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Jody Georgeson, editor

A Message from Our Director

HO, HO, HO. Happy Holidays! Can you believe it's almost 2022? I sure can't. This year flew by.

We have accomplished a lot in the Archive. With only four volunteers, it amazes me. We are processing collections, cleaning out our back room, binding directories and consolidating items to make room for new acquisitions. We are finding things we forgot we had, which is fun. If you have a little cabin fever, come on down and help us!

The Seattle Museum has acquired ringing machines from the East coast and items from the Capehart Museum in Texas, which is closing. They have been open for tours for months now and have had a lot of visitors. In Denver, Lumen is still not allowing tours. I continue to add to my list of groups that have requested tours.

For 2022 we hope to be back in the saddle, so to speak. I foresee many tours here in Denver as COVID becomes more manageable. It's a bugger we are all dealing with and all we can do is be positive for the future.

I am grateful that I have been able to go to the office and work all this time. AT&T only kept us out of the building for one month in 2020. I feel that we have caught up on a lot of projects we needed to do.

So, here's to a splendid 2022. May you all be healthy, happy and safe. Enjoy the Holidays



Sincerely,

Renee Lang, Managing Director

In Memory of Lester Roy Lynn

December 12, 1942 - September 28, 2021



We are sorry to report the death of our friend and volunteer Roy Lynn. Roy was hired in the early 1970s and worked in the Radio Provisioning Group of Mountain Bell. His manager was Al Busnardo.

Roy joined the Mountain Bell T.V. Center in 1979. He worked on various video productions and weekly company T.V. broadcasts. Roy was also the Field Engineer for the monthly electronic newsletter, *The Monitor*.

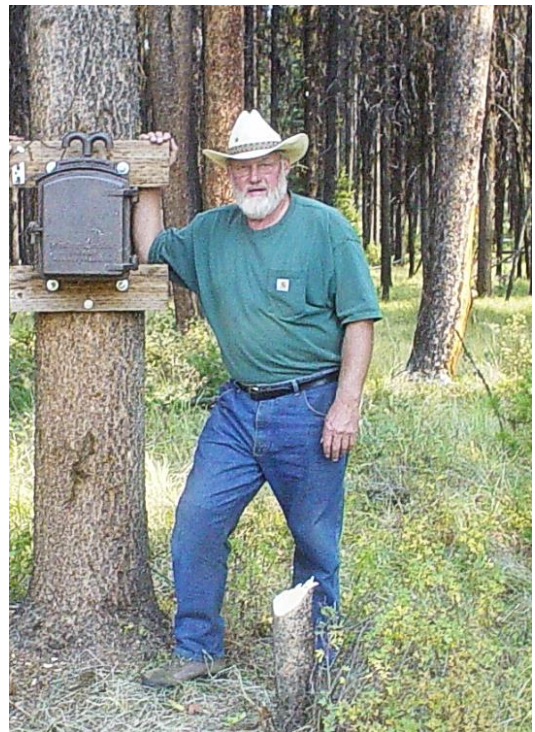
In the 1990s, Roy was the Chief Engineer for the U S West Denver Television Operation. The TV Center supported the Executive staff, live TV broadcast and company video productions. In that role, the Executive staff was also supported by the Television Studio for late-breaking company news and employee Information programs via satellite transmission to various downlinks. Roy finished his career in the Power Provision Group, at the U S West Mineral location in Littleton, CO.

Roy was instrumental in acquiring video equipment and corporate videos for THG. He and his fellow volunteer Ron Pickens spent months making the equipment work and putting together THG's audio/video laboratory. Thanks to them, we can view our all our video resources, regardless of media. [*Thanks to Jon Berquist's and Jack Beattie's inventory, we can now actually find them, too!*]

In 2005 and 2006, Roy and Milo Masura went to The Bob Marshall Wilderness Area in Montana to work on the U S Forest Service's magneto phone system. Because of the ruggedness of the area, they traveled between cabins on horseback. Three pack mules and three horses made up the pack train which carried all their supplies, including their fishing poles.

