

Saskatchewan's Air Ambulance Service

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Introduction

During the post-Second World War period, many fliers returned home and began looking for aviation work. At this time, decommissioned British Commonwealth Air Training Program facilities still remained in many smaller communities in Saskatchewan. These included airstrips, buildings and flight path communications networks. This was a time of implementation of many initiatives to improve health, education, working conditions, roads and economics in the province. T.C. Douglas's dream of quality health care for everyone regardless of situation or ability to pay was in the process of realization. The Saskatchewan Air Ambulance Service had an important role to play.

Saskatchewan Wants to Provide Emergency Health Services to Remote Saskatchewan

There is a difference between health care available to isolated citizens and those living in urban centres. Most of Saskatchewan's population was scattered in isolated rural areas, both prairie and bush; roads, where they existed, were in poor condition; Saskatchewan weather was notorious; there were few population centres and few hospitals with specialized equipment. At this time, tuberculosis continued to be problematic: the famous mass x-ray surveys were being conducted; cancer cases still rising: the advances in radium therapy were underway; farm accidents were a serious plague; epidemics of polio were increasing. Many people could not afford to pay for health care; many did not see their doctors because of cost. It was the emergencies which were identified as one area where immediate help was needed: how to get people out of remote areas to get the critical care they needed.

North America's First Non-Military Government-Operated Air Ambulance Service

The Saskatchewan government embraced many measures to improve health care, especially for those in outlying areas of the province. As part of its program to improve health care, it decided to invest in a provincial air ambulance service, the Saskatchewan Air Ambulance Service (SAAS), the first government operated service of its kind in North America and the Commonwealth.

There had already been attempts to provide air medical services in the province. Regina funeral director George Speers began Speers Airways Limited with two aircraft and turned it into western Canada's first air ambulance company in 1936. Speers Ambulance Service offered both air and road emergency services. One the pilots, Charlie Skinner, flew a Curtiss Jenny as an air ambulance service in the Willow Bunch area during the late 1920s. He later went to Regina, and helped Speers organize his air ambulance.

In mid-November of 1945, a Noorduyn Norseman aircraft was bought by the government from War Assets and fitted out for basic ambulance work. Its call letters became CF-SAH. The Norseman was chosen because it was a robust and dependable craft, excellent for difficult situations in northern Saskatchewan. It could be equipped with wheels, skis or float, according to need. It had a range of more than 850 km. at somewhat less than 200 km per hour.

Keith Malcolm, an ex-RCAF flying instructor born at Aneroid, was hired by the Department of

Health only three weeks after his return from Europe to pilot SAH and to supervise air ambulance operations. With Don Watson, aircraft engineer, and former army nurse Mabel Gleadow, the aircraft made its inaugural flight on 3 February, 1946, to pick up a 57 year old acute diabetic at Liberty and ferry her to a Regina hospital, 56 miles away.

The First Year- Immediate Expansion Needed

Within a month, 28 more flights had been made. By the next month, April, 51 trips had been made. By end of August 1946, the Norseman SAH had flown more than 100 medical trips. About 35 trips could not be made due to weather and maintenance. Obviously, one machine and crew were not enough. In August 1946, the government authorized the purchase of another Norseman, a Mark V specially equipped at the factory as an ambulance. It was given the call letters CF-SAM, and ex-RCAF, ex-government auditor and transport flyer, Radville native Julien Audette was hired to pilot SAM. In December, two engineers and flight nurse Irene Sutherland of Assiniboia were hired. By November, the total number of emergency flights had reached 153, and for the week of November 25, a record 18 flights were flown in six flying days. By the end of the first year of operation, 179 flights had been logged, but many requests had been refused due to the unavailability of the aircraft for maintenance, bad weather, or the difficulties of night landing. The service completed about 21 flights per month, with trips averaging about two hours each.

A typical longer trip in 1946: leave Regina in SAM for Loon Lake, 312 statute miles: arrive in 2 hours, 35 minutes. Load patient, take off for Saskatoon, 168 miles SE. Half hour stop to embark patient safely in Saskatoon hospital, return to Regina. Total 7 hours, 630 miles. The trip would require all the daylight hours for a December day.

