

April 2021 - Clay's Corner

Providing news and views from a broadcast engineers perspective since September 1986

Just after my previous column was shipped out, I received this picture of one of the West Tiger Broadcast Towers with a nice load of ice from Jeff White of iHeart Media. Here you can see how the tower is pretty much filled with ice while the antenna (those black things) are not. The Antenna is fitted with black covers called *radomes*. Not only are they slippery, but solar energy will warm it because of its dark color helping to melt the snow and ice.



The following is a nice closeup of what ice does to a tower and antenna at West Tiger.

It all begins with a piece of ice that sticks to the 'leading edge' (the side toward the prevailing wind) and it just keeps adding on. The Yellow Square thing is called an 'Ice Shield'. In the case of the one here, it's job is to prevent falling ice from damaging some of the horizontal items in the system below. When the temperature rises, the ice loses its grip and falls. You don't want to be around when that's happening!



Speaking of Jeff White – I should mention that he has moved up at iHeart and is now the 'Regional Engineering Lead'.



iHeartMedia, commonly called IHM is moving, company-wide, to regionalization. Roughly translated, this means less people spread over a larger area. This is impacting their Engineering department as well. It was not long ago that the Seattle IHM cluster saw a significant reduction in its engineering department. This latest change saw cuts to 39 nation-wide, according to reports in Radio World. Reportedly, some of the work performed by full-time employees will go to part-timers or contractors. This, all part of a company wide effort to reduce their overall 'head-count'. Sure, the COVID economic situation is a factor, so is making the company more attractive to investors. Meanwhile, Bob Pittman, CEO of IHM was recently stating that he is positive about the pandemic recovery, citing vaccine rollouts and the lifting of restrictions.

Meanwhile, Sinclair announced company-wide staff reductions. Recently KOMO laid off more than a dozen employees in Seattle. In this case, the cuts came to various departments, including one in Engineering. According to the Sinclair CEO, Seattle was not alone in seeing staff reductions, as they were looking and reducing their workforce by about 5% or 460 positions nation-wide. A February earnings report showed revenue was down 7% over a year ago.

If you are like me, perhaps you are wondering about the timing of these reductions just when the news about the Pandemic is getting better.

Speaking of getting better, KMIA (AM-1210) is no longer 'MIA' but back on the air. This time it's running non-Bustos Latino programming, apparently under some sort of an LMA relationship.

On March 11th, NAB announced the 2021 Crystal Radio Award Finalists. Quickly scanning the list for stations in the area, I could not help but notice KIRO-FM in Seattle was named. Perhaps it should be noted that they are the only major market station named in the Pacific Northwest.

These days it's hard to find a market where the #1 rated Radio Station is an AM. Interesting to note that you don't have to look any further than Spokane, where KQNT appears to be doing quite well. The station is owned by

iHeartMedia and has a News/Talk format. A bit of history: This station went on the air back in 1922 and was known for years as KHQ. It's one of a few stations in Washington State that operate with 5,000 watts, non-directional day and night. Others in that 'club' are KVI in Seattle and KKMO (formally KMO) in Tacoma. Most AM Stations either reduce power or change antenna patterns, or (in the case of a daytimer) sign off at night to protect others on the same or adjacent frequencies.

Here's another wonderful picture from the Seattle Times. This time looking east from Seattle at Downtown Bellevue. The associated story was of how Amazon is going to lease a new 25 story building on the East Side.



Interesting how we often see pictures of Denver with the Rockies in the background, but rarely see this view of cities in our area, where the Cascades are just as impressive.

Looking a COVID News:

It's Hard to believe that it's been a year since the world was turned upside down with this virus. At last...things are looking up in many areas.

- > As of Mid-Month about 12% of Washingtonians have been fully vaccinated.
- > Restrictions are starting to be relaxed with schools re-opening.
- > Watching sports is coming back.
- > And the list goes on.

What we hope is that we don't over-mingle and have another spike. With so much pent-up demand for a return to normal, in many cases our guard may be down.

