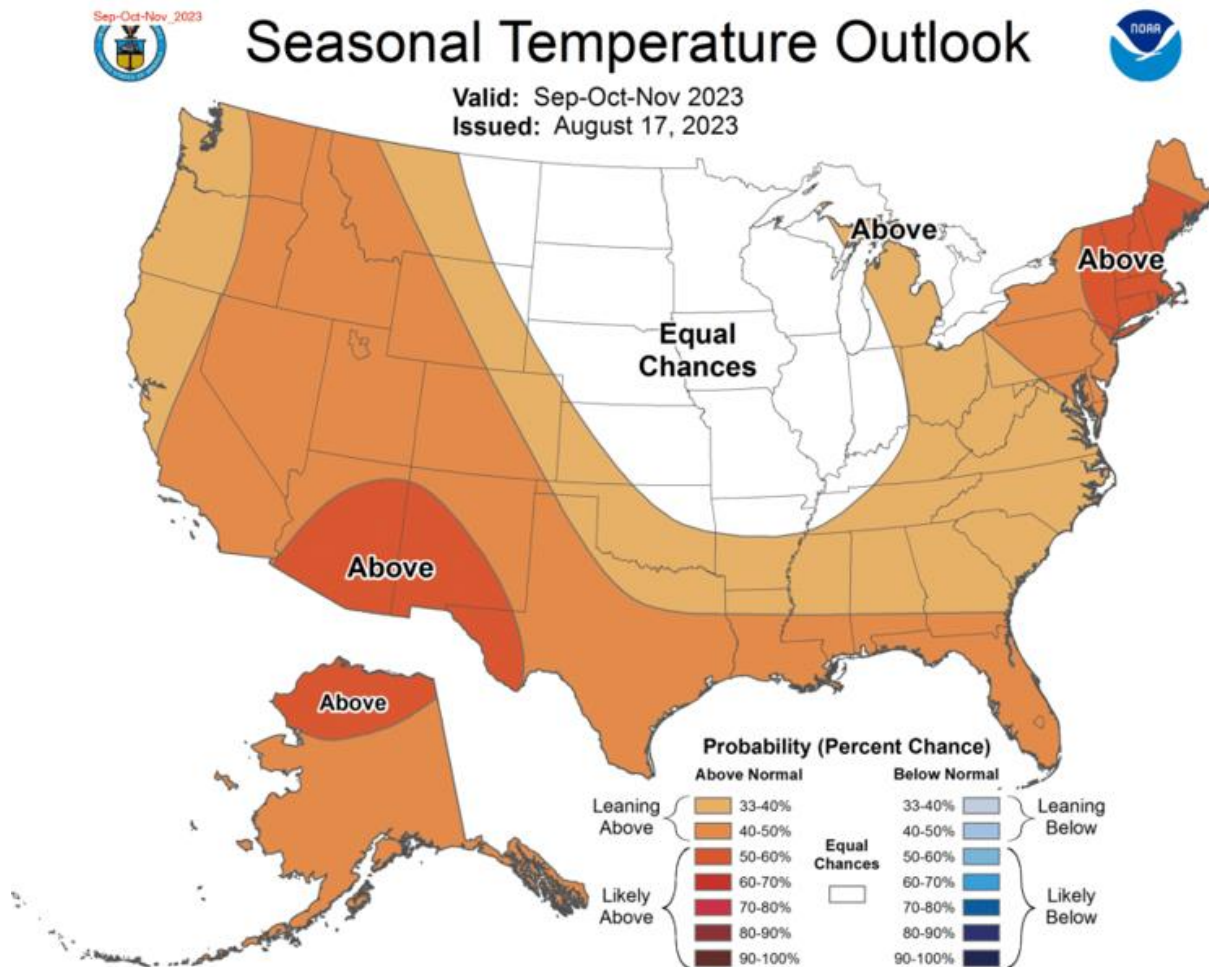


Clay's Corner for September 2023

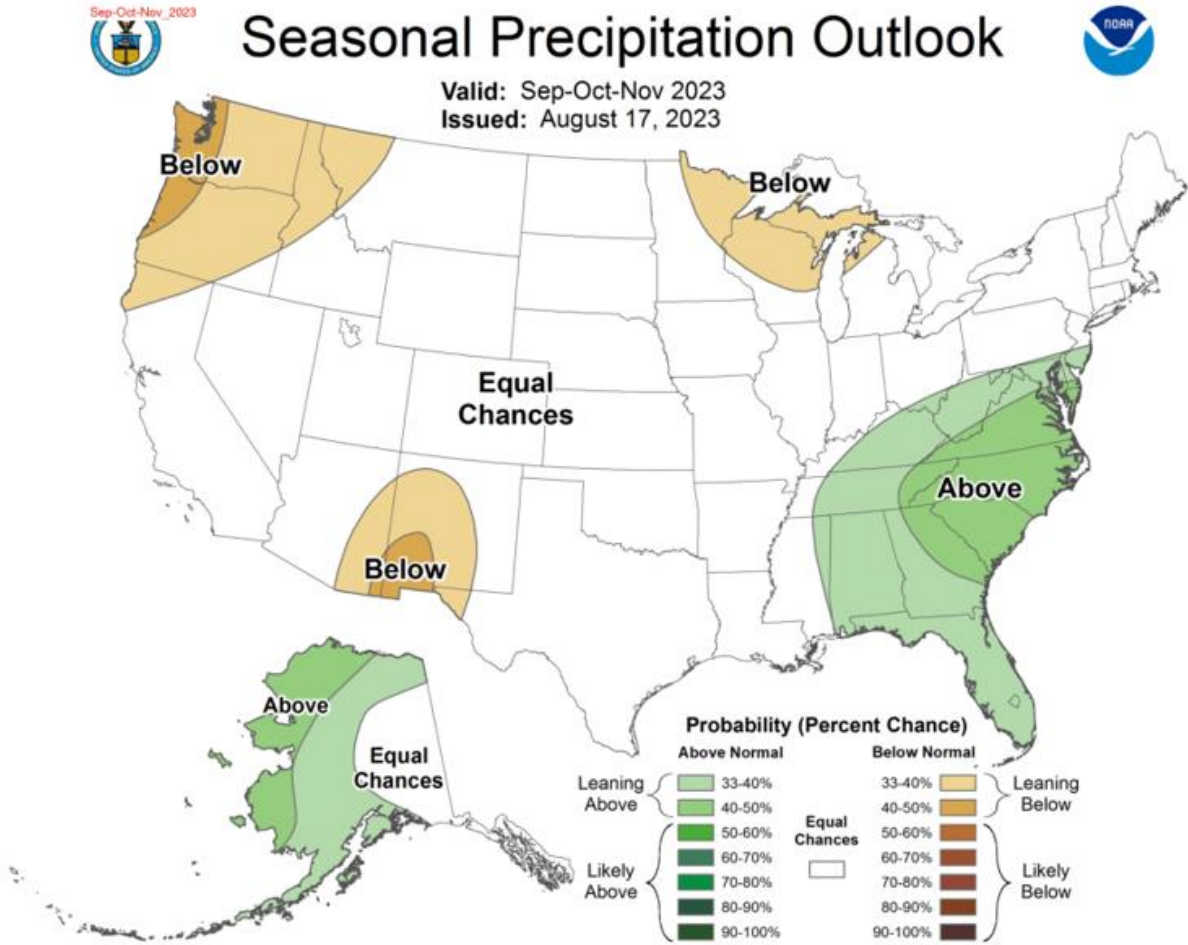
One Broadcast Engineers Perspective since September 1986

Well, we almost made it thru the summer without smoke....But not quite. Unfortunately, our wonderfully dry summer, as August grew to a close, has had its share of bad air with the stench of forest fire smoke. Look up you see blue, look out and you see brown haze. Perhaps the only good thing is the fact we are blessed with spectacular sunrises and sunsets. Never fear, the rains will come, and this will all be a memory. However, from the looks of the long-range forecasts, we may have a long-hazy Indian Summer.

As you can see here - It's projected to be 33 to 40% warmer -



And - much- drier -



Here's a picture from the camera at Aeneas Mountain, NW of Omak showing the foul air in that area. (That's the KQWS antenna on the right)



And this one from Cougar Mountain looking toward Seattle on the 21st. The Antenna for the 94.1 and 96.5 Auxiliary is on the left.



Hawaii is not the place you usually think of for fires, however, this year Maui was in the news for the tragic fire that hit Lahaina. Once again, a lot of finger-pointing regarding warnings. Interestingly fire was way down the disaster list...As was the use of broadcasting. Another tragic example of how we have become almost totally dependent on the Cellphone as our sole means of communicating. When the power goes out and cellphones no longer function...Its - ONCE AGAIN- Radio to the rescue.

