

## **Clay's Corner for May 2022**

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

Welcome the May edition of my column. Every time I email a new edition, I think next month there won't be much to write about. Funny how this never seems to happen. With that being said – Here we go again -



Nielsen has been in the news this past month for a couple of reasons – 1) Because there are those that want to buy them...and, 2) Because they changed the Market Rank of this area. The Seattle/Tacoma area has move up to #11. Perhaps underscoring how this area has really grown. Those of us that drive the areas highways already knew this.

On April 5<sup>th</sup>, in the wee hours of the morning, many of us were awoken by an Amber Alert. The good news is that the child was found, and all is well. Lowell Kiesow, Vice Chair of the Washington SECC posted the following reminder on the WA-State EAS Remailer -

**It's a good day to remind your air staff to never broadcast simulated EAS tones. The FCC very actively enforces the rule against this.**

**I heard a Seattle station's hosts talking about being awakened by this morning's Amber alert, and they played a recording of the alert tones for illustration.**

**If you broadcast a false alert, you are required to notify the FCC. Here's a link to the FCC rule**

**<https://hallikainen.org/org/FCC/FccRules/2021/11/45/>**

Oh yes, before I forget it – The next meeting of the SECC will be on Tuesday, May 10<sup>th</sup>. This will be the first – In person- meeting since the start of the Pandemic. The meeting will be held at

Kitcomm in Ellensburg. If you can't attend, in person, the meeting will also be 'Zoomed' Details will be on the EAS Remailer

A change at the top in the KING/KONG-TV Engineering Department. Dick Trumbo is heading south to KRON-TV in San Francisco to become their Chief Engineer.



He posted the following on the first of the month providing additional details

**So I guess it's my turn for the "life update" post. After nearly 23 years, at KING 5. I've accepted the position of Chief Engineer (yes, that's what it's supposed to be called) at KRON-TV in San Francisco. The fam is staying home in Mill Creek and I'll be racking up Alaska Airlines miles commuting. A challenge for sure but I got this. I don't start my next adventure until mid-May so meantime, lots of baseball and snuggles with the kiddos. Stay tuned and I'll take y'all along with me. ❤️**

Sure hope the 'issues' with Alaska Airlines don't mess with your commute, Dick-

The FCC has released broadcast station totals as of March 31

AM STATIONS	4508	
FM COMMERCIAL	6763	
FM EDUCATIONAL	4119	
<b>TOTAL</b>		<b>15,390</b>
UHF COMMERCIAL TV	999	
VHF COMMERCIAL TV	374	
UHF EDUCATIONAL TV	263	
VHF EDUCATIONAL TV	121	
<b>TOTAL</b>		<b>1,757</b>
CLASS A UHF STATIONS	352	
<b>CLASS A VHF STATIONS</b>	<b>31</b>	
<b>TOTAL</b>		<b>383</b>
FM TRANSLATORS & BOOSTERS	8919	
UHF TRANSLATORS	2462	
VHF TRANSLATORS	769	
<b>TOTAL</b>		<b>12,150</b>
UHF LOW POWER TV	1516	
VHF LOW POWER TV	324	
<b>TOTAL</b>		<b>1,840</b>
LOW POWER FM	2049	
		2,049
<b><u>TOTAL BROADCAST STATIONS - - - - -</u></b>		<b><u>33,569</u></b>

Then there is the list of stations that are silent – From this I noticed a couple of local ones -

**K253CG, Redmond, Wa**

**K263BJ – Richland, Wa**

**KNLI-LP – Waller, Wa**

I've lived in this area for a long-time...and never heard of Waller, WA. So, I looked it up ...It's between Tacoma and Puyallup with Waller Road running, north/south near its western edge. Population, about 9,000. Learn something every day. Want to know more, you can go to Google and find out.

The conflict in Ukraine has resulted in a number of Cyber Alerts being issued by the Government. This one got my attention because it addressed concerns about UPS's.

Here is what the FCC had to say on this topic -

#### **FCC URGES COMMUNICATIONS COMPANIES THAT USE UNINTERRUPTIBLE POWER SUPPLY DEVICES TO TAKE ACTION AGAINST THREATS**

The Federal Communications Commission encourages communications companies that use uninterruptible power supply (UPS) devices as either a primary or backup power source to review the Joint Cybersecurity Advisory (Cybersecurity and Infrastructure Security Agency (CISA) and Department of Energy (DOE)), [Mitigating Attacks Against Uninterruptible Power Supply Devices](#). Those agencies have become aware of threat actors gaining access to a variety of internet-connected UPS devices, often through unchanged default usernames and passwords. CISA and DOE recommend that communications companies, along with all other critical infrastructure entities, immediately enumerate all UPSs and similar systems and ensure they are not accessible from the internet; when a UPS or similar system's management interface must be accessible from the internet, these devices should have compensating controls, such as ensuring the device or system is behind virtual private network, enforcing multifactor authentication, and applying strong, long passwords.

For more information about this Joint Cybersecurity Advisory, please contact CISA Central at email: [central@cisa.dhs.gov](mailto:central@cisa.dhs.gov).

