

HISTORICAL IMPACT ASSESSMENT

A THEMATIC OVERVIEW NARRATIVE FOR CITY CENTRE AIRPORT

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June 2009*

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SOURCES

Most of this report was written from primary archival sources, consisting mainly of materials housed in the Library and Archives of Canada, including Record Group 12 (Department of Transport), Record Group 24 (Department of National Defence) and Record Group 88 (Surveys and Mapping Branch). In addition, the Department of National Defence Directorate of Heritage and History provided archival material and advice for further research. Several good secondary published sources also were consulted, and all direct secondary references cited in the text provide complete bibliographical notations.

PREFACE

Canada's First Municipal Air Harbour

The history of aviation in Edmonton began in 1909 when Edmonton carpenter Reginald Hunt flew his self-designed and hand-built aircraft for 35 minutes over the provincial capital. In 1911 two American daredevils flew their plane at the Spring Horse Show. But it was not until after the Great War of 1914-1918 that returning veterans with wartime experience with the Royal Flying Corps really began to establish Edmonton as the Gateway to the North.

In 1919 brothers Wilfred "Wop" and Court May, with George Gorman, began flying out of an air strip on the Walter Sporle farm in their wartime Curtiss "Jenny", the "City of Edmonton." In 1920 John "Jock" McNeill and Captain Keith Tailyour incorporated the Edmonton Airplane Company, having built a hangar on the Hagmann Estate in the Summerwilde neighbourhood.

During the 1920s the federal government became more involved in the development of Canadian aviation. By 1924 aircraft were prohibited from landed anywhere except on federally licensed aerodromes.

In 1924 Wop May and Harry Adair approached Mayor Ken Blatchford, requesting a proper airport to accommodate their Curtiss Jenny. City Engineer A.W. Haddow notified the Department of National Defense Air Service on 23 June 1924 that Edmonton "has under consideration the establishment of a Civic Aerodrome...." This would be on land located on a brushy quarter section of grazing land about two miles from the city centre. The old McNeill hangar remained on the site in a dilapidated condition.

The proposal did not come before City Council until 10 May 1926. The City already owned the Hagmann property, having come into possession when it was relinquished by the failed Edmonton Airplane Company for non-payment of taxes. City Council decided in 1926 to upgrade the facility.

Mayor Blatchford applied for a license for the "air harbour" on 28 May 1926. City Council then authorized construction of three runways. License No. 72, for the first municipal Air Harbour in Canada, was issued to the City of Edmonton on 16 June 1926.

City Council passed a resolution on 22 November 1926 to name the air harbour "Blatchford Field", in honour of Mayor K. A. Blatchford, who had played such an important part in having the airport established. The Geographic Board of Canada accepted the name in January 1927.

In the years that followed, Blatchford Field would become an important jumping-off point for the north. Heroic rescue flights, historic explorations, ambitious commercial endeavours, and the opening of the northern resource frontier all would benefit from its establishment, as would Edmonton.

"The example by your City in establishing this flying field is one which I trust will be followed by every other city in the Dominion," G. J. Desbarats, Deputy Minister, Air Service, wrote in December 1926.

INTRODUCTION

The following report is a historical interpretive planning document prepared for Harvey Crone, City of Edmonton Project Manager for the Airport Lands Review. Its principal directive is to assist in the identification and interpretation of the most significant themes and sites associated with the history of the City Centre Airport. The report should aid in the general planning and development of the airport site, one of the most important in the history of Edmonton.

The thematic context begins with the story of early aviation in Edmonton, the growth of Blatchford Field from 1924 to 1939 (when it was transformed by the British Commonwealth Air Training Plan), the means by which Edmonton airport became "the gateway to the north" and established Edmonton in that role, the early years of bush flying within its national context, the crucial role played by bush flyers in the opening of the northern resource frontier, the emergence of a national and regional aviation industry during the 1920s and 1930s, the impacts of bush flying, the recognition of the role played by the bush pilots themselves, and an acknowledgement of more recent bush flying. While bush flyers did not initiate the opening of the northern resource frontier, as is sometimes suggested, it is important to acknowledge that they certainly accelerated the process considerably.

Additional thematic concerns within the report include the growth of the airport itself to the present day, the impact of the Edmonton Flying Club, the impact of the Second World War and the Cold War on the airport and Edmonton, Search and Rescue developments in Edmonton, the development of airlines, and the emerging role of women in the aviation industry exemplified through Edmonton examples.