The following story is interesting...Underscoring what I just wrote -

An interesting story from CBS News about the fires in Maui. If you read through it, nothing worked. Sirens didn't work, cell phones were sketchy or not working at all, no electricity, etc. etc. If you read through the entire story, near the end is one line: "Emergency management had to resort to radio to communicate with the victims of the fires."

Well, well, interesting that what we have been saying all along is really true, the oldest form of contacting people is still the most reliable and unfortunately, because people are so attached to their stupid phones, radio has to be "resorted to." This little section of this article needs to get to these senators and congressmen who are on this AM in every car movement.

Again, [only] brain-dead people who don't believe in radio think cell phones are the answer to everything. I am overjoyed when cellphone networks crash and people realize they are not as good as they expected even though, once the cell phones are up again, radio will go back to being ignored.

— Ron Schadt, Radio Engineer, Redfield, S.D.

Congratulations to Ted Hand on being elected the next SBE President. Ted was involved with the National Board back when I was on it.



Perhaps, maybe - FM Stations will be able to increase their HD power levels...> IF < the FCC approves. Check out [MB Docket # 22-405](#) for more details. Certain, if the Commish approves, it will be in all the major media publications. Right now, to the best of my knowledge, KING-FM is the only station in the Seattle area that's already doing it on an experimental basis - If the rules change, it will become a blanket authorization.

In the category of - Goodbye old friend -



The Department of Energy approved new rules for light bulbs last year that took effect on August 1, including a new minimum standard for light bulbs at 45 lumens—or brightness—per watt, an increase over the average 12 to 18 lumens per watt for incandescent bulbs.

This only involves the manufacturing and selling of new bulbs....You can still use those that you have already purchased and, purchase news ones for use in appliances, traffic signals, plant lights and, of course - Tower Lighting. I my travels, I can't help but notice all the towers that are still light with Light-Bulbs and not LED's.

According to the Feds....LED's use, at least, 75% less energy and last up to 25 times longer. I often used 'current-sensors' in constructing tower light monitoring equipment. Where I would use a 20 amp sensor, after the change, it was replaced with a 2 amp model.

LED lamps may save money, however, they often are the source of Radio Frequency Interference....Just ask any Ham that operates H.F. But like many things these days, sadly, RFI is not high on the FCC's agenda.

Here's another thing to think about ...Apparently the miles and miles of abandoned, lead covered, telephone cables are contaminating soil and waterways, according to a piece in the Wall Street Journal. I can't see our telephone companies doing much about this - on their own.

When you reach my age, you start thinking about dementia. I am happy to report that I don't appear to have it (so far). According to an article in NextAvenue.org, there are some things you can do to protect you from it.

Perhaps you have heard someone say they have decided to keep working beyond retirement age to 'keep their mind sharp'? It appears that notion has some science behind it.

Three researchers at the Max Planck Institute for Demographic Research in Germany have released a study showing measurable differences in cognitive decline between those who bow out of the workforce earlier versus later in life. Some of the differences were stark.

Perhaps I should note that there are certain, high-profile, people in public life that appear to be struggling in this area. Certainly being able to keep your very-personal computer operating at a high level depends on a lot of factors, some of them you have no control over.

Allow me to share a couple additional related items -

- I believe, strongly, that our creator wants us to have a purpose...Just as a sedentary life can, and does, lead to muscular atrophy, that can be prevented by exercise and physical activity... Creating, doing, being interactive, learning new things, solving problems etc. all influence brain health. The brain appears to need exercise just as does the rest of the body.
- Being positive can be very beneficial as well. How we respond to challenges has much to do with our brain health and longevity.
- A sense of purpose is also vital. Many times people will become disconnected and, therein, lose their sense of purpose leading to their decline.
- Happiness in what you are doing is also vital...Doing what you love is a bonus. Doing something you don't like, especially later in life, is a call for re-direction.
- Recently I was chatting on the phone with a well-known person in our industry (he likes to point out we are of similar age) ...Clearly he, like me, does have to keep working, however he enjoys the challenges that come with doing so.

- Will this make us live longer? Perhaps not, however, we are likely happier and more-healthy until that time comes, as it does for us all.

In the past, I have been asked to climb towers. (No, I don't do it anymore, except for my own tower at home). Many would never dream of climbing a tower due to their fear of heights. Forbes Health says about 3-6% of those that have a fear of heights suffer from what's known as acrophobia. Neurologists believe they have pinpointed what happens in our brain. The findings suggest that (here it comes) the 'basolateral amygdala (BLA) is responsible for the way we experience the fear of heights. Now, don't you feel better knowing this?

