

Clay's Corner for November 2023

One more time - A Broadcast Engineers Perspective 37 years, since September 1986

LOOKING BACK

I recall being approached by, then officers of Seattle's SBE Chapter 16, at a lunch meeting on the Seattle Waterfront, asking if I would consider writing a column for the SBE Chapter publication, The Waveguide. My first reaction was to ask - What about? They responded with 'what ever you wish'. Thus started what you are reading here.

The initial process I used was to have a bin into which I would toss scraps of paper containing notes of things I heard, conversations etc. Near the end of the month, I would use this collection to create my column. Keep in mind this was in 1986. My computer was an Apple 2E (with no hard-drive) The program I used was called 'PFS Write'. Due to the fact that, back then, the Waveguide was a paper/mailed publication there was a word-count limit and it was 100% text. I would save my creation on a floppy and place a phone call to the Waveguide editor, John Forbes (KOMO) and transfer the file, at the blazing speed of 300 baud. He would assemble the publication and send it to David Christian (KPLU) who would get it printed and mailed. How many of you remember receiving the Waveguide, with it's distinct yellow cover that way?

Over the years a lot of things changed. I ended up with a 'real PC' (An IBM 286) where I continued to compose the column using PFS Write for Windows...Which, amazingly, worked with a Mouse. Eventually I shifted to Word. My 'Waveguide notes bin' was replaced with a computer file into which I would drop notes as well as other interesting items I found on-line, emails from others etc. Transmission speeds increased as well. As time went by, the Chapter elected to drop the print version and move the Waveguide to become an on-line only publication. With this change... The size of my file was no longer limited...and, I could now include pictures, graphics etc.

Over the years other SBE Chapters, like Denver and Portland picked up the Column and began including it in their publications. Perhaps one of the biggest additions was the addition of Gord Lansdell's NW Broadcasters Website. At this point, I was sending my column, directly, to a number of locations, in addition to Jim Dalke who incorporated it into the SBE-16 online Waveguide and to Kent Randles for the Portland chapters 'Water Cooled Newsletter.

I want to say thankyou to all of you that have written to me over the years expressing appreciation for this endeavor. In particular, a big thankyou to those that have contributed content, Dwight Small and Mike Brooks come to mind (I'm sure there are others)

In my previous Column I stated that I wanted to cut back on the size of this effort. A number of things have taken place since then....

- 1) Denver has decided they only wanted local content in their chapter newsletter. (See below)
- 2) Gord Lansdell determined it was time to cut back on his work-load and concentrate on news items related to happenings in B.C. (See below)
- 3) Some, recently discovered, medical issues.
- 4) The fact that I am in my 8th decade.

Because of this confluence of events, it has become increasingly clear the time has come to retire from being a 'column writer'. **Therefore, this will be the last issue of Clay's Corner.**

Going forward - I hope that someone will step-up and fill my shoes and carry on. If that person would like, I'd be happy to assist.

To make it clear - I am - NOT- retiring completely, just from writing this column. I will continue, as long as the Lord permits to work for NWPB, American Tower and KING-FM. The reason I write this is because when I retired from Chairing the SECC, many thought I had - completely - retired. Perhaps you could say this change is a part of my "cutting back". Some retire - completely - and move to Arizona etc. Me, I'm doing it in phases.

Before I go - I need to empty that file of items that have accumulated over the past month...

SIGN OFF MESSAGE FROM GORD LANSDELL -



NORTHWEST BROADCASTERS



*Since 1997 - News you can trust for over-the-air
radio & TV stations in coastal WA and southwest BC*

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[Digital Radio](#) | [TV Stations](#) | [Digital TV](#) | [Links](#)

Read [Clay's Corner](#) written by Seattle engineer Clay Freinwald

Important announcement for all of our loyal readers:

After over 25 years providing news and information for SW BC and coastal WA over-the-air radio and TV stations, the **NORTHWEST BROADCASTERS** website is retiring October 1, 2023. The site will remain online for the foreseeable future without any further updates.

However, news and information for southwest BC, including added coverage of broadcast news for Metro Vancouver, Vancouver Island, the Fraser Valley and the Sea to Sky corridor will continue on the **VANCOUVER BROADCASTERS** site.

We recommend [Puget Sound Radio](#) or [QZVX](#) for coastal Washington broadcast news and [TVMavenSeattle](#) for Seattle TV-related items.

We genuinely appreciate all of our followers and especially those who fed news leads to us over the last quarter century.

It's been a privilege providing this service.

LETTER FROM AMANDA HOPP IN DENVER

Clay,

I'm not sure if Bill spoke to you about this but we are going a different direction with our newsletter. Looking for more local content related to our chapter. We really appreciate your contributions all these years.

At this point, there is no reason to send what you write for your local chapter to us.

Thank you again!