Responsibilities of the Saskatchewan Air Ambulance Service

The aim of the service was to provide services to Saskatchewan residents and visitors to the province for the evacuation to hospital of all critical cases within and beyond provincial boundaries where there existed no other adequate means of transportation, or where the usual road or water route would pose a risk to the patient's survival. The SAAS was also charged with airlifting medical material in isolated regions and to ensure the transport of physicians and patients in the case of epidemics.

The government vowed the service would be available at a price everyone could afford: \$25 per flight within the province, whatever the distance flown. For trips to or from other provinces or the United States, \$40 was charged per hour.

Premier Douglas would go along on flights sometimes in the early years to "see for himself" if the benefits to the Saskatchewan people met his expectations.

He would ride into town with us in the back of a pickup truck, or whatever conveyance was available. Once in the rural hospital, he would want to help transfer the patient from the hospital bed to our stretcher or aid in whatever else needed to be done, much to the incredulity of the local doctors and nurses.

(Campbell 1993: ??)

How the SAAS Worked

The ambulance aircrew was on 24 hour standby. Medical cases were defined as emergencies by the patient's doctor, who then put in a call to Regina airport, or direct to the pilot. The pilot usually acted on local doctor's request; sometimes nurses, hospital authorities, police, the clergy, municipal officials or individuals requested service.

When a request was phoned in, an exact description of the patient's land location was given, including house description, description and layout of barns and buildings, direction and distance from nearest village or town, proximity of roads. Sometimes the plane could land close to the patient; other times the plane had to land at a distance and the patient was brought to it by sleigh or car. To assess the condition of farm fields and safety of landing there, a method was developed after trial and error. The farmer was instructed to drive over one half mile of the proposed landing area at 40 mph, and if he could get into high gear in that distance without hitting too many rocks or ending up mired in a slough, the field was judged to be relatively safe. Signals, such as flags or smoke fires, were agreed upon to let the pilot know that he was at the correct location. In rare cases, the plane landed on highways, having radioed ahead to police to have half a mile blocked off for landing.

Often, as with a brain injury patient, it was safer to wait for the air ambulance to fly in, with its highly trained and experienced medical staff and specialized equipment, than to set off immediately on a shorter journey over rough or snow-blocked roads, in an automobile with no medical equipment. Severely injured victims can suffer greatly even in an ambulance, if the roads are rough.

The Second Year- Just in Time for the Blizzards of 1947

The winter blizzards of 1946/47 were the worst ever recorded for Saskatchewan and the two air ambulance planes were fully booked.. SAM tore its belly on a fence post while landing at Radville, and was out of service for ten days. In May 1947, a third plane, a brand-new Fairchild Husky F11 was bought and the old Norseman CF-SAH was sold to Saskatchewan Government Airways (SGA) in Prince Albert. The Husky was registered as CF-SAQ, but did not go into service immediately. While it was being flown to Regina from Montreal, it stalled and dropped out of the air just off the end of the runway at Grand Forks airport. Several months were needed to repair her. Unfortunately, at this time the front-heavy CF-SAM ended up on his nose and was also out of commission. A plane was brought in temporarily to keep operations going. By winter a Stinson joined the fleet as CF-EXM. One of its first trips was to fly a badly burned baby from Piapot Reserve to the Indian Hospital at Fort Qu'Appelle. That winter there were several bizarre accident cases. A teacher received critical eye injuries when a frozen jar of soup exploded while thawing on the stove. A patient suffered a stroke when running out to watch the air ambulance evacuate a lumber mill operator with a mangled arm. A tobogganer was impaled with a splinter from his toboggan when it hit a rock.

Flights tripled in 1947, and doubled again in 1948, when the three pilots covered 375,000 km. to all corners of the province. The public also learned of the work of the air ambulance. The National Film Board filmed operations in September of 1947: "Mercy Flight" premiered at the Rex Theatre in Regina on 6 February 1948. A shortened version, "Wings of Mercy", played for

20 years, sometimes on TV.

By the end of the second year, 1,055 patients had been transported, demonstrating the need for the service. With this growth, changes were also needed. More nurses were hired, headed by Irene Sutherland, now chief nurse. More mechanical staff kept the planes in the air.