It is important to bear in mind that the story of the Edmonton airport remains part of a broader national story. At the end of the First World War little infrastructure existed in Canada to accommodate the first tentative penetration of the northern resource frontier. There were only two "air harbours" in Nova Scotia, for "flying boats," and seven in central and southern Ontario used for Royal Air Force training. None of these bases were established for northern bush flying. Many young flyers back from the war bought

surplus Curtiss Jennies or other aircraft and began to introduce the public to flight through barnstorming. These "dollar a minute" pilots led the government to the conclusion that aeronautics would need regulation, and it introduced such legislation into Parliament. *An Act to Authorize the Appointment of an Air Board for the Control of Aeronautics*, also known as the Air Board Act, received Royal Assent on 6 June 1919. It provided for appointment of an Air Board with representation from the Department of Militia and Defence, and the Department of Naval Services. The Air Board was given many responsibilities, which included aeronautical research, construction of air stations, regulation of aircraft, and the negotiation of international air rights. Its powers extended to regulations for the licensing of pilots, aircraft and air bases; conditions under which passengers, freight and mail could be carried; prohibition of flying over certain areas; establishment of air routes; and safety rules. The Air Board Act was typical of laws granting broad powers being adopted around the postwar world.

The beginning of air transportation into the Canadian north began on 15 October 1920, when Hector Douglas and Frank Ellis piloted a 500-mile "bush flight" from Winnipeg to The Pas. Further west, Imperial Oil was the earliest firm to appreciate the value of aircraft in the western Arctic and sub-Arctic regions, as it launched its exploration in the Mackenzie

River Valley using two Junkers F.13 all-metal monoplanes piloted by W.R. "Wop" May and Elmer Fullerton. Their first expedition, the 1921 saga of G-CADP has been told many times, with its dangerous winter flight, forced landings at Fort Simpson (damaging the propellers of both aircraft), the manufacture of a replacement propeller using local materials and a departure from Fort Simpson just ahead of spring. Imperial Oil Geologist W. Waddell was flown from Peace River to Fort Norman by Edmonton pilots George Gorman and Elmer Fullerton, with air engineers Pete Derbyshire and William Hill. The search for oil in the Mackenzie River basin during 1921 also led a pair of Vancouver and Los Angeles entrepreneurs to suggest using a 32-passenger dirigible to connect Edmonton and Fort Norman. F.G. Erickson also was reported to be planning a regular flying boat service throughout the Mackenzie area, beginning in May 1921. The north seemed on the verge of a airborne invasion.

["Airships Planned for Mackenzie Oil Rush", *Flying*, March 1921, p.74]

By 1922 more extensive aerial forestry patrols were under way in Quebec and Ontario, to survey and photograph vast, otherwise inaccessible tracts of their northern hinterland. N.R. Anderson, who was an Air License Inspector for the Board in western Canada reported the state of the nascent industry's self-regulation in the west that year:

The majority of commercial aviation firms operating in Western Canada do not keep their log books up to date, and in many instances have no information whatsoever about repairs or replacements to aeroplane and engine during the previous flying season. The practice of keeping flying time in rough note books and on separate pieces of paper is mainly responsible for this neglect. Such note books and bits of paper usually appear to be of no importance if left scattered about and are, therefore, lost, or if kept in a safe place, the accumulation is so great at the end of the flying season that it is a very weary task to copy the whole into the log books and usually it is left undone. If log books were

carried in the machine and entered up after each day's flying it would only be a five minute task, and the information about repairs and replacements would be accurately remembered and put down. In case the machine was being left out overnight the logbooks could easily be carried to his room by the pilot, instead of being left out to perhaps get rained on, or taken away as souvenirs by some prowler in the night. The importance of having available for inspection, a detailed history of the aeroplane and engine, both in regard to flying time and repairs, is absolutely necessary - for at the present time commercial aviation personnel seem very reluctant to give the Examiner any information which could be of assistance to him in carrying out his inspection

[N.R. Anderson to L.S. Breadner, 21 June, 1922, found in Anderson's RCAF documents, National Personnel Records Centre, National Archives of Canada.]

Despite the general laissez-faire attitude of the early flyers, the grander promise of the future began to emerge among early planners and visionaries. As early as January 1919 Major K.E. Clayton Kennedy, involved in transport flying between London and Paris, identified the important air routes still to be developed in Canada. He correctly guessed that Edmonton and Winnipeg would be the hubs of these routes.

[W.E. Clayton Kennedy, "Canadian Airways and Aerial Routes", *Flying*, January 1919, p.1133.]

