The

KEØVH

Hamshack

*January 2019*

Last month I wrote about the new Yaesu rigs and using them in conjunction with the Zumspot hotspot to communicate in the YaesuFusion to DMR mode and we are having a great deal of fun with that system. As of this writing myself, Shane KØSDT, Cris W5WCA, Matt KEØLNU, Kenny K4KR, Tim KAØAAI, Bill WØBX (and on his repeater in Grand Junction) and others are on DMR TalkGroup 310847 connected to the Rocky Mountain Radio Leagues KI0GO DMR repeater in Denver. Some of us are using straight DMR. Others using Yaesu Fusion. The local (DMR) on air frequency is 449.750, time slot 1 on the repeater. Last month as the pictures below show Shane was in Rocklin CA while I was in my office in Denver and we were communicating via this system. Shane and I both since the last newsletter have obtained new HT's from Yaesu and our friends at the Denver Ham Radio Outlet. Shane bought the latest full featured true dual band HT from Yaesu, the FT2RDR, which is essentially a FTM-400 in handheld form. I bought the C4FM & WiresX capable FT70DR, very similar to a VX-6 yet will do all the latest modes. In the pictures below we are having a QSO on DMR TalkGroup 310847, while using our respective radio's and hotspots.
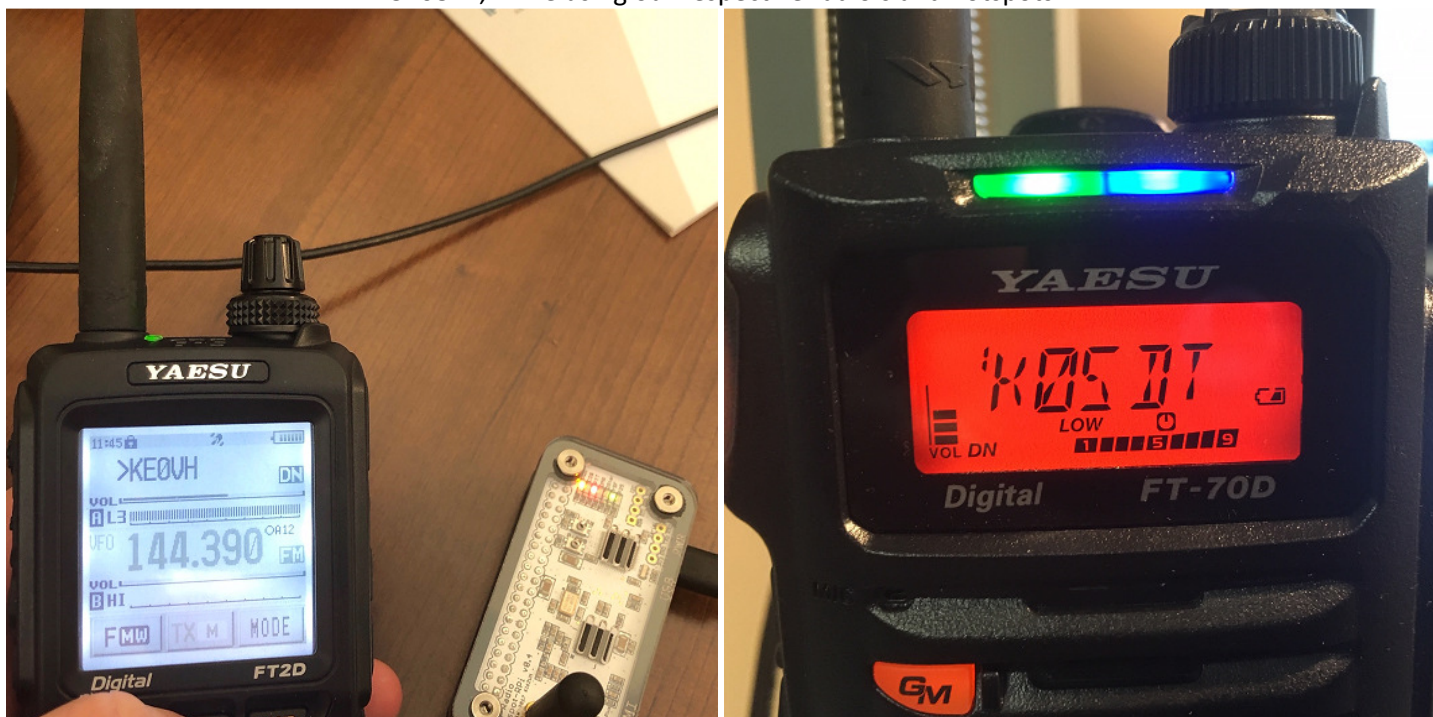
Shanes FT2D on the left, my FT70D on the right while we were is QSO from California to Colorado!
Also in the picture on the left is Shane's Zumspot. Below is a shot of my FTM-100 during the contact.

