

Clay's Corner for May 2023

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

Let me start this off by saying that April was a tough month in our house. On April 6th our youngest Son, Tom, passed away. He was in declining health, dealing with a number of serious medical issues. Mom and I are hanging in there. Tom would have been 50 in August.

Congratulations to Stephan Brown on becoming SBE's newest Fellow. I met him, years ago, during one of my many trips to Wisconsin...A very nice guy. Fellow is the highest membership level in the SBE. Members must have made significant contributions to the broadcast engineering field or the SBE. Candidates are nominated by their peers. Since the Society's founding 59 years ago, 83 members have been honored with the Fellow rank. I'm proud to say that I'm one of them.

The move to eliminate AM Radio from vehicles is getting a lot of attention from a number of quarters. I'm not sure that anyone in the vehicle making business is concerned about the dust-up this has caused. Likely the decisions have been made and they are just wanting for the noise to die-down.

One interested party has chimed in with, potentially, something to lose. It's been reported that conservative commentators Mark Levin and Sean Hannity are calling this an attack on conservative talk Radio. Certainly, Rush Limbaugh would have had something to say about this matter. Many AM Stations praised Rush for re-invigorating AM Radio in many ways. Certainly those that have AM Stations, like Salem, have a right to be concerned. There are very few AM Radios for available for home use these days. The news that new vehicles will be AM-less is certainly painful. I'm not sure that a vehicle maker that will continue to come with AM installed can use this as a value-added. In this day, It appears that the majority of people could care less of there was no AM on their new car.

One party made this observation on a popular remailer concerning owners of AM Stations -

.... Some were smart enough to know when to quit while others struggled either losing money and/or doing extreme cost cutting and eventually failing. This is still happening at a greater pace today. This is why AM is said by many to be failing. Over this same time big high powered stations, many of them on clear channels, retained audience. Beyond content the two requirements for stations are full time operation and a clear easily received signal. Stations unable to accomplish that will ultimately fail. I know there was a fairly strong case for daytime stations a long time ago and subsequently abused by many but that time has long passed. This is one big reason why stations fail. I have felt for a long time that there some stations that never should have been built.

Meanwhile ...NAB launched a new campaign to amplify the voices of the 82 million Americans that AM radio reaches each month and highlight the importance of AM radio in the car for news, community engagement, entertainment, and vital public safety information. Read more here -

<https://www.wearebroadcasters.com/dependonam/default.asp>

A lot of people thought we were going to see a historic event with Fox News being sued...It was not to happen. Just after the jury was sworn in, the parties, Fox News and Dominion Voting Systems reached an, out of court, settlement to the tune of \$787.5. John Poulos, the CEO of Dominion said 'Fox has admitted to telling lies'. One of their attorney's said, 'Money is accountability". I'm not sure that this event will increase the amount of truth-telling or not...Time will tell. There are 'other shoes to drop'....Standby!

The name 'Shively Labs' has been associated for many years with their FM Antenna, Combiner, and filtering products for many years. Early this year, Howell Laboratories announced they were going to sell off Shively to concentrate on their other business interests. Essentially, they hung out the 'For Sale' sign.

On the 13th of April, a buyer for Shively was announced. AAT otherwise known as American Amplifier Technologies announced they had purchased the company.



It's been further announced that orders that were fulfilled before March 24th would be shipped from Shively's historic facility in Bridgeton Maine. Future orders will be shipped from the new Shively Labs facility in Sacramento, CA.

Interestingly, there were two antenna manufacturers, very close by, only 17 miles apart, in Maine – Shively In Bridgeton and Dielectric in Raymond. In years past, I visited both of them. Now Sacramento will be the home of 2 antenna manufacturers, Shively/AAT and Jampro.

The questions that many will be asking include -

- Who from Bridgeton will be moving to Sacto?
- What about support for the Shively products in the field?
- What products will be dropped and/or changed?

As a side note – A few years ago, when KIRO-FM purchased a new transmitter, they replaced their Shively band-pass filter with one made by AAT.

There is a lot of Shively products in the Seattle area, perhaps the largest is the Master Antenna and Combiner system at Cougar Mountain, shown below.



While looking for information about Shively. I ran across this article on their Web Site - [Revolutionary IBOC Test at Cougar Mountain - Shively Labs](#)

Congrats to Doug Lung who received the NAB Television Engineering Achievement award at this years NAB and to Mike Cooney who received the Radio award.

