



January 2018



HAPPY NEW YEAR!

FROM Colorado Public Radio

<http://www.cpr.org/news/story/this-radio-station-helps-colorado-seniors-dial-back-the-years>

Thanks to Jim, KCØRPS for this link. A senior living radio station at a facility here in Denver! What an absolutely wonderful idea!

Well I am getting on studying for the FAA Part 107 Drone Pilots license. Back in December I ordered the “2018 Remote Pilot Test Prep 2018: Study & Prepare: Pass your test and know what is essential to safely operate an unmanned aircraft” from Amazon. At only \$13 it is quite a buy and easily available. To fly a drone commercially you must have a FAA Part 107 certificate. At EMF several of us field engineers are prepping for this so that we can fly aerial missions around towers and sites to help find problems with towers and antenna’s, and to survey sites and the like. This is really fun and to that end I am even buying my own DJI Phantom drone. More on that next month! I can’t wait to post some of my own video and pictures here in “The Hamshack”. If you want to take a look at the book with all supplements supplied Plus 5 FREE online practice tests you can go to: https://smile.amazon.com/Remote-Pilot-Test-Prep-2018/dp/1619545594/ref=sr_1_2?ie=UTF8&qid=1514918117&sr=8-2&keywords=2018+pilot



Yours truly (under the direction of Remote Pilot in Command) Jeremy, N6JER near Roseville CA, getting the DJI Phantom 3 ready for flight and just after takeoff in a hover

The Colorado State EAS plan has long been in need of an update, and with so many stations changing call signs, frequencies, new stations coming on there are a lot of discrepancies in monitoring assignment and is quite confusing these days. According to CBA president Justin Sasso, **“In 2018, the CBA will call on broadcast engineers, in each region, to submit changes and edits to their Local Area Plan. The CBA will start by addressing one plan at a time and edits will be made based on the input we receive from broadcasters within that area plan. Once the edits are complete they will be submitted to the FCC for approval. Upon FCC approval, we will update that plan online. Unfortunately, parts of the State Plan are made up of older documents that may require hand transcription, so we can edit the plan moving forward. While we’re calling on broadcasters to update their area plans, the CBA will begin the process of converting each plan into an editable document, so future changes can be made with greater ease. While the State Plan outlines other emergency contacts and information, the CBA’s initial goal will be to update the broadcast portions of the Local Area Plans first. Other areas can be addressed at a later date, once this initial clean up attempt is complete. We look forward to getting this task underway and appreciate the cooperation of Colorado’s broadcast community in advance.”**

We will be having a local Denver SBE Chapter meeting on this, probably in February, I will announce that via an email to our SBE NET email list, and you can watch for it at: <http://www.smpte-sbe48.org/> Please, if you can attend this in Colorado “about EAS” meeting we would really appreciate it.

More information on EAS requirements and information can be found at:

<https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/alerting/general/state-eas-plans>

Check this out when you can! ME landing a 737-800 at Portland Oregon International airport! (In Flight Simulator X!) The only way I will ever get to fly one of these!

https://www.youtube.com/watch?v=sUhUjWo1ipl&feature=em-share_video_user





The “Hamshack” in Flight Sim mode. Note the GPS on the small right hand screen and the airport info on the left screen

The table below (Thanks Jim KCØRPS) was produced by a free web site: www.tvfool.com, a very powerful web site that uses the FCC and USGS databases and the Longley Rice algorithm to predict all television stations that can be received at a specific address and the quality of that signal based on the appropriate VHF/UHF antenna at the viewer’s home. The nature of digital is it is perfect or it is not so let me help explain the numbers for your home:

- The real channel column is the physical channel our signal is transmitted on.
- Virt is the virtual channel you select by remote and displayed on your screen. Channel 4.1 is actually transmitted on channel 35. The significant issue is that channels 2-6 do not work in digital and those channels were relocated to the UHF spectrum; channels 7 & 9 returned to their original high VHF assignments; therefore you must have a VHF/UHF antenna to receive all local signals.
- Looking at the table below the NM column is the power in decibels over noise; this is a logarithmic function where an increase of 3 dB equates to double the power delivered to the TV. For your TV to decode a digital signal you must have an NM number higher than 14 dB; we are at 0.8 dB; not a receivable signal.
- The next column Path where having LOS (line of sight) is optimum for receiving our signal. 1 Edge is relating to single edge diffraction and 2 Edge is a multiple edge diffraction both causing significant obstacles to receiving an adequate signal. (see graphs further below)

- You can look at your data for your location at:
http://www.tvfool.com/?option=com_wrapper&Itemid=29&q=id%3d513442bbba0129

Take a look at this, really COOL! Live Weather: www.ventusky.com/ this site shows so much more than a standard weather map. All kinds of weather data, including clouds, wind speeds, air pressure, snow cover, etc. REALLY USEFUL!

From our VP of Engineering Sam KG6BZU during this winter season:
Be careful out there... take and use layering to keep your core temp up

<https://insidetowers.com/cell-tower-news-cold-stress-winters-big-safety-issue/>

And check this out:

From “In Radio Tech” of the October 2017 AES meeting at the World Trade Center in New York City. Details of the TV transmission line and master VHF and UHF antenna installation at WTC. Although this is not FM this is still well worth seeing. Note there is some fluff to fast forward through.

<https://www.youtube.com/watch?v=iPD0b5BMemA>

Did you hear about this? Elenos has bought out B.E!

<http://www.radiomagonline.com/industry/0003/elenos-buys-be/39463>

The SUPREME Engineering vehicle (thanks Shane KØSDT):

https://www.youtube.com/watch?v=KTJUMOzx_zE&sns=em

Protecting Aircraft from Lasers: <https://www.fbi.gov/news/stories/protecting-aircraft-from-lasers> there is a couple of very compelling video clips on this page. Pass it along so we can educate folks!

Here is a video tutorial on how to set up your own AllStar node at home. Here is a great video how to from Skyler, KDØWHB on YouTube:

<https://www.youtube.com/watch?v=jJa0Rsj3ZyY>

I also have a node template I can send you if you want an example with just a few changes. I would be glad to help in this in any way I could. And in the last August “The KEØVH Hamshack” article you can find details on my hardware and setup for a portable AllStar node. See it at

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201708Aug.pdf>

AND, to have a backup generator on site, good idea or not? Read about it here:

<http://www.radioworld.com/article/standby-power-basic-equipment-or->

boondoggle/222769/ Now, I think that having these available are a CAPITOL idea! LOL! (Funds for sure!) But we need to stay on the air, so when you can, it is definitely the way to go! Interesting reading at the above site.

SEE back issues of my articles available now! Copy or click these links into your browser to see previous installments:

<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>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201707July.pdf>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201708Aug.pdf>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201709Sep.pdf>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201710Oct.pdf>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201711Nov.pdf>

<http://www.ke0vh.com/hamshack/archives/TheKE0VHHamshack201712Dec.pdf>

ONE YEAR AGO:

<http://www.smpte-sbe48.org/wp/2016/01/>

TWO YEARS AGO:

<http://www.smpte-sbe48.org/wp/2015/01/>

THREE YEARS AGO:

<http://www.smpte-sbe48.org/wp/2014/01/>

I will be adding more to my website archives here soon.

AND

**Don't forget the SBE Chapter 73' Of the Air
AllStar (and Echolink) Hamnet, every MONDAY EVENING
At 7pm Mountain time (9pm Eastern) for radio discussions, both
Broadcast engineering and amateur radio.**

Details on how to

**Join 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' es God Be With You!**