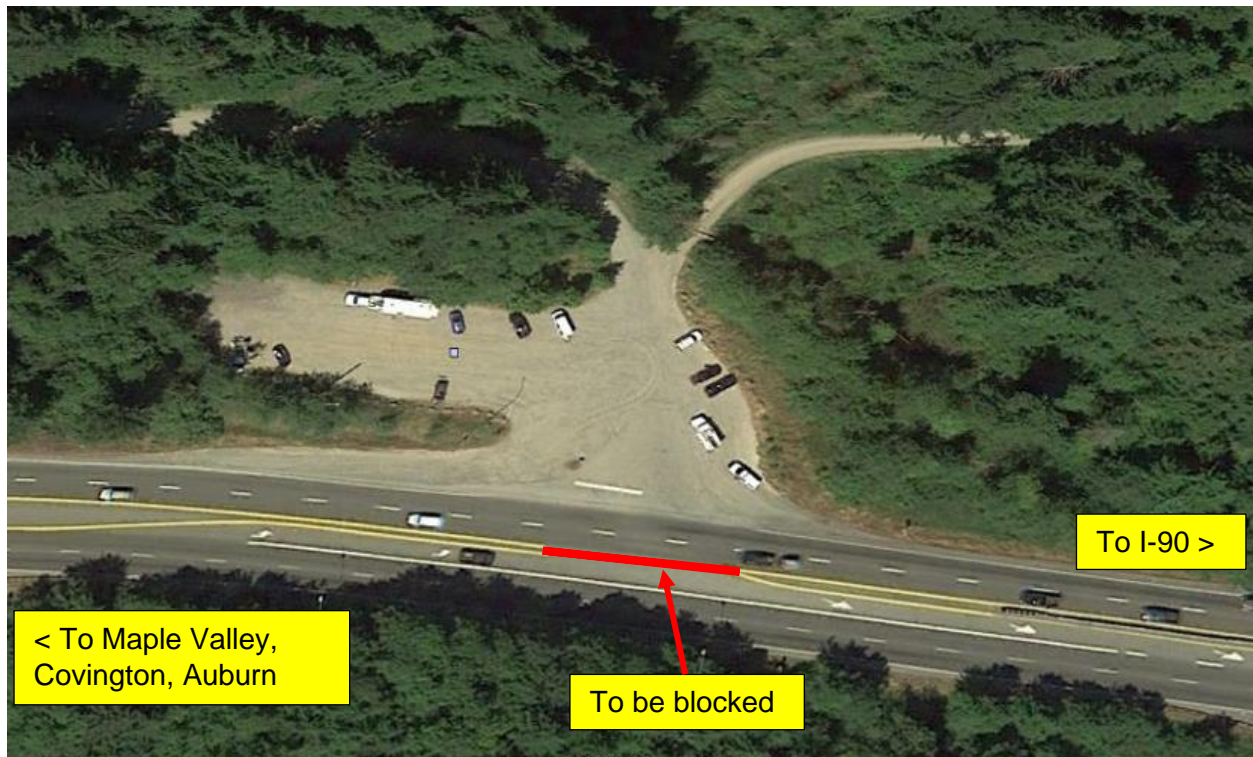
As we get closer to the end of summer - changes start to show themselves in the changing of colors. This picture from one of the West Tiger tower cameras is looking east just after sunrise. Note how the golds are replacing the greens. Yes, I'd still much rather drive up here than sit in traffic in the city.

With that being said - The construction on SR-18 between Tiger Summit and I-90 has resulted in the route being restricted to two-lanes with speed reductions and with that, long slow backups.



Here is an overhead view of Tiger Summit, elevation 1377ft. SR-18 here is 4-lanes. The parking area on the north side of the highway is frequently packed with vehicles associated with those that recreate in the Tiger Mountain State Forest. The road going up to the right is the route to the broadcast and electronic sites on the summits of Tiger, some 6 1/2 miles from here.

In the next couple of years this intersection will be dramatically changed by eliminating the ability to cross over west-bound SR18 to go east. This is likely to eliminate a lot of accidents that have taken place, over the years, at this location.



Some observations about the July Radio (12+) Ratings

- KKWF (The Wolf) is now the only Country Music Station which has resulted in them being, rather firmly, in the #1 position.
- KUOW is the top Non-Commercial station in the market at #7
- KIRO-AM is the top rated AM station at #9
- There are 4 HD-2 Signals and 3 Radio Stations Streams on the list

Something you don't see very often - The launch of an HD4 signal - Bustos Media did it in Milwaukee, WI with their 104.7 FM.