If you have ever driven westbound on I-90, or other nearby highways, approaching Vantage, at night, you could not help but see the rows of lights, flashing in unison atop all the wind generators in the areas extensive wind-farms. This may come to an end thanks to House Bill 1173 that would have them turned off unless there was an aircraft nearby. Apparently, there are systems like this in other states where they are required. I wonder how many broadcasters would want to have something similar? Of course, the equipment necessary to, automatically, turn on and off tower lights is likely prohibitively expensive? Then there are municipalities that could start wanting this feature as a means of dealing with local citizens that don't want those 'pesky' tower lights. So.....One day in the future if you are driving near one of these big windfarms at night and suddenly all the lights come on, its because there is an aircraft in the vicinity. Related to all that is the fact that there is a large windfarm in the works near Tri-Cities in the Horse Haven Hills with some 244 turbines. Many that oppose this new facility are doing so based on the visual impact at night.

Audacy continues to be in the news due to their financial situation. Their Stock Price has been hovering around the 15 cent range and this has prompted the company to 'monkey' with their stock price (Reverse Split) to get their price-per-share up to the point they can avoid being de-listed by the NYSE. Their financial crunch has also seen them begin to sell off several assets, Towers and Stations with reportedly more to come. Interesting to note that station values have declined to the point that, in some cases, the company will not see much of a financial gain over the price they paid for the stations in the first place. I've not heard about any pending sales of assets in the Portland or Seattle markets.

I recently read that our wet and gloomy April was the 2nd coldest one recorded. I've been dealing with getting up West Tiger Mountain since 1986 and this is about as late in they year we have not been able to drive up there. The forecast for the last week in the month gives us some hope with – perhaps – warmer weather. Rumors are it may reach 70 in the low-lands .

Now if it will just stay warm....No more teasing !!!

April is the month when we will, again, be able to drive to West Tiger. Here are a couple of pictures taken less than a week apart.





Good thing it's warming up as crews were installing safety equipment on the towers on the 24th and 25th.

Time again for my look at the latest Radio Rating highlights –

- Big change at the top – KZOK dropped from #1 to #3 KJEB is now on top.
- The wait is over....We wondered what would happen when 'The Bull' (98.9) changed from country to AAA leaving the market with only one major country music station. Apparently, the country listeners were quick to make the change resulting in 'The Wolf' leaping to the #2 spot.
- KIRO-FM which had a long run at the top has been sliding down a bit, perhaps a result of the passing of Dori?
- The Top-Rated AM continues to be KNWN, perhaps helped by their rim-shot FM on 97.7 or their airing on 101.5 HD-2?
- KEXP is off a bit, perhaps a reflection of AAA – KPNW's entry? Meanwhile, KPNW is off to a slow start.
- There are 5 HD-2's in the numbers as well as 4 stations 'Streams'
- With the switch of 98.9 from Country and the instant ratings success of 100.7 you have to wonder if the lowest rated FM might be eyeing a change to country?

Portland has a Pirate FM station operating that the FCC wants turned off. In this case, the Stations transmitter is in a church. The FCC's new efforts at going after not just the station but the owner of the stations location will be tried here. They got a warning letter informing them that this could cost them a 'bundle'

In another case, a pirate is operating in La Grande (SE of Pendleton). Here the operator has been defiant while posting videos on social media admitting what he was doing





I'm still doubtful that any of these guys will end up payingHistory shows they don't have the funds with the FCC, eventually, backing down.

Baseball has learned a thing or two from Football by introducing a number of changes, specifically the 'Pitch-Clock' that forces pitchers and batters to speed up the action. Early reports are that it's working as intended. The result for broadcasters should be positive, with just as many, between inning breaks, and a shorter game.

Wandering around on-line you come up with a lot of interesting things. Allow me to share -

If are like me, you have...from time to time, built something with LED's If you are using them in a circuit whose voltages are in excess of the LED's rating, you use a dropping resistor to provide the proper forward voltage. Here's a handy table.

LED COLOUR & FORWARD VOLTAGE

LED color	Forward voltage
 Red	1.8 V
 Yellow	2.1V
 Green	2.2 V
 Blue	3.2 V
 White	3.2 V

ig@allabout.electrical

This item came from Kevin White at NWPB. Somehow this dish lost its cover in the process provide a location for a bird nest.



The following is a bit dated, however, it's always good to see when a Broadcast Station gets in the Paper -

West End Radio Gets a New Line-Up from a New Location

February 2, 2017 1:30 am



Forks now for the first time enjoys four channels of local and commercial network radio programming via HD Radio and for many listeners that means it may be time to upgrade their receivers.

