TELECOMMUNICATIONS HISTORY GROUP

CONNECTIONS news

www.telcomhistory.org Spring 2021, Vol. 26, no. 1 303-296-1221 Jody Georgeson, editor

A Message from Our Director

It's a new year, 2021. The Telecommunications History Group is thirty-one years old. Can it get any better? Yes, it can. The pandemic is very slowly disappearing. Things are getting back to normal; the new normal but very welcome. We are looking forward to our volunteers returning and being able to conduct tours again. We had hoped to celebrate our 30th anniversary but the virus put a damper on that. So, let's celebrate anyway. In our thirty years we have accomplished a lot. We have had a lot of community outreach displays and have updated our Denver museum with wonderful artifacts and educational displays. We have opened the Bell Palace to thousands of tourists and retired Bell employees. Volunteers in Seattle continue to upgrade a wonderful museum with many of the only "old" working switches to thrill tour participants. It is truly a one-of-a-kind museum.

I am amazed at the wealth of volunteer knowledge and commitment we have at THG. Our volunteers have done an incredible job of keeping us going. We have lost a few and gained a few. Our oldest volunteer, Ken Pratt will be 100 years old this year. And although some can no longer come and be with us in person, their spirits remain. If you live in Denver or Seattle and would like to join us please come one come all. We truly enjoy our THG family and look forward to meeting new members.

I have only been with THG for eighteen years but have many fond memories of the things we have accomplished and the people I have met and worked with. We are a quirky group and I hope fun has been enjoyed by all.



Here's to 2021; I believe it will be an outstanding year for THG. May it be so for all of you. Thank you so much for your support and interest over the years. It means more than you can imagine.

Continue to stay safe and well. Renee Lang, Acting Director



Board of Directors

THG's Board provides voluntary service in the form of oversight and management of the organization. (Several of our Board members are also active volunteers at the Archives and the Seattle and Denver Connections Museums.) They are instrumental in the planning, development and fundraising that supports our efforts to preserve the history of the telecommunications industry.

Long-time members John Herbolich, Larry DeMuth, and Dave Dintenfass have retired from the Board. We will greatly miss their wisdom and leadership.

We are happy to welcome new members Sarah Autumn, Dave Felice and Bill Johnston and look forward to working with them. Each brings their own set of skills to our Board.

Officers

President –Peter Amstein, Software Industry Executive (ret.)

Vice President - Michael W. Nearing, Senior Engineer, CenturyLink (ret.)

Secretary - Jody L. Georgeson, U S West (ret.), THG Executive Director (ret.)

Treasurer - John W. Kure, Executive Director Public Policy, Qwest (ret.)

Members

Sarah Autumn - Technical Trainer, F5 Networks

Roger Christensen, EVP & Chief Administrative Officer (ret.) Media One

Dave Felice, CenturyLink (ret.)

Bill Johnston, SVP & Controller, Qwest (ret.)

Philip A. Linse, CenturyLink

Ed Mattson, Medical Director (ret.)

Scott McClellan, VP Washington - U S WEST/Qwest, (ret.)

Mary Retka, Senior Director, Industry Relations SOMOS

Telephone exchange starts for 90 Seattle subscribers on March 7, 1883

By Greg Lange

On March 7, 1883, the Sunset Telephone Company starts operating with 90 Seattle subscribers. In 1876, Alexander Graham Bell (1847-1922) invented the telephone, which was demonstrated two years later in Seattle. The phone company, headed by E. W. Melse from California, locates the exchange and operators on the southeast corner of 2nd Avenue and Cherry Street, the present (2005) site of the Alaska Building.

Those New-Fangled Devices

Once, while Melse was helping a crew install telephone poles, he was greeted by Henry Yesler, who asked him a variety of questions about telephone use. Melse recorded that one of Yesler's queries was whether or not "one could swear over that thing." It is not known what Melse's answer was.

Using a telephone was a novelty for many. James Hamilton "Dude" Lewis, later a Washington State Representative, was known to tip his hat whenever a woman answered the phone.

By the Numbers

Miss Harriett Hanson (later Mrs. Val Hall) was the first operator. The telephone installation charge was \$25 and monthly charges were \$2.50 for residences and \$7 for businesses. The four most popular numbers were the Gem Saloon, Clancy Liquor Store, Funk and Dickman Saloon, and the Seattle Brewery.