Now that my wife and I are fully vaccinated, we can now mingle, mask free, with others in the same boat. Perhaps we need to wear some form of visual communication? If we are in a group with unknowns, mask wearing will continue. As people get back to their places of employment, this may become an issue.

The impact of increased vaccinations and relaxed restrictions means that many who have been working from home will be returning to their offices and studios. Those local news programs will begin to look like they used to. For many, I suspect, those returning will be having to adjust to a new reality. Some things are never going to be the way they were. Certainly, now that it's been proven a company can function without being under the watchful eye of a supervisor, space requirements will be reduced. Add to this, the staff reductions that the Pandemic has been experienced by many.

There is one downside to the economic recovery. Unless you are driving an electric vehicle, you are going to be paying a lot more for petrol in the near future. With gas prices this past year in the sub-\$3 range, they've already increased substantially. Warnings have been posted for \$4 gas soon. Nice to know that lawmakers have electric vehicle owners in their sights.

From the looking back dept:

I am old enough to recall the days when the XLR connector came out, before pin one became the standard for ground and how a certain major manufacturer (beginning with the letter G) produced products using pin 3 as ground, which we followed in building a new TV studio, just to later have to change them all. (Anyone else remember this?)

The old saying - I remember ... "From the highest high, to the lowest low"

Thus Pin 1 = +
Pin 2 = -
Pin 3 = ground/shield
It was easier to remember.

For a wonderful look back at yesteryear, check this out!

<https://mailchi.mp/65527e30cd4f/chrs-radio-clinic-swap-meet-saturday-spring-journal-mailed-warehouse-sale-around-radio-central-675238>

Did you know Einstein was born on Pi Day back in 1879? (3.14.79)

A topic discussed on one of the popular list-servers broadcast@radiolists.net this past month was the historic Vanport Flood in Portland, Oregon in 1948. The story of this event is a great read with plenty of details of the Hams and Broadcasters who dealt with the event.

https://www.dropbox.com/sh/x8jnyd8wzqi07u5/AABz_sG0qvrTBN7reWRr77c-a?dl=0&preview=Voices+of+Vanport.pdf

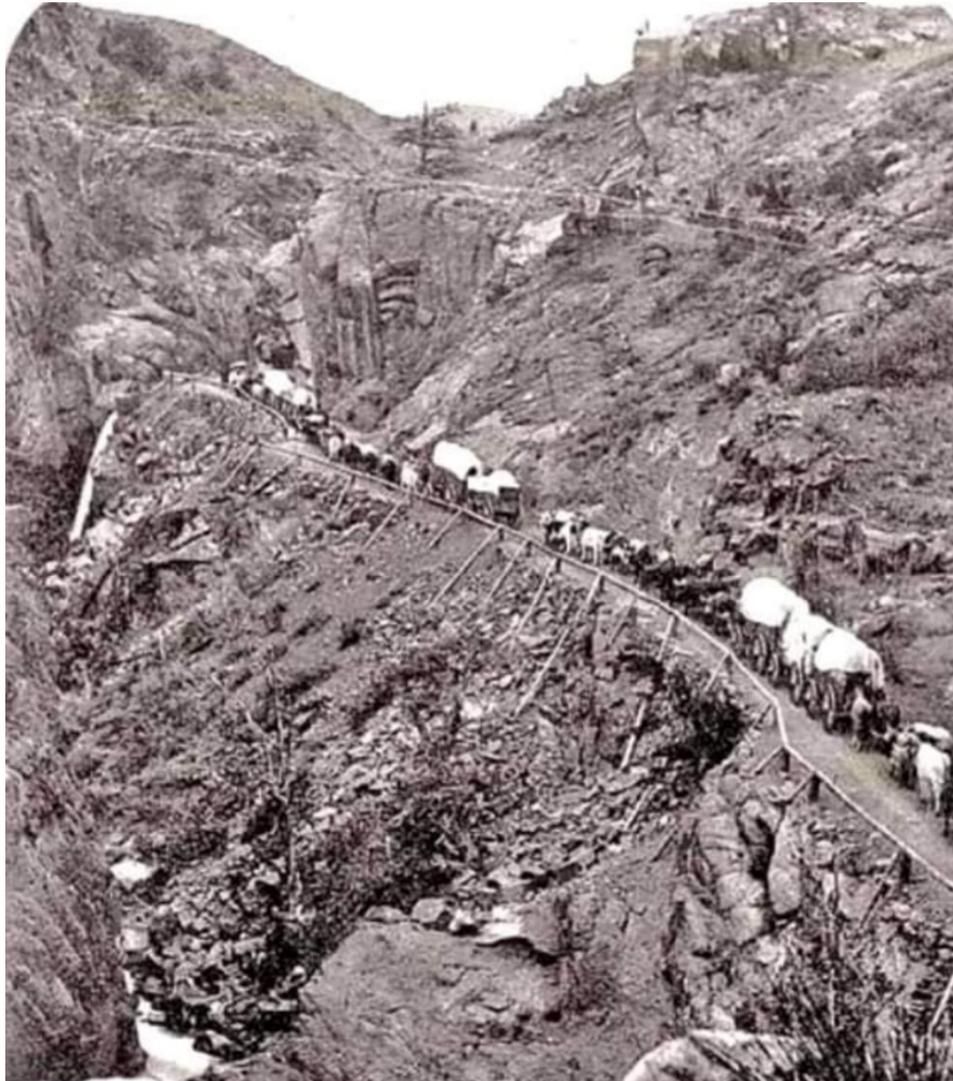
Some interesting history of some of the historic AM stations in PDX...Like the "KEX Toothpick".

