



TELECOMMUNICATIONS
HISTORY GROUP

CONNECTIONS *news*

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(303) 296-1221
Jody Georgeson, editor

A Message from Our Director

It's been a very busy time here since our last newsletter. We had a very successful Open House and birthday party for the "Bell Palace" and the 140th anniversary of the telephone in Denver. I want to thank all our wonderful volunteers who helped make it happen. There's still time for you to see the exhibit by contacting us at 303-296-1221 or telcomhist@aol.com to make tour reservations.

In 2020 we will be celebrating the 30th anniversary of The Telecommunications History Group. A party is needed! See our web site and the next issue of Connections News for more information about upcoming festivities.

We did a display for the NECA, National Exchange Carrier Association in November for their annual meeting. It was fun and interesting to meet folks from so many independent Telephone companies. (You can see pictures from the open house and the NECA exhibit in this publication.)

Winter is a time for catching up here and planning new activities and projects.

If you are in Denver or Seattle, please come see us.

Have a very Happy Holiday and Happy New Year!

Sincerely,

Renee Lang, Acting Director

The Birth of the Almon Strowger Legend

By Peter Amstein

We've wireless wires and
horseless cabs,
But will we ever own
A cussless, waitless, out-of-
order-less
Girlless telephone?
—Life.

This Is It



See us at St. Louis,
Section 24,
Palace of Electricity.
Thousands have already
declared the Automatic
Telephone the
wonder of the
Fair.

**AUTOMATIC
ELECTRIC
COMPANY**
CHICAGO, U. S. A.

July 1904 advertisement

In 1889, Almon Brown Strowger was an undertaker with an establishment on Ninth Street near Wyandotte Street in Kansas City. There he enjoyed the benefit of telephone service from The Missouri and Kansas Telephone Company, which was then part of the Bell System.

In that year, Strowger applied for a patent on an automatic telephone switch. His basic design would become the core element of the step-by-step central office which served many cities and towns around the world for the next 100 years (including at one time Denver, but never Seattle).

There is an often told story about Almon Strowger stating that he was inspired to invent his automatic telephone switch because the wife of his crosstown rival was a telephone operator in Kansas City and she was redirecting Strowger's calls to his competitor. But is that story really true? And how much do we actually know about Mr. Strowger? And what exactly were his motivations for his oft-cited career change from undertaking to telephone-system development?

Every Sunday at THG's Seattle museum we give demonstrations of a step-by-step community dial office. We often include the story of Strowger when we talk about that machine. Recently, some of THG's volunteers decided to research the legend and to see if we could find any historical documents to support it. The result has been a fascinating dive into old telephony journals and newspapers with a perhaps surprising conclusion.

What is well attested is that Strowger's application was approved by the patent office in 1891 (US Patent 447,918). An entrepreneurial salesman by the name of Joseph Harris heard about the invention, and together with Strowger, founded what would become the Automatic Electric Company of Chicago to manufacture and market the new device. The first prototype installation was completed in LaPorte Indiana in 1892—but this system did not yet have a dial on the telephone. Instead, there were three keys on each telephone labeled 100s, 10s, and units. To call number 523, for example, the customer had to press the 100s key 5 times, then the 10s key twice, and finally the units key three times.

The dial itself was not patented until 1898. By this time, Strowger had left Automatic Electric, sold all of his stock and his rights to the Strowger Switch design, and moved to St. Petersburg

Florida. He apparently went back to undertaking for a few years but died in of an aneurysm in 1902 at the age of just 63.

So what about the legendary story of Strowger's motivation? The earliest written version that we could find was published in the telephony journal *Sound Waves* in October 1908. The editors had asked Mr. Arthur Bessey Smith, a professor of telephone engineering at Purdue University, to write a series of articles about the history of automatic telephony. That history was only about 20 years long at the time but there were already a number of competing systems (including the Lorimer system) that had been developed and tested by then. Smith's articles were published over the next several years in *Sound Waves* and its successor *Journal Telephony*.