You can see on the bottom half of Shane's FT2D the APRS frequency of 144.39 as he was beaconing his position while there. Below is a screenshot of his location at the time.
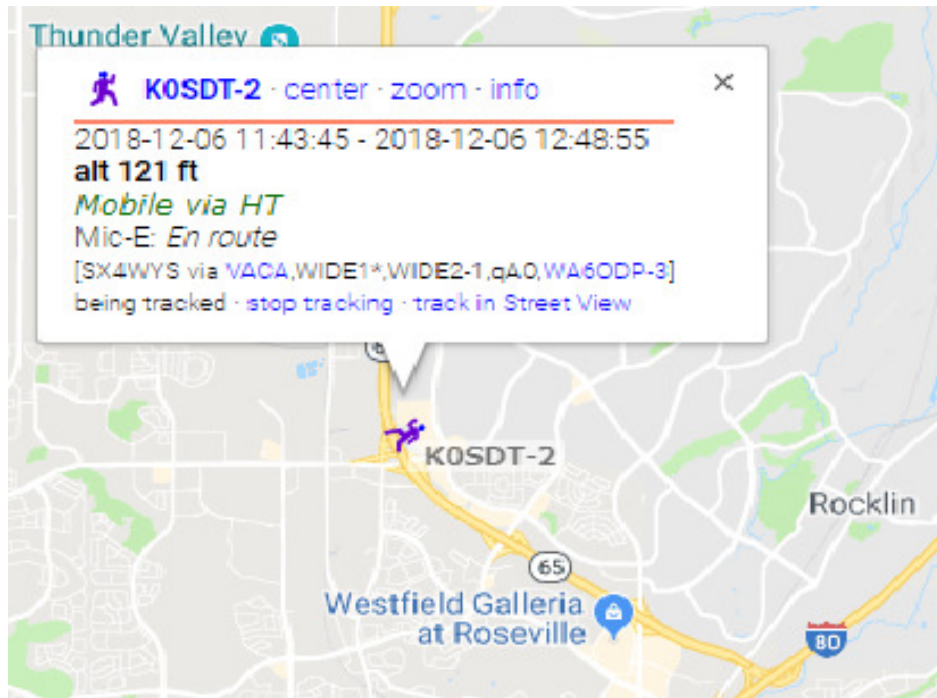
Anytime you want to see where I am, you can go here:
https://aprs.fi/#!mt=roadmap&z=12&call=a%2FKE0VH-2&timerange=3600&tail=3600

Also anytime you want to simply monitor the DMR TalkGroup 310847 you can go to this website:
https://hose.brandmeister.network/group/310847/

By changing the number in the above site you can also monitor any other DMR TalkGroup you want. For instance, to listen to the nationwide group known as TAC 310, simply change the 310847 to 310. The Emergency Talkgroup for the USA is 9911. The Tennessee statewide TG for instance is 3147. Colorado statewide is 3108 . California statewide is 3106. NorCal has two for instance, 31068 and 31069. SoCal 31066 and 31067.   Worldwide it is a HUGE list. Lots of information and a good jumping into point can be found at: https://wiki.brandmeister.network/index.php/Main_Page
Those radios seen above and so many more can communicate world wide via the Brandmeister system. Not near a repeater? A hotspot device puts you on the air across the internet.