Do you own a smart TV? Many do, in fact the majority of TV sets now are of that type. I submit that many don't utilize those features, however, and still just use them as a regular TV set...Or as some call them, 'Dumb Sets'. Granted there are a lot of cord cutters out there that now get their TV via an Internet connection as the number of cable subscribers indicate.

Interesting how the term 'Smart' is becoming a term to describe many things. Smart Phones replaced the dumb ones. Smart speakers are now the rage. Oh yes, there is the smart thermostat. Now if those who own them were only as smart as the devices they purchase.

A couple of big sales in the news....

Cox Media Group (CMG) is selling stations in 12 markets to Imagicomm Communications. The deal involves some stations in the PNW –

- Idaho Falls, ID - KPVI
- Medford, OR - KVVU/KFBI-LD
- Spokane, WA - KAYU
- Yakima, WA - KVCY-LD/KFFX

On the 23<sup>rd</sup> we all learned that GatesAir is being sold. The new owner is a broadcast equipment company- Thomson Broadcast.



Here are some highlights of this major announcement –

Timing of the announcement is interesting, just before the NAB show. I'll bet there will be a lot of questions in those booths.

GatesAir, previously was Harris, which was previously Gates...making one wonder if there will be another name-change in the works.

GatesAir was purchased in 2012 by the Gores Group, a venture capital organization for \$225 Million

In August 2018, Thomson Broadcast was acquired by Groupe Sipromad, and is currently managed as part of the Technology Business Unit under the entity Phenixya.

GatesAir stopped manufacturing AM/Medium wave transmitters, Thomson still does make them with power levels up to 2400 kW.

Thomson has also been on the 'ground-floor' of DRM development.

Both firms have been producing TV Transmitting equipment.

Thomson is based in Paris France with US offices in West Palm Beach Florida

GatesAir is based in Ohio with legacy manufacturing in Quincy, Illinois

Thomson has equipment installed in over 170 countries.

Both firms are over 100 years old, GatesAir started in 1922.

In 2018, Thomson set a goal to establish themselves in the US Market

No price was announced

The transaction is subject to certain regulatory filings and is expected to close in the second half of 2022.

It will certainly be interesting to see how this new company comes together and what product changes will result.

A couple of passing's to note this month -

Harriet Stimson Bullitt, part of the family that founded King Broadcasting in Seattle has died at age 97



Steve Oshin lost his long battle with Cancer on April 16<sup>th</sup>. I had the pleasure of working with him at Entercom a number of years ago where he was in management. He was known as a very nice and kind person.



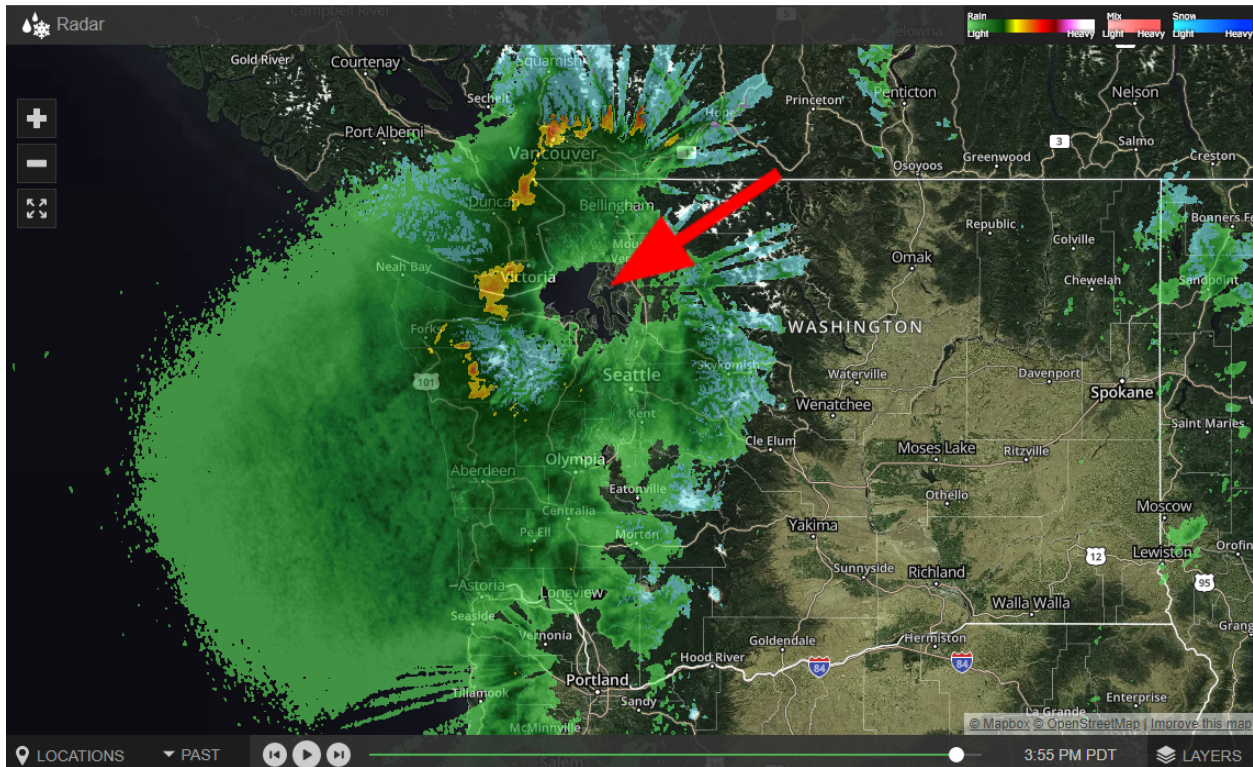
I always enjoy chatting with people who are new to this area and helping them understand the profound impact our mountains have on our weather. To most, the terms 'rain shadow' and 'convergence zone' are things they have never heard of, or experienced.