On the Ham Radio side, a couple who were very active in our area for many years, Harry and Mary Lewis were mentioned, including a picture of a very young Mary at their home in Seattle.

I was a wee lad living in the Rose City at the time of the great flood, but remember it well.

Recently I was communicating with an old friend, now retired and living in Arizona, about all the snow we've had this year at Snoqualmie Pass. In response, he sent me the following picture. Looks like the late 1800's. Look closely, those are animals pulling covered wagons.

Snoqualmie Pass Cascade Range, Washington state.



Today, with a 6-lane freeway crossing this pass, it's hard to imagine how much of a barrier the Cascades once was. When I moved here, this corridor was known as US-10. Today, of course, it's now I-90. With very few exceptions, it's open for travel year around at freeway speeds. When winter weather forces a closure, it's a magnet for TV crews to do stories about those who are forced to 'wait it out'.

I did a bit of poking around and came up with this picture taken at similar location. Here showing US-10 as a 2-lane road.



I Received an email from Terry Spring with a snazzy new logo -- Out with ION and in with Scipps! Terry.Spring@scripps.com



Nick Winter is resting at home after undergoing bypass surgery. I understand things went well.

Long time member of WSU's NWPB Engineering Department, Tom Saylor has announced his retirement. Tom has been working with this team since 1999. I can personally say that he will be thoroughly missed. In my 11 years working with NWPB, Tom and I have been involved in many projects.

As the sun moves to the north, retired Seattle broadcast engineer, Dwight Small will now start getting sunsets. This one from the 15th of March:



It's still amazing what we are able to do with our landers on Mars. Each time, the game is 'upped' to a new level.



A couple things about the parachute that was used by the latest Mars lander:

> Did you wonder why they used such a funny pattern of red and white? The answer. It's a binary code that reads 'Dare Mighty Things', a phrase made famous by former U.S. President Theodore Roosevelt.

The following picture decodes the message (betcha you didn't get it on your own).



> We keep hearing of how thin the atmosphere is on Mars and yet they used a parachute to help with the landing. If this seemed like a contradiction, you need to know that this 'chute' was 70 feet in diameter. For those of you north of the 49th, that's 21 meters. In other words, Really Big!

From the Department of Misinformation:

It's nice to see others write about this topic as well. Here are the comments of others who say it went very well.