The Third Year- The First Baby Born During Air Ambulance Flight

A Cessna twin-engined T-50 Crane, CF-GEA, the SAAS's first multi-engine, was bought early in 1948. It had a stretcher entry door on the fuselage side, but was too heavy for its fuel capacity for long distance hauls. Don Campbell of Nipawin and Regina, a Second World War flyer, was hired in December of 1948 as a pilot. By 1951, he was supervising the service.

In 1948 a five-pound baby boy was born at 5,000 feet between Rose Valley and Wadena on the way to Regina Union Hospital, a complicated pregnancy safely delivered by flight nurse Fraser. CF-SAM returned to the Wadena hospital with the baby in an incubator, surprising the doctor. Ten minutes later, Mme Dubreuil and her fourth baby were installed in a hospital bed. Leon's second name became Julien, in honour of the pilot. On his birth certificate, instead of the usual homestead number, his place of birth was given as "born in an airship en route from Rose Valley to Wadena, Saskatchewan." Mr Audette resigned in 1948, to become associated with a private air ambulance service, which did not actually "get off the ground".

What Was It Really Like?

Sometimes an air ambulance pilot was lucky: an emergency case in a small community could be collected on a real airstrip, though they were few and far between. Frequently, and in all kinds of weather, patients had to be picked up in farmers' fields. Pilots needed all their skill to deal with the inevitable unexpected events. Flight nurses had to deliver excellent health care under duress with calm determination and sensitivity.

At times requests piled up with waiting emergencies, and the crews had to prioritize. Not infrequently doctors got upset at delays for their emergencies; SAAS tried to enlist the help of commercial operators for overloads but sometimes stretchers wouldn't fit it or they didn't want to transport sick people. There was one exception: Saskatchewan Government Airways(SGA) in Prince Albert had been doing medivacs from northern settlements for years. SGA would help when they had planes and pilots available, within their operational area. SAAS would connect with them to pick up the patient for the last leg to hospital.

Who Needed the Air Ambulance Service?

Complicated pregnancies, critical farm and road accident injuries, and polio victims were common users of the air ambulance service, from its inception. There was little that could be done in the air for bulbar polio cases as iron lungs would not fit into the planes and there were deaths. Don Campbell told how the anguished mother of a boy dying of polio tried to open the cabin door and get out of the plane at 1000 feet. It was all the pilot and nurse could do to handle it, while keeping the plane in the air. When the portable Monaghan respirator became available, it saved many lives. Other equipment included electric aspirators, pressure oxygen systems, and incubators. During the 1950s, there were increasingly heavy demands, not just because of polio

emergencies. Accidents were also increasing due to poor work and safety practices. For example, in 1950/51 accidents included:

Quill Lake- tractor overturned: severe chest injuries

Kindersley- pinned between truck box and loading platform: fractured pelvis

Wadena- struck by baling hoist: head injury

Hudson Bay- thrown off moving train: brain injury

Theodore- truck slipped into gear: fractured tibia and fibula

Lestock- fell under horse: chest injuries

Maple Creek- half-ton rolled: fractured jaw and ribs

Tisdale- two vehicle collision: fractured skull, concussion, cerebral haemorrhage, fractured left clavicle, fractured pelvis

Colgate- oil rig chain lash: severe back injury

Nipawin- welding gasoline drum: explosion, crushed chest

Southeast Saskatchewan.- coveralls tangled in power take-off: dismembered sex organs

Prince Albert- struck by rolling boxcar: head injuries

As the 1950s polio epidemic heated up, the medical profession had reason to recognize the reliability of the SAAS and demands grew to the point where the service could not keep up.

During the 1950s there was increased transportation of whole blood and plasma from city blood banks to rural hospitals. The SAAS developed procedures for delivering the blood safely when landing conditions were unfavourable. In co-operation with the Red Cross, wicker baskets lined with foam rubber and carrying six bottles of whole blood or plasma were dropped with small parachutes.

Another situation of great demand, during the Doctors' Strike of 1962, resulted from the Saskatchewan government's promise to ferry doctors and patients as freely as possible during the difficult shortage of doctors' services. Long hours were worked during the strike, surreptitiously ferrying co-operative doctors from the U.S. and government doctors to medical emergencies.

Pilot Skills Were Essential

It was the pilot's job to handle the plane, often under poor field conditions, to ensure that the patient got emergency treatment quickly. Pilots required a wide range of skills, some of which had been learned in wartime. They needed to be able to operate in all types of snow or mud, be able to handle rocks, grass and stubble. The "flat" prairies were not necessarily very flat: pilots had to be able to take off and land up hill and down hill.