In the past I have written about adaptors of various type....Are you ready for an 'F to RJ45'?



How about a type F to BNC?



Then there are instances where you don't have an adaptor handy - So you use a piece of copper wire and roll your own - Here a 1/4 inch 3 conductor phone plug to a pair of RCA connectors. (Bonus Points for being creative)



I've recently been working on a little project at KWSU-AM in Pullman - The following is to prove it.



Unlike most places I work - This one requires a degree of 'Cow Skills'. Note the tower in the background. Interestingly the site is on 'Country Club Road'...Nope, no country club out that way.



AM Radio has been in the news a lot lately with some vehicle makers wanting to eliminate the mode from their radios. Clearly not all AM stations are suffering as the following clearly shows.

TOP BILLING AM RADIO STATIONS				
Station	Market	2022 Revenue	Format	Owner
WINS-AM	New York, NY	\$32,100,000	News	Audacy
WCBS-AM	New York, NY	\$31,350,000	News	Audacy
KFI-AM	Los Angeles, CA	\$25,100,000	News/Talk	iHeartMedia
KOA-AM	Denver-Boulder, CO	\$22,650,000	News/Talk/Sports	iHeartMedia
WSCR-AM	Chicago, IL	\$17,250,000	Sports/Talk	Audacy
WGN-AM	Chicago, IL	\$17,200,000	News/Talk/Sports	Nexstar Media Grp
KLAC-AM	Los Angeles, CA	\$16,900,000	Sports	iHeartMedia
KTRH-AM	Houston-Galveston, TX	\$15,400,000	News/Talk	iHeartMedia
WLW-AM	Cincinnati, OH	\$13,625,000	News/Talk/Sports	iHeartMedia
WWJ-AM	Detroit, MI	\$13,600,000	News	Audacy

Source: BIA Advisory Services

Several parties have made it clear how AM is critical for rural communities. I my recent travels to and from Pullman I can't help but notice a lot of farms out there where the only decent broadcast signal is from KWSU-AM....Certainly the only station that going to provide news and information.

Yes, we will have a Nation Wide Test of EAS this year. The date - Oct 4th and 218 PM (Eastern) with a back-up data of Oct 11th. The Wireless Alert System will also be tested. All broadcast stations, Radio and TV, are obligated to report to the FCC as in years past.

<https://www.usatoday.com/story/news/nation/2023/08/26/huge-us-fema-cell-phone-tv-alert-test-scheduled-for-october/70658918007/>

Looking way back.....Garnet Drakiotis gives us a look at how KUBE's Control Room looked back in the early 80's.

- Round/Rotary faders
- Cartridge players
- Reel to Reel tape recorders
- Not a computer screen in site.
- Those were the days !!!!



Some of the broadcast sites on West Tiger have fire protection via sprinkler systems with large tanks for storing water. Periodic testing and evaporation require these tanks be periodically topped-off.

Here on August 3rd, Water Buffalo is doing just that. Just so happened that this was prior to wildfire smoke and Mt Rainier was in great form.



Another company calling it quit'ssee note on the home page.

https://fairradio.com/?utm_source=twitterfeed&utm_medium

Want to guess where this fine example of construction was located?