Their work involved building mounting brackets and securing ground rods for the two trail phones they repaired and installed. Some of the wires had been ruined in the previous year's forest fires. They pulled, straightened, and re-drove the ground rod; they attached mounting brackets, bolted on the trail phone, wired in the cutoff switch, the lead wire, and the ground wire; and trained one of the rangers to accomplish the same work.

Then Roy got in a little fishing.

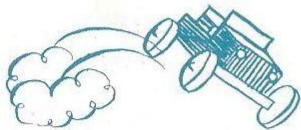


**Why Keep
a Jeep?**



At herding sheep
An Army Jeep
Could do a good job, maybe.
It should be good
To gather wood.
But could it mind the baby?

At cutting grass,
A Jeep might pass;
It might replace a team.
It would go hopping
For your shopping,
But could it freeze ice cream?



You can get some of the things you want somewhere some of the time;
but the Classified Section of your Telephone Directory tells you
where to get all the things you need, all the time



A better thing,
Of which we sing,
Is one you've often spied.
Whate'er your need,
You should, indeed,
Depend on Classified.



THE MOUNTAIN STATES TELEPHONE & TELEGRAPH COMPANY

Early On-Demand Music Streaming Required Lots of Nickels

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In the Pacific Northwest 70-plus years ago, a telephone-based jukebox connected callers to their favorite tunes.

BY MICHELLE HARRIS



Shyvers Multiphone Studio Courtesy of

Loretta Shepard was still a teenager when she started using an alias and talking to strangers in the middle of the night. It was 1953 and Shepard, who called herself Joyce, worked past midnight in an undisclosed studio, operating what was, for its time, state-of-the-art technology. “We were told to give no information of ourselves, so we had to work under a different name,” recalls Shepard, who chose to go by her middle name. “I remember they were real strict about having someone know where you were at all times. It was for our own protection.”

“Joyce” was no Cold War spy, however. She was one of a small army of women in Washington

State who worked as DJs for Multiphones, telephone-based jukeboxes. The devices were the Spotify of their day, providing what some might consider to be the earliest form of commercial streaming. Shepard, who worked in Tacoma, says she also on occasion played the role of therapist—especially with lonely servicemen who’d call in as much to hear another human voice as their favorite song.

“If we weren’t too busy, we talked with them,” says Shepard, who still lives in the Tacoma area. “They just needed someone to talk to. We would just listen, you know, [and] be kind to whoever was on the other end.”

The brainchild of Seattle inventor Ken Shyvers, Multiphones came onto the scene in 1939. At the time, jukeboxes were only spinning 20 or so records, at most. Shyvers wanted to expand the playlist, so he created the Shyvers Multiphone: a mini jukebox, with an Art Deco aesthetic. It stood about 20 inches tall and, during its mid-century heyday, could be found anywhere from diner counters and bars to drive-in theaters.

The machine had over 170 songs to choose from, each one assigned a different number. Customers would use its built-in telephone to connect with the local Multiphone station, filled with records and turntables. A DJ with a friendly voice would be waiting on the other end to answer the call and play the requested record. The stations, located in Seattle, Tacoma, Bremerton, and Spokane, were staffed entirely by women.

“You’d put your nickel [into the Multiphone] and you would hear a hostess from the central station ask through the speaker, ‘what number, please?’ And you’d say, I want number 202, ‘Fools Such As I.’ And then they’d grab the record from the rack, put it on the turntable associated with the location you were at, play it, and that was it,” says Seattle historian John Bennett, author of the upcoming book *The Shyvers Multiphone Story*. Bennett, who runs Jukebox City, a vintage jukebox business in the Georgetown neighborhood, is a Multiphone

collector himself. A self-proclaimed antique hoarder, Bennett bought around 500 Multiphones in the 1980s, which he sold at an antique shop he owned at the time. Back then Multiphones only sold for \$100 a pop—today, they're much rarer, and can go for over \$2,000.

