong frequency was shown

- Sometimes people will use the comment field as a sort of chat window - perhaps to complain about someone's bad operating practice. Don't do this!

Summary

- Spotting sites are tools - they are not the be-all, end-all of operating a radio, but they can be very useful in discovering current band conditions

- Learn to operate without the use of spotting sites by tuning around the dial looking for stations or putting out your own CQ!

  a. One thing I've observed at Field Day is someone will sit down at a radio, tune fairly quickly through the whole band, and not hearing anything, conclude the band is dead. If this happens, throw out CQs for a few minutes on the same frequency and give people a chance to find you!

Questions:
- **The question for the week is:** Have you ever used a DX spotting site or logging program that provides spotting information? If so, what have you used, and why?

- **In my case,** I've used WSPRnet.org for seeing how far my signal gets out, and hamspots.net for seeing which bands have the most spots on them for various digital modes.

  I haven't done a lot of HF lately, but I became aware of the dxheat.com site for the band activity heatmap

More Info:
- https://hamspots.net/

- https://dxheat.com/dxc/

- https://dxwatch.com/

- https://www.dxmaps.com/

- https://reversebeacon.net/

- http://dxsummit.fi/

- https://www.pskreporter.info/

- https://www.wsprnet.org/drupal/wsprnet/map

- https://www.dxzone.com/catalog/DX_Resources/Clusters/

- https://hamalert.org/about

- POTA: https://pota.app/#/

- SOTA: https://sotawatch.sota.org.uk/en/

- Spotting via APRS: https://apspot.radio/

- SOTA spotting via APRS: https://www.sotaspots.co.uk/

- CW Skimmer: https://www.dxatlas.com/CwSkimmer/

- SpotCollector from DX Labs: http://www.dxlabsuite.com/spotcollector/

- HamRadio Cluster (map of cluster nodes): http://www.hamcluster.net/

Email to elmer@w0eno.org

1. K0ITP - Chuck - Firestone -

End: pm