Bush flying is a national endeavour, and many of the pioneering efforts along the northern resource frontier of Canada were carried out in Ontario and Quebec. For example, Elwood Wilson and Stuart Graham began with a handful of flying boats and veteran pilots operating in the St. Maurice - Lac St. Jean areas in Quebec. Their Laurentide Air Service, chartered in 1922, soon was the largest commercial air operator in Canada, flying in both Ontario and Quebec. Its most important aircraft was the Curtiss HS2L flying boat, but it also tried using a Loening Air Yacht, Vickers Viking, Westland Limousine and a de Havilland DH.9. At its largest in 1923, the firm had 12 aircraft, 10 pilots and 8 to 10 air engineers. Laurentide Air Services suffered a heavy blow in 1924 when it lost its forestry patrol contracts in Ontario; the Department of Lands and Forests organized its own air service; and the Ontario Provincial Air Service and a professional RCAF were both established on 1 April 1924. Laurentide struggled on, but went bankrupt attempting to give winter services to the Rouyn gold fields. This pioneering effort preceded any on this scale in Alberta at this time.

The most notable forestry service in the private sector in 1920 involved Price Brothers and Company, a Quebec-based pulp and paper company. They established a summer service, first with a float-equipped JN-4 and then with three Martinsyde Type A aircraft. The firm employed aircraft to survey and support their forestry operations in the Lac St. Jean - Saguenay area. Price Brothers disbanded its aerial arm in 1923, purchasing flying services from specialized firms instead.

Jurisdiction over air services was also a significant early issue. Of course, the British North America Act (1867) had not anticipated this concern. The Maritime Provinces, Ontario, Quebec and British Columbia all had jurisdiction over their own natural resources. The Prairie Provinces, however, had no such authority until 1930. Thus, the

survey, protection, and administration of those forests were a federal responsibility. The Air Board's forestry work in Quebec and Ontario only lasted from 1920 to 1922. Air Board and RCAF operations in Manitoba, Saskatchewan and Alberta began as experiments but continued as core operations until the Depression. Once the federal government surrendered its control of western resources to the provinces, aerial protection continued under new masters. The handover coincided with the large federal budget cuts of 1932, which saw the RCAF budget drastically reduced. It is not surprising to find that the Manitoba Government Air Service, formed in 1932, very closely resembled its RCAF predecessor, using the same bases, Vedette aircraft carrying civil registry rather than air force markings, and many of the same people who had been let go from the RCAF.

In 1921 forestry operations were carried out from the Vancouver Air Station (fire patrols, photography, survey), Kamloops, British Columbia (fire patrol), High River, Alberta (fire patrols and some reconnaissance work in Jasper Park), Victoria Beach, Manitoba (fire patrols between Lake Winnipeg and the Ontario border and around the northern ends of Manitoba's largest lakes), Sioux Lookout, Ontario (mainly surveys) and Roberval. The Forestry Branch also was anxious to extend coverage in British Columbia, Manitoba and Alberta.[

[Report of the Air Board for 1921, pp.8-11; Library and Archives of Canada, R.E. Campbell, Director of Forestry to W/C R. Leckie, 19 December, 1921; Squadron Leader Croil to Secretary of the Air Board, 2 February, 1922]

In 1922 the Air Board carried out several photographic surveys of the Alberta forests. In Manitoba, Squadron Leader B.D. Hobbs directed a force of 37 men in aerial forestry operations. The F.3 flying boats employed, however, were unwieldy to handle when mooring on small lakes or rivers. The establishment of temporary bases at The Pas and Norway House proved very successful in extending aerial coverage, and the idea of the detachment soon was accepted in photographic and forestry patrols. Early operations clearly demonstrated the value and practicality of aerial forestry patrols. In 1923 Ontario and Quebec took on all responsibility for such operations within their jurisdictions. The federal government then concentrated on the western forests for which it was still responsible.

[Report on Civil Aviation, Including Civil Operations for Other Departments, Undertaken by the Royal Canadian Air Force for the Year 1923. Ottawa: King's Printer, 1924, pp.13-18.; Ibid.,1924, pp. 30-40.]

The federal government handed over natural resources to Alberta, Saskatchewan and Manitoba during 1930-1931. Soon after the transfer, Manitoba organized its own air service, modeled on the Ontario Provincial Air Service [OPAS]. Aviation historian Hugh Halliday describes the chores of early fire patrols such as occurred over Alberta lands during the period:

The aerial fire patrols of the 1920s and early 1930s were much more complex than the term suggests. Whether it was the RCAF, OPAS, or a private firm, the fire spotters were not limited to locating and reporting fires. Often the pilots became involved in fire

suppression as well. Until the appearance of water bombers about 1947, this could be done only by men on the ground. Suppression flying entailed getting a handful of fire fighters with equipment (pumps and hoses plus food) to a lake close to an outbreak. That was simple enough, but some pilots went further. Fred Stevenson, in his OPAS days, was reported to have moored his HS2L and personally joined the firemen battling a blaze. In 1929 the RCAF attempted (unsuccessfully) to have Flight Lieutenant Frederick Mawdesley awarded the McKee Trophy; among his exploits cited were numerous flights to transport and resupply fire crews; in some instances he landed a wheeled aircraft on ice pans in the middle of lakes to get the men to their destinations.

