

Answering the call

The history of telecommunications in Saskatchewan



OF MANAGEMENT

DEC 12 1988

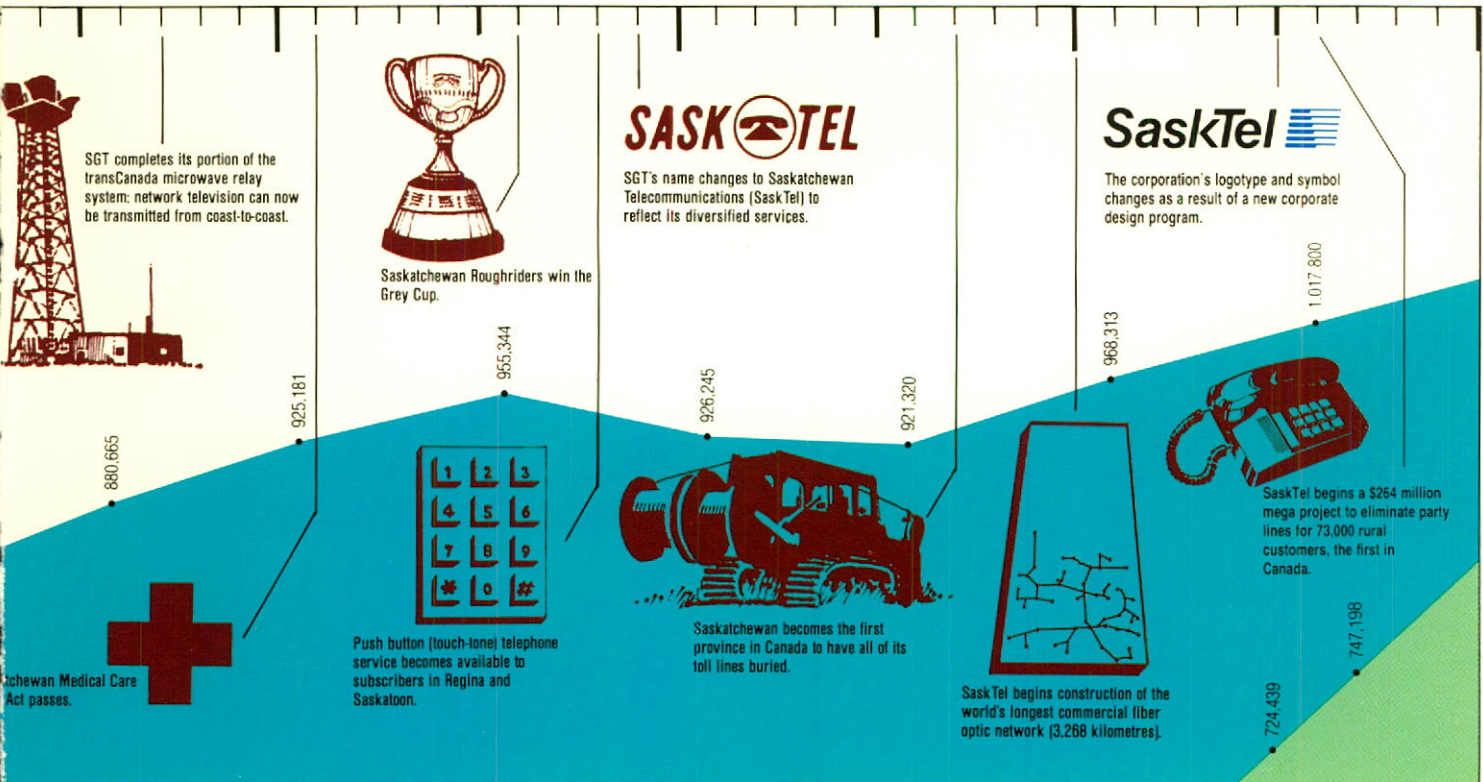
McGILL UNIVERSITY

1960

1970

1980

1990



Children are innoculated with **polio vaccine** and sneezes are with **antihistamines**. Hillary **climbs Mount Everest**, U.S. and U.S.S.R. put **men in orbit** and shoot rockets **on the moon**. Meanwhile, people **go to the moon** on television, read **books** and listen to **stereophonic** music.

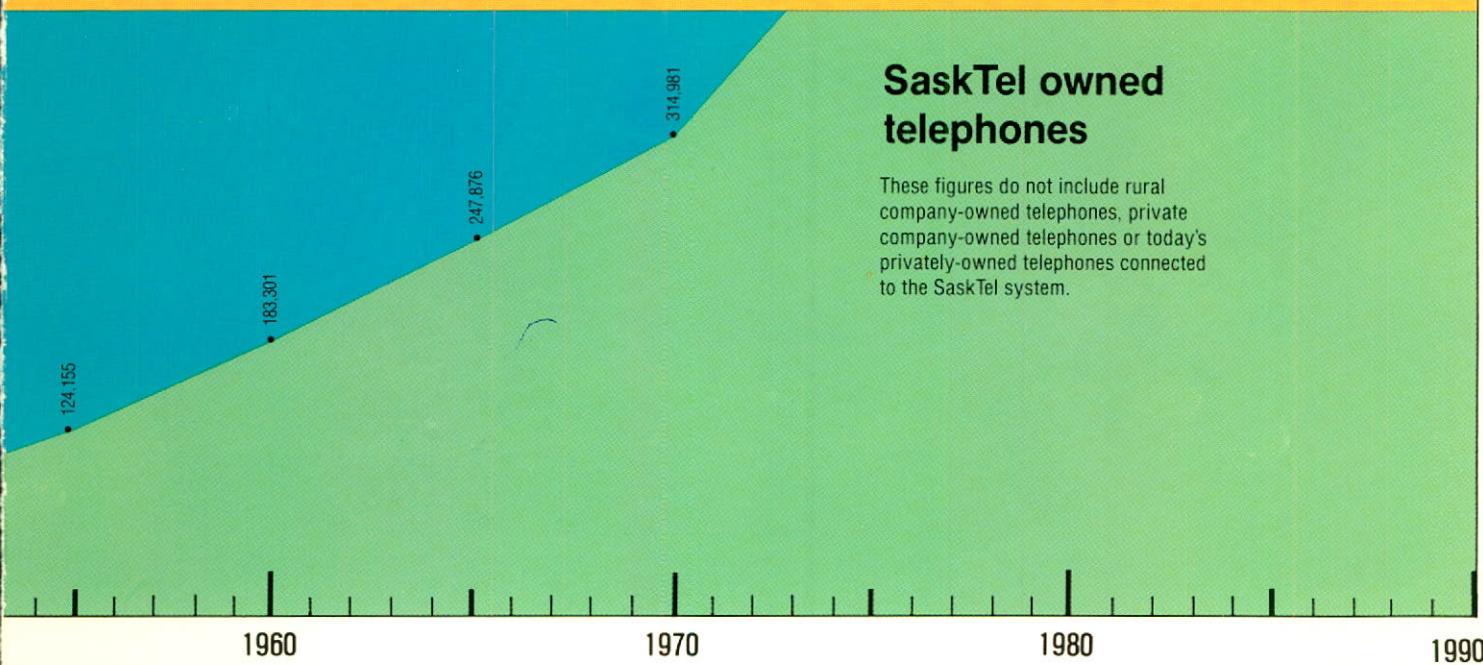
The 'Winds of Change' sweep **independence** throughout **Africa**, while black Americans fight for their **civil rights** in the United States. The world tensely watches the **Cuban missile crisis**, war escalates in **Vietnam** and trouble brews in the **Middle East**. With eyes on trend setting **Go-Go dancers**, young people in the west **twist** wildly to rock and roll as **man steps onto the moon**.