Sincerely,

Amanda Hopp

FCC DOING ENFORCEMENT

The FCC is doing what a lot of us wished they'd do more of - Enforce their rules so the 'playing field' would be level for everyone. Here are some examples -

- They have upheld an \$80,000 fine against an, unlicensed, station in La Grande, Oregon. Reportedly Thomas Barnes has been operating pirate stations, on various frequencies, for years....And - He had been warning a number of times.
- Will be interesting to see if the FCC's action will have any impact on Radio Impacto and whether, or not, they will actually pay the \$2.3 Million they have been fined. This pirate was operating, on FM, in Queens (NYC) and had been ignoring communications from the FCC.

As I have stated many times, over the years, in too many cases these operators are able to escape paying these fines, for various reasons. Knowing this, the problem continues. I have to believe these pirate operators view the FCC etc. as Paper Tigers.

An AM/FM Pair in New Orleans, apparently, thought they could get by without paying their license fees. Looks like the Commish thought otherwise telling Best Country Broadcast they have 60 days to pay-up, or make a case for why they should get off the hook. Thus far, the tab is \$8877 for the FM and \$11,604 for the AM. Wonder if they got the idea from the Pirate Radio operators that have made it a habit of not paying the FCC?

MORE ALERTING CHANGES

For many years there have been those pressuring the Feds to provide EAS alerting in various languages. In most cases, they fail to understand how EAS works with nothing much being done. Now the FCC is out with news that Multilingual Alerts will expand, not with EAS but on Wireless devices. It's finally sinking in that Broadcast Station Alerting is simply not the best method to reach people for the simple reason that you have to be in the vicinity of a radio or TV that is turned on and tuned to the right channel or frequency.

Today the percentage of people having a cellphone is likely much greater than those owning a radio or TV. Then there is the fact that these phones are likely to be with the person for long periods of time, regardless of their location. Fortunately, the Feds are waking up and changing their focus. The Commish has adopted new rules that will require the wireless carriers to make messages available in the 13 most spoken languages in the U.S.

WEA (Wireless Emergency Alerts) still have the problem that users can opt-out of receiving these messages. That, in time, may change....Time will tell.

Then there is the issue of lack of redundancy and reliability of many cell sites. Recent disasters have shown how wireless communications systems have failed, leaving radio broadcasting as the sole means of alerting. Look at the Maui fires for an example.

The other issue, one I have been harping on for years, is not just warnings of something bad is about to happen, but providing information - after- the bad event. This is an area where I have found a lot of 'heads in the sand'. Very little, if any, planning has taken place to deal with the information vacuum created by a major disaster (Think of our awaiting big earthquake). After the shaking stops - so will the means government entities to communicate what's next. I even wrote a story about this call 'Fred and Wilma' , which I presented to a number in emergency management. I received a lot of agreement, but little if any action. Maybe someday?

One thing I did learn in all my years working with EAS - Changes are constant. Thankfully the FCC and FEMA are dedicated to a process of continuous improvements.

Historically, the wireless carriers have been very successful in telling the FCC how they will handle the issue of alerting, un-like broadcasters that have been issued orders they must obey. These changes are not likely to diminish or reduce the requirement for broadcaster to participate, however. One of the foundation principles of IPAWS is to do alerting by all available means. Some lives will be save because Radio or TV forwarded the message.

As you likely know - I spent many years - deeply- involved with public alert and warning...23 years with the Washington State SECC and 10 years with SBE as EAS Committee Chair.

THE RECENT NATIONAL TEST

From the reports I've seen, the recent EAS National Test was the most successful yet. According to Lowell Kiesow, SECC Vice Chair and technical Garu, our State did very well. Washington SECC Chair Ted Buehner said: "The initial feedback is that the NPT did quite well. The digital audio was quite good."

Like all things these days, there were those that were convinced that the EASNT was a conspiracy having something to do with 5G cell signals activating 'nanoparticles' in our body that were implanted there via COVID vaccinations. The sad thing is that conspiracy theories today have been 'given legs' by certain politicians and, of course, the Internet.

FUNNY THINGS

One aspect of the Internet I appreciate is the ability to share funny and goofy things. Here's an example of something that made me smile - A power plug connected to a switch inside the blue box. Plug it in, throw the switch and it will trip a circuit breaker, for sure.



LOOKING BACK

Another thing I enjoy is looking back. I - do- understand that this comes with age. This one comes from back when the Compact Disc was beginning to gain traction as a device to hold data for use with our computers. Uniquely the picture is of Bill Gates noting how the CD Rom could hold all the data in the paper below him.



It's actually kind of amazing, when you think about it. If you're old enough to remember floppy disks, they were around for a while, but then it feels like CDs came and went in a heartbeat, replaced by DVDs and then by flash drives. That's technology for you – it sprints ahead five minutes after learning to walk.