[Cited in Halliday -Volume 2 of RCAF file 821-4, "Trophies for Individuals - McKee Trans-Canada Trophy", in *Library and Archives of Canada*, Record Group 24, Volume 17795.]

MORE THAN BUSH PILOTS

As Ottawa aviation historian Hugh Halliday observes, "[when] people think of Canadian aerial achievements, they will quickly recall the group that opened the northern frontier by air." Of course, this statement refers to the famous, now almost mythic, men who first opened the northern resource frontiers of Canada after the Great War of 1914-1918. While this period of perhaps two decades forms the "golden age" of bush flying in the popular imagination, it is important to point out that bush flying never really ended. In some ways it continues today.

[Hugh Halliday, Unpublished Manuscript prepared for the National Aviation Museum, March 1999]

Halliday defines the phenomenon as representing a complex historical process, both of which were important in Edmonton:

Of necessity, the term "bush flying" has been used with some flexibility. It implies aviation at the edge of the Canadian frontier, but that frontier was itself retreating with each succeeding year. The process was complex. There were, in fact, two types of "bush flying". One was purely commercial - passengers, mail contracts, freighting - conducted by private enterprise. The other was government sponsored - chiefly aerial mapping and forestry protection - carried on by the Air Board and then nascent RCAF. The lines were not always clearly drawn; some commercial enterprises did aerial photography or forestry work as well. In between were the provincial air services that performed a myriad of tasks. Yet they worked together and formed a community of interests. Nothing illustrates this more than the ease with which individuals passed from one type of organization to another; bush pilots became air force officers and vice-versa.... Bush flying achieved mythic status in Canada - and every myth cries out to be challenged. To a great degree the preponderance of frontier flying represented a failure elsewhere - the inability of Canada to develop even short-haul domestic air services in its more populated areas. By 1930 European centres were linked by a virtual spiderweb of airline routes from London to Moscow and beyond, with air links to Africa and the Middle East. Some offered only weekly services; all were extremely expensive, but they were there. Similarly, numerous air lines connected major American cities, using

Fokker and Ford products which carried about a dozen passengers; they were linked to carriers flying to South America, and even scheduled (if infrequent) transoceanic flights were under way. Such services were conspicuous by their absence in Canada. The principal passenger services here ran north-south, with American carriers flying between Toronto and Buffalo or between Vancouver and Seattle. There was no hint of a true Canadian transcontinental air service until Trans-Canada Airlines appeared on the scene in 1937.

[Ibid.]

This failure stemmed from Canadian geography. Until large heated passenger cabins were developed, the winter climate stopped any year-round passenger service through northern Ontario or across the vast western plains. The Canadian Rockies were more difficult to cross by air than the more southern mountain chains. During the second half of the nineteenth and early twentieth centuries, Canadian railways had been built and operated through massive government subsidies and loan guarantees. European airlines lived on subsidies and as early as 1926 every nation aspired to having a "flag carrier" on international routes. Canadian support was restricted to a few support services and mail contracts. One aviation writer noted in 1932:

We deliberately turned our backs on inter-city services and put the whole of our energies into flying in our northern hinterland. We felt at that time that inter-city services could well wait and that the North country offered a field of development where aircraft could play an immediately useful part.... Today [1932] there exists generally throughout northern Canada efficient commercial air services which have been self-sustaining, have required no subsidy, and which give access to the remotest districts of the country. More has been learned of northern Canada during the past ten years than in the preceding three hundred. The forester, surveyor, geologist, prospector, mining engineer; the clergy, the doctors, the nurses, the police; in fact, all whose activities lie in northern Canada find their task greatly lightened, their range of action multiplied many times and their efficiency increased by the use of aircraft.... No country has spent less on civil aviation and no country has had greater returns from the money spent—

[J.A. Wilson, "The World's Airways System", *The Engineering Journal*, December 1936, quoted in David MacKenzie, *Canada and International Civil Aviation, 1932-1948*. Toronto: University of Toronto Press, 1989, pp.14-15.]

What emerges from a close examination of bush flying in Canada is a picture of a gutsy entrepreneurial elite forging a commercial niche in an area left undeveloped by the national or provincial governments.