The urgency of a case was the major factor in deciding whether or not to attempt a difficult landing and was a matter of consensus between pilot and nurse. Landing in fields was sometimes very rough but since the patient was not yet on board, it was usually manageable. When landings at night could not be avoided, the pilot could deploy a parachute flare on his last pass before landing, for visibility and to show wind direction. Sometimes, cars were lined up along the landing strip on both sides with their lights on to illuminate the strip.

Accidents did happen. Each mishap was investigated to see if professional criteria had been used in deciding to make the flight. Between 1946 and 1968, there were 18 incidents of damage to

aircraft. During that period, however, 20,000 patients were carried without injury to patient or crew. Only once was a patient onboard during an accident.

Simply, for the first couple of decades we were in a business where everybody had to have an ingrained spirit of adventure, be wide awake with a tight handle on personal panic buttons, and at times be almost indefatigable. (Campbell 1993:280)

Expect the Unexpected

Actual field conditions were not always apparent on setting out or, indeed, at all until the pilot was well into an unexpected situation. One plane hit a slough and rolled over onto its back with an accident patient, who suffered no additional harm, still strapped into the stretcher.. Among the many problems experienced by pilots and nurses were farm fencing, hidden ditches, birds crashing through windscreens, grass getting caught up in the undercarriage and in disc brakes, power and telephone lines, strong winds, crosswinds, sand on the ground, sandstorms, rocks hidden under snow which could tear ski bottoms, snow in fields, blizzards, ice build-up on wings, raised highways, hills, gopher holes, exhaustion, especially during polio emergencies, unlit landings. There was an incident of trouble with a bull on the landing strip; there were difficulties getting patients down narrow stairs in small farmhouses, and trouble lugging them out through snowdrifts to the plane.

Delays worried everyone, because each case was an emergency: delays for maintenance, ground delays at patient locations, bad weather, slow plane speed, minor damage and crew fatigue. On one flight, an almost invisible barbed wire fence across an disused airstrip tore a sliver out of a propeller, but there was no time to change the propeller because the patient was a burn victim who needed immediate hospitalization; the pilot struggled to get the plane into the air and then flew on one prop.

Unsung Heroes

In the month of November, 1949, one crew alone dealt with 12 head injuries, fractures, and gunshot wounds; nine internal complications; and eight brain and other serious conditions.

With the other crews matching our performance, something like 120 Saskatchewan citizens had reasons to once again appreciate Tommy Douglas' dream of available health care for everyone." (Campbell 1993:69)

What made this work possible was the three ambulance aircraft and their dedicated maintenance crews. Chief Engineer George Hambly and his crew of five experienced mechanics often worked at night to have planes ready for morning flights. The year 1952 was very busy. Ambulance aircraft flew 2,110 hours, 287,620 miles, for 924 medical emergencies.

Requests soon grew to 1,000 emergency patients a year, with a huge impact on equipment and personnel. Services provided anytime, anywhere meant unorthodox landing and take-off situations and maintenance nightmares. Maintenance crews were pushed to the limit. To all the staff, personal inconveniences such as staying on the job even when exhausted, jumping to work when emergencies demanded, became acceptable because of the personal satisfaction of saving lives and dealing successfully with the unexpected challenges of every flight.

Emergencies Don't Stop in Winter

Many, many flights were made safely in winter when roads were blocked and surface travel was not only dangerous but agonizingly slow. As with wartime emergency landings in unknown terrain, bravery, conviction, experience, fear, and blind luck all played their parts at times. Landings could be scary in driving snow on fields lit by cars lined up along the sides, or floodlit by magnesium flares. Sometimes pilots used the JATO (Jet Assisted Take Off), a 200 pound bottle fastened under the plane which could provide 30 seconds of extra thrust for take-off.

Saskatchewan's winters presented many serious and frightening challenges. De-icing of the wings was essential, but difficult away from airports. Sometimes a plane had to land during a long flight, even with an emergency on board, to remove dangerous ice build-up for fear that the plane would not make it to its destination. Often spark plugs had to be removed, heated up, and resealed before the engine would start. Pilots learned the trick of thinning the oil in winter with added gasoline, so that engine parts would move more easily. Sometimes a blowpot, a small gasoline stove, was lit inside an engine tent to keep the engine warm enough for it to start up in the extreme cold.