PERSONNEL CHANGES

Over the years, I've reported on many that have come and gone (as well as the passing of some). This time it's a welcome to Seattle for Keith Smeal. Keith recently came on board as the new Chief Engineer of Bonneville's cluster of radio stations -KIRO AM&FM and KTTH. He comes to the PNW from a couple of years in Public Radio, before that he worked with Greater Media and Beasley, all on the other coast.

THOSE THAT HAVE PASSED

Unfortunately, all too often, I have written about the passing of people in the industry where I chose to make a career. Often these are people I have worked with or been associated with in some way. As some have phrased it - We are 'Aging Out'. Just recently I learned of the passing of Byron Swanson who was a legendary Radio Engineer in Portland. Here is a link to his obit- <https://obits.columbian.com/us/obituaries/columbian/name/byron-swanson-obituary?id=53222229>

BUSINESS NEWS

Yes, I work on the technical side, however, I have a keen interest in the business side of this business.

One of the companies I worked for in the past was Entercom. That company, after I left, purchased CBS Radio and, later, changed its name to Audacy. Unfortunately, due to many factors, they have found themselves in, rather substantial, financial distress and, in the process, had their stock de-listed from the NYSE. Since then, they have shifted to OTC trading, gone through a 30:1 reverse split and skipped a \$18 Million loan payment. According to reports they are restructuring their \$1.9 Billion debt and doing what they can to avoid taking more drastic steps. Along the way, they have been selling off some of their assets. Thus far, no word of any sales of stations in Portland or Seattle where they operate large clusters. Audacy is the nations second largest radio group owner.

SORT OF RELATED NEWS

From time to time, I have included news items that are not directly related to Broadcasting...For example, this item about Canada's Shortwave Time system. Thanks to Dwight Small for this contribution.

<https://arstechnica.com/gadgets/2023/10/canadas-84-year-radio-time-check-has-stopped-because-of-accuracy-concerns/>

ALL DIGITAL AM

As my readers know - I have been closely following the efforts by some to shift conventional Medium Wave Broadcasting (In this country called the AM Broadcast Band) to All-Digital. One of the pioneers in this area has been Hubbard's WWFD. The recently announced that they have completed their, 5 year, test-phase for this operation and have, based on the results, elected to continue operating Digital Only - full time. WWFD will now no-longer be WWFD-AM but WWFD-HD. Which is now permitted by the FCC

During the test period, the station continued to operate an FM Translator. Now, that will be sold to another party as the station marches on - in all Digital Mode.

This change is based on the fact there is an ever increasing number of HD capable vehicle radios. With the percentage of listeners tuning into AM Stations, they figured this was a good time.

For those of you wanting to know more about 'All Digital AM'...There is plenty of material available. Reportedly, the shift from AM to Digital, provides a much-improved listener experience in terms of audio quality in addition to being able to transmit meta-data to receivers.

Radio receivers today are much more than just audio from speakers, today's FM Stations transmit a variety of visual items that are displayed for their consumers via HD-Radio. Unfortunately, conventional AM does not have this capability. An all-digital/ HD station will be able to 'join the club' and do the same, thereby, significantly, level the playing field.

The cry has been that the Zillions of AM receivers will not be able to decode and/or receive the new mode. This means that there will likely continue to be, conventional, AM stations long into the future. Perhaps, going forward, we will places like Seattle and Portland having a mix of both? There are other stations in the U.S. that have made the switch also, personally, I hope that one of the AM's in the Seattle area will follow. Both of my vehicles are fully capable of receiving it.

SBE

I've, routinely, brought up items about SBE. Afterall, I am one of few living with a 3-digi membership number (714) I've enjoyed my active years with the Society - 10 years on the National Board, up to the position of Vice President. I declined to run for the top-spot (normally reserved for the VP) due to where I lived and the amount of travel to the other coast that would be required. Along the way I was an officer in the Local Chapter, was involved with Frequency Coordination and a number of other efforts. Going forward, the Chapter Newsletter will certainly continue to report on these matters. Perhaps the reduction in my obligations will permit me to attend more chapter meetings?

STATION COUNTS

Noting how many stations are on the air, as well as how many are gone, is something I have enjoyed passing on. The FCC, periodically, produces these totals - Here are some of the highlights from their most recent information -

- The number of Non-Commercial FM's is up 1.3%...There are now 4,263 of them.
- The number Commercial FM's is down by 7 - They total 6,670
- The number of AM's continues downward with 4,452 on the air (The lowest total in decades)
- The number of full-power TV's is up 2 to 1,760
- The number of LPTV's is down 12 to 1,889
- All together the FCC has 33,447 Radio and TV licensee's

HONESTY AND FACTURAL

Back in the last century, when I started in Broadcasting, we would never even dream that someone would broadcast on radio or TV that was not totally honest. News was based on actual information. Sure, we had some commentary type programs that would take to task government officials etc. But they did it respectfully.