The Cascades create a huge 'rain shadow' that makes a large area of Eastern Washington (and BC) significantly dryer than here on the west-side. The Olympics also produce a rain-shadow, albeit on a smaller scale.

I recently captured this radar image of the April 3<sup>rd</sup> storm heading into our area. This one, clearly, shows the rain-shadow of the Olympic Mountains in the area of Sequim and Port Townsend extending to the northeast to include large portions of Whidbey Island. (Red Arrow) While the rest of us were getting soaked, they were not.

In my travels for NWPB, I often am going through that area on US-101 and get to witness how it's raining either side of Sequim. Some pilots I've spoken with refer to this area as the 'Blue Hole'





On the topic of Weather – After experiencing a 70 degree day early in the month (21 Deg C) , we were fooled into believing that spring was indeed here. However, after a ‘one-day-tease’ it was back to the cool and cold stuff. On the 11<sup>th</sup> it was snowing south of the Seattle area, with Centralia picking up several inches. The mountains were getting dumped on and the passes were a mess. This ‘Weather Tease’ is very common for April.

I spotted this item that seemed to sum-up our unseasonably cold April -

**Due to supply chain issues, your February order of snow has now been delivered. We apologize for any inconvenience.**



The following picture was sent to me by Tim Moore, Engineer at KOMO-TV. Was taken from his home near Pt Defiance Park in the North-End of Tacoma. Here you can clearly see the areas of the mountain that were clear-cut last year. Just to the left of center you can spot the tower at the site we call 'WTM-1' (West Tiger Mt. -1). On the far right, is 'WTM-2'.

The towers look like 'White Popsicles' due to their heavy load of ice. Trust me, you don't want to be around them when they 'defrost'. The impact of this falling ice tends to bend and break things.



Jason Royals, Engineer at WSU's NWPB facility in Pullman, caught this scene of winter weather in Pullman on April 10<sup>th</sup>.



Back in late March, a number of PSE customers in Bellingham may have been late to work due to their – PSE dependent alarms – not going off due to a power failure. What they did not know (at the time) was the issue was not cause by the typical reasons we have power outages. 1) Someone ran into a pole, 2) A tree fell over on the power lines, 3) a windstorm...etc. In this case it was due to – Theft !

When PSE crews arrived at the site of the outage, they didn't find downed wires, but rather, missing ones! Someone caused the line to become de-energized and proceeded to take down the wire for the scrap copper. It was not a lot, only 150ft, but enough that a number of customers were left in the dark.

Certainly, a risky way to make a few Bucks to support your drug habit.

As I write this (April 24<sup>th</sup>) ...I decided to check out just how much scrap copper is worth. The question to ask your browser is - How much is scrap copper per pound right now?

**Price Per Pound; Scrap #1 Bare Bright Copper Wire: \$1.48: Scrap #1 Copper Tubing: \$1.65: Scrap #1 Flashing Copper: \$3.21: Scrap #2 Copper Tubing: \$1.50: Scrap #2/3 Mix Copper: \$3.69: Scrap #3 Copper with Tar: \$6.76: Scrap #3 Roofing Copper: \$2.48: Scrap Aluminum Cans: \$2.60: Scrap Aluminum Copper Radiators: \$4.73: Scrap Aluminum Siding: \$3.11: Scrap Aluminum Extrusion: \$2.97**

The message here for Broadcasters is simple. Our Transmission locations have a lot of copper items. Questions – 1) What are you doing to protect them? 2) How much is your 'air-time' worth?

Being a, very old, broadcaster...I love to see pictures of equipment from the past. This one got my attention for a couple of reasons – 1) The first 'Board' I operated was at KTNT in Tacoma and it was made by GE, 2) Note the message in the upper right about the equipment being 'Transistorized'. Back in the day, we were just starting to see vacuum tubes being replaced with Transistors, hence the use of this term. Personal radios used the same term. Hence the term 'Transistor Radio' Some were, along the way, it was replaced with 'Solid State'



In previous issues of this column, I've been writing about the 'iHeart-Seattle-Shuffle'. Once again, more 'Column Fodder' from the same folks. In summary –

1090 AM has a new format called 'The Patriot'

Apparently, it was felt that Seattle (one of the most liberal places in the country) needed to have another Conservative Talk Station? I guess the right-wing talkers on 570, 770 and 1590 were not enough? Interestingly, in the past, 1090 was the frequency for Liberal Talk, Air America. And, of course, new call letters [KPTR] and a new Logo –



93.3 is no longer KUBE, but KJR (FM)

Following the universal move to FM for talk heavy programming the sports/talk programming of 950 AM is now available on FM too. Those that do graphic art for iHeart must be kept busy these days! Yep, another new one for the combo – (Note the FM comes first)



KJR-FM (95.7) is now KJEB

A day after the KJR-FM call letters were officially moved to 93.3 FM; the KJEB call replaced KJR-FM on 95.7.