The seventies introduce the world to a list of problems that include **oil spills**, **hijackings** and debt-ridden developing nations. The world economy sputters under stagflation and a far-reaching **energy crisis**. In the U.S., the war in Vietnam finally ends, a **U.S. president is impeached** in the **Watergate Affair** and, in England, a baby that was conceived in a **test tube** is born.

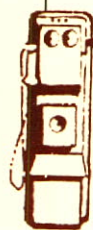
Cabbage Patch kids and trivia rival the **Star Wars** defense system for people's attention. Unmanned space ships are exploring the outer reaches of our **solar system**, while on earth, the world community continues to shrink because of **advances in communication**, **transportation** and the interwoven world economy.

SaskTel owned telephones

These figures do not include rural company-owned telephones, private company-owned telephones or today's privately-owned telephones connected to the SaskTel system.







Telephones first in use in Saskatchewan.



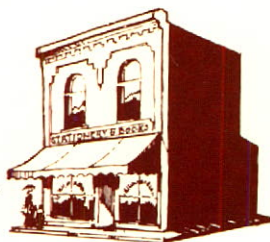
Railway links Regina, Saskatoon and Prince Albert.



Saskatchewan becomes a province.



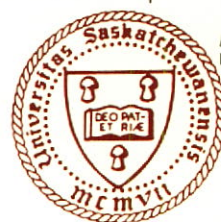
Louis Riel is hanged in Regina.



Saskatchewan's first telephone exchange opens in Peter Lamont's Bookstore, Regina.



Bell Telephone Company extends long distance lines from Winnipeg to Regina.



Act passes to establish the University of Saskatchewan.



Saskatchewan becomes a province (prohibition).



Saskatchewan Legislative Building opens.

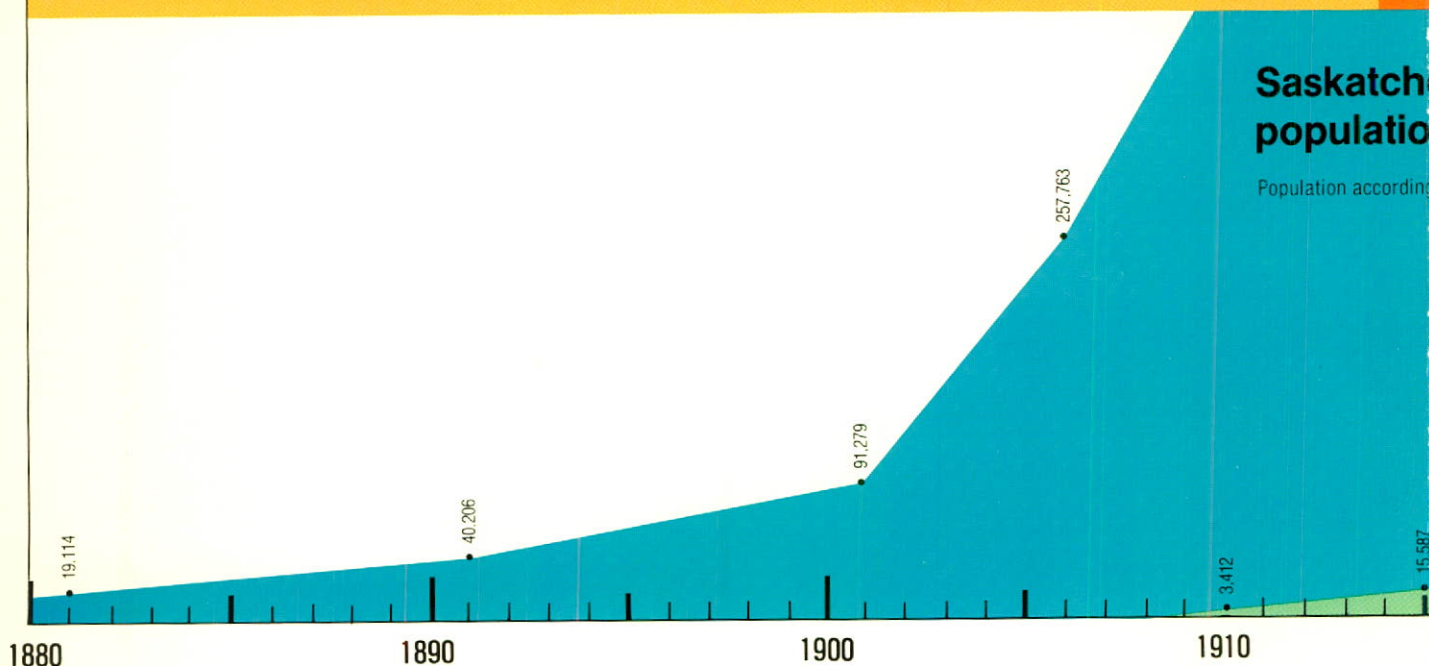
World history

Bingo! A winner's cry in a new game. For the first time, people buy canned food, walk under **electric street lights**, listen to **phonographs**, and ride bicycles with **air-inflated tires**. While the Ottoman Empire continues to crumble, and Europe divides Africa, crowds cheer **Buffalo Bill's Wild West Show** (featuring Saskatchewan's own Gabriel Dumont), and praise Gilbert and Sullivan's "**The Pirates of Penzance**."

The Curies tell people about radium and H.G. Wells writes about his imaginary time machine. Communications technology leaps from sending telegrams without wires to transmitting voices on **radio waves**. And right alongside Nobel Prizes and modern Olympic Games, appear **safety razors**, comic strips and the **Klondike Gold Rush**.

London motorists get their first **speeding tickets** (speed limit — 20 mph) and American pitchers are penalized for **spitballs**. The Wright brothers fly a **powered aircraft**. Ford mass-produces the **Model 'T'** and Pavlov conditions his dogs. People send transAtlantic telegraphic messages, watch **Mary Pickford** films and give their children **Teddy Bears** (named after Theodore Roosevelt).