Something happened along the way. Supermarket tabloids were free to print what ever they wanted and, for reasons I came to understand, their content was found by, apparently a large number of people to be acceptable. People who could care less whether or not what they were reading was true or not. The bottom line was ...These publications had customers and therein, this was a vehicle to make money.

Some broadcasters, especially those whose content was not regulated, figured how to capitalize on - Un-truths, conspiracy theories, rumors etc. Eventually many broadcasters noted how those that spread this kind of material could result in an audience and that means money.

These firms learned that it's not necessary to report things that are true and fact based. What is necessary is to tell Readers, Listeners and Viewers - WHAT THEY WANT TO READ, HEAR AND SEE because there a demand for that kind of product.

Federal regulators were unable to deal with the issue. A Talk-Radio show was free to say whatever then wanted....The further out they got, the most they were noticed and the higher their ratings with inward flowing money the grand reward. For me, the icing on the cake was during the Pandemic. I have to wonder how many, needlessly, died because they believed some guy on the Radio and stopped listening to their doctor? These were 'Snake-Oil' sales methods for the modern age.

Yah, I wrote about this in the last few years. How could broadcasting, in our country, be used to spew propaganda, conspiracy theories, un-truths etc? Sadly, some of this continues.

I was proud of this industry of my choosing, however, much of my pride was eroded in the past couple of years.

When I wrote about it, I wondered when someone would tell me to knock it off, or if I would start receiving nasty communications, or, worse yet....Threats. Thankfully none of that took place.

Frankly I never thought I was a very good editorial writer anyway 😊

LOOKING AHEAD

Certainly, the next Big-Thing is likely to be AI. Not since Y2K has there been so much attention paid to something that has to do with something the average person has no clue about. The concept of computers thinking by themselves brings out fears in many (Gee 1984 was a long time ago). I'm surprised that this has not generated more conspiracy theories with Amazon selling special, perhaps, tin-foil, hats etc.

Recently, when talking with a person about this, I could sense their apprehension. I asked them if they used Outlook to generate email messages, they responded yes (my cue to hit them with this one)....Did you ever compose a message and see Outlook complete the sentence or anticipate what you might say? They responded, sheepishly...Yes, why? I continued, how would the computer do that if it were not thinking by itself?...Oh boy, the wheels were starting to turn. I then asked if they had a navigation system in their car...When they said yes, I asked them how that device was able to determine where they were and when to make the next turn and lead them to their desired destination. At this point, consternation was getting deeper.

Humans have always feared new things they did not understand....This is normal. So is the fear that some new creation will be misused by bad-actors who are up to no-good. Good example - Airplanes ...They can rapidly take you to your favorite vacation destination...and be used to drop bombs to kill people. Certainly, those that can figure out how to use this technology to lighten your wallet, will be hard at work to do just that...As will lawmakers as they try and figure out how to contain it.

I look at AI as just another technology step forward. Certainly, we in broadcasting will be finding it increasingly popular in equipment we encounter as a means to do more with less.