While Shyvers certainly enhanced the technique, listening to live music over the telephone was nothing new. The first live streaming system, the theatrophone, was invented in France in 1881. The coin-operated wall phone was set up in hotels, cafes, and clubs, among other locations across Paris, and broadcasted live opera, theater, and news programs at five-minute intervals. Sounds were transmitted via cable wires running through the sewer system. The so-called wired music fizzled in the early 20th century as record-playing jukeboxes and radio became more widespread. However, it had a resurgence in the late 1930s.

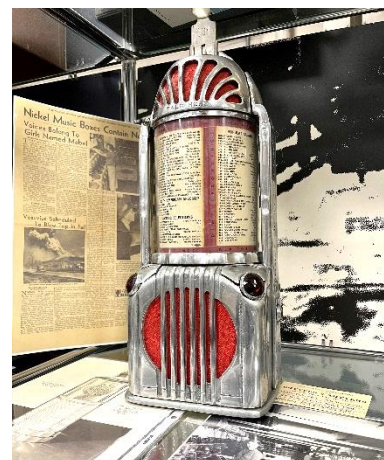
“Sound quality on phone lines was better at that point and in 1940 the big jukebox manufacturers were pretty much thinking well, phonograph jukeboxes are obsolete, and if I don't get on board with this wired music, then I am going to be left behind. So basically, everyone jumped on board and made their version of it,” says Bennett. “The difference with Shyvers was that he invented the Multiphones, and he produced and ran them himself, so he was the total proprietor of everything. But since he was kind of a small-time guy, he just operated in the Northwest.”

Shyvers Multiphones not only brought a wider music selection to Washington's business establishments; it also brought employment for the scores of women who took phone requests at the stations. Like Shepard, many of them were young. “It was actually my first job. I was a senior in high school and worked there for a year,” says Shepard. She adds nonchalantly, “It was a job. It kept money in my pocket.”

Since most of the music requests came from bars and restaurants, hours ran late. On Fridays and Saturdays, Shepard's shift would typically finish at 1 a.m. “My husband, who was my boyfriend at the time, would come pick me up,” she says. Though the women were instructed not to engage in phone conversations with patrons, it happened more often than not. To keep their identity protected, Shyvers had them choose a microphone name and made sure to keep the station locations a secret. Still, this didn't stop some male admirers, mostly sailors on shore leave, from leaving roses and boxes of candy outside the studio door. Sometimes they'd even propose marriage to the women over the Multiphone.

At the height of their popularity, Multiphones could be found at 120 locations throughout Washington. Then, says Bennett, other companies “came out with these really great stereo jukeboxes and Shyvers just couldn't compete with them.” By 1959, Multiphones were obsolete and Shyvers pulled them off the market. Most surviving machines are in private collections, though there is a Multiphone on display at Seattle's Connections Museum [photo on the right], which showcases antique telephones and related equipment.

“The Multiphone really was an early version of streaming music,” says Peter Amstein, president of the nonprofit Telecommunication History Group, which runs the museum. Amstein plans to eventually make the Multiphone light up and play music again, like it did in its heyday. “It's a really nice artifact to be able to display at the museum,” he says. “It was a pretty crazy invention for its time.”



Alexander Graham Bell – the Entrepreneur

The articles on these 2 pages are reproduced from “Network Fundamentals – Evolution of Technology”. 1990, in the John Herbolich Collection

The telephone may be briefly described as an electrical contrivance for reproducing in distant places the tones and articulations of a speaker’s voice, so that conversation can be carried on by word of mouth between persons in different rooms, in different streets or in different towns.

The great advantage it possesses over every other form of electrical apparatus consists in the fact that it requires no skill to operate the instrument. All other telegraph machines produce signals which require to be translated by experts, and such instruments are therefore extremely limited in their application, but the telephone actually speaks, and for this reason it can be utilized for nearly every purpose for which speech is employed . . .