The publication 'The Hill' carried the following story on March 6th.

It was 40 years ago on March 6 that news anchor Walter Cronkite signed off "The CBS Evening News" for the final time, stating his tag line, "That's the way it is." The phrase was more than just a signature ending of his nightly newscast. It was a statement that his newscast was designed to, as he put it, "hold up the mirror — to tell and show the public what has happened."

Holding up the mirror meant focusing on actual news, steering away from advocacy, and nailing down facts. There was a reason that polls of the era listed Cronkite as the most trusted man in America. He projected a fatherly personality and professional image. He spoke in a slow, deliberate manner. He imposed strict standards for accuracy and objectivity into his broadcasts. Every writer and producer on his team knew the perfectionist's expectations and knew not to stray into personal bias or activism.

The journalism world could use more of the Cronkite method today.

The following item I received by WSU News. Here the writer explains much of what is behind those who are misled by some of the contents of social media:

Blind trust in social media cements conspiracy beliefs

March 5, 2021

Creative Comments by <https://www.staceymacnaught.co.uk/>

By Sara Zaske, WSU News

PULLMAN, Wash. – The ability to identify misinformation only benefits people who have some skepticism toward social media, according to a new study from Washington State University. Researchers found that people with a strong trust in information found on social media sites were more likely to believe conspiracies, which falsely explain significant events as part of a secret evil plot, even if they could identify other types of misinformation. The study, published in the journal Public Understanding of Science on March 5, showed this held true for beliefs in older conspiracy theories as well as newer ones around COVID-19.

“There was some good and bad news in this study,” said Porismita Borah, an associate professor in WSU’s Edward R. Murrow College of Communication and a corresponding author on the study. “The good news is that you are less susceptible to conspiracy theories if you have some media literacy skills, one of which is being able to identify misinformation. But if you blindly trust the information you find on social media, those skills might not be able to help.”

Porismita Borah, Identifying misinformation is just one part of media literacy, Borah pointed out, and people may need a deeper education around social media to avoid falling for conspiracy theories.

For the study, the researchers surveyed 760 people recruited via Amazon’s Mechanical Turk crowdsourcing website. The participants were roughly split between male and female as well as Democrat and

Republican. The majority, 63.1%, used Facebook and 47.3% used Twitter daily. They answered a range of questions related to the level of their social media news use and trust as well as ability to identify misinformation.

The participants were also asked to rate the truth of several COVID-19 conspiracy theories, such as the belief that the virus was a weapon of biological warfare developed by foreign countries. They also were presented with older conspiracies to rate, such as that the moon landing was a hoax and that Princess Diana was killed by a British intelligence agency.

The researchers found that a greater ability to identify misinformation lowered beliefs in all conspiracy theories—except for those who had high levels of trust in social media information. This is particularly problematic because other research has shown that once a conspiracy belief takes hold, it is very hard to convince the believer that it is false.

“The patterns around trust is one of the most important findings from our study,” said Borah. “We need to go deeper into what this trust means.” Borah and her co-authors, recent WSU Ph.D. Xizhu Xiao and current doctoral student Yan Su, suggest that political ideology may play a role in this trust—that people want to believe the words of political figures they admire, whether what they say is actually true or not. Borah said more research is needed to understand why conspiracy theories appeal to people and how best to combat them as there can be serious consequences.

“There are different levels of danger with these theories, but one of the prominent conspiracy beliefs about COVID-19 is that it isn’t true, that the virus is a hoax and that can be really dangerous: you’re putting yourself, your family members and your community at risk,” said Borah.

Starting it well before college. They argue that such education should include a better understanding of how information can be manipulated as well as social media environments, news production and dissemination.

“There’s a long list of tasks to do to keep ourselves well informed,” Borah said. “I think there is hope with media literacy and a better understanding of the information environment, but it is a complicated process.”