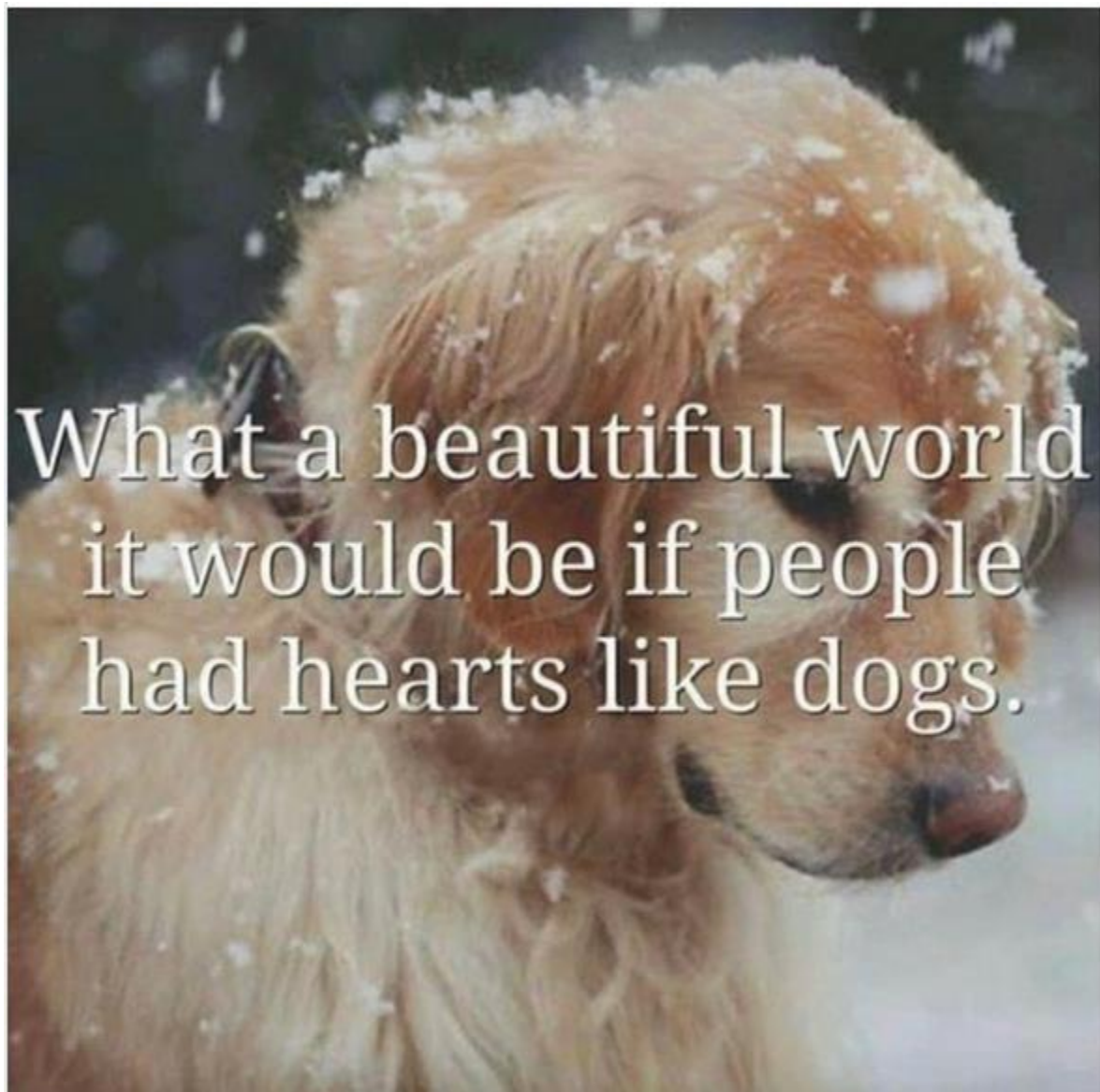
When it comes to creating content, this is where you will see politicians getting involved as it will become increasingly easy to fool the masses. Look for many calls to protect us from being misled. I remember the comedian that could duplicate the voices of famous people...now he can be replaced with a device. We went through something like this many years ago and were using terms like ...'The following program was pre-recorded'....Perhaps we will have new rules that will require stating 'The following program contains elements that are not real but created'

Looking ahead a bit further, I see some clouds on the horizon....

- Broadcast Engineers (in the conventional sense) are becoming a dying breed, the Push to educate IT Techs appears to be, perhaps, the only route to filling the gap.
- The Number of AM Stations will continue to decline, with notable exceptions, to levels not seen since the 1950's
- Streaming (or non-OTA) will continue to grow as high-speed internet becomes almost available to almost everyone.

INSPIRATION

Once in a while I like to share my love of Dogs. This picture speaks volumes !

