The Hamshack
Jan/Feb 2020
Greetings, Happy New Year 2020, and sorry to be so late to get the first edition of the Hamshack out, it has been an extraordinarily busy first month of the year! The SkyHubLink.com system is continuing to grow and serve the ham community with digital/analog communications with new users each week. In the past month I personally have talked to 4 brand new hams on Fusion digital. We are looking now at putting a 2 meter repeater on the air along with Tom KD4DT of the Denver Radio League. Tom is working on this even as I type. At this point the system hasn’t had a presence on 2 meters so we are really excited about this. The 146.88 repeater in the Denver area will soon be on the AllStar system into the SkyHubLink via a 900 mhz link system that Skyler built and will be linked into the internet from Tom’s QTH. More on this as we go, so stay tuned.

The 927 Mhz link system with the Raspberry Pi3, and a $5 soundcard wired interfaced to the radio’s
In other new news, we are working with Danny NØPRG in Steamboat Springs to bring their system up there online with the SkyHubLink. This would give us coverage along the ski resort towns in northern Colorado plus out west to Craig. Stand by for information on this one. And I learned the SKHL is connected in Dillon/Silverthorn as this writing goes to publish. N5SKH node on 2 meters.

Also in the month of January Skyler did a full test and comparison of different mode digital radio’s and how well they functioned in a multipath mobile city environment to the same fixed receive location with DMR, P-25, C4FM Fusion, and D-Star radios. His tests were very well done and the video is really well put together. Jeremy WØJRL assisted him at the receive site from Jeremy’s QTH in downtown Denver. He did each mode along the same route, driving a constant speed as possible. The output powers and conditions were checked with his spectrum analyzer for basic parameter setup for as consistent operations as possible. The video as I stated above is very well edited and put together. You can see the video here:

https://www.youtube.com/watch?v=KzwB3RcT2KE
WØSKY driving thru Denver testing one of the digital modes/radios

Jeremy WØJRL on the receive end monitoring the signals and audio being recorded
Skyler and I have been working on an interference problem at a site where a noise floor is causing lack of receive sensitivity for a repeater. Skyler used the SDR dongle and SDR Sharp software identified the issue. As you can see in the picture below, a wide noise floor can be identified. And yes we found what was causing it. More later.

Another story that happened this month is Greg WB7AHO also used the SDR Dongle and SDR Sharp software to find an interference problem between two broadcast stations, seeing a spike below a HD carrier that was causing an issue. These little spectrum analyzers can be of valuable use handily in the field.

I’ve been watching a series again on Amazon Prime about climbing Mount Everest, the expedition leader Russell Brice used this radio to talk to expedition members further up the mountain. He set up a system where each climber has a radio to communicate with him after the devastating season where his friend Rob Hall was one of the casualties on the mountain and had no radio communications with anyone on the mountain. As you can see below, the Icom IC-229H is being utilized from ABC
(Advanced Base Camp) at 21,000 feet as teams are heading up the mountain to the summit. I am just wondering if they were actually licensed for ham bands (Russell is from New Zealand) and what the operating laws are since they are climbing Everest from the north (Tibetian) side.

Lots and fun and thanks to EMF Engineer Stan K5JNT for using his hotspot and getting on the SkyHubLink from Bogue Chitto Mississippi (yes I had to look that one up
too). And there are two cities in the state named that in Mississippi. Great to have Stan join us!

Another SkyHubLink station has joined the group from Cheyenne WY! Daryl W3ORR now has a Fusion Wires-X simplex node on the air, and we are hoping to have it link into a full repeater up there soon. We also just learned of a Wires-X node in the Dillon Silverthorn area west of Denver on I-70. Steve N5SKH is operating a simplex node on 145.52 from his home in the area and linked into the SkyHubLink now.

GREAT SETUP IN CHEYENNE ON THE DENVERSKYHUBLINK Wires-X room. Thanks Daryl and Steve for joining our communications network!
In these pictures you see our buddy Paul WA2YZT, KCNC TV’s transmitter engineer at the top of the 400 foot long tunnel carrying the transmission lines for the HDTV stations on Lookout Mtn above Golden CO. Skyler WØSKY is standing vertically in the second picture so you can get an idea of the angle down the mountain from the transmitter building to the base of the HDTV tower. This tunnel is completely underground. Absolutely fantastic facility!

Another topic: using Microsoft Flight Simulator X, Jeremy N6JER and I linked our systems one day and flew around the Denver metro area and then landed at Centennial Airport on runway 35R. I am in the blue Cessna and Jeremy is on the red on the right! Pretty COOOOOL!
This from Shane KØSDT, who by the way I must say congratulations to on his appointment to the Senior Broadcast Engineer position at EMF! He will be moving to Rocklin to assume duties there and I will be picking up his duties here in Denver as SMPTE-SBE48 chairman. Stand by for more news on that to come. Shane sent this out as the reason for satellite fade in this particular situation. I am sure you can come up with a caption for it too:
radio), Allstar node 46079, DMR Talkgroup 310847, AND try it with your hotspot on YSFtoDMR then TalkGroup 310847 or C4FM Fusion YSF node 92722. The Hamnet is based in Denver on 449.450, pl 103.5, KDØSSP-RPT 448.350, Fusion/Wires-X, 449.600 Fusion and the 449.625 Fusion repeater, linked to WiresX room “DenverSkyhubLink” node 46361. Also on DMR Talkgroup 310847 on the 449.750 Timeslot 1 DMR repeater in Denver. See www.skyhublink.com for more information.

You can listen on the LIVE STREAM thru Broadcastify at:

https://www.broadcastify.com/listen/feed/25448/web

or https://hose.brandmeister.network/group/310847/

We hope you'll join us.

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