Smith was not likely to have known Strowger personally, but Smith did travel the country in the summer of 1908 interviewing various subjects who had been involved in developing the early systems. One of those interviews would probably have been with Strowger's nephew Walter, who had helped Almon with his design. We presume the following account by Smith (from *Sound Waves*, October 1908) comes mostly from his interviews with Walter Strowger.

Almon B. Strowger and William Dennison Strowger were brothers, born and reared in good old New York State. Both attended the common schools and the university and obtained excellent educations. A. B. Strowger was especially inclined to scholarly pursuits. But the excitement of the Civil war broke in on his studies, as it did with many others, and he served through the war as a bugler. After the war was over, he completed his education and entered the teaching profession. He had a special liking for mathematics.

After teaching for some years, Almon B. Strowger moved to Topeka, Kan., where he engaged in undertaking. Later he removed to Kansas City, Mo. He was of a retiring nature, nervous and sensitive. In using the telephone he often suffered from the mistakes of the operators. It is not to be supposed that the girls were any more careful then than now. These mistakes, delays, curt answers, negligence and interruptions annoyed him beyond measure. In his vexation, he vowed that he would do away with them. This led to his inventing the system which bears his name.

A. B. Strowger's determination to do away with manual operators started him to active work and his ideas took tangible form in an application for patent on his system, which he filed March 12, 1889. Shortly after this, his nephew, Walter, came to visit him at Kansas City, Mo. After talking over the matter for some time, he asked Walter to work with him in developing the invention. The nephew was about twenty-six years old at this time, full of energy and willing to work. He readily consented, and from that time on he lived at his uncle's house.

This account from Smith makes it clear that Strowger did not like the local telephone operators but it says nothing about any rival undertaker. It is also a secondhand story, probably coming to us through the nephew. The oldest firsthand account we could find comes to us from one Herman W. Ritterhof, in a story widely published in 1913 (among other places in the *Kansas City Star*). In 1889 Ritterhof was a superintendent at the Kansas City Telephone Company, and here follows his version of events:

Strowger had more trouble with his telephone than any other man in town and, as I was the trouble man, all of his complaints came to me. Nearly every day he would call me up and complain and curse and threaten to tear around about his telephone. I sent every workman in the office down there at different times but they could never find anything wrong with his telephone, and this always increased the fury of old Strowger. "Whenever your men come my telephone works all right, and as soon as they go away the dad-burned

old phone refuses to work," he used to say. "I tell you it's the girls at the switchboard that are doing it. They've got it in for me."

The climax came one day when a friend of his, whose wife had just died, tried to reach the undertaker over the telephone and could not do so, and then called another undertaker and Strowger lost the patronage. So I decided to go myself to Strowger's place and see what was wrong with his telephone. When I went in he stormed and raved about the money he had lost, and the girl operators.

And then I tried to find out what was wrong with his telephone, and I soon found it. He had an old tin sign with his name on it hanging on the rear wall over his telephone. When his front door opened and shut it caused a draught of air, and the tin sign hanging on the wall swung back and forth, and occasionally it would get caught in the two binding posts that stuck up above the telephone and would short circuit it so the telephone would not work until the door would open and another draught would swing it free.

So in Ritterhof's telling the operators were blameless, but Strowger was still angry with them. Ritterhof told this story in the context of a bigger story in which he ultimately regretted laughing at Strowger's offer to have Ritterhof join him the development of the automatic switch.

The next significant expansion of the legend appears to have been perpetrated by Mr. W. S. Vivian, who was the Manager of Public Relations for the Automatic Electric Company (AE). In 1922, Vivian traveled the country giving a series of public lectures on "The Story of the Telephone," which were no doubt also intended to spur public interest in AE's (by then well-developed) dial telephone system. Since Alexander Graham Bell had never worked for AE, Vivian set out to promote the history of Almon Brown Strowger instead. Well trained in public relations, Vivian must have understood that embroidering the story with some fun detail (whether it was accurate detail or not) would help to land his message. Here is a typical example of the Vivian version of events, as published in various newspaper and magazine accounts starting in 1922.