Skis made stopping difficult on snow. Sometimes the plane did not slide well enough or at all; sometimes the skis froze to the snow when the plane was stationary during offloading. When kicking the ski toes and shovelling did not work, one method of freeing them up was to run behind the plane under power, a man (or woman) on each on the end of a rope attached to the tail, jerking it back and forth to try to snap the skis loose from the ice. Don Campbell described the action: the locals would come out to watch the performance of the staff dressed in whatever they had that could keep them warm in the wind chill behind the propeller at 40 degrees below. Sometimes they were frostbitten. Premier Tommy Douglas, along for the ride and trying his best to help out when the skis became frozen, was almost decapitated by the propeller while attempting to kick the skis free.

Air Ambulance Planes

Over the years, the Saskatchewan Air Ambulance Service used many different planes, including the Norseman, a Fairchild Husky, a Cessna Crane, Stinsons, and the Cessna 195 and Beechcraft workhorses. Some of the planes were wartime assets planes, others bought new and specially equipped with medical equipment. Good used parts were sometimes scavenged from derelict planes and the service frequently "made do" with outdated parts and equipment. This was the case with radio equipment, for both communications and navigation. Usually two way radio communication was possible up to 200 miles.

In 1950, CF-SAM was retired to the Saskatchewan government fleet, where it delivered supplies to isolated communities and dropped forest fire fighting smoke jumpers in the north. By the 1950s, the service was no longer trying out different aircraft. The Cessna 195 had proved itself and they now had four of them. With a cruising speed of 190 mph, the Beechcraft was ideal for long distance flights to the Mayo Clinic in Minnesota and for night and bad weather flights. Its twin engines provided a safety edge.

Each plane could accommodate the pilot, the flight engineer, a stretcher, nurse and one other passenger, sometimes the local doctor, sometimes a relative. Part of the fuselage was removed to

load the stretcher and then fastened back in again. Some planes could accommodate two stretchers and a passenger.

Growth in the 1950s and Beyond

The Cessnas were originally decorated with a red cross on the wings and stencilled Saskatchewan coat of arms on the cabin door. During the busy 1950s the planes got a new look, administrative procedures were streamlined, and a base of operations in Saskatoon which had languished for two years reopened in 1952. The original facilities in Regina were refurbished, and a new brochure was produced. More and more, the service was being used by the medical profession and hospitals, especially for flying polio victims out of the north to the Saskatoon polio clinic. As the service grew and improved, Don Campbell was appointed Supervisor and Chief Pilot in October of 1951. During epidemics, very often only the bare minimum of staff was available to run the service, if no one was on holiday or ill or if there were flight overloads.

Professional development was also important.

In 1949, Irene Sutherland, with three years experience behind her, was the first registered nurse to attend the Institute of Aviation Medicine in Toronto. It was the only centre in Canada offering a course specifically designed to train and update medical doctors specializing in aviation medicine. The focus was on the effects and treatment of ailments influenced by decreased air pressures, flight turbulence, and other conditions related to transport in small unpressurized planes.

New nurses had to deal with air sickness and get used to cramped space on board. Senior nurse Sutherland compiled her years of experience into a flight nursing manual endorsed by local medical specialists. In the 1990s, it was still considered an authoritative guide for aeromedical evacuation work. New pilots needed Class I instrument ratings, requiring hours of practice with only visual references to the aircraft instrument pane; they also had to practise landing and taking off from a variety of surfaces. New maintenance engineers and mechanics were broken in also. They had to get used to trouble-shooting the many problems associated with the hard use of planes making rough landings and flying long hours.

Eventually, the SAAS experienced problems with airlines and large oil companies luring their trained pilots away for better pay than the Saskatchewan government would provide. Finally, the government raised the pay scales; nurses and maintenance personnel also benefitted.

Air Services Improved

February of 1953 saw the end of seventh year of operations. In over 5,000 medical emergencies, requests for service came from Vancouver to Montreal, from Uranium City to Brownsville, Texas: more than a million and a half statute miles and 12,000 flying hours. That's 60 times around the world! More and more communities began to invest in airstrips so that air ambulance services could be brought to their doorsteps.