The decade begins with the **Comet** and ends as we observe an eclipse. People bear out Einstein's theory. Between these events, the **Titanic** sinks, income tax is introduced, the **zipper** finally becomes popular, **World War I** and the Russian Revolution rock the world community, and western civilization changes.



1920

1930

1940

1950

comes a 'dry' [n].



110 motion picture theatres operate in the province.



Overseas telephone service between Canada and Britain, via the United States, is officially opened by Prime Ministers MacKenzie King and Stanley Baldwin.

3,600,000

Saskatchewan's 86,000 telephone subscribers make 3,600,000 long distance calls, a peak not to be reached again for many years.



On June 1, the provincial telephone system becomes Saskatchewan Government Telephones (SGT) — a crown corporation.



Leduc oil find in Alberta leads to successful drilling in Saskatchewan.

757,510

820,738

921,785

931,547

895,992

832,688

831,728

Saskatchewan Co-operative Wheat Producers Limited (The Saskatchewan Wheat Pool) is formed.



Canada declares war against Germany; 70,000 Saskatchewan people serve in the armed forces.

The Sask Insurance

with Halley's scientists of the sun to **Theory of Relativity**. nts, the S.S. e tax grows and comes popular. Russian e world omen's suffrage emocracy.

Booze becomes illegal in portions of North America and the dropping German mark introduces inflation to the world economy. Banting, Best and MacLeod administer **insulin** to diabetes patients and Fleming discovers **penicillin**. Charles Lindbergh successfully pilots the 'Spirit of St. Louis' from New York to Paris, while the New York **Stock Exchange** crashes.

Along with relief camps and bread-lines, The **Depression** blows in **Charlie Chaplin**, **Mickey Mouse**, and the rumba. The first **transcontinental radio broadcast** covers the **Hindenburg** disaster, and auto accidents gain notoriety for death tolls. Japan attacks China, civil war breaks out in Spain and the decade ends with the beginning of the **Second World War**.

Amidst wartime rationing, men wear **zoot suits** with reet pleats, Fermi splits an **atom**, and an electronic brain (**computer**) begins thinking. **Germany surrenders** to our Allies. After two **atomic bombs**, Japan surrenders and the **Second World War** ends. The decade closes with the world being introduced to **Mao Tse-tung** in China, apartheid in South Africa and reports of **flying saucers** in the United States.

School ch an anti-po treated w and Tenzi while the satellites i at the mo watch Zor paperback recordings

WWI

Great Depression

WWII

ewan
n

to census figures.

27,611

31,783

41,959

31,262

37,009

48,779

78,047

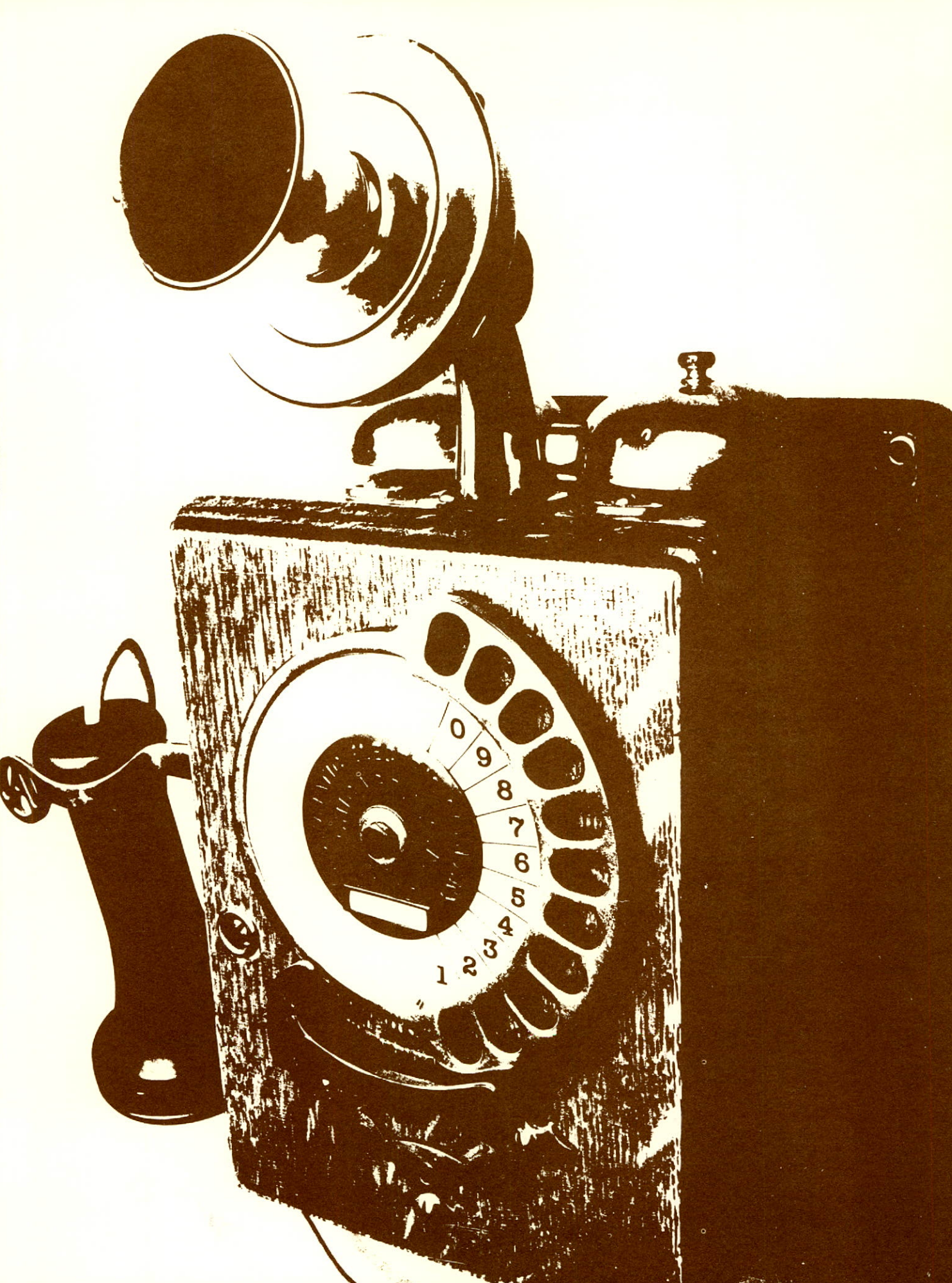
1920

1930

1940

1950







The early years

In 1882, just six years after Alexander Graham Bell received a patent for his "new-fangled toy", as it was referred to at the time, and a few months after the first train steamed into Regina, voices were being sent by telephone in Saskatchewan.