Sources:

"Seattle Telephone History," Portage: The Magazine of the Museum of History and Industry, Vol. 9, No, 2 (Summer 1988), 5, 6.; "Seattle Fetes First Phone" Seattle Post-Intelligencer, March 8, 1933, p. 13; "Seattle's First Phone Service" The Seattle Times, March 29, 1959, magazine, p. 4.

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Me and Vice Presidents

By John Swartley

In 1960 Lynden Johnson was running for election as the Vice President. I was still on the line crew at that time. He was flying into the Garden City Regional Airport to make a campaign speech at our Penrose High School football stadium.

I guess Southwestern Bell wanted to make a good impression; the Wichita supply center shipped us 18 payphone booths complete with payphones. Six booths went to the airport, six to Penrose

Stadium and the remaining booths to the Clifford Hope High School Auditorium in case it rained. It did rain and the campaign speech was held in the auditorium.

We had to lay a considerable amount of



cable on the ground to have the facilities to operate the payphones at the airport. Our crew had to unload all the booths and install them in place. From there on the installation crews took over. Due to the shortage of cable pairs around the Penrose Stadium, the installation crew had to temporarily place a few house customers on 2-party lines. The company was assuming all the news reporters would need to call in their scoops. Today it is hard to grasp the idea of using a payphone at all; remember all the movies we have watched where the news reporters fight over

payphones to get their scoop.

The event was on the weekend and I was in the Kansas National Guard. Some of us volunteered to help direct traffic. I was stationed at the airport to help control the large



number of cars they expected, which didn't happen.

After the motorcade left the airport, we went over to check out the big, beautiful airplane Senator Johnson flew in on; I can still remember the tailfins sticking up. Two attractive stewardesses invited us to board the airplane. After giving us a tour of the airplane, the stewardesses made sandwiches for us. All of this was

quite impressive for a farm boy who had only seen big airplanes in movies. I was amazed at the amount of alcohol that was aboard the flight. I guess it was there to keep the press corps happy.

A few history notes about Garden City. The Penrose High school stadium was named after Spencer Penrose, who made his fortune in the Cripple Creek [Colorado] gold fields. He built the famous Broadmoor Hotel in Colorado Springs and helped finance the Garden City Sugar Factory. The Garden City Airport was built in 1941 as a training facility for WWII. Our high school auditorium was named after Clifford Hope, a U.S. House Representative for years. My class of 1956 had the honor of being the first class to graduate from the new auditorium.

In the late 1970s Walter Mondale, Vice President of the United States, was scheduled to visit the coal mines on the western slope of Colorado. I was working in Steamboat Springs at the time, and with a 4-wire term cabinet in hand I headed 20 miles south to the Energy mine location. I was to temporarily install a 4-wire circuit for the upcoming Vice President's visit to the mine. The Secret Service was already there scoping out the mine site. When I completed the installation, two men with a big black suitcase connected to the circuit and started talking with, I assume, Washington DC.

The next morning, I was dispatched to Craig, 40 miles west, to install the key system ringdown that Boulder had shipped earlier. I was to install the system in a local hotel in Craig where the Vice President would stay. I installed two 6-button sets,



one by the VP's bed and the other just outside the door where a Secret Service agent could answer. The old hotel was not very soundproof, and the VP would not have had to raise his voice much to be heard. I never found out if someone from the Craig telephone crew had



installed a 4-wire in the hotel for the Secret Service, or not.

They were building the first of three electric power plants just west of Craig where the VP was to visit. I installed the PBX in the first Craig power plant. We only installed the PBX, and we did not install any internal wiring. All my orders were written for the General Electric Company.

For some reason, VP Mondale's trip was cancelled at the last minute, we never heard why.

While Eisenhower was President, Kansas was having a major winter drought and he was going to fly into Garden City airport to console the farmers. Again, the National Guard was asked to assist in traffic control which I volunteered for. The day he was scheduled in there was a major snowstorm. The President's airplane did land and President Eisenhower held a quick news conference at the airport terminal and quickly left before the storm intensified. Again, there was no traffic to control.