Now, perhaps, the call letter shuffling will stay this way for a while ? However, if history is any indication....(will let you know more next month)

Nielsen is out with Radio-Ratings for the Seattle area for March – Here's some of my observations –

KIRO-FM continues in the #1 Slot

Warm (KRWM), after their annual big jump for Christmas is at #2

Not far behind at #3 is KUOW

At #5 is KJR-FM. Obviously referencing the 'old' KJR-FM on 95.7. Thankfully people are no longer having to keep track of call letters with PPM!

#6 is Kin-Win (KNWN) still going strong with their news format.

The top-rated Sports station is KIRO-AM. I suspect it may go higher now that we have baseball back on the air. Not to mention the 'M's' are doing quite well. KIRO-AM is also available on KIRO-FM's HD-2.

It was difficult to understand the high ratings for little KEXP, that debate has been put to bed as their latest numbers are about half of what they were.

KNDD's HD-2, playing 'Blues' is out-ranking 18 other stations. In fact, there are 5 HD-2's in the running.

Country? This time the Wolf is edging out the Bull (perhaps by a nose)

Always interesting to see new places where electronics are being used. The latest, Major League Baseball is looking at an electronic system for calling pitches to replace all the 'signals' between the Pitcher and Catcher.

The new system is called 'PitchCom. Don't look for this to be used at T-Mobile Park anytime soon. It will, first, be vetted in the Minor's. One of the advantages is that it will, as some proponents are saying, speed up the game.

The catcher wears a wristband with nine buttons for calling the pitch and location. There is a receiver in the pitchers cap and another in the catchers helmet.

College baseball is already using an electronic system for calling pitches, with Game Day Signals, the calls are relayed from the dugout to a receiver on the pitcher's wrist.

I wonder if they will also adopt the NFL's communication system where the coach can talk to the quarterback so the manager can talk with the pitcher?

This one would make a great sign to hang on the office wall -

**"The two most common elements in the universe are hydrogen and stupidity."**

Credit given to - Harlan Ellison

Could there be another sale in the works?

The headline read – **"Group led by Connoisseur CEO bids for Cumulus"**

Connoisseur Media CEO Jeff Warshaw is at the head of a group offering nearly \$1.2 billion to purchase Cumulus Media, an offer that the Board of Directors of Cumulus is reviewing. Cumulus stocks jumped 40% from, near \$11 to \$14.21 per share, when news of the proposed acquisition was revealed.

The big Radio Broadcaster does not own any stations in Washington State, however it does in Oregon and Boise.

In early April, WSU's NWPB announced that KOHO/101.1 in Wenatchee would no longer be a commercial station and would begin programming jazz programming from NWPB's jazz service. The station is licensed to Icicle Broadcasting which was owned by Harriet Bullitt who gifted the station to Sleeping Lady Foundation. The new programming will be provided by Northwest Public Broadcasting (NWPB) under a programming and services agreement between NWPB and Sleeping Lady Foundation, which owns KOHO. The agreement for this arrangement is for 12 months.



NWPB's other jazz station, KJEM was created in honor of broadcasting pioneer J. Elroy McCaw, a name long associated with broadcasting in Washington State. At one time he owned KTVW-TV which is now KCPQ (Ch 13). Incidentally, NWPB, a service of WSU's Murrow College of Communications, is also celebrating it's 100<sup>th</sup> birthday.

Perhaps worthy of noting that, although not often, occasionally a commercial station becomes non-commercial. A good example is right here in Seattle where KUOW/94.9 and KING/98.1 are on 'Commercial Channels' but are operated as non-commercial facilities.

TV has experienced something similar with KTVW becoming KCPQ (CP Standing for Clover Park) who operated the station for a few years as a non-commercial entity. They sold it to Kelly Communications who kept the KCPQ Call. The station, still sporting the same call letters is now part of Fox.

At one time we only had – one – large employer based in the Seattle area...Boeing. Times have changed! Now when we think of large employers we have a number to chose from -

- Amazon with almost 1,000,000
- Costco 288,000
- Microsoft 181, 000
- Boeing (technically no longer based in Seattle) with 141,000
- Starbucks 138,000

Another celebration this year – The Space Needle is 60 years old.



It all started with the Seattle Worlds Fair in 1962 and has become the ‘symbol’ of Seattle. You can’t see any image of this city, without showing the Space Needle...Recognized everywhere. Who would have thought? A lot of the old Worlds Fair structures are still there to be seen at the Seattle Center. Just recently the overhauled arena (Climate Pledge) another item from 1962 the continues to serve the area.



The Space Needle, itself, has changed as well with the addition of the restaurant ‘part way up’.

Here are some of my memories of the Space Needle –

I recall going to the Fair with some friends. Yes, I was just getting started in Broadcasting at the time and still attending school.

If I remember correctly, KING-AM had a studio there and was broadcasting live.

There used to be a natural gas torch at the top of the structure...I recall hearing a radio station announce ...'Now lighting the torch at the top of the Space Needle' Think it was a top of the hour event.