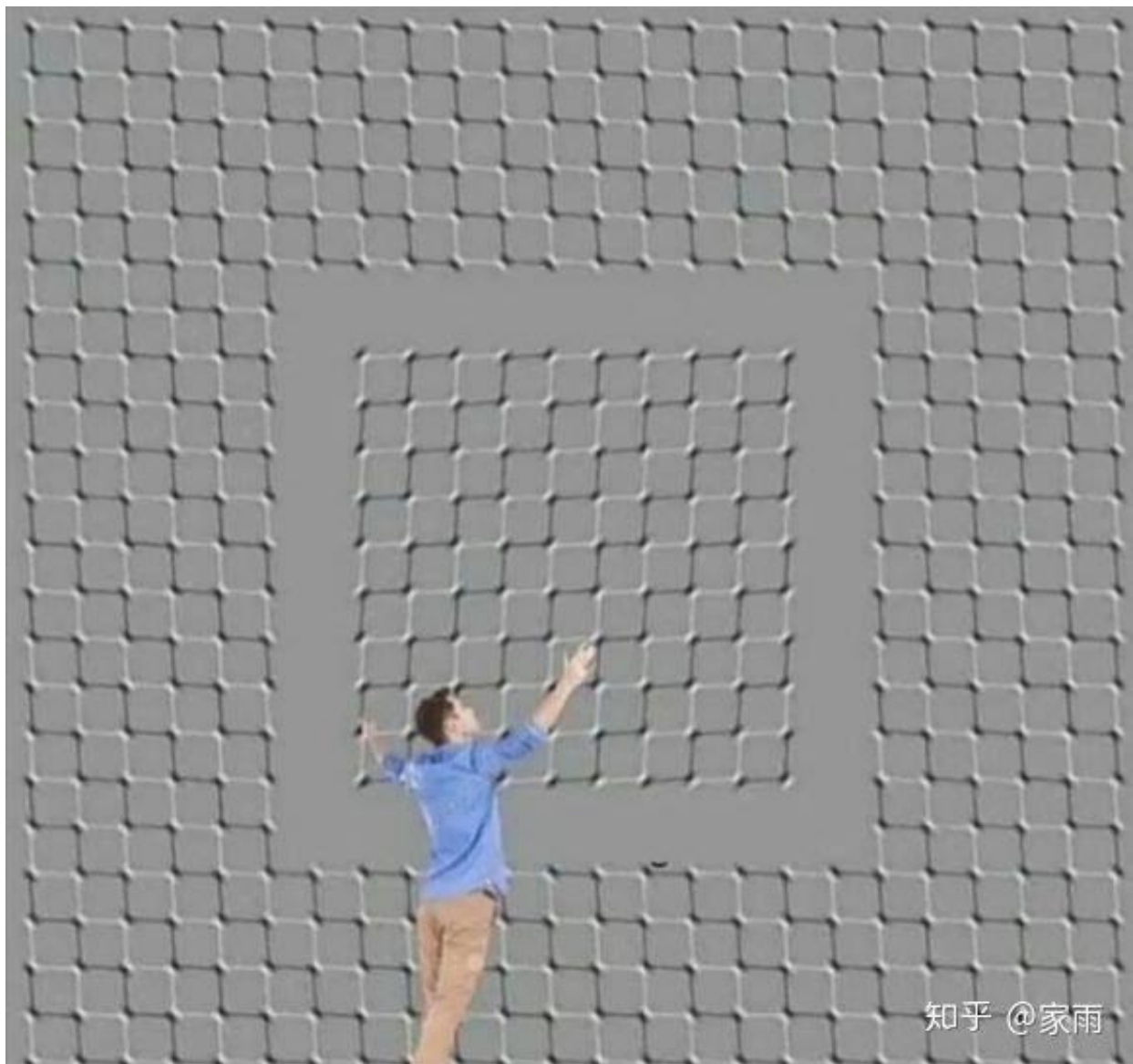


FYI - My two are doing fine. Yagi is now 9 (My how time flies) and our new addition, Anne, is developing into a wonderful little girl, she will be 2 at the first of the year.

Perhaps, filling some of the void that was created with the death of our #2 Son this past April?

STRANGE THINGS -

The Internet is nothing short of amazing with things I like to share. In sifting through the zillions of things to see, once in a while I come across a great eye teaser. The following is one of the best I've seen. Scroll up and down for the maximum effect. Time for the old belief of 'Seeing is Believing' should be retired?