So what is the difference between the DMR system and the AllStar system that I have written about (and still use BTW)? In my opinion, DMR for the first thing is digital, so when the signals are there the audio is great and clean. AllStar though being analog of course isn't as susceptible to digital drops and "maxheadroom" noise. DMR is much easier to use though with Windows GUI's and interfaces and plenty of ready made software, much of it free, to manipulate radios's and hotspots. AllStar still has software that must be manipulated with command lines in linux and can be quite complicated. The information so far that I have found on the internet is not easy to contend with. Works great if you know what you are doing. Or have an expert like Skyler KGØSKY to help you (read "do it all for you")……… One thing that I really like about using the hotspot aspect of things is that the Zumspot that I am using is so easy to deal with in the software manipulation and GUI! AllStar is not. The Zumspot also has several different modes. It will do the DMR mode, plus Yaesu Fusion, D-Star, and several other modes. PLUS, and I like this since I LOVE my Yaesu radio's I wrote about above and last month, the Zumspot will cross the Yaesu mode to DMR! So I can use those radio's while having my DMR TYT MD380 handheld for carrying around easily when traveling. Those are the primary differences as I see them.

My good friend, Chris Kirby WXØPIX writes a byline in the "Hamshack" this month about his ham radio adventures at no less than W1AW in Newington Connecticut ARRL Headquarters! What a great time he had, here, let me let him tell you about it!
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Recently, my job took me to Hartford, Ct., for a week to support a very busy go-live project.
Every hour of the day on these work trips just seems to be packed with group activities leaving little or no time for much else.

The local purchasing manager for our Ct stores overhead me mention how I wish I could have had time to visit the ARRL headquarters in Newington - the same place he took a school tour as a child. Little did I know he had a surprise in the works.

Wednesday morning, Dec 12th, he surprised me with one of my Ham Radio bucket list items.

Dave, WA1OUI, led the manager and I on a full tour of the facilities.
We saw the infamous Faraday cage where extensive radio testing is conducted, we saw the library and QSO sorting room, and we saw the many different departments that support our hobby.

As any red blooded ham can imagine, the moment of excitement came when we were led across the parking lot to W1AW.
Walking in was almost magical in itself. Our tour guide pointed out the various antennas and beams as well as taking time to fire up the spark gap generator.

I was honestly caught off guard when our guide turned to me and asked on what band I would like to transmit. I felt like an overly excited kid inside.
20m has always been my favorite, so he walked over to a huge wall panel to set the jumpers to the beam out on the tower. He then asked where to point it.

Had I had any sense of being in my body, I would have quickly texted KE0VH, but .... with slim minutes away from work, I sat down to put out a call.

Before I made my call, I told my non-ham friend...”watch how fast we get a reply.”
The moment my foot touched the foot switch, the realization of it all - almost a form of sacrament hit me. I quickly thought about all of the hams who had graced that chair and the golden Heil microphone. It was moving.

On my third call of CQ, I was working KK5NO in Arkansas with a 5/9 20+ report.
I called QRZ, worked another and a final third to KS0TD as he was mobiling across Kansas.