Yes, there was a Ham Radio Repeater up there. It was on 6 Meter-FM. I believe that Bob Koons was involved (perhaps someone can help me with those details)

A number of radio stations have had studios at the Needle. Back in the days when we had live announcers 😊

I remember setting up for a live morning show remote from the Needle for KBSG. I'd arrive about 4 AM and load my equipment into the elevator and operating it myself. (Any other time there was an elevator operator that ran it and provided tourist type info) Once at the top, I'd set up the broadcast equipment and then set back and enjoyed breakfast until it was time to tear it down. Did that many times.

Today the Space Needle is still a 'destination of choice' for those visiting the area for the first time. Kudo's to the Seattle Times for a great item in the April 17<sup>th</sup> issue of Pacific NW Magazine.

Another birthday being celebrated this year – Dielectric is turning 80 this year.



Always loved their address – 22 Tower Road – Raymond, Maine. Go down the road a few miles further you are in Bridgeton, Main home of Shively.

Part of the history of Gates Air was the publishing of this picture of an Air Force announcer sitting in front of an old Gates Console. If I recall, KPLU had one also. What got my attention

was the fact that this was the same model used by KMO when I went to work there in 1966. I gave it to KUPS. Not only that, we used the same type of microphone – A Western Electric 639B...Commonly referred to as a 'Bird Cage'.



The turntable is a classic – Gates CB11 (We had those too at KMO). It was designed to handle 16 inch Transcriptions. Like a lot of equipment from that era, under the platter was a Bodine motor. This made the turntable, somewhat, unique. Many turntables of that era had a shaft extending from the center of the turntable into the cabinet below where you would find a mechanism that looked like it came out of an old washing machine.

The lever, on the far side here, was for changing speeds. Was made of cast aluminum with GATES in the handle.



Prior to the introduction of 'Tape Recorders', radio stations would record commercials and programs on what were called 'ET's' or 'Electrical Transcriptions' on a lathe in the production studio. Many of these were on 16inch discs. Commercial production houses would also use the ET's for their productions. I recall, way back in the last century when I got started, playing Coke commercials on 16 inch ET's that arrived at the station in a big cardboard box.

I don't recall the maker of the Tone-Arm in this picture, however, I do remember having a number of them in service. I tried doing a Google Search for it and could not find it. Perhaps one of my readers can be of help. Funny how my search for Tone Arms kept coming up with items about 'Toned Arms'. Won't be long until the term will be lost. The Cartridge (device holding the 'needle') was made by GE. Apparently, in those days GE had quite a corner on the market.

Wind power has reached a big milestone. Wind is now producing more electricity than both coal and nuclear for the first time. We have a great example of 'wind-farms' not far from Seattle on both ends of the Kittitas Valley. Wind turbines in the continental U.S. produced 2,017 gigawatt-hours of electricity, making up 19% of U.S. energy production. In our area, we are blessed with a lot of Hydro production making us, perhaps, the greenest of all? All the while, the hydro production from the Colorado River is declining due to climate change. Wind power will need to come to the rescue in many areas.

Sadly, there is a lot of news related to the mess in Ukraine. A lot of it is broadcast related and/or local area related - Here are some of the items I've noted this past month-

In the past, you have, perhaps, read my comments blasting the distribution of mis-information (Much of it broadcast) about Covid, vaccinations etc. Now we are experiencing misinformation about a different matter – Ukraine. This headline was in a recent issue of NAB SmartBrief –

### **‘ NewsGuard spots increasing misinfo about war in Ukraine ‘**

**The number of websites spreading false news stories about the Russian invasion of Ukraine has risen 48% since March 3 to reach 172, while the number of specific false claims has doubled to hit 23, NewsGuard reports. Major brands are still providing ad revenue for 55 sites identified as promoting false Russian narratives about the crisis.**

These are classic examples of the power of misinformation. The old Soviet Union was a heavy user of this technique in the past using the power of Radio and TV in the communist block. Now they are doing the same thing in order to keep their, increasingly closed society, from access to all sides of a story.

All the more reason to be very thankful we live where we do!! Without our free- press and Broadcasting look where we'd be?

The severing of ties with Russia is causing a lot of issues, perhaps in areas you may have not considered?

Emerald City Guitars in Seattle has been supplying musicians with amplifiers for many years. Perhaps not commonly known, many guitar players prefer the sound that produced by amplifiers that use Vacuum Tubes. (Something to do with soft clipping and harmonic content). The problem is, no one makes vacuum tubes in the US any more. However, there are Russian companies that do. Unfortunately, that source has been cut off. The result – The price of tubes used in guitar amps has more than doubled.

Guitar players are not the only ones in this boat. There are others that use vacuum tubes-

Some Audiophiles prefer their sound and still use them in their stereo equipment.

Amateur Radio Operators (aka Hams) use them in their higher-powered equipment

Some Broadcast Stations, especially in smaller markets, may well be using tube type equipment and/or transmitters.



Due to the thousands that had been forced to flee their country due to the conflict, we can expect to see more of them coming to our area. In my own neighborhood, we have a family from Ukraine moving in next door and another is about a block away. As happened with Latinos, you reach a point where having a broadcast station that uses your language and plays your music can be an option. Could it be we will see the same with those displaced here?