Forks Broadcasting deployed the multi-program channel technology when upgrading its FM signal in May 2016. Since then, the broadcaster has reached audiences across the West End that weren't previously in the FM signal footprint. Across much of that area, the broadcasting also now delivers supplemental digital program channels, including the "Forks 1490" programming previously heard only on KFKB-AM.

Forks Broadcasting vacated 260 Cedar Ave. and the AM tower in December and has since relocated. With the 1490 kHz signal gone, the Forks area radio dial is now devoid of any daytime signals on the AM band.

Forks Broadcasting has relocated studios and offices to the northeast side of the former Forks City Hall building. Portions of the new facility were formerly occupied by Certified Hearing

which has moved its office to the western side of the building. The intensive 10 days site rehabilitation and build-out also converted a former city jail cell into the station's new operations center. The original sliding metal jail cell doors still hang in the hallway outside the main operation. That's all that remains of the former cell in what is now an efficient broadcast facility and business office.

Thanks to significant technology investment by Forks Broadcasting, the real country music, CBS News and other programming no longer heard on 1490 AM is still broadcast digitally across the West End. By moving the FM signal to Ellis Mountain and deploying HD technology, "Forks 1490" programming now airs on 96.7 HD-2 and the new digital signal is reaching areas never touched by the old AM.

"Last night on Mora Road, as I watched the sunset over James Island, I listened to 'Forks 1490' in absolutely clear fidelity because it was the HD-2 digital broadcast, and that's something which was rarely possible due to AM signal fade," said Forks Broadcastings Mark Lamb.

HD Radio delivers improved signal reach, nighttime usability, fidelity and program choice. The KBDB 96.7 signal delivers four separate HD program channels to most of the West End.

HD-1 replicates Twilight 96.7 in digital, noise-free fidelity. HD-2 delivers Forks 1490 programming and will be the only place on the West End to hear the 2017 Mariners baseball season.

HD3 delivers ForksTalk, a new 24/7 talk station with USA Network News, CNBC market updates through the trading day, and stimulating and information talk.

HD4 is Soul Duck, the station playing the best of the rest of the music in Forks. All four of these program choices are heard with exceptional digital fidelity that's always interference-free, day or night. "For listeners equipped with HD Radios, there's now more on the dial than ever before," Lamb noted.

HD Radio is a digital radio transmission technology that's been proven in over a decade of North American deployment. Unlike satellite or internet feeds, HD is delivered from local radio broadcast stations. There's never a data charge or a subscription fee with HD. But listeners need HD Radio upgrades to be able to receive the secondary digital program channels.

HD Radio reception features none of the multi-path noise that's part of all analog FM listening and that is particularly evident in moving vehicles. Unlike AM signals, HD sound is completely

noise and interference free, and the signal doesn't fade after sunset. 2017 BMWs come with FM that's HD equipped, but no AM- perhaps revealing the technologically advanced car maker's view of band trends.

Over half of the new cars sold in 2017 will be HD equipped. Wilder Auto has HD Radio available in models across all of its automotive brands and HD is standard equipment on every new Scion and most new Toyota models.

In Forks, Whitehead's Auto Parts offers do-it-yourselfers HD receivers for in-dash install. Mobile Music in Port Angeles has sales and service for a variety of mobile HD solutions, depending upon the equipment in your existing make and model.

Manufacturers learned a lot from the first generation of HD table radios for the home. Now, thanks to a new integrated circuit enabling greater functionality and value, a number of manufacturers will launch new HD Radio models in 2017. Forks Broadcasting is in discussion with a major global Radio manufacturer regarding new table models to be offered through local retailers. This direct from manufacturer deal for world-class HD radios will be available to West End retailers.

Expecting the Biggest QVSA ever on the Powerhouse 96.7 Signal — "Our commitment to serving the community remains steadfast," Lamb said. News and local sports continue to play prominent roles on the 96.7 program channels.

"We're looking forward to broadcasting the 53rd annual Quillayute Valley Scholarship Auction this year for the first time on the new 96.7 FM signal," Lamb said. With the upgrade effective May 2016, KBDB-FM delivers greater effective radiated power than all other Clallam and Jefferson county radio stations combined.

As many of you know, NWPB has a couple of Radio Stations in Forks which I look after. This takes me to West Clallam County several times a year. Marks stations there sound fantastic, especially in HD. The folks in this little community are very fortunate.

I am currently working on installing an Auxiliary Generator for NWPB's two stations there where 91.1 and 91.5 provide the residents with Classical and News programming.