The misinformation problem is not confined to the U.S. and Canada. Take a look at the source of this study:

GLASGOW, Scotland — Misinformation and fake news continue to be a major problem across social media platforms. Now, a new study reports people with high emotional intelligence are much less likely to fall for deceptive and untrue news items.

Conducted at the University of Strathclyde, the study asked a group of volunteers to take a look at various social media news stories, some true and some false. The group then tried to determine which were real and which were fictitious. Each participant also gave a short explanation as to their fact-checking thought process and filled out a test to gauge their emotional intelligence.

The news stories presented to participants covered a variety of topics, including health, the environment, crime, and wealth inequality. The fake headlines in particular featured a lack of trusted sources, not a lot of information in general, and emotive language.

What do different people say about fake news?

Ultimately, participants scoring high on the emotional intelligence test were most likely to accurately pick out fake news items. Study authors also noted a similar relationship between education level and fake news detecting ability. In other words, participants with more education appear to have a better eye for spotting fake news.

The Headline read:

Washington once again ranked best state in the US in national report

Washington state has once again been ranked the best state in the country, according to a new report from the U.S. News and World Report. Washington has held the top spot since 2019.

The publication annually ranks all 50 states based on several factors including health care, education, the economy and infrastructure, among others.

Other top ranked states were Idaho (the only other PNW State), Utah (the only other western state), Minnesota and New Hampshire.

In terms of rankings:

- We ranked #8 in health care
- Education - #4
- Broadband access - #1
- Opportunity - #25
- Affordability - #44

Over the years, in past columns, I have written about the impact of Climate Change driving increases in Sea Level and how high tides will make matters even worse. The following link should be studied carefully to see what lies in our future. Be sure and zero in on the impacts in our area.

[U.S. High Tide Flooding Probability Scenarios through 2100 \(esri.com\)](https://www.esri.com/arcgis/resources/articles/2019/08/20/US-High-Tide-Flooding-Probability-Scenarios-through-2100)

Extreme High Tides, often called King Tides, will become higher and more frequent as the data explains. In our area, this year, we can expect eight of them. By 2031 we will experience 25. 20 years from now, in 2041, the number increases to 99. By 2066, we will have one of these Extremely High Tides – EVERY DAY!

The impacts of these will be becoming increasingly real, especially in low-lying areas. The ports will have some serious issues, requiring some serious money be spent to stay above it all, as most of them are now barely above existing sea level.

There are residential areas that will be feeling this as well. Along the coast, the Long Beach and Ocean Shores areas will be losing a lot of land. Around the sound, the Nisqually Wildlife area will be under water more of the time and Tacoma's Day Island may need to be evacuated, along with many of the waterfront homes around the Sound.

Combinations of events – Extremely high tides and strong winds will be a recipe for a lot of damage, as will flooding rivers during heavy runoffs. The impact of high tides will be felt a lot further upstream.

This issue is sure to impact some of AM station's antennas. One of them I installed many years ago at Browns Point for KMO.

The following pictures from Sinclair's RF Guy, Tim Moore, show the impact of a King Tide on the antenna system at KVI at Point Heyer on the eastern side of Vashon Island.

There is something quite unique about the KVI Site. The beach is officially named 'KVI Beach'. Where else is there a beach with call letters in its name?



In Tim's pictures you can see how KVI Beach all but disappears with these Tides.

In the future, broadcast stations like KVI will likely need to make changes to the equipment at the base of their tower to keep it out of the salt water.

For more information about KVI Beach – check out these links:

[KVI is a special place, let's take care of it - Vashon Nature Center](#)

[Point Heyer \(KVI Beach\) and Point Robinson | Vashon-Maury Island Beachcomber \(vashonbeachcomber.com\)](#)

[Heart This Place - Tramp Harbor and KVI Beach - Historic SeattleHistoric Seattle](#)



The following contributed by Dwight Small:

Lou Ottens, Dutch Inventor Of The Audio Cassette Tape, Dead At 94

It's likely you never heard of Lou Ottens, however, it's highly likely that you are familiar with the Audio Cassette that he developed. He wanted to come up with something that would make tapes and the machines that recorded and played them more portable and easy to use. For those of us who have been around a very long time, we recall very small reel-to-reel machines that used reels about 3 inches in diameter and played at very slow speeds. For them the Cassette was a dream come true. The format was widely adopted when introduced in 1962. I'm sure you recall the Sony Walkman. It was a hit, to say the least.