3- Meters –

3 – Contactors

3- Current Samples

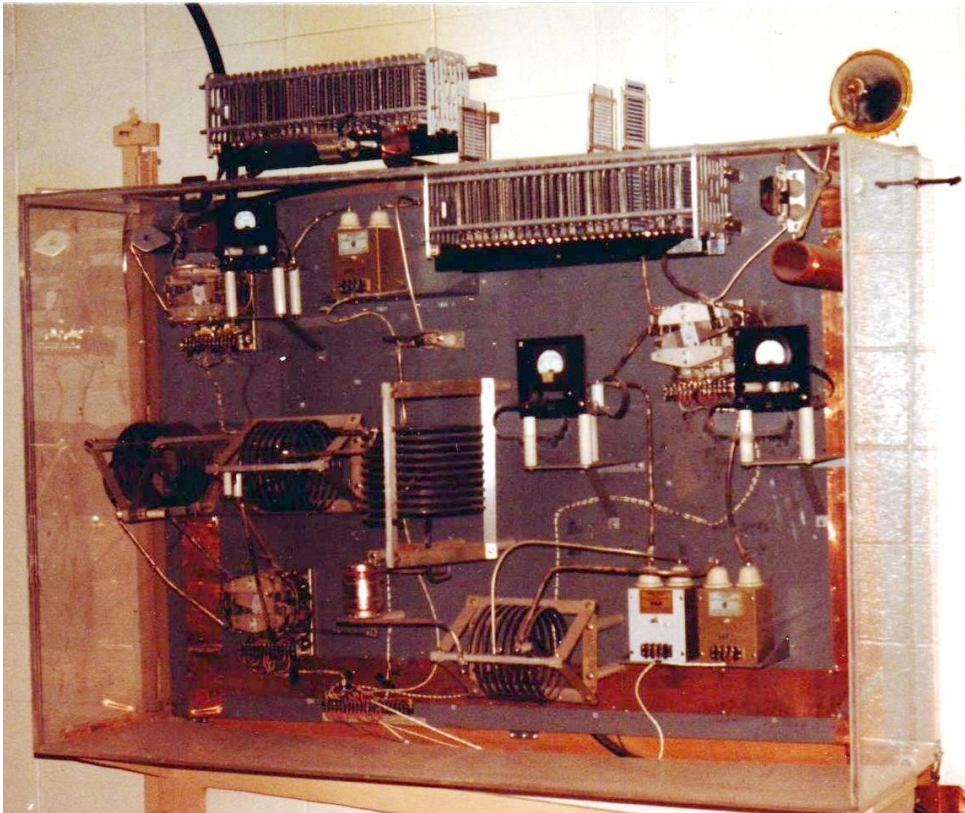
4 – Inductors

1 – Big Air-Capacitor

1-Vacuum Cap

1-Mica Cap

All in a plastic box



My wife has been digging through boxes of pictures and ran across this one of yours truly sitting at the Chief Engineers desk at KBSG on the 20th floor of Metropolitan Park East Tower.

Note the Blue IBM Selectric typewriter to my left (https://en.wikipedia.org/wiki/IBM_Selectric)
Not a computer in sight. Look at all those paper files !

Cool thing about this view is I could see West Tiger and Cougar Mt.

Gee, I didn't have any hair back then either.



Science fiction writer Arthur C. Clarke once remarked that any sufficiently advanced technology would be practically indistinguishable from magic.

I forgot where I found this - Perhaps one of the best Mt Rainier pictures ever!

Perhaps taken from Vashon Island?



Last month I posted this picture and posed this question -

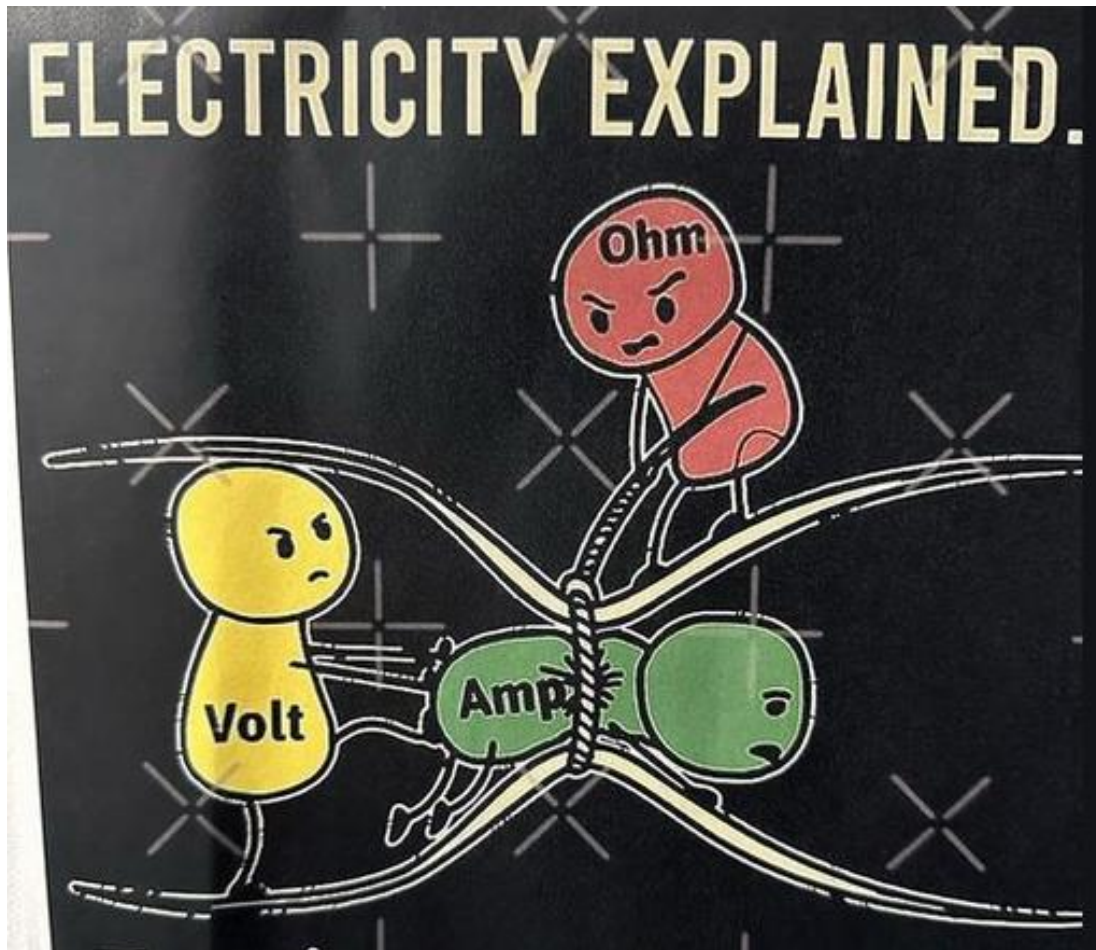
Anyone know what these flowers are? Found a lot of them growing near the KVTI Transmitter in Lakewood.