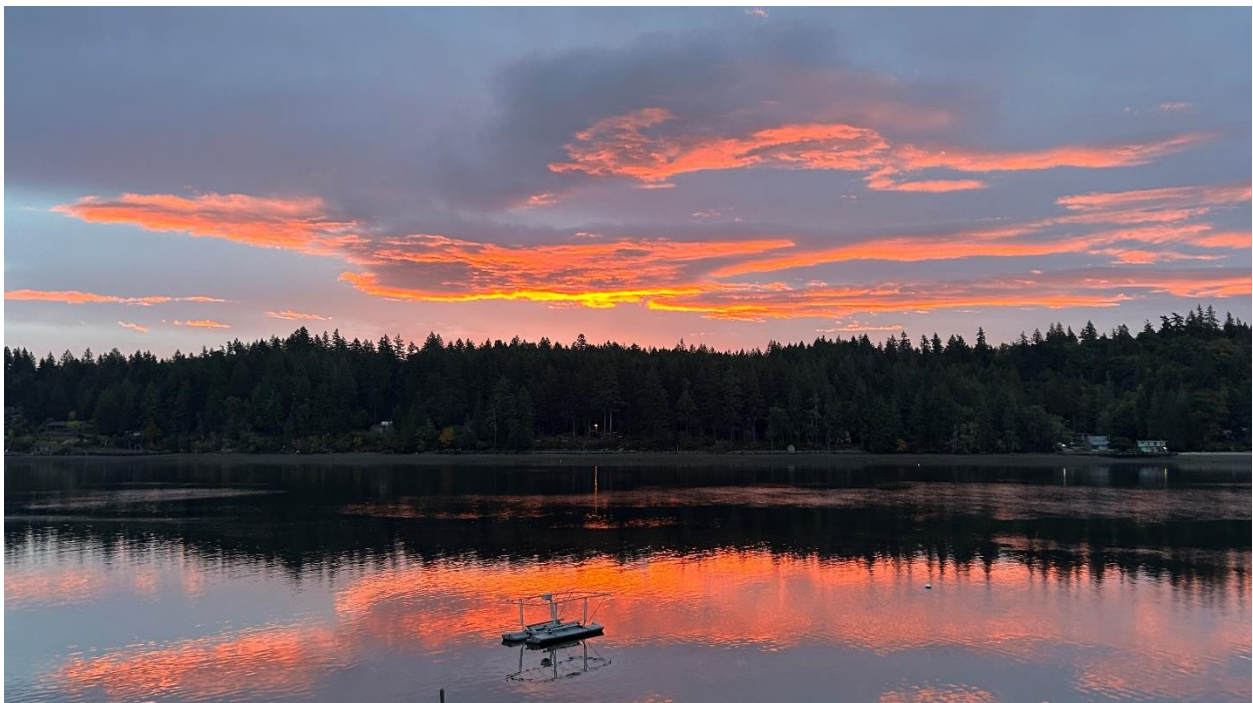


PICTURES

In last few years, thanks to greater band-width and digital photography, I have been able include pictures in this column. Despite my asking for contributions, very few have done so. The development of high-quality cameras within cellphones has changed a lot. Now, in my work, I have a great camera on my hip and frequently catch an image that found its way here.

My picture taking has been pretty much limited to 'things' and not too often people ...Usually broadcast towers etc. and scenery are what I love the most. A huge thankyou to Dwight Small for keeping me supplied with wonder scenes from his beautiful retirement location in Skagit County. Here are some 'Parting Shots' from this past month -

This gem, a wonderful sunrise taken by my Brother In law. How can you not love Puget Sound?



The following is a recent picture is of the first broadcast tower on West Tiger Mountain. I am proud to say that I was deeply involved in putting the first station on at this location back in 1988. If there is one 'mark' I have left in my long career, it is this one. It all started out in about 1985 when the manager of the station in was working for in Tacoma (Jack Bankson) asked me what it would take to achieve signal-parity. KNBQ was transmitting from Indian Hill (Near Federal Way). Many of the major stations were on Cougar, Mt...With a few others scattered around. We could not move to Cougar Mt due to a moratorium on new stations there based on health concerns. We made an application to move to Squak Mt. but that location ran into opposition. My backup plan was West Tiger which ultimately was approved by King County, the FAA and FCC.

The moment we turned on that 97.3 transmitter, the phone began to ring. Thankfully others agreed with me with West Tiger becoming the home of several towers and many FM and TV stations..



The 4-Bay antenna at the top is 97.3, known today as KIRO-FM

On the East-Side of West Tiger are more towers, the two on the right are for FM and TV



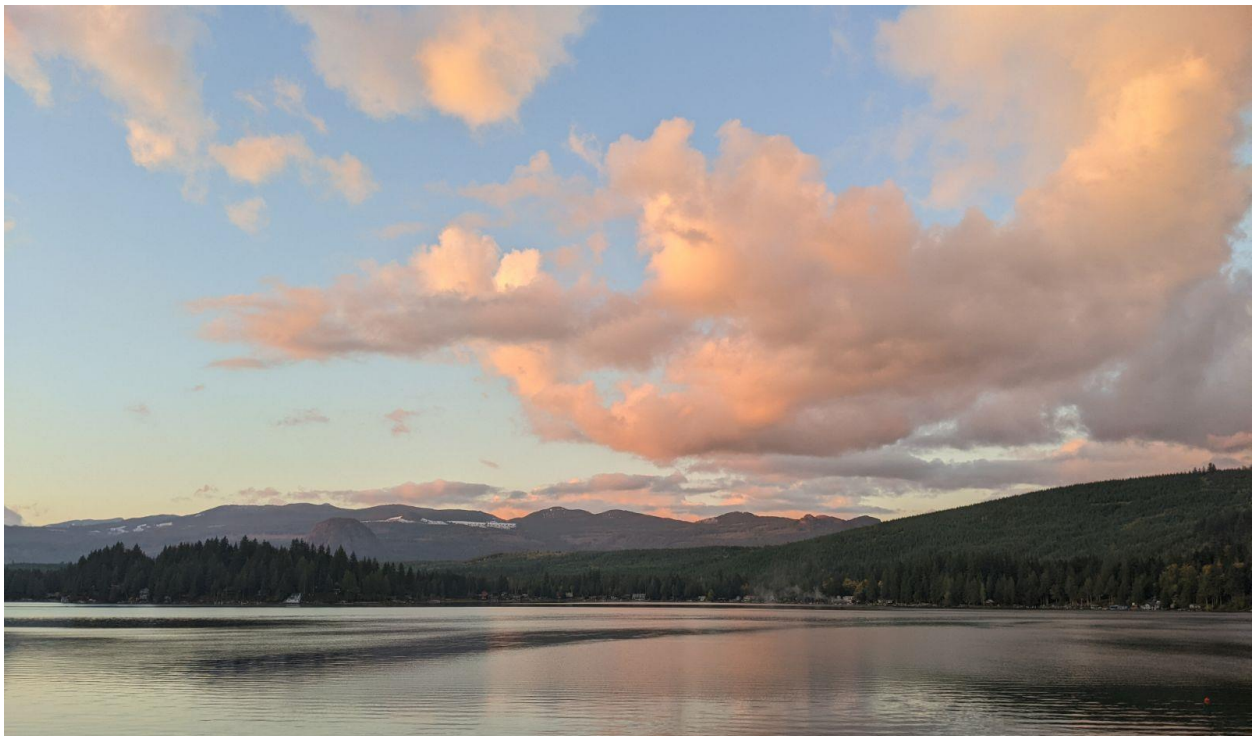
This picture, taken from West Tiger, of East Tiger (or simply Tiger Mountain). You can just make out the communications towers on it's summit. A wonderful October day!