One of my other projects is the installation of a new Auxiliary Transmitter for KING-FM at Cougar Mt. Part of this process was the installation of a piece of Orban equipment. To my surprise, the device was made in Hungary.



People with lower IQ's continue to be drawn to electrical equipment with the goal of harvesting something copper. The following comes from WSB-TV in Atlanta -

Investigators say 2 men electrocuted at power substation brought tools to dismantle metal parts. Gainesville police are investigating after two accused thieves were electrocuted early Monday morning at a power substation. This happened on Atlanta Highway next to the Liquid Nation Brewery. The two suspects have been identified as Shane Long, 45, and Christopher Wood, 44, both from Gainesville.

Investigators say they brought tools and equipment to dismantle metal parts when something went wrong. Police say the suspects broke through the fence that surrounds the high-voltage substation. According to brewery employees, this is not the first time this has happened.

“There were two individuals [a couple of years ago],” said employee Rick Foot. “One was electrocuted. The firefighters responded to that incident.” Investigators say the substation went up in flames around 2:28 a.m.

On the topic of Copper Theft....Here's a picture provided by Mike Brooks that, perhaps, does not need a caption?



I captured this image recently ...No, this is not in a third-world country! It's a town in Western Washington



In our business we often use the term 'Coaxial' ...as in "Coaxial Cable" etc.
How many know what Coaxial means?

"Coaxial" means "common axis."

Two categories of people should stay – COMPLETELY- away from Electrical things

- Those that are trying to steal something
- Those that have no clue what they are doing.

The following are some pictures of accomplishments by people in the second category

Great use for Ty-Raps ?



How to stop that circuit breaker from tripping -That's why they put holes in the handles, right?



In the good old days, vehicle radios almost always had a radio antenna shaped like a 'Whip'. Designers of cars did not like them...and from this came the radio antennas that were made of tiny wires embedded in windshields and rear-windows. Today, antennas have evolved to what's commonly called the 'Shark Fin'



Ever wonder what's inside one of those? Now you know.



Did you see this story ?

Study: Drivers Increasingly Want Safe And Simple Dashboard Systems.

After automakers introduced complicated infotainment systems that confused many of their customers, new research shows drivers want safe and simple dashboard systems. The number of drivers who said they will prioritize ease of use in their next connected car system rose 7% from 2021 to 2023. "As we're getting all these new ways to interact, it's actually the old school way that's growing," says Audacy's Senior Director/Research and Insights Reggie Shah

My first thought was – DUH !!!

Unless you are a techno-savvy person, you are likely flummoxed by the level of technical complexity that we find in just about everything these days. Automakers are designing dashboards that are overly complex. Simple functions that used to have a simple, single purpose, knob or switch are now embedded with a myriad of other items on a touch screen. Read the comments in Consumer Reports about this issue, they agree. We are told to keep our eyes on the road while be flooded with distractions.

Example – Remember when the car-radio had 2-Knobs (on/off/volume & tuning) and 5 push buttons. You could operate it without having to look at it

Speaking of looking back – Found this on Facebook -

At one time (back in the last century) KTAC decided to take on the big AM Rockers in Seattle (KJR and KOL) and did a respectable job for quite a while. One promotion they did was to hand out colored balls to put on your car radio antenna – Saw a lot of those back in the days.



Busto's Media, who operates a number of stations in our area, recently purchased a 4th station in Tucson. It's an AM with an FM Translator. They already own region Mexican "La Poderosa 105.3" KZLZ, R&B oldies "1063 The Groove" KTGTV, and news-talk "1030 The Voice" KVOI in the Tucson market.

Ever wonder just how military personnel destroy equipment they don't want to fall into enemy hands? Just push these two buttons –



Bet the techs that install the stuff to destroy it have to be careful?

Proving that not everyone wants to be on the Radio 😊



What happens when it's not a test 😊



And, from the 'Not so bright bulb department'....



Of course, my Column must have a picture looking out over Dwight Smalls backyard.



I mentioned earlier that I routinely do work in Forks – I shot this sunrise recently from the window of the room I was in at the ONRC. No...It was not raining.



On the 20th of April – I was maintenance-time at the NWPB Longview translator. This gave me a chance to have lunch with a couple of old friends and retired broadcast engineers at Mcmenamins in Kalama

Left to right – Me (with the hat on) Don Eckis (retired NWPB) Ken Randles (retired Entercom)

(Thanks for remembering to take a picture, Kent)



That's it for this month.

Lord willing, I'll see you here next month.

Clay, K7CR, CPBE

SBE Member # 714

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