In mid-1950s, as rural air strips grew in number, SAA decided to put together, at first for their own benefit, a manual called the Saskatchewan Air Pilot, listing air strips, pastures and other suitable landing areas, with sketches and notes. Free of charge on request, it became popular

with local aviation businesses who would phone in for information on local airstrips. Eventually, the manual listed more than 150 sites and went through three printings before demand waned.

In 1956, the average cost per flight was \$180. The patient was charged \$25 per flight (later increased to \$50) to deter frivolous calls and to share the cost. 85% of the true cost was covered by provincial revenues. For flights out of province or for flights to a patient's home, the charge was 35 cents per air mile one way, later raised to 50 cents. Those on public assistance flew free. Mental patients and those with cancer were paid for by public health agencies. Overall, the cost to the people of Saskatchewan was about 20 cents per capita per year. These rates applied to Saskatchewan residents and visitors while within the boundaries of the province. Out of province residents were charged a mileage rate for total miles flown to or from a destination outside Saskatchewan.

The 10,000th patient was transported in September of 1958. Hundreds, perhaps thousands, of lives were saved. The advent of Medicare in 1962 resulted in many new hospitals around the province. Requests for service grew to about 100 per month, including many middle of the night emergency flights. The four teams and the maintenance crews became very stressed.. In the fall of 1962, at a time when the 15,000 mercy flight had just been made, and the SAAS had logged more than two million miles, additional staff were suddenly approved.

The World Applauds the Saskatchewan Air Ambulance Service

Local and national media began paying attention. There were local and national newspaper articles, radio talks, and the Saturday Evening Post did a feature story. Maintenance people also received attention with photos and stories about this extremely important aspect of the service. The SAAS became internationally known. Don Campbell was seconded by the government to assist the Ambulance Transport Board of New South Wales in setting up a comparable "aerial service" in the mid-1960s. The Australians wanted to expand medical coverage between the more densely settled areas served by their famous Royal Flying Doctor Service and their road ambulance network.

...to this day, New South Wales boasts the most comprehensive road, Flying Doctor, and Air Ambulance network to be found anywhere in the world. Who would have believed a Tommy Douglas dream would resurface halfway around the world almost twenty years later. (Campbell 1993:350)

Saskatchewan Air Ambulance Suffers Reduced Support in the 1960s

When Ross Thatcher's Liberals won their small majority in April of 1964, based on lingering frustrations of the doctors' strike of 1962, support for air ambulance service waned. A report was produced for the government which was extremely critical of the service. The resulting public, medical and Department of Public Health outrage was gratifying for the service, but did not avert the watering-down of emergency services. Premier Thatcher wanted to combine executive transport for approved ministers with the air ambulance flights. A brand new aircraft was ordered, with concomitant reduction in air ambulance services to make the money available. The SAAS was moved from Public Health to the Central Vehicle Agency of public works, and came under the control of civil servants who knew little about aviation or health care. Air ambulance staff was reduced, including maintenance staff, and the rest had to take up the slack.

Middle of the night servicing became impossible. With delays in service, morale sank.

Farm Families Lose Services At Home

The service gained Beechcraft Baron aircraft and a Piper Navajo and lost the aging Cessna 195s. A government program was approved to support RMs in upgrading airstrips so that the Beech Barons could land. This meant that individual farm families could no longer get emergency evacuation service on the farm, reduced the effectiveness of the SAA service. New pilots joining the SAAS rejected the old ways for proved landing conditions. The standard of evacuation service wherever emergencies existed, night or day, gradually became a thing of the past over the next four or five years.

Air Ambulance into the Future

Despite the reductions, the Saskatchewan Air Ambulance Service continued to ferry emergency cases and in March of 1969, the 20,000th patient was flown, without a single accident causing staff or patient injury to spoil the record. The 1970s saw a growing reliance on surface ambulances as the nature of emergency medicine changed and local hospitals became better equipped.¹ Road conditions had also improved.