Visitors' Register

DATE	NAME	FIRM CALL	ADDRESS		
12/10/18 10 AM	Lee Hatfield 😊	K2HAT	STREET		
			CITY	STATE	TIME IN
12/10/18 10AM	GLENN COOPER	W2BK	STREET		
			CITY	STATE	TIME IN
12/10/18 1:15 Pm	Connie R Laughman	K3CRL	STREET		
	Larry W. Laughman	K3LWL	CITY	STATE	TIME
12/10/18	LISA Neuscheler	KC1YL	STREET		
	Paul LaVoggna	W1PPL	CITY	STATE	TIM
	Paul Rourd	W1IP	STREET		
			CITY	STATE	
12/12/18	Chris Kirby	WXØPIX	STREET		
			CITY	STATE Tx	

GREAT JOB CHRIS! WHAT FUN AND A HAM RADIO DREAM COME TRUE!

So another project for this month was replacing the old incandescent lamps in my MFJ antenna tuner with LED's for better and sharper visibility for my eyes! Although I really liked the "nostalgia" of the older style and color, the LED is MUCH better!

THE OLD and………….

THE NEW! Yes, I left the old in for a bit of an incandescent "tint"

And another DMR radio and hotspot, these belong to Chris WX0PIX. His Raspberry Pi with Hotspot board, yet another incarnation of the linking tech we can use these days.

Check out this Flight Simulator rig for 3d motion.
https://mobile.twitter.com/boredpanda/status/1035263503748288512?lang=en

My friend Matt KEØLNU had some really interesting problems with his TYT MD-380 handheld that we want to report on here. Seems his radio would "go to sleep" on receive after loading the MD-380 Tools software that has become very

popular for changing frequencies and other parameters on the fly from the front panel menu system. Matt reports here:

To All DMR-Obsessed HAMs,

I took delivery of a TYT MD-380 70cm handheld in November 2018, to pair with a Zumspot DMR hotspot. Out of the box it functioned fine, with no issues found.

I installed MD-380 Tools using a virtual machine software with code from GitHub. After installing MD-380 Tools, the radio would receive DMR transmissions as long as those transmissions were within 5 to 6 seconds of each other. If there was greater than 5 to 6 seconds between transmissions, the radio would not receive the transmission. The behavior is illustrated in [this video](#).

Transmitting was not affected. Other stations could hear transmission, but if there was a delay greater than 5 to 6 seconds, the return transmission could not be heard. To continue receiving transmissions, the radio could be "re-awakened" by briefly switching to another channel and then back to the desired channel.

Research found the issue described in this [google group post](#). A solution was found in the form of a tweak available in the virtual machine software. Including the nosleep.enable tweak when installing MD-380 tools was reported to remedy the problem. Code for the nosleep.enable tweak is available [here](#).

Upon using the radio after installing the nosleep.enable workaround, DMR functionality was fine, and a problem appeared in the analog functionality. I did not notice this problem previously, though I was using analog repeaters prior to installing MD-380 tools. I did not try to make contacts on analog repeaters during the short time when I had MD-380 Tools installed without the nosleep.enable tweak applied. The radio would not receive analog transmissions. Period. I could transmit and stations could hear me, but transmissions could not be received.

Research revealed [this discussion](#), which included this statement from Dale Farnsworth on 8/2/18, "The md380s produced in the past couple of months do have a new version of firmware (version D14.04) and md380tools doesn't yet support this model. The current version of editcp makes it easy to restore the original version. Just select 'Menu->Radio->md380tools->Write original firmware to radio.' Then select the version of the original firmware you need."

I downloaded [editcp](#) software, flashed the firmware to D14.04, and the radio is now working fine. It no longer has MD-380 Tools, but it is working fine. Basically I returned the radio to factory settings. I appears the most recent versions of MD-380 Tools available are not compatible with the new version (Version 5 apparently) of the MD-380 radio.

The editcp software is windows-based, which avoids the need to structure a virtual machine as required by software available on GitHub. Editcp is a code plug editor, and includes functionality to write factory firmware, install MD-380 Tools, and write the user database to the radio. The latest version of MD-380 factory firmware listed as compatible with MD-380 Tools is D13.20. I tried to write the D13.20 version of firmware to my radio, and was greeted by an inverted front screen of the radio, which indicates an incompatible firmware version was written to the radio. I must use firmware version D14.04, which is not compatible with MD-380 Tools.