Strowger went to his office one morning, hung his Prince Albert coat on the wall, secured the Kansas City morning paper, sat down in his chair, placed his feet upon his desk, and began to read.

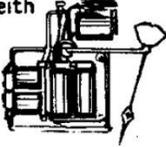
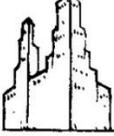
Suddenly his attention was attracted to an item of news, which told him that a friend had died. To his astonishment and amazement, he read that the burial was to be handled by a competitor. When he saw this, he jumped to the conclusion that his friends had tried to reach him by telephone, but the operator had undoubtedly given the call to his competitor. As a result, he had lost the business.

Immediately, so it is told, he flew into a rage. His eye fell upon the telephone on the wall a few feet distant; he crossed over to the instrument, rang the bell impatiently, and when the operator answered spoke to her angrily. The operator's protestation that she was entirely innocent did not satisfy him, and slamming the receiver back onto the hook, he impatiently walked the floor.

Suddenly the thought came to him; why not build a telephone system that will not require an operator. "Surely," he must have reasoned, "just so long as there are human operators with their human frailties, there will be human mistakes." He began to ponder

over this, and the more he thought about it the more he resolved that he could and would build such a telephone system.

Thus, we have what is probably the earliest version of the story to include some kind of operator conspiracy. It first appeared more than 30 years after Strowger's initial work. We still do not know a definitive date for when the allegedly misbehaving telephone operator came to be described in print as the wife (or friend or other relative) of a competitor, but just a bit of searching on the internet today will turn up many modern versions of the story which make that claim. More digging in the archives is still needed.

<p>1889 Almon B. Strowger invents switch having line contacts in circular rows inside a cylinder. Controlled by push buttons on telephone.</p> 	<p>1902 First installation in Chicago begun. Earliest use of measured service in automatic exchanges</p>	<p>1906 Invention of Keith Line Switch, resulting in enormous reduction in cost of automatic boards. First used at Wilmington, Del.</p> 
<p>1892 First commercial Strowger installation, La Porte, Ind. Used switches with 100-line disc type banks.</p> 	<p>1903 Large Strowger installations placed in service in Grand Rapids, Dayton, Akron, Columbus.</p> 	<p>1920 Beginning of widespread adoption of Strowger equipment for metropolitan areas both in U.S. and abroad. First installation of call-indicator equipment for automatic-manual connections in multi-office areas.</p> 
<p>1901 Formation of Automatic Electric Company to take over Strowger Automatic Telephone Exchange.</p> 	<p>1905 Earliest extended use of party lines and reverting calls. First system using common battery talking. (South Bend, Ind.)</p> 	

So we do have good evidence that Strowger blamed the operators in Kansas City for the poor telephone service he was getting and that he was thereby inspired to invent a machine to replace them. Even so, there is not really any evidence to show that the Kansas City telephone operators were doing anything shady or were actually at fault for Strowger's unhappiness.

THG display at the National Exchange Carriers Association Meeting



Celebrating the 90th Anniversary of the 931 14th St. Building & the 140th Anniversary of the first Telephone Exchange in Denver



Construction 1928



and completion 1929



Entry display



Intrepid volunteers

9 Artifacts That Shaped Colorado's History

By Spencer Campbell

The following is an excerpt from an article that appeared in the December 2019 issue of 5280 Magazine, describing important artifacts held in Colorado museums. THG is honored to have been included. The article can be accessed at <https://www.5280.com/2019/12/9-artifacts-that-shaped-colorados-history/>