At the present time we have a perfect network of gas-pipes and water-pipes throughout our large cities. We have main pipes laid under the streets communicating by side pipes with the various dwellings, enabling the members to draw their supplies of gas and water from a common source.

In a similar manner, it is conceivable that cables of telephone wires with private dwellings, country houses, shops, manufactories, etc., uniting them through the main cable with a central office where the wires could be connected as desired, establishing direct communication between any two places in the city. Such a plan as this, though impracticable at the present moment, will, I firmly believe, be the outcome of the introductions of the telephone to the public. Not only so, but I believe, in the future, wires will unite the head offices of the Telephone Company in different cities, and a man in one part of the country may communicate by word of mouth with another in a distant place.

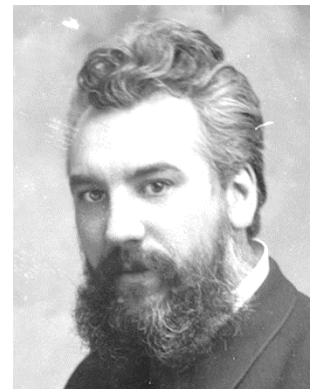
I am aware that such ideas may appear to you Utopian and out of place, for we are met together for the purpose of discussing not the future of the telephone, but its present.

Believing, however, as I do, that such a scheme will be the ultimate result of introducing the telephone to the public, I will impress upon you all the advisability of keeping this end in view, that all present arrangements of the telephone may be eventually realized in this grand system . . .

In conclusion, I would say that it seems to me that the telephone should immediately be brought prominently before the public, as a means of communication between bankers, merchants, manufacturers, wholesale and retail dealers, dock companies, water companies, police officers, fire stations, newspaper offices, hospitals and public buildings, and for use in railway offices, in mines and (diving) operations.

Agreements should also be speedily concluded for the use of the telephone in the Army and Navy and by the Postal Telegraph Department. Although there is a great field for the telephone in the immediate present, I believe there is still greater in the future.

By bearing in mind the great object to be ultimately achieved, I believe that the Telephone Company cannot only secure for itself a business of the most remunerative kind, but also benefit the public in a way that has never previously been attempted.



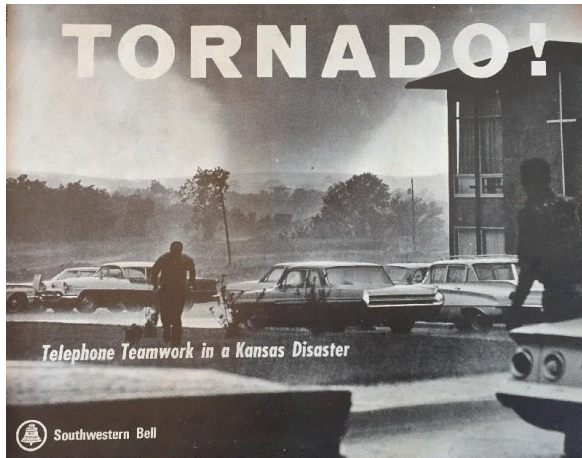
A.G. Bell, 1877

Evolution of the Network Timeline

- 1844** First public demonstration of the telegraph system carbon granule transmitter opens wires to closed cables
- 1874** Monometric capsule experiments
- 1874** Phonautograph experiments
- 1875** Harmonic telegraph experiments
- 1875** Gallows telephone developed
- 1876** Message (speech) was transmitted over telephone lines
Liquid transmitter
Microphone
- Hughes
 - Thomas Edison
 - Berliner Blake
- 1873-1901** Heaviside's theory of electrical transmission first networks
- 1878** E.T. Holmes burglar alarm service connected to customers
Isaac Smith's drugstore connected to doctors and livery stores
- 1880** Law system for telegraph circuits was converted for telephone services
- 1888** Todd & Coy's 21-person telephone system in New Haven, Connecticut
- 1889** Strowger switch invented
- 1890, 1891** Switchboards evolved to where there was more than one jack appearance per line
- 1891** Automatic Electric Company was developed
- 1899** Thomas Doolittle invented hard wire drawing wire
- 1907** de Forest's device for amplifying feeble electric currents/audion
- 1912** Vacuum tube introduced to the telephone company by John Stone and Lee de Forest
- 1913** H.D. Arnold develops usable repeater
- 1915** Transcontinental telephone service was inaugurated in the U.S. using vacuum tube repeaters
- 1917** Machine switching and automatic switchboards were used in the Bell System
- 1947** Bell Labs developed transistor