In 1977, the SAA acquired a turbine version of the Navajo/Chieftain, a new Piper Cheyenne stationed at Regina. Known as the Lifeguard service in the 1990s, and administered jointly by Saskatchewan Health and the Saskatchewan Property Management Corporation (SPMC), the program began to be managed by St Paul's Hospital, an affiliate of Saskatoon District Health (SDH). M.D. Ambulance formed a partnership with the service in 1993 and paramedics became a regular part of the critical care team. By 1995, M.D. Communications Centre was offering communication support, including answering phones and radio communications while flight crews were airborne. Lifeguard made more than 800 flights per year in the 1990s, mostly to rural areas. With a total of 35,000 flights since SAAS began, an official 50th anniversary celebration was held in October of 1996. A new medically-equipped Piper Cheyenne IIIA aircraft was dedicated. It features a state of the art electronic flight instrument system, GPS, a satellite communication system for excellent winter flying capability; it can land on grass or gravel air strips over 2,500 ft in length; it has a loading system specifically designed for easy transfer of patient during loading and unloading, installed oxygen, suction, compressed air; and a four-place cabin with stretcher capable of accommodating a critically ill patient as well as an ambulatory patient and air medical crew. Now the service had two pressurized turbo prop aircraft for dedicated use, and medivac-configured aircraft chartered when long-range transport was required, or a dedicated plane was unavailable.

In February of 2001, the Lifeguard service bought a new Beechcraft King Air B22 aircraft to replace the older of the two Cheyennes, to improve services to residents across the province. The

¹As a side note, in 1974, "Old Reliable" CF-SAM was traded by Saskair, formerly Saskatchewan Government Airways, to a company in Washington state and was on its way to the scrap pile. The Saskatchewan Tourist Association acquired it and donated it to the Western Development Museum. After its last flight to Moose Jaw exhibit branch, it was restored and repainted in its original gold and green SAAS colours, and put on display. A Cessna 915 used by the SAAS is also on display

demand for air ambulance service nearly doubled between 1996 and 2001 and this plane ensures fast care for critical cases both in and out of the province. The King Air B200 can accommodate two stretchers, a capability particularly beneficial for transporting critically ill infants or children, when a nurse or parent must accompany a patient. The new aircraft also required less maintenance and down time, ensuring it is available when needed.

In 2001, the Saskatchewan Association of Rural Municipalities (SARM), recognizing the continuing importance of immediate medical care in the survival of emergency cases, passed Resolution No. 27, to ward off potential future reductions in rural emergency health services and facilities in the future. SARM proposed to lobby the government to enhance air ambulance services and encourage the federal and provincial governments to maintain reasonable costs by co-operating in agreements. In response, a second new two-stretcher plane was acquired for service at the end of 2001.

The Lifeguard service was now based at Saskatoon Airport, is authorized for 24 hour, all weather operation and planes can be dispatched within 30 minutes of a physician or nurse request for service. The service transports patients from northern airstrips to hospitals in Uranium City, Ile a la Crosse, La Ronge, Prince Albert and Saskatoon. Inter-facility transport of cardiac patients requiring intensive care is a relatively new activity. Pressurized planes are equipped with monitoring equipment and medical supplies similar to those found in an intensive care unit. Pilots have extensive experience in northern bush flying, are airline transport rated and are trained in aeromedicine. Nursing service is contracted through St Paul's Hospital. Flight nurses average ten years of critical care experience. When a specialty team is required, physicians, respiratory therapists, neonatal and pediatric nurses accompany the patient. Paramedic service is contracted through M.D. Ambulance. SPMC provides the planes, pilots and engineers for the service.

While ambulance services are not a directly insured benefit, Saskatchewan Health offsets a portion of the service costs for both road and air ambulance. The cost to individuals for air ambulance service is \$350 per flight; the individual is also responsible for ground ambulance costs to and from the airport. No one will be refused service (ground or air) on the basis of inability to pay. Those on government assistance and nominated by Social Services for supplementary health benefits are completely covered. Through the Children's Benefit Program, children up to and including 17 years of age of eligible low-income families will have the cost of emergency ambulance services fully covered through the Supplementary Health Program. Eligible people who are injured at work or in an automobile accident are also covered by Workers' Compensation or Saskatchewan Government Insurance.

In the future, with ongoing reduction in the numbers and the nature of rural hospitals, the importance of an airborne ambulance service is becoming more and more important and we now see helicopters being used to provide faster and safer transport of patients in need of critical care available only in urban centres.

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