"Bush flying was important - but ... its total impact declined as commercial aviation developed in other ways," writes Halliday. "Airmails to the Arctic were spectacular - but by the early 1930s far greater loads were carried in the aerial corridors of southern Canada. Bush flying appeared hazardous - but for the most part it was conducted in a cool, calculating fashion. Airplanes were expensive, and whether flown by a private

entrepreneur or a professional military pilot, nobody wanted to risk their loss. The goal was to draw a map or turn a profit - adventure for the sake of adventure was left to others - like those trying to fly the Atlantic in the 1920s, or racing pilots in the 1930s.

[Halliday, *op. cit.*]

EARLY AVIATION IN EDMONTON 1909-1925

Edmonton was introduced to the new marvels of powered flight before the Great War of 1914-1918, through local experimentation and traveling exhibitions.

Reginald Hunt, a young carpenter, built a glider with a homemade motor, shaping his own propeller based on the design of a ceiling fan. On Labour Day 1909 Hunt took off on his inaugural flight from a west Edmonton field. If this flight had been officially recorded, Hunt would have been the second man in Canada to take flight in an aircraft, following J.A.D. McCurdy, as well as being the first in Western Canada. Hunt crashed at the Edmonton Exhibition in 1910, and later abandoned aviation for boat building.

[Eugenie Myles]

The organizing committee for the 1911 Edmonton Horse Show contracted American barnstormers Hugh Robinson and Bob St. Henry to bring their flying machines to Edmonton. They shipped their planes up by rail, but Bob St. Henry's craft never arrived. On 28 April 1911 Hugh Robinson took off from the centre of the Exhibition Ground racetrack, flying his Curtiss aircraft up to 400 feet above the enthralled crowd. For fifteen minutes he circled the grounds, completing three circuits before landing. On the following Friday and Saturday Robinson repeated his flight four more times.

In July 1916, while the world read about the adventures of the air aces over Europe, the dashing young American "aviatrix" Katherine Stinson appeared at the Edmonton Exhibition, where she demonstrated her aeronautical skill flying a Curtiss each afternoon and evening. Katherine and her brother and sister ran a flying school in San Antonio, Texas, where she had learned to fly in 1912. Stinson was asked back in 1917 to demonstrate her high jinks at the summer exhibition. On this return engagement, as before, she was doing a tour of Western fairs. The plane that she had flown in Calgary had been damaged, so she was sent a different plane. Problems with this machine led to a spectacular crash landing during her performance. After the plane was repaired Stinson exhibited many of the aerial maneuvers being used in "dogfights" over Europe at the time, as well as "smoke writing." The grand finale consisted of dropping a dummy bomb on an "enemy trench" prepared for the show.

In 1918 Katherine Stinson announced she would return to the Edmonton fair, and while in Calgary she was appointed an official mail carrier and handed a sack of first class mail stamped "Aeroplane Mail Service, July 9, 1918". Seven miles north of Calgary her military-type Jenny developed mechanical problems, and she had to land for repairs. She returned to Calgary where she started again, following the old Calgary and Edmonton Railway line. Stinson flew over the Edmonton Exhibition grounds at about

eight o'clock, landing in front of the grandstand on the infield. This was the first official airmail flight in Western Canada, second in Canada only to a Montreal-Toronto run completed two weeks earlier by Captain Brian Peck.

The First World War proved a deadly training ground for the military fliers who survived to return to civilian life. Many became the true pioneers of Canadian aviation. Experienced military aviators, young veterans of the recent war in Europe, established two flying companies in Edmonton soon after the war. First, "Wop" May set up a flying operation in 1919. The following year George Gorman became a partner in the business, making the company May-Gorman Airplanes Ltd., which operated until 1921. Wilfred "Wop" May DFC, was credited with having shot down 13 enemy planes. He and his brother Court set up an aviation firm called May Airplanes Ltd. on 19 May 1919. They then located a landing field in a pasture on Walter Sproule's farm, on the northwestern limits of the St. Albert Trail at about 122 Avenue. One of their main business goals was to begin aerial map-making and photography. They soon hired another veteran pilot, Lieutenant George Gorman, and Pete Derbyshire, as their mechanic.

During the war Edmontonians had raised money for a Curtiss JN4 to be used by the Royal Air Force as a trainer. It was named the "Edmonton" to mark this fact. James Carruthers, a Montreal businessman better known in Edmonton as the developer of Glenora, purchased the plane after the war and donated it to the City of Edmonton. It was then stored in the Manufacturers Building on the Exhibition Grounds until Wop May requested permission to use it. May signed a contract on 12 May 1919 after posting a bond guaranteeing replacement in the event of an accident. The terms allowed him to rent the plane for \$25 a month, and committed him to promotion of the principal of flying in and around Edmonton. May thus became the first aviation booster for the city.