STORMS

by John Swartley



I came across this book about the tornado in Topeka, Kansas, June 8, 1966. It took out a strip right through downtown Topeka. I transferred to Mountain Bell January 1, 1966 and missed all the fun. The book had a lot of photos of my ex-coworkers as they slowly repaired all the damage. I did travel through Topeka in July on my honeymoon trip to Springfield Missouri and saw a lot of the damage.

While reading it, I realized how our generation of telephone employees put restoring service above anything else and, I am sorry to now say, this included our families.

Case in point, in September 1971, the company transferred me to Steamboat [Colorado] from Boulder. A week or two after we had moved to Steamboat, they had an early snowstorm back in Boulder and the company sent me back there to help restore service. Barb, my wife of only 5 years, was left in a strange town, with two young boys, in a house that that was still full of packing boxes.

In this article I am going to reminisce and share some of my experiences of major outages that incurred during my career. Of course, you know as we retell our “war stories,” they will be taller than the original experience.

We are all aware of AT&T’s famous painting, *The Spirit of Service*, of Angus Macdonald depicting the 1888 March blizzard on the Eastern seaboard. Angus was a young AT&T lineman that worked in that blizzard, not only did he help restore service, the line crew found a stranded train they hauled



food and supplies to by snowshoe. (Note the train in the painting.) Angus was born in Antigonish,

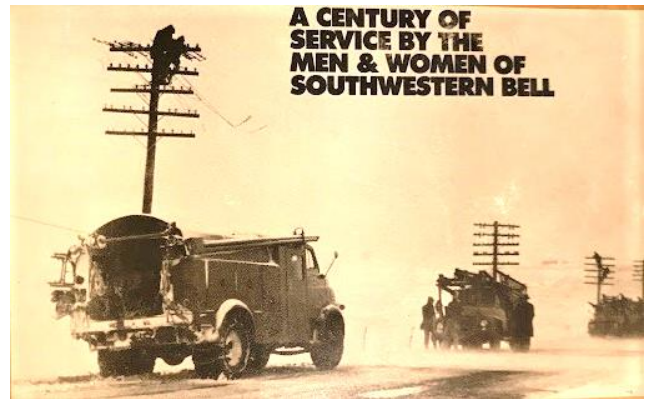
Nova Scotia December 13, 1864, moved to Boston and started working for AT&T when he was twenty. He worked for the company for 50 years. Angus, along with Alexander Bell were the original charter members of The Telephone Pioneers in 1911.

Photo on the left was of Angus posing in his backyard for the prominent illustrator Frank T. Merrill in Boston, June 1888. AT&T used the illustration in their advertisements. Sometime in the 1940s AT&T commissioned Ernest Hamlin Baker to make an oil painting of the illustrations. Baker’s oil painting is what most of the reproduction prints of the famous illustration are from.



In my research I was always looking for the artist of this painting and got several different names, most of them were artists that painted commemorative plates. I want to thank Jody Georgeson, archivist of THG for researching and finding the facts of the painting.

I found this photo on the cover of *Good Connections*, a book in my collection about Southwestern Bell. It brings back memories of days gone past. When I was young and only making \$48.50 a week, storm breaks were fun, and I looked forward to the overtime money. Our foreman would allow us to order steaks at mealtimes. It was also reunion time with other crews in our area that we had not seen since our last storm break, as we enjoyed our steaks.