New 988 3-digit code requires 82 Area Codes to be changed to 10-digit local dialing

by Jim Hebbeln

This is tele-geeky but it's going to be one of the bigger, nearly nationwide, dialing changes we've seen for 25-30 years.

A 3-digit code **988** to access the **National Suicide Prevention Lifeline** (NSPL) will be implemented per the FCC. This will be similar to dialing 811 for utility locates, or 511 for highway info, or 211 for community services - except...

What this portends:

7-digit local dialing (mostly in rural America) will be changed to 10-digit local dialing.

There still are more than 82 Area Codes (aka Numbering Plan Areas or NPAs) in which local calls may be dialed with only 7-digits - because only one Area Code serves their local calling area. For example, Colorado's "outstate" Area Codes 719 and 970 are two that still have 7-digit local dialing.

But, the 3-digit code, 988, is presently assigned and operational in 82 of these Area Codes as a 7-digit local call. For example, 988-xxxx, is a local 7-digit call in the Fort Collins exchange area and is assigned to Sprint. In Colorado Springs, 988-xxxx is assigned to Onvoy.

The issue is that the phone system cannot determine how many digits are expected* before routing to 988 versus 988-xxxx.

Therefore, 988-xxxx must now be dialed in Fort Collins, for example, as 970-**988**-xxxx to route to Sprint, and simple **988** will route to NSPL instead.

I find it amusing that North Dakota 'released' 988 from use in their single Area Code 701, apparently to avoid having to dial 10-digit local calls.

* Yes, it is possible to use a 'time out' (typically 4 seconds) after 988 is dialed, such that if only 3 digits are received and then the timeout occurs, the call is routed to NSPL. But if a 4th digit is received before timeout occurs, then the system will wait to collect all 7 digits and route to the local number. However, this increases the call setup delay on every call to NSPL. Also, local callers, who dial 988 and then pause while referring to the remaining 4 digits to dial, will be routed to NSPL in error. This upsets the 'slow' dialers and NSPL will receive many, many calls they do not want.

I got this from the North American Numbering Plan Administration (the NANP "god") website at: <u>https://nationalnanpa.com/pdf/PL 556.pdf</u>. There is a list of the 82 affected Area Codes on page 2. It is worth noting that many of NANPA's responsibilities were performed by the AT&T Traffic Department before the 1984 Divestiture.

My Years at Mountain Bell

By Kenneth E. Pratt June 2005



Ken began volunteering with THG soon after it was organized. During his years with us, he spent much of his time organizing documents and entering data so that researchers can find the information they need. Ken hasn't been able to come to the Archives for a while, but we think of him fondly whenever we do a successful database search. In honor of his 100th birthday, here are some stories Ken wrote about his service with the phone company.

Mountain Bell was interviewing on the campus in the spring of 1949 as my graduation from the University of Denver with a Bachelor of Science degree in Electrical Engineering was approaching. . . [*They were*] preparing for some large projects in Idaho, particularly for the dial conversions of all exchanges in the Boise-Nampa-Caldwell area and combining many of them into a free calling area.

I started with Mountain Bell on September 1st, 1949 in Boise, reporting to Mr. M. B. Trainer, the State Plant Manager. In those days almost all men, particularly engineers, started in construction. Mr. Trainer welcomed me and sent me to the construction department. Since all the crews had left for the day, they asked me to clean up some military ammunition boxes they had acquired. This does not sound much like an engineering job, but I was sure better things were ahead. I had done a lot of grubby jobs in the past, so I didn't mind.

I spent six weeks on the telephone construction crew, which consisted of a foreman, about five or six linemen, and a White truck. Since I hadn't been to the linemen's school to learn to climb poles safely, I wasn't allowed to climb. That didn't bother me. However, not being able to climb poles left me with the task of digging many holes for poles and anchors. But, after sitting in classes and studying for several years the physical work felt pretty good. And physical work was about all I had ever done on jobs before. On the sixth week I was sent to linemen's school. It was held at the construction headquarters near the back of their building at 6th and Grove. The school was for two weeks and at the start of the second week I was asked to leave construction and join the plant records group. That was the next step for new engineers.