Lowell Kiesow correctly answered with the following -

The flowers in your column are Tansy Ragwort. It's a noxious weed because it poisons livestock. Pierce County has inspectors searching for it, and they'll give notice to the landowner to remove it or face a fine.

I wished I had this item back when I was teaching electronics.



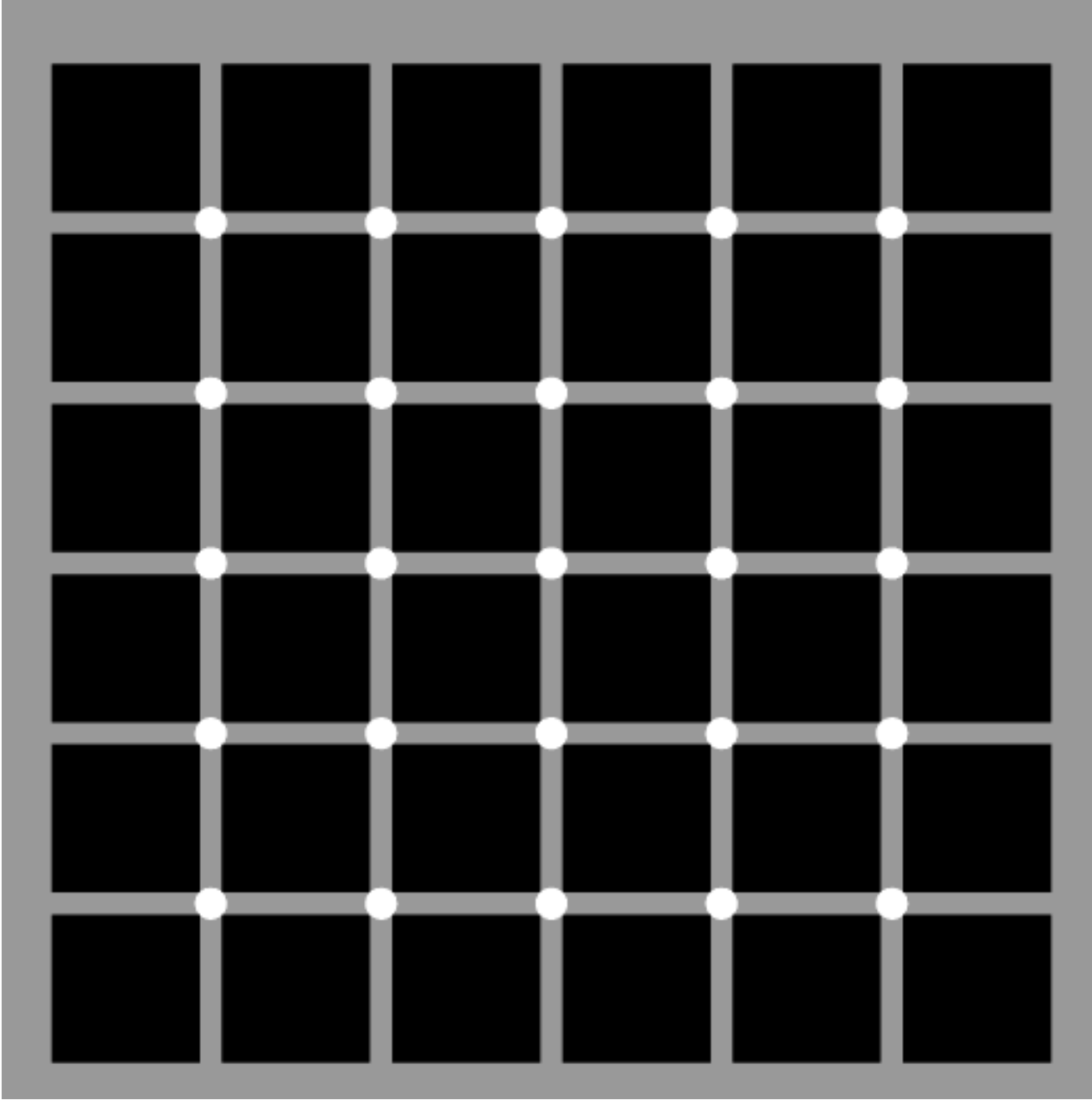
Often a model is used when pictures of industry are taken.