Perhaps not commonly known is the fact that Washington has the largest population of Ukrainians in the US, right after New York and California. The fact that there are others from their country already here contributes to this situation.

The road ahead for these people is going to be tough – Many are coming here with few belongings; many don't speak English. Churches and relief organizations are helping. Hopefully broadcasters will do their part.

Michael Brown, of Brown Broadcast Services in Portland wrote this -

**Kraina-FM is a commercial music station with two dozen transmitters scattered throughout Ukraine, and with main studios in Kyiv. Once the war started, they changed direction and started operating commercial free as the “Radio Station of National Resistance” from a makeshift studio-in-exile in a distant resort village. Their automation system somehow (mostly) continues to work unattended in Kyiv, while the remaining employees work on uploading pre-recorded segments and shows. Their Kyiv transmitter is at the 1300-foot self-supporting tower that was bombed in the early days of the war. They managed to get back on the air in Kyiv in about a week, while still operating in most of their other markets.**

**It's a gripping glimpse of doing radio in the midst of a horrible war.**

**I've been in email touch with their PD.**

<https://www.newyorker.com/news/dispatch/ukraines-radio-station-of-national-resistance>

<https://www.cbc.ca/amp/1.6413322>

<https://www.anneatnight.com/2022/04/06/bogdan/>

If you live near the Naval Air Station on Whidbey Island, you may have been aware of this item -

The US has sent six naval aircraft, equipped for electronic warfare to Germany to bolster N.A.T.O.'s eastern flank as Russia continues its war in Ukraine. 'These "Growlers" (Yes, this is what they call the aircraft) ... are equipped for a variety of missions, but they do specialize in flying electronic warfare missions, using a suite of jamming sensors to confuse enemy radars, greatly aiding in the ability to conduct suppression of enemy air defense operations. They will be accompanied by 240 personnel, including air crew and technicians.

In the event you thought a 'Growler' was something to contain Beer....You may have missed this one - Here's a picture of another kind of 'Growler'



**A U.S. Navy EA-18G Growler, assigned to the "Garudas" Electronic Attack Squadron (VAQ) 134, taxis the runway at Spangdahlem Air Base, Germany, March 28, 2022. (U.S. Air Force photo by Staff Sgt. Chance Nardone)**

Interesting article about how 'Crowdfunding' is boosting shortwave to Eastern Europe



*An aerial view of the WRMI shortwave facility from its website.*

Saying it has received strong public support, the grassroots crowdfunding campaign 'Shortwaves for Freedom' WRMI announced additional shortwave radio broadcasts to Russia, Belarus, Ukraine and other parts of Eastern Europe.

The broadcasts consist of rebroadcast content from Voice of America (VOA) and Radio Free Europe/Radio Liberty (RFE/RL). The content is in the public domain and available for unauthorized reuse, the campaign said.

"We quickly raised enough money from our online appeal to start funding to the region from a private FCC-licensed shortwave station in Florida and from early this week we are expanding broadcasts from commercial stations outside the United States," said Kate Neiswender, a California lawyer and spokesperson for the campaign.

The private U.S. shortwave station that Neiswender referred to is WRMI Radio Miami International in Okeechobee, Fla., which is owned and operated by longtime shortwave enthusiast Jeff White.

According to Shortwaves for Freedom, reception of the initial WRMI broadcast have been confirmed in the targeted countries. They are being sent via the station's 100,000-watt transmitters beaming to Eastern Europe.

Shortwaves for Freedom said it has raised more than \$18,000 from individual donors through its FundRazr campaign, which is 180% over its initial \$10,000 goal.

And there is this story about how a station in Prague is helping Ukrainian refugees adapt -

A new Prague-based internet radio station has started to broadcast news, information and music tailored to the day-to-day concerns of some 300,000 Ukrainian refugees who have arrived in the Czech Republic since Russia launched its military assault against Ukraine.

In a studio at the heart of the Czech capital, radio veterans work together with absolute beginners to provide the refugees with what they need to know to settle as smoothly as possible in a new country.

For 12 hours each weekday – and 11 hours on weekends – Radio Ukraine plays Ukrainian and Western music while presenting news of Ukraine and the Czech Republic together with information for refugees every 15 minutes. It includes details about where they can get the documents they need from local authorities, how to get a job or medical treatment, or how to find a place for children at schools. Children can also listen to Ukrainian fairy tales.

Our local computer giant, Microsoft is involved as well –

Microsoft has decided to suspend sales of its products and services in Russia. It also committed more than \$35 million to support humanitarian assistance and relief efforts for Ukraine.

"Our support for Ukraine is steadfast," Brad Smith, vice chairman and president of the software giant, [said](#) in March. "We've increased our humanitarian aid, continue to detect and defend against cyber threats, provide disaster response, and connect millions through free Skype service."

Microsoft has also decided to donate part of the earnings related to the game Fortnite on its Xbox game console. The company, co-founded by Bill Gates and Paul Allen, also decided to concentrate on Russian cyberattacks, which multiplied before and since the invasion, in particular against Ukrainian infrastructure and institutions.