One open item of investigation is determining where the cut off point is between compatible and incompatible radios. Of five MD-380 radios with MD-380 Tools installed, mine was the only one exhibiting the behaviors described above. Mine was the most recently purchased (November 2018), and it was also the only one with a serial number beginning 18. All other serial numbers began 16. The other four radios functioned fine with MD-380 Tools installed.

The bottom line appears to be radios shipped with firmware versions newer than D13.20 are not compatible with available versions of MD-380 tools. The firmware version of the radio can be found at Menu…Utilities…Radio Info…Versions (Firmware Version can be viewed on that screen).

Respectfully Submitted,

Matt

KE0LNU

For more information you can look at:
https://groups.google.com/forum/#!topic/md380tools/58G8Lo4Vq6E

And this from Jim KCØRPS:

If you want to beef up the next revision of this email (which is really good), https://github.com/KD4Z/md380tools-vm is the link with the instructions for installing the virtual machine and the vm MD380Tools installer.

Ever had a package stolen off your porch? This engineer takes revenge to a "glittery" new level!   https://youtu.be/xoxhDk-hwuo

FCC Rules Updated Daily at http://www.hallikainen.com

As you may know by now, we lost our dear friend and colleague Barry Thomas, the Chief Engineer for KOOL-105 and the Kroenke stations here in Denver after a long battle with Cancer. We will miss Barry more than can be told. He was past National SBE President, KSE Director of Engineering, Father and Friend to the broadcast industry. He helped me and MANY others out with his friendship and expertise. He will be missed greatly.

AND, lets end the newsletter with some *SUPERCUTENESS*!

Our little Liu Liu and Jinki! CHRISTMAS PUPPIES!!!!!!!!!!!!!!!!!!

See past editions of the newsletter at:
http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201701Jan.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201702Feb.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201703Mar.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201704April.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201705May.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201706June.pdf

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http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201811Nov.pdf

http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201812Dec.pdf

3 YEARS AGO:
http://www.smpte-sbe48.org/wp/2016/01/

4 YEARS AGO
http://www.smpte-sbe48.org/wp/2015/01/

5 Years AGO:
http://www.smpte-sbe48.org/wp/2014/01/

6 Years AGO:
http://www.smpte-sbe48.org/wp/2013/01/

SBE VHF/UHF Chapter 73' of the Air HAMnet

The SBE Chapter 73 of the air HAMnet is today (Monday), at 9 p.m. US ET (6 p.m. US PT) and worldwide via ECHOLINK KG0SKY-L, node 985839, and ALLSTAR, node 46079.

The SBE VHF/UHF HAMnet is based in Denver on 449.450 pl 103.5, 449.625, pl 141.3, and 448.975, pl 123.0 , On ALLSTAR node 46079, and, connected to the world via via ECHOLINK KG0SKY-L, node 985839 available via computer and radio. Contact Jack, KE0VH, for all the information. WE ARE Experimenting with a link now to DMR TalkGroup 310847, Email Jack for more information.

NOW we have added the LIVE STREAM thru Broadcastify at:
https://www.broadcastify.com/listen/feed/25448/web

If you have AllStar capabilities or an AllStar repeater near you, connect to node #46079 during net time.

We hope you'll join us.

See the latest edition of "The KE0VH Hamshack" for more information at www.ke0vh.com.

Don't forget the SBE Chapter 73' Of the Air
AllStar, Echolink, and DMR (Talkgroup 310847) Hamnet, every <u>MONDAY EVENING</u>
At 7pm Mountain time (9pm Eastern) for radio discussions, both
Broadcast engineering and amateur radio.
Details on how to join us are at
http://www.ke0vh.com/net/net.html.

I hope
You will be able to join us and share your engineering and
Ham exploits!

73' from "the Shack" & God Be With You!