Dwight Small sent me this one, looking North from his home, over the Lake at the seasons first snow on Cultus Mountain.

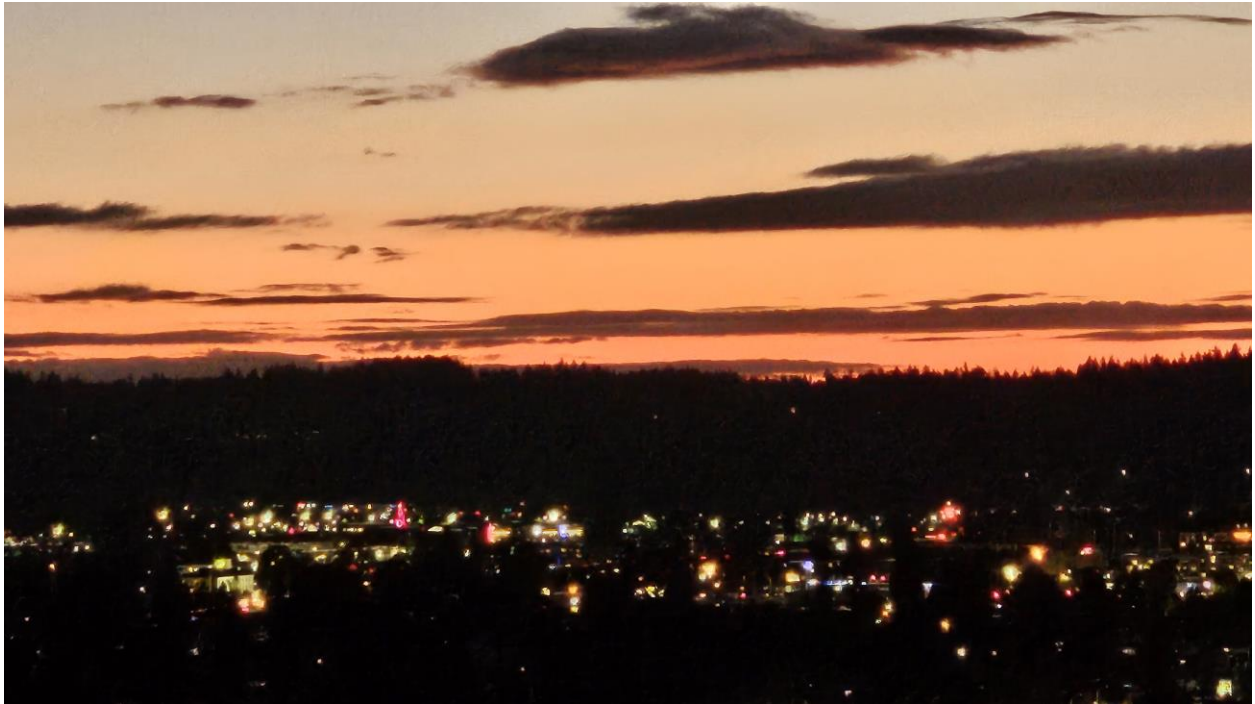


And this one, the evening of the 26th



May everyone's retirement have scenes like this !

I am blessed with living on the edge of the Green River valley- where we enjoy beautiful Winter Sunsets, such as this one on October 25th



And, this one on the 26th



Perhaps all designed for my sign-off of this long endeavor?

As Piggy would sayThat's All Folks.

Or the classic -30-

Or in Morse - SK

Or in Ham-Speak - 73

Thanks for reading all my stuff, looking at my pictures and putting up with me for all these years.

To be honest, it's been enjoyable. I sincerely hope you have benefited in some way.

Thanks to all that have taken what I sent them and changed it into something for you to read.
Special thanks to Jim Dalke and Kent Randles with the Seattle and Portland SBE Chapters.

Lord willing, I will be around for a while longer to see what else the Lord has in mind for me.

Till then, a great big THANK YOU

Have a wonderful Christmas and may 2024 treat you and yours very well.

Clay, K7CR, CPBE

SBE Member # 714

Since March 1968 / 55+ years.