Photo by Matt Nager

In October 1962, with the country in the panicked grip of the Cuban missile crisis, U.S. Strategic Air Command moved into DEFCON 2—the second-highest threat alert possible—for the first time. Suddenly, the North American Aerospace Defense Command (NORAD), an organization based upon a strategic partnership between the United States and Canada, was staring down the exact type of in-bound, doomsday attack it had been created five years earlier to prevent. Headquartered at now-decommissioned Ent Air Force Base in Colorado Springs (NORAD wouldn't move to the Cheyenne Mountain Complex until 1966), NORAD deployed 155 interceptor planes to 20 bases within five hours and 40 minutes. It also stationed 140 fighters in the eastern Gulf Coast region. Moreover, should American forces have needed to invade Cuba, the military tasked NORAD with escorting paratrooper-filled planes to a staging area in the Florida Keys. To direct these logistics from Ent, NORAD employed 22-inch-tall, high-security telephones to connect its defense units across North America. Although the U.S.-Canada coalition ultimately wasn't called upon to show its full strength, it proved to both our allies and our enemies what it could do. **Find It:** [Connections Museum Denver](#)

Three-Minute Furloughs

By Harold A. White

This article is from the Spring 1946 issue of Bell Telephone Magazine and was brought to our attention by long-time member and sometime volunteer, Dave Felice. As he remarks, "What time and technology hath wrought. This is fascinating, but I wonder if we'll ever see this kind of kind of cooperative organization again." THG archives has a complete run of the Bell Telephone Magazine.



At 2:20 P.M. on Thursday, February 21, 1946, a nervous G.I. stepped into a telephone booth in Titania Palast, Berlin, and picked up the receiver. Three minutes later, flushed and jubilant, he came out, the first soldier to call the United States from the German capital. He had talked to his folks back home in Philadelphia. "Nothing to it," he said, "but, brother, it's amazing. Clear as a bell. Talked to my wife, mother, father, sister. Recognized all their voices."

A few weeks previously, on the opposite side of the world, an American soldier had emerged from a telephone booth in Tokyo greatly reassured. First to call from there since the war, he had talked to his wife, who had been ill, in Wichita, Kansas. Those calls were two among thousands that our men have placed from foreign lands. "Three Minute Furlough" is the name that Stars and Stripes * gave to these brief but precious contacts with home which

overseas radio telephone service has made available to the men and women in the services. Those two calls were notable because they marked the climax of the job of restoring overseas telephone service to war-torn areas.

For the war had disrupted overseas service to many foreign points. In 1939, when the United Kingdom and France went to war against Germany, calls to and from the United States were limited to government business. In 1940 France fell, and the New York-Paris circuit went silent.

After the Jap [sic] attack on Pearl Harbor, the circuit to Japan was turned down when an operator in Tokyo said that she could accept no further calls in the circumstances, rather an understatement. Service with Germany and Italy was suspended when war was declared. Early in 1942, as the Japs were approaching Manila, the Manila station reported that the privacy device, which might have been valuable to the Japs, was out of order for an indefinite period and a less modern device was being substituted for it. Code words were established daily for contact, to be sure that service was with our own people and not the enemy. Then, with the fall of Manila, another circuit became silent. The loyal Filipinos had smashed the privacy equipment and dumped it into Manila Bay. Thus, while service with South America and the Caribbean remained available to the public, in Europe only Switzerland, Spain, and Portugal maintained commercial service; and in the Pacific, only Hawaii. All calls to and from the United States were subject to censorship after the attack on Pearl Harbor. Meanwhile, much of our equipment on

these shores went to war as a fundamental part of the Army's world-wide communications network and for use in short-wave broadcasts by the O.W.I. [*Office of War Information*]

The American Theater

While our service men were in the States, assigned to military stations throughout the country, many of them eased the transition from peacetime pursuits to the business of war by telephoning home. When they reached points beyond the continental United States, their desire to call home was increased rather than diminished. And here the Bell System overseas service brought to many an American a means of doing just that.

For example, after that disastrous December 7 of 1941, the Hawaiian Islands developed rapidly into a concentration center as troops massed there for the push toward Japan. Recognizing the need for telephone facilities for service people, the Mutual Telephone Company of Hawaii promptly established a telephone center for overseas calls and, in cooperation with A. T. & T.'s Long Lines Department, increased the number of radio telephone circuits between the Islands and the States. Over these circuits thousands of soldiers and sailors were able to get that brief "furlough" home.