May-Gorman Airplanes first flew "A" and "B" circuit summer fairs in Western Canada. "Wop" May performed at the "A" fairs while Gorman did the "B" fairs as barnstormers and aerial stunt flyers. As a publicity stunt they flew the 7 June 1919 noon edition of the *Edmonton Journal* to Wetaskiwin, forty miles south. George Gorman and his mechanic Pete Derbyshire took off with 75 pounds of newspapers in two bags, reached the Wetaskiwin racetrack thirty minutes later, and dropped each sack in two separate passes. On the way home they ran into a squall, and were forced down until it passed. This flight is considered the first commercial flight in Western Canada. Their second came quickly after when the fiercely competitive *Edmonton Bulletin* hired May-Gorman to drop copies of their paper at a United Farmers of Alberta picnic in St. Albert on 19 June 1919.

A more serious application of aviation technology was demonstrated at the end of August 1919, when a policeman was shot in Edmonton and the perpetrator headed west for the foothills. May was engaged to fly Detective Campbell out to Edson, where an arrest soon was made. Later that summer, May performed one of his most famous stunts, with U. Roy Ross, when at the end of a series of acrobatics he flew under the High Level Bridge.

In 1920 both "Wop" May and George Gorman qualified for a Dominion flying license. May received Commercial License #7 and George Washington Gorman received Commercial License #8. Pete Derbyshire received Canada Air Engineer Certificate #6. The low numbers demonstrate their very early entry into the Canada's aviation history.

On 27 July 1920 the United States Army Air Service expedition, en route across the continent to Alaska, stopped in Edmonton. Five days later the corps of airmen took off for Nome, Alaska. On their return flight, they landed in Edmonton on 8 October and on 20 October they arrived in New York, completing a 9000-mile journey to Alaska and back, and completing the first transcontinental flight. Several thousand Albertans converged at the field where the expedition touched down to see history in the making.

In August 1920, "Wop" May flew to Grande Prairie on what turned out to be another flight which would make it into bush flyers' folklore. May spent six weeks touring the Peace River district stunting at fairs. On the return flight in September, with Pete Derbyshire, he used their compass to guide them over the forests between Grande Prairie and Whitecourt. Near Whitecourt they developed engine trouble over the forest and landed in a small clearing, damaging the aircraft. Over the next three days they repaired the plane. According to various accounts a leaking radiator hose was patched with a paste of weed seeds, or was wrapped with a bacon rind. They then cleared a rough runway themselves, and at last got airborne again. Finally they flew to Sangudo, where they landed to refuel and overhaul what they could of the "Edmonton." Many such stories attest to the can-do resourcefulness of the times.

The Edmonton Airplane Company, the second Edmonton aviation firm, was incorporated on 28 January 1920, operating around the Edmonton region during 1920 and 1921. Its principals were John McNeill, a local transportation entrepreneur better known for his fleet of taxis, Peter McArthur, Captain Keith Tailyour, a celebrated Air Force flying instructor, E. Owens and R. L. Greene. The plan was to start an Edmonton to Calgary route, making two to four trips a day and later extending up to Peace River. A patch of land on the Hagman estate was leased and a modest hangar built. This would become the first hangar on the future Blatchford Field, and would be used until a new Municipal Airport hangar was constructed in 1929 and 1930. The company invested in an Avro Aero when it opened for business. On 2 July 1920 Captain Tailyour flew Mrs. M.R. Jennings to Calgary in two hours and thirty minutes, making her the first woman commercial air passenger in Alberta, and theirs the first plane carrying a passenger from Edmonton to Calgary.

Captain Tailyour temporarily took a posting as flight instructor with the Avro at Camp Borden in 1921. In early April he met with a flying accident and was killed. With McNeill's pilot gone, the Avro, the hangar and the lease were turned over to J.L. Larson, a New York businessman interested in aviation, who recently had sold two German-made Junkers to Imperial Oil. Larsen announced plans to operate a seaplane base at Cooking Lake and to operate a marine engine plant in Edmonton. However, following his disappointing excursion to Fort Norman in 1921, Larson gave up and took his Junkers back to New York. Imperial Oil then took over Larson's local airplane interests, including the hangar and the lease of the Hagman field.

Discovery of oil by the Imperial Oil Company at Fort Norman led the company's western development manager to think that the area might not be as inaccessible if planes were used to fly in men and freight. Imperial Oil purchased Larson's two Junkers. They had 175 horsepower engines, and could be fitted with wheels, pontoons or skis. The May-Gorman Airplane Company was hired at the beginning of 1921 to fly the Junkers from New York to Edmonton. However, the financial stringency in western Canada during the early 1920s meant that "Wop" May could not raise adequate financial support for his company in 1921, so it collapsed soon after. Conditions for aviation would not really change for the better until 1927.