When I started in 1959, most calls between towns were on toll lines. Most toll lines were maintained by AT&T linemen; there were usually a couple of arms of rural lines maintained by the operating companies. During storms everyone joined the fun. AT&T linemen were responsible for many miles of toll line. The AT&T linemen would usually replace broken crossarms but not much more than that.

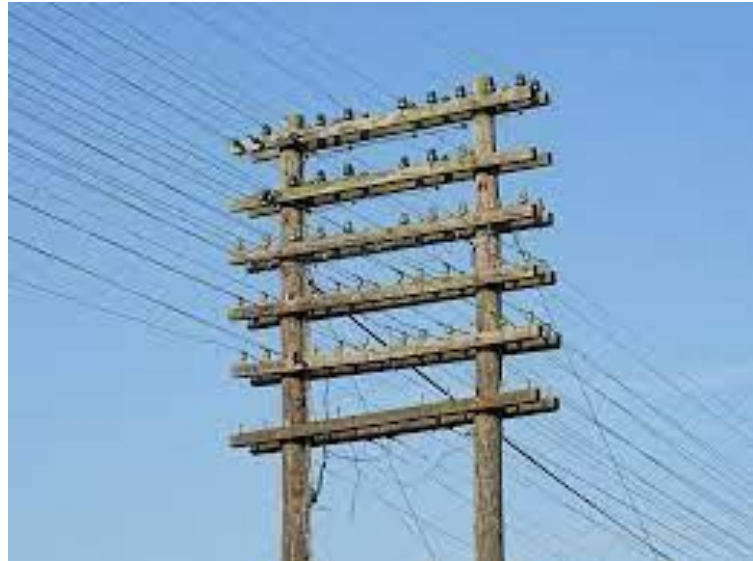
In our Bell System Practices, (BSPs) there were loading tables that determined how strong the toll lines had to be throughout the nation. These tables determined the distance between the poles and how many “H” fixtures were to be placed in each zone between poles like the ones these “boomers” had to install as they crossed the Continental Divide. The photo of the “boomers” on the Continental Divide is from Herb Hackenburg’s book *Muttering Machines to Laser Beams* [Note: available from THG]. The photo looks like the “boomers” had to install four poles instead of two for their “H” fixtures, in solid rock no less.



Ice storms and blizzards were not the only thing to raise havoc with telephone lines. Strong winds and tornados did their share of damage. One evening I was called out to check for toll line damage on the toll line going west from Garden City, Kansas. By using the Wheatstone bridge meter, the Test Deskman could tell at approximately what pole number the problem was. The Test Deskman would place a speaker in the office on one circuit, I would climb the pole and open one side of the circuit to clear the fault and could talk to him from the pole where he had estimated the trouble was. He assured me I was close to the problem and would know it when I got there. It was still daylight and I soon saw the problem. The toll line had gone around a lake and a tornado had gone through the toll on both sides of the lake, hitting the toll line twice. Again, I climbed the pole, opened the circuit, and reported to the test board man what I saw. Within an hour, my supervisor arrived, counted the number of poles missing and headed back to report to the line foreman who had already alerted both our line crews. By dawn, using headlights and spotlights, we had the line back up and working.

A farmer came by while we were working and asked if we had seen any pigs, the tornado had carried his pigs and their building off.

One strong windstorm damaged both the telephone and electric pole in a small town. The electric power was safely turned off and we were trying to remove the damaged poles. We were starting to replace the joint use poles when a lady came out informed us, she didn't give a damn about her telephone, she needed power for her ice box. We finally convinced her we were helping the power company.



Human interest story: soon after I transferred to installer/repairman position, a new first-line supervisor arrived in Garden City. His prior job was frame man in Wichita. He had received a college degree while being employed with Bell as a frame man. Of course, we had to act like typical males and ask him question about something when we knew he did not know; his answer was "I will get back to you." The next time we would call in to the test board, he would read the BSP practice answer to whatever the question was. It was not long before he gained our respect. He did not last long as our supervisor; they transferred him to New Jersey to help write BSPs.