Five years later, the province's first telephone exchange was established in Regina in Peter Lamont's Bookstore on South Railway Street (now Saskatchewan Drive) near Hamilton Street, two blocks from the present site of SaskTel's new head office building. Emily Lander was the first telephone operator, and her voice soon became a familiar one as she connected customers to each other after answering with a friendly "Hello Central."

By 1905, when Saskatchewan became a province, the number of telephones serving its 236,000 residents had grown to 2,000. Most of these crudely wrought instruments were in operation in larger communities. Long distance service, however, was extremely limited until 1906 when the Bell Telephone Company extended its long distance telephone lines from Winnipeg to Regina.

While the Bell Telephone Company and other smaller companies provided urban residents with telephone service, rural needs were largely ignored. To address this situation, in 1908 the Saskatchewan government passed several pieces of legislation referred to as the Telephone Acts.

The first act, "The Railways and Telephone Department Act," created SaskTel's predecessor — The Department of

Railways, Telegraphs, and Telephones. The telephone section of the act allowed the department to establish, operate, administer, and expand local service in urban areas and long distance service throughout the province.

A second act, "The Rural Telephone Act," permitted groups of farmers to form rural telephone companies to provide local telephone service to rural areas. Also passed was "The Municipal Telephone Act," which encouraged communities to form municipal telephone companies.

At the same time as Henry Ford's Model T began rolling off the assembly line, setting the stage for mass transportation, the expansion of Saskatchewan's telephone network opened the door toward universal communications via telephone.

In 1909 the department built its first telephone exchanges at Hanley and Melville. Three important purchases of existing telephone companies operating in the province were also made that year — The Bell Telephone Company, The Saskatchewan Telephone Company, and The Wapella-Harris Telephone Company — which considerably expanded the department's system.

The newly acquired facilities consisted of 18 telephone exchanges, 53 long distance offices, and 792 kilometres of long distance pole lines. Among the telephone exchanges purchased were those at Estevan, Moose Jaw, North Battleford, Prince Albert, and Regina. These facilities, added to those built by the government, were providing telephone service to 5,710 subscribers at the end of February 1910.

Over the next few years, as thousands of settlers immigrated to Saskatchewan, the department continued to build more



(top) — In 1876, telegraph lines reached from eastern Canada to Battleford, the original government seat of the North-West Territories. (bottom) — Wall telephone with 11-hole dial (1907).



telephone exchanges while construction crews were busy erecting long distance pole lines to handle the increased demand for telephone service.

The growth of the system was somewhat curtailed during the First World War due to material and manpower shortages. Despite this, five telephone exchanges were converted to automatic dial operation — Regina (1914), Prince Albert (1915), Swift Current (1918), Moose Jaw (1918), and Qu'Appelle (1919).

By the end of 1919, a year after women were finally given the right to vote in federal elections, the number of telephones in service in the province had increased to 70,000. The majority of these were operated by rural telephone companies in cooperation with the Department of Telephones. The department's long distance network now consisted of 164 toll offices, connected by 8,666 kilometres of long distance pole lines.

1920s

After the war, and the rampage of the 1918-1919 influenza epidemic, a new decade dawned that people felt would be one of peace and prosperity. They kicked up their heels with "anything goes" being the motto of the day. Talking motion pictures and radio became the entertainment media. It was a decade of idols and no single event captured the spirit of these times more precisely than the legendary solo flight of a 25-year old airmail pilot named Charles Lindbergh across the Atlantic in May of 1927.

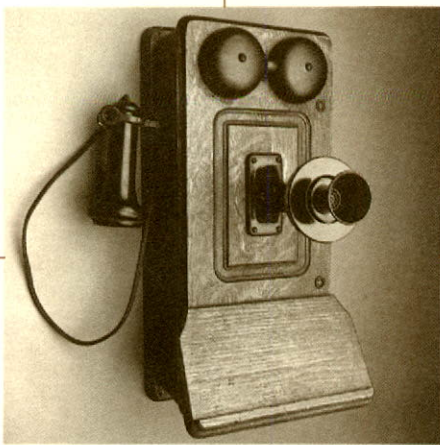
Telephone employees also joined in the fun. Girls bobbed their hair and danced the Charleston, but one policy of the time stipulated that only unmarried women could work as telephone operators.

Throughout the 1920s, the growth of local service continued to be more dramatic in rural company owned systems than in those owned by the Department of Telephones. In fact, the number of rural telephones in service outnumbered those of the department from 1919 until 1931. Early in 1921, more than 1,170 rural companies were providing local service to 58,000 farm subscribers while the government system was serving 30,500 customers.

In those days the rural companies supplied the building necessary to house central office equipment for their local systems in addition to space needed for living accommodations. The central office equipment itself was installed and maintained by the department's staff. Inspections by qualified departmental personnel were necessary before connections to the government's network were allowed.

The practice was to appoint the rural telephone company as the department agent and to pay commissions which assisted the rural companies in meeting day-to-day operating costs. These shared responsibilities were mutually beneficial and resulted in the continued expansion of the telephone network in the province.

The department's 1921 annual report mentions that another cooperative effort, the practice of providing a telephone school for rural company personnel, would continue. The



(top) — To extend telephone service to farms and communities, crews often camped in the countryside.
(bottom) — Grooved door magneto wall telephone (1916).



school usually opened at the beginning of November and continued into March of the following year.

Prohibition was still in effect in the mid-'20s when there was one telephone for every eight people in Saskatchewan. Despite a number of years of poor crop conditions, over half of the province's farmers had telephone service. The hundreds of rural companies, under their ambitious construction programs, and with the department's help, had succeeded in building a rural system second to none. Early in 1924, the percentage of farmers with telephone service was greater in Saskatchewan than anywhere else in Canada.

The telephone system now served an area of 336,570 square kilometres. Besides being connected to other telephones in the province, subscribers could talk to all urban and most rural subscribers in the bordering provinces of Alberta and Manitoba.

Beginning in the mid-'20s, and continuing for the remainder of the decade, the construction of new rural systems slowed considerably. There were also fewer additions to the government system. During the late 1920s several rural telephone companies amalgamated in an effort to reduce operating and maintenance costs.