This service was in many cases not only the "last chance" for those headed out but also the first contact for those on the way back. Early last Fall hundreds of liberated prisoners who had spent four years in the filth and despair of Japanese prison camps made their first contact with home by calling from Hawaii, an experience that they and their loved ones alone could fully understand and appreciate.

In Panama, the troops and naval personnel guarding the Canal Zone showed a similar eagerness to call home. The Tropical Radio Telegraph Company, too, set up a telephone center in Panama City to accommodate service men, and this center became an oasis for Americans whose hearts were, after all, in the U.S.A. Prospective callers arrived from outlying military centers by the truckload, and "the trucks are in" from the Panama operator to the New York operators was the warning of a flood of calls to all parts of United States. Similarly, from Puerto Rico, and in South America on the air route to Europe via Africa - from Curacao, Paramaribo, Recife and Rio - Americans in increasing numbers talked with home.

To the thousands of service people stationed in Alaska, telephone service was available by means of radio facilities operated by the United States Army Communications System. The circuits terminate at Seattle, where they are interconnected with Bell System wire facilities for the completion of calls throughout the United States. Service men stationed at Nome, Adak, Anchorage and other Alaskan points have found this conversational link with the States of great value. Some 2500 calls a month, most of them personal calls by G.I.s, have been completed from Alaskan points via the Army's radio system.

The European Theater

In the winter of 1944, as the prospects of victory in Europe became daily more encouraging, the Bell System began to plan not only to restore the overseas services that had been disrupted but also to create an overseas system which would meet the needs of the post-war world. From the growth of traffic among those services still operating, it was apparent that the future needs of the world for international telephone service would be many times greater than they have ever been; that America had new responsibilities, and would assume a new

place, in the world. And - of most immediate importance - at the close of the war many Americans would be in foreign lands, eager for the sound of voices from home.

As to conditions in enemy-occupied territories, nothing was known concerning the state of the radio telephone equipment nor the land-line systems; but it was a safe assumption that much had been or would be smashed to bits in the path of the retreating enemy.

At about the time that the Germans were retreating north of Rome and were being forced back on the Rhine, a representative of Long Lines began arrangements in London with the governments of Norway, Belgium, and Holland, then in exile, for the resumption of the war-interrupted service to their countries. He also visited Rome and Paris, hardly yet cleared of the enemy, to lay the foundation for restoration of telephone service with the United States. For both the Army and A. T. & T. recognized that it would be most important to the morale of American occupation forces to provide them with a means of telephoning home.

Arrangements with Great Britain

To these ends, plans went forward, looking toward both the immediate needs of the G.I. and the ultimate communications needs of a world at peace. Shortly after V-E Day, arrangements were made with the British General Post Office to make the overseas service, which had been limited to official calls, available for public uses. At that time the British communications system was still greatly overloaded because of bomb damage, war-time shortages, and post-war readjustment needs. It was at first thought that, because of this serious congestion, the system could not take the added burden of G.I. calls from all parts of the United Kingdom and therefore overseas calls should be limited initially to those originating at a telephone center in London.

However, General Post Office officials said that they wanted to give all American fighting men in Britain an equal opportunity; that the British people were grateful to them and anxious to accommodate them. They therefore willingly assumed this additional burden, and public telephone service between all of Great Britain and the United States became available on June 23, 1945.

The response of men and women in uniform to this offering was immediate and heavy. Additional circuits were quickly added between New York and London, but bookings ran days in advance. A Long Lines traffic representative thereupon flew to London to work out, in cooperation with traffic experts there, procedures which would speed the flow of messages; and representatives of the GPO came to New York for the same purpose.

The GPO established a telephone center on Shaftesbury Avenue in London, near Piccadilly Circus and the famous Rainbow Corner Red Cross Club. The center fortunately adjoined a pub, and it became the custom for G.I.s to be paged at the pub when their calls were ready. In certain parts of Britain, it is common for public telephones to be mounted out of doors, as are fire boxes in this country. One sergeant placed a call from one of these boxes and then took his blanket roll to the box and slept beside it until his call was completed. A number of soldiers on leave on the Continent hitchhiked to Britain on Army planes to get in a call home. Some 9,000 calls a month were completed, most of them for men and women of the American services.