Storms were not always our only toll outage problems. Crows could create havoc also; one night I was called out and found that a flock of crows had tried to land on the poles and wire. They got tangled up in the wires and I had to cut their legs off with my layup tree trimmers. They would fly away missing a leg, but that was the only way I could clear the trouble. Crows liked to use pieces of barbed wire to make nests on our poles. This problem was easily solved. I am not sure how they did it, but I have seen some amazing crows' nests in trees made from barbed wire.

My friendly squirrels were a source of a lot of overtime. They would sharpen their teeth on the bottom side of our lead cables. Usually after a long dry spell In Garden we would get rain. Rain and pulp paper wire covering did not mix well. Our cable repairman would locate the problem with their breakdown sets and we would open the lead cable and repair the problem; we would usually find lead droppings on the ground.

One night lightning caused several problems on a lead rural cable going south of Garden. In one area the cable left the highway right of way and there was a path along the cable route. This was a good place for a young couple to park unseen. To clear the trouble, I made several trips on that path and each time there was a new couple parked there. For orneriness, I would stop and turn my spotlight on the couple as they tried to cover up. Later I realized in that stage of my life, it could have been me!!!

In 1965, the normally dry Arkansas River flooded. I was in the National Guard at the time, and we had seven feet of water in our armory. The zoo was located along the river, the police started cutting the fences to allow all the non-dangerous animals loose. We put cages in the rear of our 5-ton army trucks and worked our way to the lions, tigers, and bears cages. Use cutting touches we freed all the caged animals and they were more than willing to jump into the truck. There were fly over photos of the elephant, still chained, standing there with its trunk in the air above water and it survived.

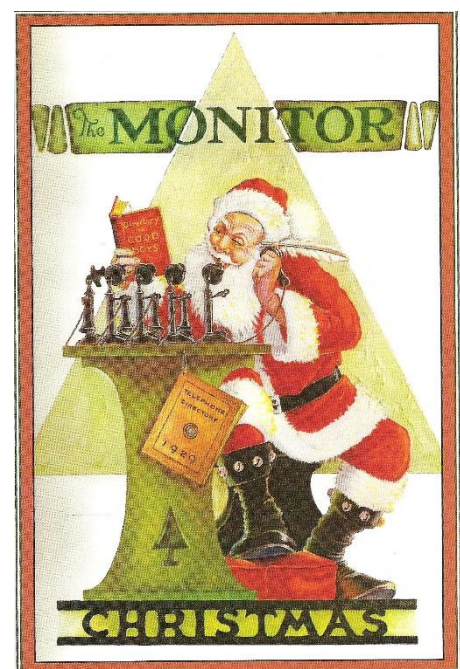


After the water receded, we had the unbelievable task of removing and replacing all the telephones, protectors, connecting blocks and sometimes the wiring. The telephone sets were full of sand, and I could hardly lift a full shipping crate. Even today as I watch pictures of floods, I still remember what a terrible ordeal that was.

After I transferred to Boulder, we did not have ice storms as much as in Kansas. We would get early snowstorms before the leaves were gone; in turn the heavy limbs would break taking the telephone drops with them, which created good overtime checks. One time someone drilled a hole through one of the large lead cables. We had to go to each house's protector and tone back to the cable splicer so he could identify the house location. We would knock on the door and if no answer, we would go on around to the protector. One house just as I reached the protector, a huge dog, trotted up to me and quickly clamped his big mouth on my leg. For some reason, he just looked at me and I looked at him for a short time, then he just trotted off unconcerned. I almost had to go change shorts!!

This is probably enough of my tall tales - Swartley

All of us at THG wish you and your families a safe and peaceful holiday season!





**TELECOMMUNICATIONS
HISTORY GROUP**