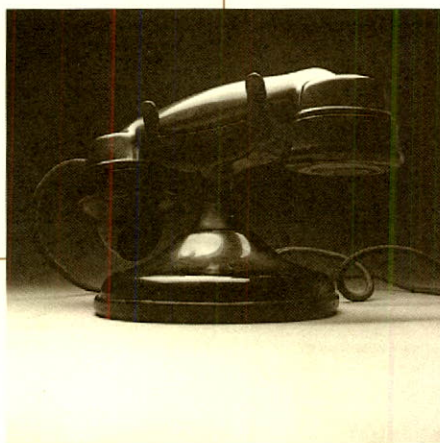
A peak was reached near the end of 1929 when 86,000 government-owned and rural-connected telephones originated more than 3,600,000 long distance calls. Optimism was at an all-time high and it was felt that the wave of prosperity would never end. Unfortunately, the 1929 stock market crash and the resulting world-wide depression were soon to have a detrimental effect on the growth of telephone service in Saskatchewan.

1930s

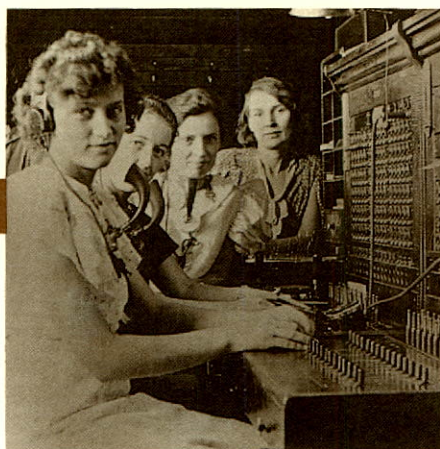
Effects of the New York stock market crash, while felt first throughout the United States, soon rippled into Canada. The Roaring Twenties quickly gave way to what would soon become known as the Great Depression. It was a time that tried people's souls. Mass unemployment, poverty, bread lines, relief camps, and hunger marches spread across the land. The collapse of the economy, coupled with poor crop conditions as a result of a continuing drought, meant that people living in the prairie provinces suffered more hardships than those elsewhere in Canada. The ballooning expectations of the twenties had burst, much like the Hindenburg, the colossal dirigible which exploded into flames as it approached the mooring mast at Lakehurst, New Jersey in the spring of 1937.

These new realities abruptly halted the department's virtually uninterrupted record of growth. In the days of dust, drought, and depression, economic progress in Saskatchewan ground to a standstill. Between 1929 and early 1935, the number of telephones in service dropped to 61,600, a decrease of nearly 24,500. During the same period, Saskatchewan residents reduced their long distance calling by more than 50 percent.

However, through the dark clouds one small ray of sunshine came in the form of an historical telecommunications achievement. In March 1931, the seven major telephone companies in Canada signed an agreement forming the TransCanada Telephone System (TCTS).



(top) — Trucks didn't replace horse-drawn carriages in the field until Saskatchewan's grid system of roads was built during the thirties. (bottom) — Desk telephone with combined receiver and transmitter (1927).



The organization's first undertaking was a mammoth one: to build an all-Canadian long distance system so that coast-to-coast calls would no longer have to be routed through the United States.

Saskatchewan completed its portion of the transCanada system in 1931, and early the next year, the Earl of Bessborough placed a long distance call from Halifax to Vancouver to officially open the new Canada-wide network.

The cooperative spirit that established TCTS is still at work today (the organization's name was changed to Telecom Canada in 1983). While each member company serves subscriber needs within its own operating territory, the member companies work together to ensure the compatibility of future facilities and to enhance the capability of the network.

In 1933, overseas calling became possible over what was referred to as the all-Empire route. No longer did overseas calls have to be routed from Canada to New York for final connection. Radio programs continued to be carried over the government's network to radio stations across the province, and discounts were available on calls made between 8 p.m. and 4:30 a.m.

After declining for five consecutive years, the number of long distance calls increased slightly during the department's fiscal year ending April 30, 1935. As had been the case in previous years, the number of long distance calls acted as a kind of economic barometer. The worst was over and economic recovery was finally under way. In the following years, gains were experienced in both rural-connected and department-owned telephones.

At the end of 1939, about 68,000 telephones were in use throughout the province. In addition, there were some 13,000 other telephones in operation which belonged mostly to rural company subscribers. None of these were connected to the government's long distance network; they provided only local service to their users. During 1939 subscribers connected to the government network completed just over two million long distance calls.

As the decade entered its final months, a sense of foreboding crept across the land. There was serious trouble brewing across the Atlantic. Great concessions were made by European governments in a vain attempt to keep the peace.

Late in 1939, Adolph Hitler ordered his armies to invade Poland. Britain and France declared war on Germany and within a week they were joined by Canada. The Second World War was suddenly thrust upon the world.

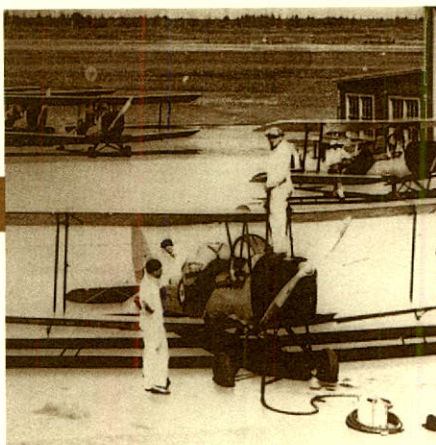
1940s

Just prior to the war, as the adverse effects of the Dirty Thirties lessened, a slow but steady expansion of telephone service had been taking place. Now, once again, the growth of the provincial government's telephone network was curtailed due to staff and equipment shortages.

Shortly after the war's outbreak, plans were finalized to provide telephone service for the British Commonwealth Air Training Plan. Over the next few years the department's first priority was to provide extensive local and long distance



(top) — The Department of Telephones ran schools to train operators to work at the hundreds of manual exchanges in Saskatchewan. (bottom) — Desk telephone with bell in base (1930s to 1940s).



services to RCAF airfields and practice bombing ranges which were being built quickly at many locations across the province.

Adding to the difficulties of the times was the frequent postponement of orders by suppliers because of the almost insatiable demand for telecommunications equipment for the war effort. As a result of the ongoing priority of airfield requirements, the department was not able to extend its plant, or to increase the capacity of its cable distribution or central office equipment in its local exchanges.

As the shortage of vital materials became more acute, the number of names on waiting lists swelled. Since additional long distance circuits were not being built, toll facilities could not handle the heavy demands placed upon them and long delays were common.

Unfortunately, the cessation of hostilities did not bring an immediate end to equipment and material shortages. The demand for telecommunications equipment and the shortages of skilled personnel meant that suppliers could not keep up with their orders. To add to the problems of the day, a high turnover of staff was experienced in the operator area as women left their jobs to marry those returning from war. Married women still were not allowed to work for the department. Overseas service, suspended to the public during the war, was reopened.

In the mid-'40s Saskatchewan telephone employees joined a union called The United Telephone Workers of Canada. An agreement between the department and the union,

governing working conditions and wage schedules, came into effect on May 1, 1945.