When in Rome

When the Allied Command took over in Rome, it found the telephone system of the city in a deplorable state. Nobody could place a call with any certainty of completing it. Transmission was poor and cut-offs frequent. However, the Germans, in retreating, had sent non-technical troops to destroy the radio transmitting equipment. At the station they found some massive but obsolete long-wave transmitters which they thoroughly destroyed - fortunately leaving the smaller, modern short-wave equipment virtually intact. At the direction of the Allied Commission, and with the assistance of the U. S. Army Signal Corps, Italcable Company conditioned the equipment and established contact with the United States.

Because the telephone system in Italy was in such poor shape, it was decided that overseas service for both G.I.s and all other users in Italy would be confined to a single booth location near the Pincio Gardens in Rome. Here, beginning on July 1, 1945, calls were booked, scheduled, and completed to the United States. The demand was so great that it was necessary at first to limit all calls to three minutes, in order that as many as possible might enjoy the privilege. The Allied Commission found that G.I.s, impatient to complete their calls, became restless when inevitable delays occurred. At such times, a loudspeaker was switched on in the waiting room and the voices of the operators working on their calls could be heard. Such evidence of activity on the circuit, and the sound of American voices naming American towns and cities, relieved the tension considerably.

This efficiently run unit, which handled as many as 3500 calls a month, became a model for terminals which were later set up in other war-torn areas. When long distance lines became available to northern Italy, overseas telephone centers were also established at Udine and Leghorn.

At Pontoise, near Paris, the retreating Germans made a determined effort to destroy radio equipment, and particularly that formerly used for service to America. This they smashed into pieces no bigger than a man's hand. They imprisoned the staff, blew up one end of the building, set it afire and withdrew. The French freed themselves, and saved part of the building; but it



An American Soldier and his French bride, in Paris, talk with the former's parents in the US.

was necessary for the Ministry of Posts, Telegraphs, and Telephones to obtain new equipment from the Western Electric Company in the United States before service could be restored. A Long Lines representative spent several months assisting the French Telecommunications Administration to install and test it. He encountered many difficulties while working in buildings which were without adequate heat and light. Power was rationed and subject to frequent interruption, and little items, such as bolts and screws, which can be obtained in any hardware store here, were major supply problems in Paris.

U. S. Army personnel gave informal but able assistance to the project. Overseas service with France was re-opened to the public on November 7, 1945, and again Americans eagerly crowded to telephones. Despite the many handicaps resulting from enemy invasion and occupation, the French telephone system had been sufficiently restored to permit interconnection to the overseas system, thus making the service available to users throughout France. A telephone center was opened on the Champs Elysees for American soldiers, and men on leave in Paris flocked to it in such numbers that it was found impossible, with the limited facilities available, to handle the rush. It was necessary, therefore, to close this center temporarily, and calls were completed instead through public and private phones.

Switzerland, surrounded by combatants, maintained service with the United States throughout the war-although with difficulty. Improvisations were necessary to make up for wartime scarcities, and vital parts, such as vacuum tubes, were several times flown into the country via Portugal. Soldiers began to visit there after V-E Day, first in small numbers and later in larger groups under an organized leave program sponsored by the Army and the Red Cross. The Swiss Administration of Posts and Telegraphs, one of the most competent communication agencies in Europe, promptly made plans to meet the natural urge for soldiers there to call the United States. A second radio circuit was added with Berne, and soon 4000 soldiers a month were pouring their greetings across the Atlantic to the folks at home.

For G.I.s in Germany

In Germany, the U. S. Army quickly recognized the advantages to the welfare of the occupation troops of having radio telephone service available to the States. But Germany was smashed - politically, economically, and physically. There was no equipment available, no constituted authority to operate it, no organization remaining upon which a nucleus of a public telephone system could be built.