Obviously, they don't have to know anything about what they are doing or how to do it.

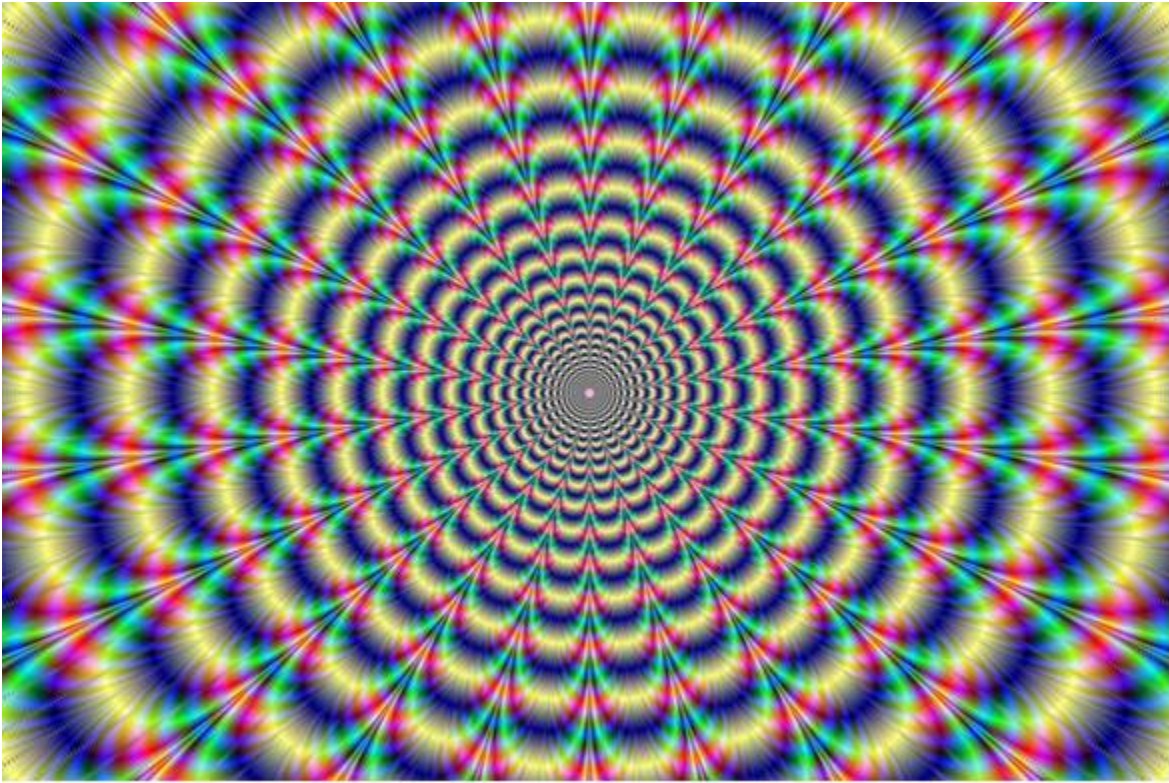
This needs to go into that collection of 'priceless' pictures....Sure glad that soldering iron was not plugged in 😊



Do you see white or black dots between the squares...Are they changing places?



Is any part of this image moving ?



I've been adding some equipment to the NWPB facility in Forks. While working there I get to stay in an apartment at the ONRC. To prove that it does not always rain in Forks - This picture of the Morning Sun on August 23rd



That's it for this month.

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

Clay, K7CR, CPBE

SBE Member # 714

Since March 1968 / 55 years.