



# Squelch Tales



Newsletter from the Merrymeeting Amateur Radio Association for February 2013



## Activities

Mark Your Calendars for the following Activities:

- March 29 & 30: Andy Hamfest and Maine Stare Convention
- April 6: Race the Runways BEX (BNAS)
- April 20: PAWA Hamfest Portland
- April 23 & 24: Partners in Preparation
- April 27: MS Walk Brunswick
- May 3 & 4: Nearfest Deerfield Fairgrounds NH
- May 17 & 18: Walk for Life Brunswick High School



## MARA Meeting

**March 28:**  
**Topsham Red Cross**  
**Community Drive, Topsham**  
**ARES/CERT: 6:00 pm**  
**General Membership: 7:00 pm**



## D-Star Update

Hello all,  
It has been a long time since I sent out a 'Maine D-Star Update'. Things in this update are:

- Link Changes / updates / information
- KS1R update, wifi changes
- WIEMA check
- Cory (KU1U) repeater proposal
- Bryan (N1OXG) Raspberry PI / DVAP access point

### D-Star Link Information.

I have been playing with my domain [www.ddrov.com](http://www.ddrov.com). From there I have made links to the KS1R and WIEMA repeaters but people should start bookmarking the correct links so if I make changes to my stuff, it won't affect you.

### Please make note of the following links:

Soon, I hope, there will be a link to KS1R D-Star page from the KS1R main site at <http://www.ks1r.org>.  
 For the WIEMA D-Star gateway Terry (KA8SCP) sent me the following links:  
<https://w1ema.dstargateway.org/>  
<https://w1ema.gw.irccdb.net/>

This link works for the KS1R D-Star repeater:  
<https://ks1r.dstargateway.org/>

### KS1R D-Star:

This weekend I finally spent a little time with the WiFi Link. Turns out the link has been working more often than not but it has not been perfect. Some work has been done that may help the situation so give it a try. The changes are to the settings show below

I did some testing by transferring large files to and from the Cent OS Linux gateway computer. My tests show significant improvement. We also removed a bi-directional wifi amplifier. For reasons difficult to explain, or for me to understand, the amp may have been causing issues on the repeater building radio. The reasoning has to do with the fact that the long part of the link, 13 miles, is between two parabolic dish antennas. The short part of the link is only ~600' and is getting its signal off the side of a dish. This means its hearing a signal from a side lobe and not a direct signal. This can cause multi path with signals that could be canceling each other out. More reading on side lobes can be done here:  
[http://en.wikipedia.org/wiki/Side\\_lobe](http://en.wikipedia.org/wiki/Side_lobe).

I also threw together a quick page discussing the WiFi link that provides the internet to the KS1R D-Star repeater that can be found here:

<http://www.ddrov.com/wirelesslink/index.html> . I plan to add some pictures of our actual hardware over the next week or so.

**WIEMA D-Star:**

I have not spoken to the crew at the WIEMA site for a while. Before typing this e-mail I connected to their Gateway and did some testing. It appears to be working great. I am able to hear their repeater from my QTH still although I can't reliably get into it. I am a long way from it. I linked to it and it all worked great. I'll check in with the crew up there and hopefully have more information the next time I send out an update.

**From Cory KUIU about proposed D-Star repeater on Goff Hill in Auburn:**

I am proposing that the Androscoggin Amateur Radio Club support a D-Star 70cm repeater on Goff Hill in Auburn. We have a club member Pete Thoutte, N1ZRL, who has graciously donated two Motorola GM300 radios for the project. A 70cm antenna already exists from the 442.000 repeater that Howie Feldman W1HOW (SK) had on Goff Hill. Unfortunately the 442 repeater is not functioning properly and I recommended it but taken off the air. I would like to see if the club would purchase a raspberry pi computer (\$35) and dvrptr board (gmsk node adapter (\$109)) to get this project off the ground. 70cm seemed like a logical choice since we already have a 2m analog repeater and since icom does not make 2m single band d-star radios (only dualband or 70cm and 1.2 ghz single band radios), 440 would be the least expensive way to enter d-star on the rf side. Also, to offer something different, the DVrptr board would allow xrf reflectors which KS1R does not have on their repeater, adding some diversity to the area. The adapter will still allow connecting to standard reflectors such as 10c, 20a, etc. This is also an opportunity for Androscoggin EMA to get on board with the new wave of amateur radio technology. As a fellow ham told me, this is just another tool for the toolbox.<sup>73</sup>

Cory KUIU [cory.m.golob@gmail.com](mailto:cory.m.golob@gmail.com)