So the Army asked the Long Lines Department to establish service by operating both the German and American ends of a radio telephone system. This was an unprecedented step. It was tackled, nevertheless, in the interest of the G.I.s' needs. Army radio equipment which could be modified for telephone service was available in Frankfurt, and the Army agreed to lease it to Long Lines for this purpose. Known in the Signal Corps as the "Sig-circus", it was a multi-channel single-sideband telegraph system mounted on trucks, complete with power supply, and was used from advanced areas in Europe to establish direct communication with Washington.

In early December 1945, fifteen Long Lines men and a couple of tons of special Western Electric Company equipment were flown by Army plane to Frankfurt to establish the service. It was a pretty tough job, and this little group was very much on its own. All about them lay the vast ruins of a nation prostrated by war. Communication, transportation, [and] supply were virtually non-existent - excepting as they had been restored by the Army for Army purposes.

To get service going took a lot of doing. The radio equipment had to be modified for telephone use, conditioned, and tested. Arrangements had to be made with the Army for the establishment of suitable telephone centers in eight cities in the American Zone, and land lines connecting the other seven with Frankfurt had to be established and tested.

Meanwhile, there were the tasks of staffing the centers; working out details for the booking and handling of calls and the handling of funds; establishing a switchboard at Frankfurt; and arranging a coordinated schedule for operating it. In fact, these Long Lines men

had to put their hand to almost all the jobs which have to be done to make a telephone system work.

They had minor adventures, too. Though armed with credentials, two Long Liners, traveling from Berlin through the Russian occupied zone, found that cigarettes were the best passport. They finally were stopped by a Russian who apparently didn't smoke, and so spent the night in the guardhouse.

The U. S. Army gave the fullest assistance in every phase of the undertaking, and provided our men with living quarters, transportation, and supplies. Army-approved German civilians were recruited to assist in both the technical and operating phases of the work. During time off from their duties, G.I.s were glad to help out as operators or as assistants in the calling centers.

On January 10, 1946, preliminary work was completed, and service was opened to the United States from Frankfurt and Munich. On successive weeks Heidelberg, Nuremburg, Bremen, Kassel, and Stuttgart were linked on; and by February 21 the network was completed with the opening at Berlin. Only calls placed from Germany could be handled, because of the difficulty and delay which would have resulted from trying to locate soldiers to receive calls placed by their families or friends in the United States. The response to the service was, to the telephone men, a gratifying reward for their efforts.

The service was originally established with two transatlantic telephone circuits and a teletype order circuit over which booking information and call reports were passed. Soon a third telephone circuit had to be added; and with this arrangement calls have been completed at the rate of some 7,000 a month.

A FRIENDLY SPIRIT pervaded the telephone centers, and the soldiers cooperated splendidly in following the calling procedure. Usually each caller emerged from the booth wreathed in smiles and pretty well set up, although emergency calls, which were given priority when certified by the Red Cross and a unit chaplain, sometimes brought distressing news from home.

Calls were booked in advance; and at booking hours the men counted off in the line the number of calls allotted for that day - as shown by a placard in the office window - and the rest went away, to come back and try again the next time. One morning at 3:00 o'clock a pair of weary Long Lines men were closing up the center in Nuremburg when they were approached by a soldier wrapped in a blanket. "Where does the line form?" he asked.

At Bremen one morning a G.I. came in to call his mother in Brooklyn. When he heard her voice, he jumped up and down in his excitement until he crashed through the floor of the booth into a hole that happened to be beneath it. He completed the call, with his head just visible through the window, bellowing up to the transmitter. He climbed out of the booth, said he had had a fine talk, made no other comment, and walked out smiling. Stout planks were installed in the booth, and service was continued.

A boy from Oklahoma called home from Kassel one stormy day and walked out of the center in a dream. Five minutes later he came back, drenched to the skin, and said, "Reckon I'd better take my hat and coat along."