The changes in Russia are creating what's called a 'Brain Drain' as worker flee. Hundreds of software developers and other technology specialists have left the country. The issue is where can they go? You need countries that will accept Russian citizens without visas. We are not talking just a few here, estimates are there are hundreds of thousands that are 'getting out of Dodge'.

The recent exodus reverses 10 to 15 years of momentum in the Russian tech industry, said Konstantin Sonin, an economist at the University of Chicago's Harris School of Public Policy, who emigrated from Russia to the United States. "It is now like the '90s, when whomever was able to move moved out of the country," he said.

Workers left the country because they objected to Russia's invasion of Ukraine, no longer wanted to live under the Putin regime, and feared they could not speak their minds if they remained. Working in tech, a comparatively lucrative industry, they had money to flee the country. And like other tech workers globally, they could continue their work from anywhere with a laptop and an Internet connection.

I keep thinking about all those ads in the Seattle Times for software developers. Then, there is the shortage of broadcast engineers.

There are a few differences between those of us that live north and south of the US/Canada Border. One of the major ones is the use of the Metric System. For reasons that I still don't fully comprehend, the US has, for the most part, rejected it.

When I am driving along US 101, on my to and from Forks, being a 'news junkie' I will often tune to 1130 AM. In doing so, I will need to do a bit of math when it comes to understanding the Weather Forecasts.

I recently ran across this item –

'How to Convert Celsius to Fahrenheit without doing ANY math'.

Thanks to Author Beth Skwarecki, here's how it works =

**Not only are Celsius and Fahrenheit degrees different sizes (each Celsius degree covers more of the scale) they have different baselines. Zero degrees Fahrenheit is a bitterly cold day in the dead of winter. Zero degrees Celsius means that you're right on the cusp of where a predicted snow flurry might turn out to be a rain shower, or vice versa.**

**Because of these two factors, converting is traditionally a two-step process: you need to multiply *and* add (or subtract and divide). That was still the case last time we covered a way to "quickly" convert from one system to the other—the quickness in that example coming from the suggestion to use 2 and 30 as the relevant conversion factors, instead of 1.8 and 32.**

**But there's a better way, and all you need to do is memorize four numbers, and flip them to convert. (Or memorize one of them and know that you can add or subtract 12 to get each of the others.)**

Here's the trick:

- 04 degrees Celsius is 40 degrees Fahrenheit (chilly!)
- 16 degrees Celsius is 61 degrees Fahrenheit (hoodie weather)
- 28 degrees Celsius is 82 degrees Fahrenheit (balmy!)
- 40 degrees Celsius is 104 degrees Fahrenheit (stay inside and crank up the A/C)

For these particular numbers, you're just reversing the digits: 16 becomes 61, get it? The only weird one is 40, but now that you've read it, you get the idea. Four degrees Celsius is 40 Fahrenheit, and 40 Celsius is 104 Fahrenheit.

Now, if you're on vacation and they tell you it's going to be 32 today, you know that that's more than 28 (82 Fahrenheit) but thankfully below 40 Celsius (104 F). It's tank top and shorts weather.

On the other hand, if it's going to be 10 degrees, you know that it will be cooler than 61 Fahrenheit (10 is less than 16), but warmer than 40 (10 is more than 4). Bring a jacket, and you'll be good.

And a fun bonus fact, in case you're ever vacationing in the Arctic: -40 is -40 in both scales.

The news is full of stories about 5G. The question – Is this just a marketing hype, or is 5G really going to become a giant movement as some say? After three full years of growth, global wireless 5G adoption has reached the rapid acceleration phase and is forecast to reach 1.3 Billion connections by the end of this year. I'd say that's a good indication that this is the 'Real Deal'.

And from the Department of Miscellaneous information –

Have you had your catalytic converter stolen yet? Almost sounds like it's a matter of time.

Home surveillance videos show how thieves can steal converters in under 5 minutes, even from cars parked in driveways.



Inside of a converter is a honeycomb-type filter which contains platinum, palladium, and rhodium. Those are expensive precious metals that react with exhaust gasses to convert them into less harmful emissions.

Consumer Reports said the current price for an ounce of platinum is \$1,000. Palladium is worth more than \$2,300 an ounce and rhodium costs more than \$20,000 an ounce.

According to Waste Advantage Magazine, the typical catalytic converter contains 3 to 7 grams of platinum, 2 to 7 grams of palladium, and 1 to 2 grams of rhodium. I have no idea of how much of this stuff resides in the average converter.

In days gone by, you would find people that put a mail box on a pole so that its way off the ground and then attach a sign saying 'AIR MAIL'. Well Airmail has departed. But this has not stopped people from creating unique mail-boxes.

In this case a fellow figured there was still a use for that old microwave oven – Not sure it complies with postal regulations....



Here's mine – USPS approved, mounted on the side of a piece of Rohn 55 Tower



So why did I do it this way? Several reasons –

My old mailbox was rusting away... and it was time for a new one

In our climate a, treated 4x4 only lasts a few years

I just happened to have a short piece of tower. (And no treated 4x4's)

I had a number of, stainless, brackets used to hold FM Antennas on towers.