**From Bryan N1OXG about his Raspberry PI access point:**

After hearing the local Hams talk about using some device called "Raspberry Pi" and reading about others on a Yahoo DVAPDongle Group talk

about using it to interface their DVAP units to the DSTAR network, I finally decided to see what all this enthusiasm was about. With a little Googling around on the internet, I found the following web site that talked about just the setup I had in mind: Raspberry Pi, enclosure, wireless network dongle, ability to tether to a cell phone. Here is a link to the web site:

<http://ab4bj.com/wordpress/2013/02/setting-up-a-raspberry-pi-to-work-with-a-dv-access-point-dongle-dvap/>

I ordered the Pi, case, wireless card, and battery pack (optional) that is listed in this article from Amazon. I also ordered a 16GB SanDisk SDHC card (see link to web site for compatible cards) that the Pi boots up and runs from. For software I decided not to use the "Westerndstar.co.uk" software mentioned in the article, but the DVAPTool software written by Robin, AA4RC, the "father of the DVAP" (this option is mentioned in the "Update" section of this same online post). I made this choice, because I was already

familiar with using it and have read about other software potentially wiping out the DVAP calibration data. When all is said and done I have a low power, very portable mini-computer that only needs a micro USB power source (I can use my 1A iPhone usb charger), boots up, connects to the network and runs the DVAPTool software all on its own.

Attached is a picture of it running hooked up to the dual band antenna located on my roof. I can talk to it from about 1.5 miles away, which is really good because the DVAP only puts out about 100mW of power!

Here is a link to the steps I used to configure the software. Note that you will need to go to [www.raspberrypi.org](http://www.raspberrypi.org) to download the OS and a disk imager application to set up the SD card:

<https://docs.google.com/viewer?a=v&q=cache:EZJ3Im8QvGEJ:vk4tux.no-ip.org/IMG/Instructions%2520n%2520how%2520to%2520install%2520the%2520DVAP%2520with%2520AUTOSTART%2520rev5.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESjg8VfZQDoY4PYkKBh0EMnJ9qAy4we3x>

[tD0108G63GEp1X9vTBDD08yUK0t5wnYf8G9COrMQGrJWovzUKERvRWxge1uVBd0MKQe16WDx-eAhuhTqB4y-TZTyiE6iw7L2w4Y\\_gas&sig=AHIEtbRmAy8JrpZaL1nx3ORp7jjRDADS6Q](http://tD0108G63GEp1X9vTBDD08yUK0t5wnYf8G9COrMQGrJWovzUKERvRWxge1uVBd0MKQe16WDx-eAhuhTqB4y-TZTyiE6iw7L2w4Y_gas&sig=AHIEtbRmAy8JrpZaL1nx3ORp7jjRDADS6Q)

Its nice to be able to just leave the DVAP up and running all the time and to have it for total portable use when tethered to my iPhone 5. I just added the ability to SSH (just enable it on the Pi in the setup menu) into it and run "tightvncserver" that allows a remote desktop session with it. I'm looking forward to learning more about Raspberry Pi and some future projects, its a pretty powerful computer that only costs around \$35! 73,  
Bryan N10XG

[bryan.selee@gmail.com](mailto:bryan.selee@gmail.com)

\*\*\*\*\*  
\*\*\*\*\*

If you know anyone who may want to receive this information please forward it to them. Also if you send me there e-mail address I'll put them on the mail list.

Have a great day all!

Donnie WD1F

[dDauphin@ddrov.com](mailto:dDauphin@ddrov.com)



# Ferretting out noise sources

By Dan Romanchik, KB6NU

About three months ago, I put up a 20m antenna—an end-fed, half-wave antenna (<http://www.kb6nu.com/kb6nu-finally-builds-an-end-fed-half-wave-antenna/>). Right off the bat, I was flummoxed by the high noise level. It was nearly S9, obliterating all but the strongest signals.

The strange thing about this noise was that I was only experiencing it on 20m, and only using this antenna. If I switched to my 40m dipole, the noise dropped back to the S1 - S2 noise level that I usually experience here. (Yes, I know. I'm really lucky to have such a low noise level here.)

It didn't really make any sense to me that this antenna would be so susceptible to noise while my other antennas weren't, but I just couldn't come up with any other explanation. I was not experiencing any noise on any of the other bands, after all. Sometimes 40m is so quiet here that I check to make sure that the antenna is connected to the radio.

As luck would have it, I stumbled upon the noise source a couple of days ago. I had taken the laptop I normally use in the shack somewhere one day last week, and when I returned it to the shack that evening, I switched the rig over to 20m before connecting the power supply back to the laptop. No noise! When I plugged the power supply into the laptop, the noise jumped up to S9 again. The problem noise source was found!