The format permitted a person to carry with them their favorite tunes, or talking books. Vehicle manufacturers jumped on board with players coming standard in their radios.

Despite the audio quality lacking in many areas, the portability of the format made it a hit.

Retailers carried commercially produced cassettes along side vinyl recordings. Suddenly there was a standard that permitted a person to listen to their favorites no matter where they were.

Several broadcast versions of recorders and reproducers were made as well.

Lou Ottens recently passed at the age of 94.

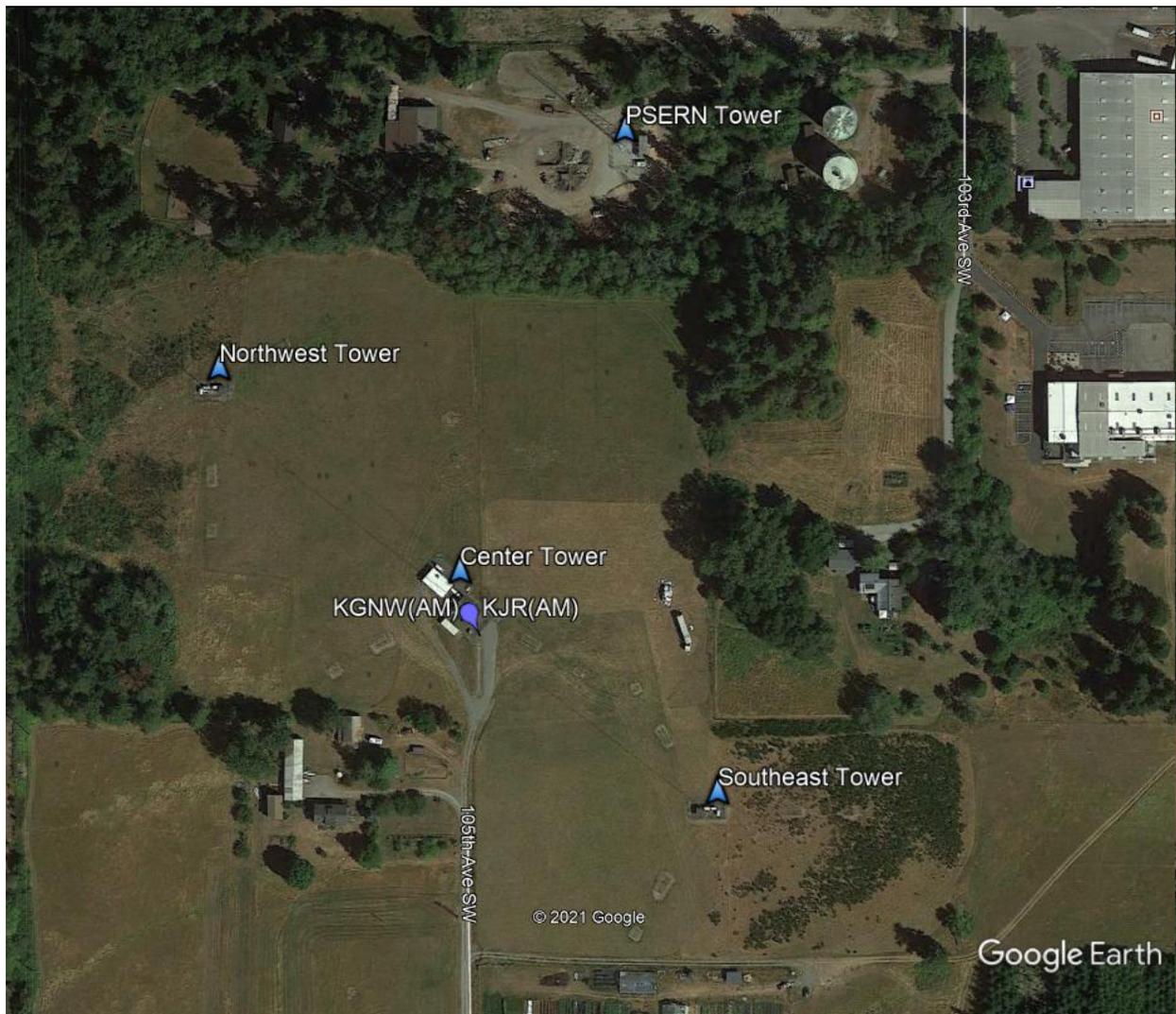
As I mentioned, audio quality was just not possible with tape tracks that small, running at those speeds. However, it had a good run until the development of the Compact Disc.