The group maintained records of all the poles, wire, cable, conduit and other telephone plant except for the central office equipment and the equipment on the customers' premises. The pole and wire records were in books and the cable and conduit records were on drawings. Each records clerk, and there were probably about ten of us, had a drafting table for a desk. The records were all kept in a large safe for fire protection. The safe combination was written on the wall right by the door, so it was obvious the safe was primarily for fire protection. (Several years later they had a fire in this area causing much damage, but the records that were in the safe survived.)

The records group was in the back of a large room upstairs at 609 1/2 Main Street. The front part of the room had the outside plant engineers, who made much use of the records as

they designed additions and changes, and by several other people. Major Atkin was my supervisor in the records group.

In February 1950, I was asked to join the Transmission and Protection Engineering group. Now I was approaching the real engineering area! Robert E. Bailey was the T&P Engineer. He was a great person. We became great friends for the rest of his life and still keep in contact with his widow for the duration of her life.

The T&P group was the technical part of the outside plant engineering. We were asked to assure that all of the designs would provide safe and satisfactory service. We designed the transposition schemes on the long-distance open wire circuits so they would not suffer from noise and crosstalk. When a circuit did have too much noise or crosstalk, we had to find the cause and get it fixed. This often involved working with engineers of other utility companies. I learned years later that I had half of a bag of potatoes coming. I met up with a former exchange manager I had worked with on a potato farmer's problem, and he said the farmer had brought him a bag of potatoes at Christmas. It was also our responsibility to investigate and come up with solutions for cases where the lead cable sheath corroded causing failure of the cable pairs within the sheath. We were also involved in the protection of telephone plant from lightning and from accidental contacts with power lines.

At the time I joined our T&P group it consisted of Bob Bailey, Bob Cramer and Ivan Lake. . . Ivan kept the records of facilities jointly used with the power companies and the rest of us handled the technical work. Bob Bailey had worked in this area some twenty years and was really an expert. He was also a great teacher and a very patient person. I am sure I asked him the same questions many a time, but he always answered them patiently as if that were the most pressing problem of the day.

One interesting assignment I had was cleaning up loading coil irregularities on a new Boise-Nampa-Caldwell buried trunk cable system. The inductance coils are added at specific locations to improve transmission when new cable is spliced together. In this case we had splicers borrowed from Utah and they did a very sloppy job. When making the acceptance tests we discovered many irregularities that would have to be located and corrected. I was given a helper, Ed Murphy, and a splicing crew and the charge of fixing the cable. Ed and I would make tests to inventory all the problems and try to determine where the problems were and then the splicing crew would dig down and open the cable splice that had originally been made. We would then fix the problems at that location, do further tests as needed and then close the cable splice and proceed to the next location. It took all summer to make these corrections. Murph and I became good friends. He later went into Marketing, became the Manager at Idaho Falls, and then moved to New Mexico [*where he*] finally became the New Mexico Benefit administrator and retired from that job.

In later years I was involved in radio facilities. The telephone company was permitted for a time to sell private radio service, some of it mobile and some stationary. I studied up, passed the test and received a second-class radio license from the Federal Communications Commission. Microwave radio was coming in at that time and I worked with the Long Lines Department of the American Telephone and Telegraph Company to determine some of the initial routing of microwave facilities in Idaho. This involved selecting the proposed sites and then testing the radio transmission between them.

I remember one Long Lines engineer who had developed many of the procedures that were used. The story was that he kept all his information on the methods either in his head or in a book that he never shared until some of his cohorts got him drunk one time, got his book away from him and made copies. I was given a copy of his book and have donated it to the Telecommunications History Group in Denver.

I also was involved in pioneering carrier systems for local customer use. These systems provided fairly good transmission at a reasonable cost, but maintenance was a problem and I think they were all removed a few years after I left.

In 1954, I was loaned to our General Engineering in Denver for a three-month period. I worked in a Plant Extensions group that made the basic design on how additional long-distance circuits should be provided. The Traffic Department provided the forecast of additional circuits and then we had to determine how they should be provided -- carrier, more wire, cable or whatever. It was interesting and I learned much about the long-distance facilities of the company. Another benefit for me was meeting many people that I encountered later when I moved back to Denver. . .