I posted about my experience to my blog and to the HamRadioHelpGroup (<http://groups.yahoo.com/group/HamRadioHelpGroup/>). Mark, K5LXP, one of the gurus on HRHG, advised me to throw the main circuit breaker in order to determine if it was something inside the house generating the noise. Bob, K0NR, commented on my blog post, "I have found that flipping off circuit breakers in my house is a good first step to try and find a noise source. Usually ticks off the family, but what the heck :-)" Either of these methods will help you determine if a noise source is inside or outside of your house.

I'm still thinking that the way my antenna is positioned may have something to do with its picking up the noise generated by the power supply. I plan to

play around with the positioning of the antenna once the snow melts and see if that makes any difference. Until then, I can work 20m with the power supply disconnected and run the laptop off the battery. So, the next question you might ask is how does the antenna work? It seems to be putting out a very good signal. One evening last week, I worked several DX stations, including 6W/HA0NAR in Senegal. It's not a beam, but I'm pretty happy with it.



## HEX Beam

Here is a site that describes the building of a portable 5-band HEX beam. Interesting.

<http://users.skynet.be/bs972494/HEXAEN.pdf>

73 from sunny San Diego,

B. WIZE



## News from the West Coast

This morning I went over to Home Depot and got a shelf panel somewhat the same color grain as the small desk I use for my operating position. With some scrap 1x4 I made up an operating shelf that gives me a bit more desk-top space and looks a bit less cluttered. The FT-897D Screwdriver antenna control head and small Bose speaker are on the top shelf with the 12-volt switching supply, memory keyer, key paddle and MFJ-902 tuner underneath.

The nice thing about the FT-897D is that I can access all the bands from 160M to 70cM (all modes) and it is in one small transceiver. It's another nice day so I'm going to go out for my cardiovascular walk around the park. In my walks I have found one other ham in this housing complex with an I4AVQ HF vertical but never hear him on. -

--

Ta Ta & 73 from Poway, Bruce/WIZE



K A A 1 Q Z W K B 1 Y D F P H P 1 B K K  
 C F B N G T W 1 W 3 K A 1 P T T H F 1 B  
 6 5 N 1 W Y 2 K D E 7 A S T A D O H Y 1  
 T F 2 Y R P 6 B Z Y W 4 J 5 C Y Y W E L  
 V Z D A Z A I 1 B 7 J A J T 1 Z 1 Q W J  
 F U Y G A 6 W D N Y C K 1 B B J B X G X  
 6 R N 1 I P A 0 2 K Z B K 3 L X K U 1 K  
 E N W Q R D O I D B K 1 P B 2 A X A N B  
 M I N 7 C H G Z E 1 O Y N G 1 N N 1 J 1  
 Y V M 5 K G 3 D H Y S O 7 W X 1 H W K O  
 1 V 1 M A W J N 1 O I G A I M O P T E G  
 B F K B 2 G 1 U K E 5 L 1 H C X 1 J 5 R  
 K Y 1 N Q T G B W 4 E X C P 3 A V N T 1  
 I S I 2 T K 1 R Q V K 2 L O T V B 1 E Q  
 O J M T P H T L T B T 1 K D 1 X 7 Z P H  
 Y P A 5 N L D O 1 A N X P B 1 H P Y 5 P  
 1 1 X U R J N S K 5 F J K N S 1 B C K 1  
 B A C 1 L W D 1 F I L 7 W K B 1 I E F B  
 K W K C E D N A D T P F 5 A K 1 A U X K  
 G F U 2 B K 3 K B 1 U F G T Z C X 1 P A

AA1QZ	K1JJS	KB1IEF	KB1YME	N1GWE	N1WY	W1JLB
AA1WI	K1MNV	KB1LJX	KB1YOE	N1HOC	N1XBN	W1WTG
AA4AK	K1PN	KB1OGR	KB1YOI	N1IPA	NIYAG	W1ZE
AB1PZ	K1RLT	KB1PHP	KB1YOH	N1KAT	N1ZYB	W3ZD
AB1RA	K2LOT	KB1PHQ	KB1YOG	N1MHC	N1ZYC	W7LIF
AF5FZ	KA1PTT	KB1SDD	KB1YOF	N1OIG	N5AGG	WA1PJS
A11B	KA1WAL	KB1TCD	KC6TVF	N1OXA	N7CHG	WD1F
K1AUX	KA5FPT	KB1UFG	KE5ISO	N1OXG	W1AUX	WN0TV
K1BBJ	KB1D0I	KB1VVJ	KE5TEP	N1TTT	W1BQB	
K1IMA	KB1HNU	KB1YDF	KX1I	N1VVF	W1DYJ	