As the unprecedented demand for service continued, a significant event in the corporation's history took place. On June 1, 1947, the administration and the operation of the public telephone system, previously under the Department of Telephones, was transferred to Saskatchewan Government Telephones (SGT) — a crown corporation. The Department of Telephones remained but now dealt solely with regulating the rural and private telephone companies operating in the province.

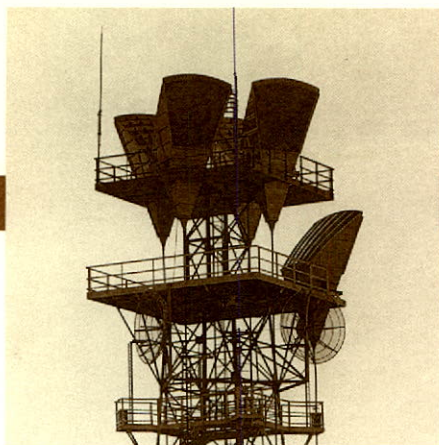
In 1947, telephone customers were able to reach subscribers in 53 other countries. That same year, as the stage was being set for the expected boom times ahead, oil was discovered at Leduc, Alberta.

Back in Saskatchewan, the number of people on waiting lists for telephone service continued to grow. By the end of 1948, more than 8,500 applications for service were on file. The turning point came the following year when at long last the number of telephones installed finally exceeded the rate of new service orders.

Even with these deferments, and despite the continuing congestion on long distance lines, significant growth was experienced in both long distance calls and in the number of telephones. At the end of 1949, more than 114,000 telephones were in service (including connecting rural-owned), from which residents during the same year made a record-breaking five million long distance calls.



(top) — During the Second World War, pilots from India, New Zealand, Australia, England and other Commonwealth countries trained with Tiger Moths at Saskatchewan airfields. (bottom) — '50'-type wall telephone (late 1930s to 1940s).



1950s

As industry shifted gears from wartime to peacetime production and the baby boom began, SaskTel (the corporation was still called SGT until the late 1960s) looked ahead towards a period of tremendous growth. While busy preparing for the future, SaskTel was faced with the more immediate concerns of catching up with the monumental backlog of work orders to meet both local and long distance service demands.

The teenagers of the day showed little interest in the boom taking place all around them; they were more concerned with souped-up cars, motorcycle jackets and malt shops. Girls wore pony tails, bobby socks, and crinoline-filled dresses with hemlines well below the knee. The infatuation with rock and roll worried parents who feared this new music might transform their offspring into juvenile delinquents. TV antennas began to dot the landscape.

The buoyant Canadian and Saskatchewan economies created an even greater demand for telephone services. As a result, a major expansion and modernization of SaskTel's telecommunications network was undertaken.

During the 1950s, the growth of the telephone system virtually took off as telecommunications equipment finally became more readily available. Additional employees were hired to keep pace with the great demand for service. By the end of 1959, the corporation's workforce numbered 2,000, an increase of 700 over the end of the previous decade. The many achievements that took place during these challenging times were made possible mainly because of the skill, energy, and devotion of SaskTel employees. Dial

conversions continued, but at a gradual pace, and three communities were converted in 1955, Saskatchewan's jubilee year.

Between 1949 and 1959 the number of SaskTel owned telephones in service jumped dramatically from 70,000 to more than 172,000. The numbers of those on waiting lists had decreased from 6,868 to a mere 283 at the close of the decade.

A correspondingly large increase took place in long distance usage. During 1959, Saskatchewan residents completed almost 10 million long distance calls, 93 percent more than a decade earlier. The thousands of kilometres of new long distance circuits added to the system greatly improved the quality of toll service.

A number of significant events took place in the latter fifties. In 1957, Saskatchewan finished its portion of the transcontinental microwave-radio network, a joint undertaking of the members of the TransCanada Telephone System. In the following year, the world's longest such microwave system was completed, consisting of a continuous line of 140 huge steel towers strung from coast-to-coast. While greatly increasing the number of Canada-wide circuits for both voice and data services, the system also allowed live network TV programming to be transmitted from one end of the country to the other.

Later that year, Regina was designated as a regional centre and given the responsibility for the final routing of all telephone traffic in and out of western Canada. The only other such facility in Canada is located in Montreal. The new centre paved the way for the introduction of distance dialing. By the end of 1959, nine of Saskatchewan's largest centres



(top) — Transmitting and receiving telecommunications messages through air with microwave-radio improved long distance communication many fold. (bottom) — '500'-type desk telephone (black - 1950, colors - 1955).



were on the new network. Since SaskTel operators could now complete toll calls throughout Canada and the United States without further assistance from other operators, a far greater number of long distance calls could be handled in a much shorter time.

1960s

During the dynamic and sometimes volatile 1960s, Saskatchewan subscribers continued to demand new and more complex telecommunications services to meet the needs of a growing economy and an increasingly mobile population. It was a decade when innovations in the industry were becoming more frequent. Computers began to emerge as the business tools of the future, and as the decade matured, the need to transmit larger volumes of information quickly over long distances became increasingly more important.

To cope more efficiently with the rapid growth of the provincial telecommunications system, a reorganization took place within SaskTel in 1960 which divided the province into north and south divisions for administrative purposes. Later the same year, Canora became the thirty-first automatic dial office and the first to adopt the All Number Calling Plan whereby seven digits replaced the two letter, five digit telephone numbers. With Regina's conversion in 1963, Saskatchewan became the first province in Canada to have all number calling throughout its system.

Beginning in 1961, the corporation embarked on an accelerated program aimed at converting all of the

remaining manual telephone exchanges and their connecting crank-type telephones to automatic dial service. Although dial telephone service had been available to Saskatchewan residents since the early 1900s and was gradually expanded over the years, this modern convenience was still not available to telephones connecting to the province's 331 manual exchanges. By 1960, more than 79 percent of SaskTel's 183,000 phones were dial operated while only 24 percent of the connecting 50,500 rural-owned phones were dial operated.

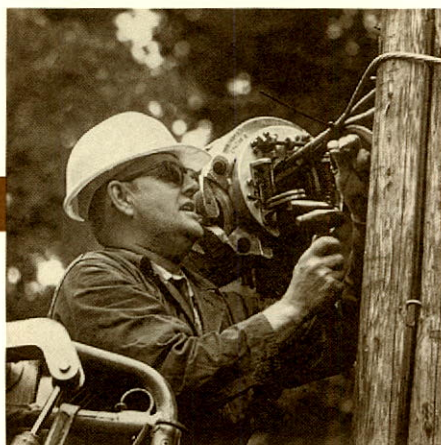
As the accelerated conversion program progressed, Direct Distance Dialing (DDD), first introduced to Regina and Saskatoon subscribers in 1964, was gradually extended to connect Saskatchewan telephone users to the continent-wide network. Customers could now place their own long distance calls without operator assistance.