The Pacific Theater

Our forces in the Pacific got lots of service too. Service with Australia was re-opened to the public on September 15, 1945, and immediately carried capacity traffic, many calls being made

by GIs stationed there. A direct U. S.-New Zealand circuit was established for the first time on October 25, 1945, offering another link to American soldiers and sailors "down under."

The Supreme Command for the Allied Powers in Japan likewise wanted service to the States for service men, and asked the Bell System to send a representative there to assist in establishing it. Arriving in Tokyo in November, 1945, he found the destruction and disorder characteristic of conquered territory. However, unlike Germany, Japan was not completely disorganized, since the structure of the Japanese Imperial Government had been maintained. The Board of Communications of Japan was still to some extent a going concern under military direction, and it was attempting to restore communications to meet the Army's needs.

The radio equipment and the essential units of the control equipment were found to have escaped the B-29s and were intact, although in very poor condition. Here also the land-line system was in too sorry a state to permit connections with the overseas circuit. At the direction of the Army, and under the guidance of the Long Lines representative, the Japs prepared the equipment for service and established and organized a telephone center for overseas calls.



In Japan, the details of the calls to this country are handled by the Army, but Japanese operators set up the connections.

The Long Lines man, commenting on the attitude of the Japanese who worked on the project, said, "I had to give up thinking out loud, because what I thought were just ideas the Japs took as orders for execution pronto. For example, looking at a littered corner of the room which was to become the telephone center, I had remarked wryly, 'This ought to be OK when we get it painted and pictures on the wall and flowers around.' On opening day several oil paintings graced the walls and a small vase held a single orchid."

On January 10, 1946, everything was in readiness. English-speaking Japanese operators, trained by an Army lieutenant who had studied Japanese in college, covered the switchboard, Jap technicians manned the equipment, and the first call was completed. At first, because of the great demand,

only calls involving emergencies at home were accepted, but as the kinks were ironed out service was made available to all G.I.s and other accredited personnel in Japan.

Meanwhile, Manila was struggling toward rehabilitation after enemy occupation and the ruin created by the bitter fighting when the city was re-taken. The main building of the Philippines Long Distance Telephone Company in downtown Manila had been reduced to rubble, but an office building nearby which could be used was still standing. It was shell-splattered and surrounded by wreckage, but needed repairs were soon made.

The radio equipment had been completely destroyed, however. New equipment to replace it had been ordered prior to V-J Day, and installation was started -under difficulty - as soon as it arrived. Filipinos who had survived the enemy occupation returned to their old jobs. One of them, a Philippine Army lieutenant, had lost his fingernails under Japanese torture. Some of the technicians and operators returned with small but valuable items of equipment which they had taken home before the enemy arrived and had hidden during the occupation.

Service with Manila opened in January 1946. By that time the Manila exchange area had been sufficiently restored to permit direct overseas connections to a limited number of telephones in the city and at military and naval establishments nearby. A telephone center of the familiar pattern was set up in the downtown area.

Booking of calls from this center began immediately and were for a time considerably in excess of the capacity of the two Manila-San Francisco circuits as G.I.s eagerly placed calls to all parts of the United States. Through the efforts of the Philippines Company, arrangements were made whereby, despite the limited facilities available, people in the United States could call men stationed in the Manila area, and many people in this country have availed themselves of the opportunity. Because many of the men called could not be located, the Philippines Company hit upon the scheme of publishing daily lists of "men wanted" in the Army paper Pacifican, which often drew them to the center. Here too some 2,400 G.I.s each month have been able to gain that priceless "three-minute furlough."

While Americans have grown to accept the telephone instrument and the job it does as a commonplace in this country, to many members of the Armed Forces in the strange surroundings of foreign countries this familiar service has taken on a special worth. Since V-E Day more than a quarter of a million calls by Americans in uniform have been completed from far-distant points by means of the overseas services. The Bell System is proud that, with the cooperation of telephone administrations abroad. It has made possible this host of conversations which have contributed so greatly to the morale, the happiness, of the American men and women stationed around the globe.



*We wish you and your
families a wonderful
holiday season*



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