The Edmonton Grande Prairie Aircraft Company operated for a while in 1924, with May as a partner with Harry Adair, a Grande Prairie farmer. In May 1924, Adair had purchased a new Curtiss "Jenny" in San Diego and arranged for "Wop" May to fly it back to Edmonton from the United States border. This plane was an improved model from the old "Edmonton", and had a 180 horsepower Hispano engine with a range of 330 miles. The company would concentrate on transporting raw furs from the north and performing at all the summer fairs, with headquarters located in Edmonton. Unfortunately on 26 June, at Grande Prairie, May failed to clear some telephone wires with a heavily loaded plane and crashed. The plane was badly damaged but the pilot and passengers were unharmed. The company soon went out of business. By 1925 there were no truly active commercial aviation companies in Alberta.

THE EDMONTON FLYING CLUB

The history of the Edmonton and Northern Alberta Aero Club, renamed the Edmonton Flying Club (EFC) in 1944, is almost as old as the history of the Edmonton airport. During its long association with Blatchford Field and its subsequent incarnations, the club has played a vital role in the development of aviation in western Canada. Like any group made up of adventurous and flamboyant men and women, the EFC has gone through its ups and downs. It has sometimes verged on collapse, but always fought back from adversity, overcoming disciplinary problems, several disastrous fires and hard economic times. Despite these challenges, the EFC has trained thousands of flyers in peacetime and wartime.

The Edmonton and Northern Alberta Flying Club was one of the earliest examples of a national movement that arose after the Great War of 1914-1918. The Canadian government relied upon Great Britain to recruit pilots for its own growing air services after the war. A trans-Canada airway also was being planned and the federal government wished to encourage construction of a chain of municipal airports to provide the foundation for the future system. "To arouse interest," one aviation historian notes, "the federal authorities offered to donate two light aircraft to any non-profit organization that would form a club, engage the services of an instructor and an air engineer, and set up an aerodrome with adequate accommodation for housing and maintenance of the machines. The government also guaranteed a grant of \$100 for every pilot trained." During 1928 and 1929 23 flying clubs were formed with more than 5,000 members. During the following decades "the flying clubs became a major part of the nation's aviation activities." The Canadian Flying Clubs Association (CFCA) was formed in 1929

to coordinate the proliferating Canadian clubs under a central organization, and was provided with an annual government grant on the condition that the club employ a permanent secretary to oversee its operations. At the beginning of the Second World War, 14 Canadian flying clubs were providing initial flight training for provisional pilot officers of the Royal Canadian Air Force (RCAF). Under the British Commonwealth Air Training Plan (BCATP), the clubs undertook the management of 22 Elementary Flying Training (EFT) Schools. More than 41,000 pilots were graduated to advance to the Service Flying Schools, the next step on the way to becoming wartime airmen. Because of the association's contribution to the war effort, it was given the right in 1944 to use the prefix "Royal". After the war, the Royal Canadian Flying Clubs Association was assisted by the government in making a block purchase of Tiger Moth aircraft and in arranging for club occupancy in wartime hangars, both at nominal cost. The government also gave a \$100 grant to each pilot who graduated under the government-approved flying course in addition to the long-standing grant of \$100 given to the club.

[Lorne Manchester, *Canada's Aviation Industry*. Toronto; New York: McGraw-Hill Company of Canada Limited, 1968, p. 100-102.]

The Edmonton Flying Club was chartered as the first flying club in Canada in 1927, although its roots go back a little earlier than that. On 8 July 1924, W.G. Bury wrote to Squadron Leader Major W.R. Kenny, who was acting for the Director of the newly named Royal Canadian Air Force at the time. Bury asked for advice "about a matter which I have been requested to attend to." Apparently there were several ex-RAF officers and men in Edmonton who were "very keen on not losing touch with Flying in general. Sometime ago I called a meeting of these fellows to discuss the situation and we appointed Charles Becker (Solicitor Attorney General's Dept), Francis Dickins (Solicitor Attorney General's Dept) and myself, all ex-members of the R.A.F. as a committee to investigate and report on the possibilities of reviving interest in flying and forming a branch of the R.C.A.F. Militia in Edmonton."