During this period, construction activities intensified considerably. Tall towers with guy wires began to dot the horizon in all corners of the province as numerous provincial microwave-radio routes were built. At the same time, a policy was established to gradually replace all aerial long distance lines with underground cable and wire to provide higher quality transmission facilities, unaffected by severe weather conditions.

In 1966, the year the Saskatchewan Roughriders beat Ottawa to win the Grey Cup, the corporation announced a program that would eventually bring telephone service for the first time to over 7,000 farms across the province. To reflect the growing diversification of its services, in 1969 the corporation changed its name from Saskatchewan



(top) — Before computers, billing in the accounting department had to be done manually with painstaking care. (bottom) — Starlite telephone with electro-luminescent dial light (1960).



Government Telephones to Saskatchewan Telecommunications, or SaskTel as it is commonly called.

Push-button telephones first appeared in homes and businesses in Saskatoon and Regina in 1968. Demand outstripped supply as the new service was extended to other areas of the province. In an effort to speed up the dial conversion program, prefabricated and fully-equipped Community Dial Office buildings were assembled in Regina and then shipped to smaller communities.

By the end of the decade, the number of SaskTel-owned phones in service had once again doubled. There were now more than 300,000 telephones in service. The use of long distance service had also increased dramatically since the end of the previous decade with more than 18 million long distance messages originating in Saskatchewan during 1969.

Meanwhile, an event was taking place a quarter of a million miles away that would have far-reaching implications. On Sunday, July 20, 1969, the longest long distance call in history was made when three American astronauts called home from the moon's Tranquillity Base. The event foreshadowed the future, in that space, the final frontier, would soon be a parking place for communications satellites. The communications revolution of the future was drawing near.

1970s

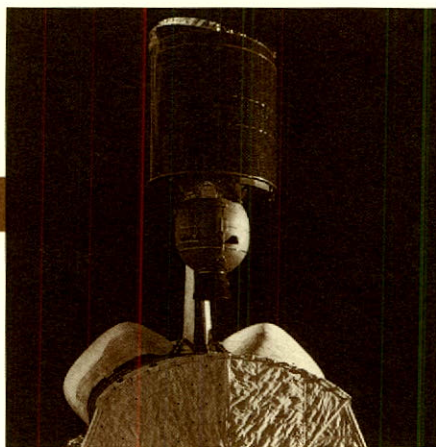
During the 1970s, rapidly evolving new technologies placed SaskTel in a continuous state of change. Throughout the decade, the growing complexity of network facilities and continuing diversification of many customer services reflected the changing role of the corporation. No longer was SaskTel "just a telephone company." Rather, it was quickly becoming an organization with an ever-growing involvement in the transmission and distribution of not only voice signals, but video (TV) and data messages as well. Mechanization of many internal systems was taking place to streamline procedures and increase operating efficiencies at a time when inflation and high interest rates taxed the corporation's resources to the limit.

With the launching of the first in a series of Anik satellites in 1972, the same year that Paul Henderson's last-minute goal at the World Hockey Championships made all Canadians cheer, SaskTel, in cooperation with other TCTS member companies, continued the development of a nationwide computer communications system. To meet the modern business world's need to move more and more information at greater and greater speeds, new data transmission services and data terminal equipment were being introduced constantly.

In the early 1970s, the energies of the corporation were directed northward with the extension of two backbone microwave-radio routes into the sparsely populated, but resource-rich, northern areas of the province to upgrade telecommunications service to the level enjoyed by residents in the south.



(top) — Construction of coaxial cable systems to provide customers with cable TV service began in the 1970s.
(bottom) — Logic '10' — business desk telephone (1973).



A number of ambitious, long-term programs were completed in 1974, the year which also marked the 100th anniversary of the telephone. With the conversion to dial service of the Cumberland House manual exchange, Saskatchewan became the third province in Canada and one of the largest areas in the world to have an all-dial telephone system. At the same time, all telephone subscribers in Saskatchewan, with the exception of a few isolated northern communities, now had access to the Direct Distance Dialing network. The final link was forged two years later when a new dial office went into service at Uranium City.

Following the completion of the unserved area project, the corporation began a six-year, \$90 million program to improve service to rural subscribers. One of the most ambitious projects as yet undertaken by SaskTel, it involved the installation of enough buried cable and wire to circle the earth one and a half times. As part of the program, SaskTel offered to assimilate the local distribution systems of rural telephone companies. In the first year of the program alone, two-thirds of the province's rural telephone companies, with more than 34,000 subscribers, were voluntarily assimilated.

In 1977, a new era in the handling of operator-assisted long distance calls was ushered in with the installation of a computerized call-handling system in Saskatoon. With plans for the introduction of similar systems in other cities, the days of the jack and cord switchboard in Saskatchewan were numbered. The following year, in addition to continuing to supply network TV distribution facilities for television stations within the province, the corporation began providing TV services to Saskatchewan cable TV operators.

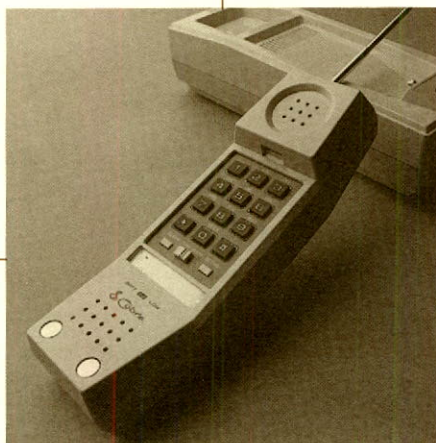
In the final year of the decade, the first phase of a company-wide reorganization was under way to give the corporation greater flexibility in meeting customer needs.

During the decade in which the energy crisis forced gasoline prices to soar, the number of telephones once again doubled and there were now more than 584,000 SaskTel telephones in service. Long distance use over the same ten-year period showed an even more spectacular increase with more than 69 million messages completed in 1979 alone, more than three times that of a decade earlier.

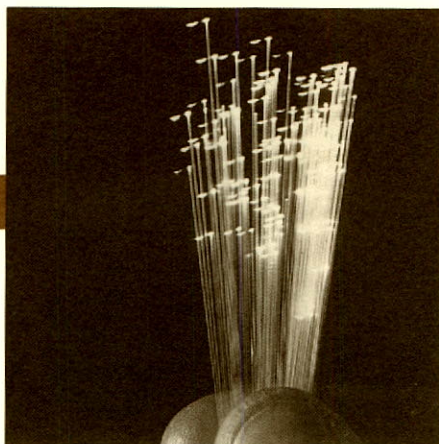
1980s

The steady growth in the use of SaskTel's network experienced throughout the 1960s and 1970s has continued into the 1980s. Customers completed a record 117.2 million long distance messages during 1987, an average of 321,000 a day. At the end of 1987, more than 747,000 SaskTel-owned telephones were in service.