A rather stunning picture from Dwight Small taken on April 11th



The following can best be appreciated by 'older people'

**YOU KNOW YOU'RE  
OLD WHEN YOUR  
KNEES GIVE YOU  
A MORE ACCURATE  
WEATHER FORECAST THAN  
THE GUY ON THE TV.**

I was recently looking at some CD's that contained pictures I'd taken a while back. I recall this one. Taken from West Tiger Mt, looking South, at Mt St Helens when it was still awake – If you look close, you can see the steam coming from the Lava-Dome.



An old friend sent me some funny items that I feel a need to share –

**Felt  
uncomfortable  
driving into the  
cemetery. The  
gps blurted out  
you have reached  
your final  
destination.**

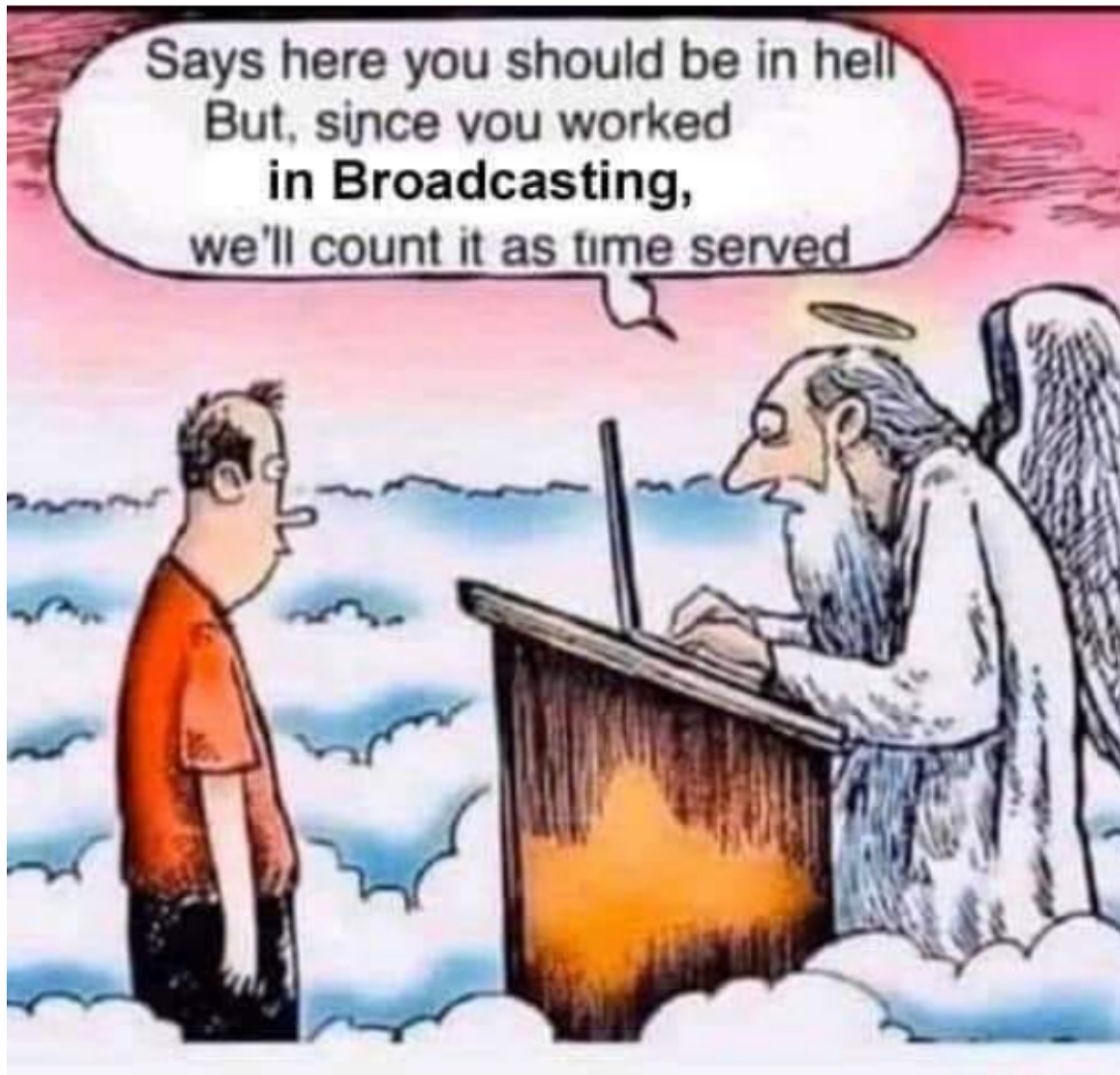
**I changed  
my password  
to "incorrect"  
so whenever  
I forget what it is,  
the computer will say  
"your password is  
incorrect."**



**SOME PEOPLE AGE  
LIKE WINE.  
OTHERS AGE LIKE  
MILK.**

And, of course, something Broadcast related -





Every – normal – person loves a Puppy !

I was recent coming out of the local grocery store when a lady was coming in. Very comfortable in a 'Tummy Pack' was this little jewel, sound asleep. I quickly grabbed my phone and got this picture. Gotta melt your heart!



Here's another one –



If you have a picture to share- Please send it my way !!

Hope to catch you here next month

Clay, K7CR, CPBE

SBE Member # 714

Since March 1968