Another beautiful picture of our part of the country. This one of a fabulous sunrise taken from the window of KRKO/KXA in Everett by Ted Buehner.



In addition to Robocalls that continue to increase, have you seen the Amazon Scam? The email reads something to the effect that Amazon needs to update your credit card information, otherwise you will lose your Prime membership. These lowlifes must lay awake at night trying to figure out a new way to gain your credit card information.

From time to time, someone will erect a tower near an AM broadcast station and give little thought to the impact this will have on the station, nor their obligation to deal with it. All of this happened recently on Vashon Island with a new communications tower constructed very near the diplexed KGNW/820 and KJR/950, three-tower, directional array. The following picture shows the relationship between the towers.



Notice at the top center of this picture 'PSERN Tower'. This is the new tower that was added to the area, in very close proximity to the existing AM Towers. (Those are labeled – Northwest Tower, Center Tower and Southeast Tower)



The issue here is that both of these AM stations employ directional patterns, the three towers being shared by the two broadcasters. The introduction of the new tower caused both of the stations to have to employ consulting engineers to make certain modifications to the PSERN Tower so as to preclude it from being a part of the stations directional antenna systems. Then, they had to perform an analysis of the stations directional antenna array to prove that any interaction was addressed.

This, perhaps, could have been avoided had PSERN located the new tower some distance away from the AM Antennas.

It should be noted that Cellular Antenna poles can also be of concern, with many of them having to go through the same process.

PSERN, as you can see from their logo above is a new radio network for Emergency Responders. They are erecting these new towers in many locations in the area. For example, here's a view of the PSERN tower on West Tiger as taken from one of the AccelNet Tower Cams at sunrise. You can see the bottom of it on the right.



For additional information, go here: [Puget Sound Emergency Radio Network \(psern.org\)](http://psern.org)

An interesting story about a small college station in La Grande Oregon that is losing its funding.

[Eastern Oregon University radio station may go silent | Local News | eastoregonian.com](http://eastoregonian.com)

The portion of the article that got my attention was, "...KEOL, based in the Hoke Union Building, was defunded in part because studies indicate radio is a fading industry with a dim future. "Radio may be obsolete in 10 years."

The latest Radio Ratings are out. Here are my highlights:

- > 97.3 – KIRO-FM continues to lead the pack with their commercial News/Talk followed by 94.9 KUOW with their non-commercial News/Talk. Together they have a 14 share!
- > KOMO-AM continues to be the best performing AM in the #5 slot.
- > If you add KOMO ratings to those with News/Talk that total is over a 19 share.
- > KEXP, another non-commercial station is doing VERY well in the #6 spot.
- > Two of Bonneville's AMs are just about tied with Conservative Talk KTTH.

> Two stations HD-2's are in the numbers, KING and KNKX. Many have suggested that this is because they are feeding translators with those HD Channels – Surprise! Neither one of them are. These are ratings generated by people listening to HD Radio.

> In the Country-Race – The Wolf (KKWF) is ahead this go-around.

> Poor KFNQ continues to share the cellar with those with just enough of a showing to make the list.