In 1955, the General Engineering decentralized, placing the Plant Extensions functions and the Central Office Equipment engineering that had been done in Denver into the states. Each state was assigned a Chief Engineer to head up all the engineering functions including the Outside Plant Engineering and Transmission and Protection that had always been in the states. We got Art Brown . . . who had been in equipment engineering in Denver. I met Art when I was making the transmission acceptance tests on some of the new trunk cables. He told me something drastic was wrong on one pair; when they sent a signal through it, it came out on the other side upside down. I had the cable splicer fix it by just reversing the wires. Art never did believe that was all we did. . .

Roy Arnold had been Outside Plant Engineer in Idaho and he was asked to take over the plant extensions function that had been ill managed and causing problems. Roy moved me in as a second level manager to take over the long-distance part of the job.

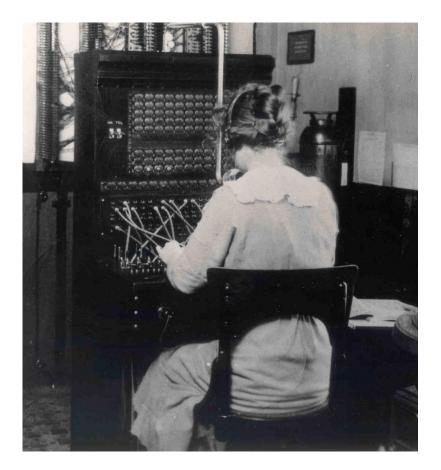
About that time the Revenue Requirements Department from Denver was holding some sessions in the states to acquaint key employees with the rate making function. I had missed the Boise session because I was out with some of the Long Lines microwave engineers. Roy Arnold thought I should learn more about the rate making so he sent me to Helena to sit in on the Montana session. While there I met Ed Hunter, Appraisal Engineer, from Denver. Ed said I didn't know him, but he knew me. He had been trying to get me transferred to Denver to work for him but was told he couldn't have me because I was a radio engineer in Idaho, and they needed me. I told Ed I had been one but was no longer involved with radio engineering. Ed said he would go back to work to transfer me in when he returned to Denver. A few weeks later I was asked to come to Denver for a job interview.

Read more of Ken's adventures in telephone land in the next issue of Connects News. In the meantime, we miss seeing you, Ken and if we can't raise a glass to you in person, we'll do so in spirit on your 100th birthday!

The Telephonist

The telephonist – she sits on her chair, And listens to voices from everywhere – She knows all the punters who bet with the books. She knows all the rooks and she knows all the crooks-She knows all our sorrows, She knows all our joys – She knows all the girls who are chasing the boys, She all our troubles and knows all our strife, She knows every man who flees from his wife.

If a telephonist were to tell all she knows, She could turn many friends into numerous foes – She could sow a small wind, That would turn into a gale, Engulf us in trouble and land us in goal. In fact, she would keep all the town in a stew, If she told one tenth of the fats that she knew – So here is a hint I advise you to seize, Be nice to the girls who say "Number Please."



Events in Telecommunications History

100 Years Ago - 1921:

- April 7 Ken Pratt is born. Ken went on to a 34-year career as an engineer for Mountain Bell, retiring in 1983
- March 4 First use of the Bell System public address system at a presidential inauguration. President Warren G. Harding's address was heard by 125,000 people. (THG's Howard Santee collection documents Harding's 1923 cross-country trip using the speakers)
- May 14-15 Exceptional aurora borealis affected telegraph service. Powerful earth currents not only interrupted the direct current grounded circuits used for Morse telegraphy, but burned out heat coils and charred cable insulation at many places in America and Europe.

50 Years Ago – 1971

- March 16 Mrs. Frances Jones Poetker, owner of Jones the Florist, was elected a director of Cincinnati Bell and became the first woman director of a Bell affiliate.
- July 14 A nationwide strike by the CWA began. A new three-year contract was ratified on August 14 by all members except the New York Telephone Company plant department. (New York ratified on February 16, 1972, ending the longest strike in telephone history.)



We hope you and your families continue to be well and happy and are able to enjoy the spring sunshine. We look forward to seeing you in our Connections Museums and THG Archives, as our country moves toward "normal." Thank you for your continued support.