In searching for new ways to cope with the ever-increasing demands being placed on the network for traditional as well as new services, SaskTel, like other telecommunications companies, has become heavily involved with the application of digital technology. Digital is replacing the older technologies because much of today's communication is between computers, which can talk far faster than the chattiest busybody, in a language composed of binary digits. Not only do digital systems significantly improve signal quality and transmit greater amounts of information at much



(top) — Communications satellites, some recently put in orbit by space shuttles, relay messages to ground stations from thousands of miles above the earth. (bottom) — Cordless telephone (1984).



higher speeds, they also can be installed at lower costs and require less maintenance. SaskTel's goal is to have an "all-digital" system in place by the mid-1990s.

In 1980, the start of construction on the world's longest commercial fiber optic system was one of the first major steps taken by the corporation toward the goal of establishing an all-digital telecommunications network. The longest of its kind in the world when completed in 1984, the 3,268 kilometre network initially connected 52 of Saskatchewan's largest communities. While extending cable TV service to many Saskatchewan communities, the fully integrated digital network accommodates the ever-growing demands for voice and data services. It has paved the way for a wide range of new and exciting telecommunications services scarcely dreamed of only a few years ago.

SaskTel introduced a commercial videotex service called Agritex in the fall of 1983. Aimed primarily at serving the needs of the agriculture business community, Agritex provides subscribers with gateway access to a host of information services such as up-to-the-minute grain prices, farm management programs, investments, and weather reports. Over one million electronic pages of information are available from regional, national, and international computer databases through the telecommunications network.

SaskTel International was formed early in 1986 to market the corporation's expertise in advanced telecommunications technologies, particularly fiber optic systems, to clients around the world. Later that year, the new company joined forces with other western Canadian telecommunications companies to form a consortium called CCI Canadian

Communications International. With this broad base of expertise in telecommunications, the consortium charted a course to capture its share of the diverse market opportunities in Far East countries, particularly in China.

The start of a mega-project in 1986, the \$264 million Rural Individual Line Service program, means that multi-party lines will soon be a thing of the past. By early 1991, some 70,000 multi-party line customers will have had their telephone facilities upgraded to individual line service. Thousands of kilometres of buried cable and the installation of the latest in digital switching equipment are major components of the five-year program.

It has been said that the new telecommunications technologies being applied today are helping to spawn a communications revolution that will have a more profound effect than the invention of the telephone itself over 100 years ago.

During the second century of telecommunications, SaskTel continues to play a leadership role in the application of these new technologies. As a result, Saskatchewan customers will be among the first in Canada to reap the many benefits.



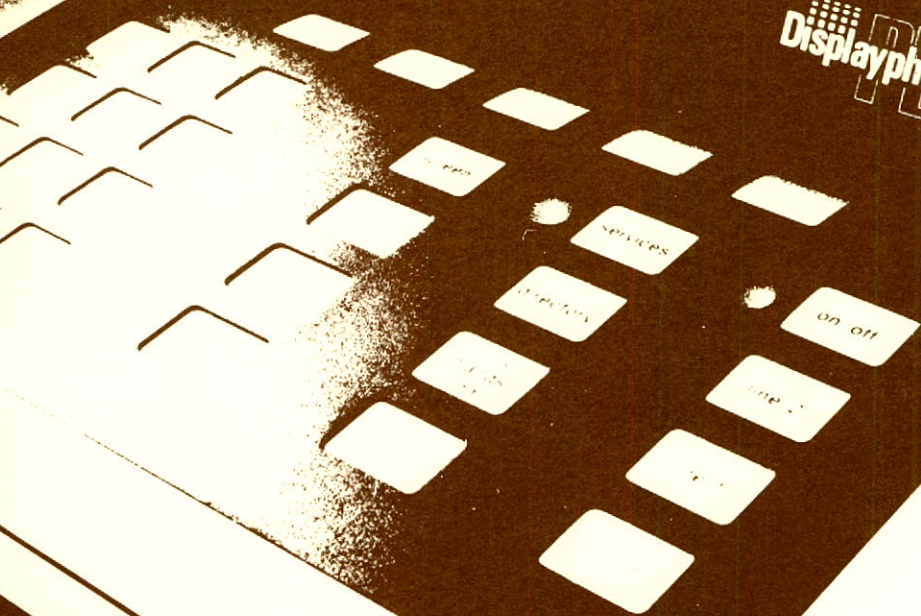
(top) — Lasers send voice, video, and data transmissions as coded rays of light through hair-thin fiber optic lines.
(bottom) — Displayphone Plus handles data and voice at the same time (1985).

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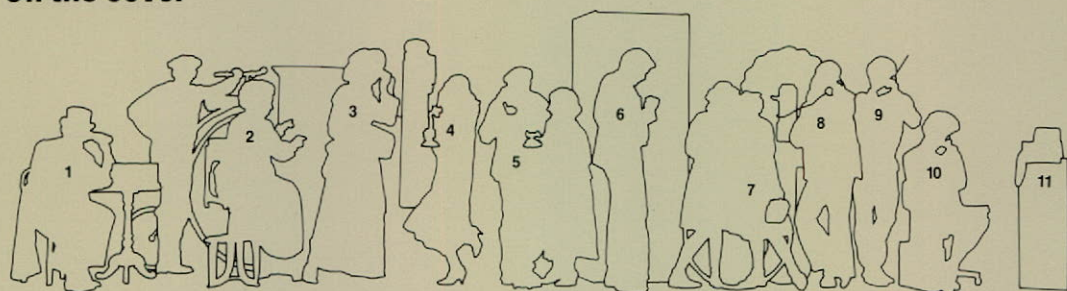
SERVICES:

- 1 REMINDER SERVICE
- 2 LOCAL DATA PORT STATUS
- 3 MANUAL DATA CALL PROFILE
- 4 DATE & TIME CHANGE
- 5 TAB SETTING
- 6 ANSWERBACK MESSAGE
- 7 DISPLAYPHONE UTILITIES

Displayphone PLUS



On the cover



- 1 First commercial box telephone (circa 1880)
- 2 Magneto switchboard (circa 1900)
- 3 Stromberg-Carlson magneto wall telephone (circa 1910)
- 4 Candlestick telephone (1920s)
- 5 Desk set telephone with dial (1930s)
- 6 Wooden paystation (1940s)
- 7 '500'-type color desk set (1950s)
- 8 Shell paystation with three-slot chrome telephone (1960s)
- 9 Cordless telephone (1980s)
- 10 Delphi 6 business telephone (1980s)
- 11 Displayphone Plus telephone (1980s)