Meanwhile, in the Rose City (PDX), like Seattle, the top two rated stations are news/talk. The difference is the non-commercial station (KOPB) is number 1 with a huge lead over the commercial outlet (KXL-FM). Together they have over a 17 share.

As you might expect, Washington DC has a lot of news/talk listeners. Three of the top four stations are running that format, and combined they have over a 26 share.

Some other markets are the opposite with music stations on top and news/talk way down the list.

Travel Trivia posted an item recently that got my attention. Typically, folks like these will have the states in alphabetical order. So I sit here and page-down until I get to Washington to see how we fared in some category or another. This time the headline read:

Hilarious and Bizarre Town Names in All 50 States

I just knew they would pick – Humptulips, Sequim, Physt or Puyallup. For some reason they picked Vader. Huh! How is that funny or bizarre? For reasons I can't explain they picked the little town south of Olympia because it made them think of Darth Vader?? Truth is the town was named after Martin Vader, a German immigrant and Civil War veteran.

Looking for work in Broadcasting? How about a job in Kansas? For more info check-out:

<https://www.hutchcc.edu/jobs/1159/101994> or start at
<http://www.radiokansas.net/employment.cfm>

Received this item from Ben Dawson on March 22nd:

Somebody broke into the storage locker in our apartment yesterday morning,

and stole, among a few other things, all of my hand tools, and the office's HP 8753 (?) network analyzer, which was in a Pelican case.

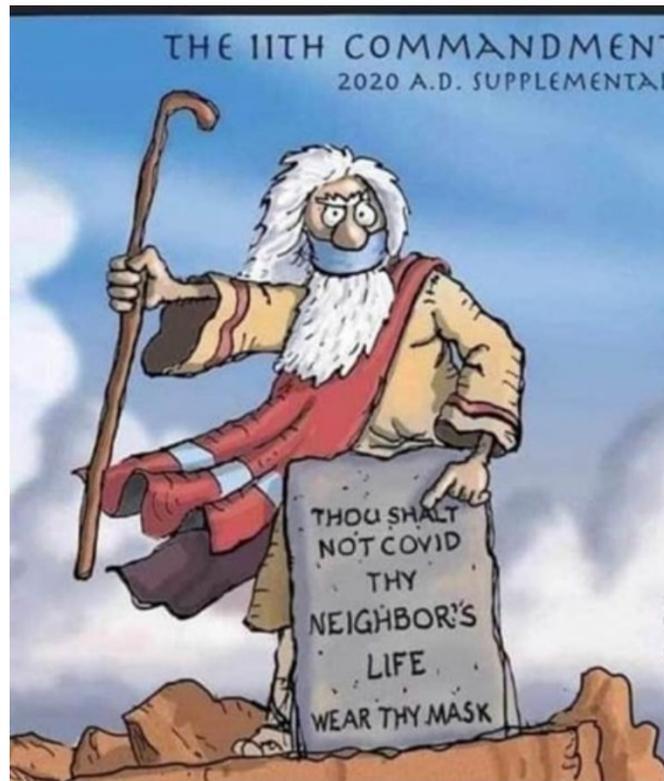
If you could put out the word in case anybody spots the analyzer or my tools, some of which were in a black telco-issue fiber case, some in a turquoise bag labeled "France Telecom," and some of which were in a military ammo box. It's all insured, but the tools included a lot of irreplaceable items, like my grandfather's machinists' square and a few other items no longer made in the US.

If you can help with the recovery, contact Ben at - dawson@hatdaw.com

OK, time for some humor.



So.....you've been eating hotdogs and McChickens all your life, but don't want the vaccine, because, " you don't know what's in it"?



That's about it for this month, my friends. Lord willing, I will be back next month at most of the usual locations.

Until then, get vaccinated, stay safe and continue to wear your mask...and that means cover your nose too. The 'All-Clear' is getting closer.

Clay, K7CR, CPBE
A SBE Fellow
SBE Member # 714
Since March 1968