[www.edmontonairports.com; *Library and Archives of Canada* RG 12 Volume 2270 File 5258 - 722 part 1; Bury to Kenny 8 July 1924]

This group approached various officers commanding units in Edmonton who all proved to be supportive of the idea, "and assured us that if we could get official sanction from Ottawa they would welcome us in the [Prince of Wales] Armouries here." The committee was determined to "stir up local interest and then approach the [federal] Government with a view to obtaining [several things] from them...." Among these requests were official recognition as an RCAF Militia; quarters in the Armouries; "some old engines, fuselages, tools, etc. for training purposes"; uniforms; a training grant; a couple of two-seater light aircraft "should this year's trials in England be successful"; and "the use of the Aerodrome". In the event the federal government could not comply with these requests, Bury asked Kenny if any other assistance might be available "in forming a light plane club." Bury felt "almost certain" that between 150 and 200 members could be signed up within a year, adding that "it is a pity that the knowledge which the Government spent Thousands and Thousands of Dollars to give us should be forgotten before we can pass it on to boys who may and probably will need it before very long for either war or commercial purposes."

Nothing came of this plan in 1924, but despite the rebuff from Ottawa, the Edmonton group continued to agitate for their "aero club". On 3 August 1927 Mayor Kenneth Blatchford and Senator P.E. Lessard exerted their influence on its behalf, and sent off a telegram regarding the newly incorporated Edmonton and Northern Alberta Aero Club, noting that the club was "making application to Air Minister for allotment of two planes to this district ... considering Edmonton Air Field was first established in Canada and is logical base for very large area we desire to strongly support and recommend application." That day W.R. "Wop" May, the president of the club, and J. Bill, its Secretary, also sent a telegram to Ottawa: "At a meeting of the Edmonton and Northern Alberta Aero Club the meeting instructed us to advise you that inasmuch as Edmonton created and set aside the first aerodrome with hanger licensed by the Air Board of Canada and inasmuch as Edmonton is the gateway to the largest disconnected portion of Western Canada which includes Northern Saskatchewan Alberta and part of BC that two aeroplanes be allotted to this District and this Club agrees to accept responsibility for these aeroplanes." J.L. Ralston, Department of Militia and Defence, replied by telegram that the request was under consideration, "and policy is being formulated applying to Aeronautic Clubs generally in Canada...." By the end of August no reply had been received, so May and Bill followed up with another telegram: "Have not received any information as to policy...." Once again, the financial constraints were given as a reason for the delay.

[*Ibid.*, 4 August 1927; *Ibid.*, 31 August 1927; *Ibid.*, 1 September 1927: Major T.W. MacDowell, Private Secretary to Minister of National Defence, to W.R. May.]

By the end of September 1927 a policy had been worked out at the Department of National Defence.

The Department will issue to any duly incorporated club or association approved by the Minister of National Defence for this purpose, two light aeroplanes free of charge. The club or association will be required to make proper provision for the housing, maintenance and repair of the aeroplanes, to arrange for the use of a flying field (or a seaplane base) and the services of a qualified instructor to be approved by this Department to supervise the flying, and a licensed air engineer for the maintenance of the aircraft in an airworthy condition. The club must include in its membership not less than 30 members medically fit to take a private pilot's certificate, who are not yet qualified pilots but who are desirous of learning to fly, and, in addition, 10 members who are qualified pilots and who are desirous of continuing to fly.

In addition, a grant would be made to any club for each member who qualified for a private pilot's certificate on the club aircraft and under its own instructor. The period of any agreement was not to exceed five years from 1 April 1923, and during each subsequent year "if the demand for flying instruction exceeds the capacity of the two aircraft originally issued, and the club has provided from its own resources an aircraft of a type approved by the Department, the Department will issue one further aircraft." Finally, it was reported that steps were being taken by the Department to order several light aircraft for delivery before the end of March, "so that any clubs or associations

approved for this purpose may commence operations at the beginning of next Spring." By October the club had 87 members, and applied for the promised two aircraft. J.A. Wilson, the new Controller of Civil Aviation, proved to be a great help to the club. In November he sent along the by-laws of the London Aero Club as a model for the Edmonton by-laws, which Blatchford promised to consider.

[*Ibid.*, 28 September 1927; *Ibid.*, 25 October 1927; *Ibid.*, 2 November 1927]

Qualified flight instructors were a requirement of all aero clubs, but candidates apparently had to pay their own transportation to and from Camp Borden and their "messing" while in camp. Cy Becker wrote to Wilson, noting that: "It strikes me at first glance that such an arrangement would be very satisfactory for the Eastern Provinces but would incur comparative hardship on the Western ones." Squadron Leader A.T. Cowley replied for the Controller, regretting that instruction could not be held in other locations than Camp Borden, "but no training aircraft are available for the purpose." The upshot of this problem was that the Edmonton club was late to nominate an instructor for the approval of the Department of National Defence. Finally Cowley notified Becker that "there is a possibility of the instructors chosen by some of the western clubs being allowed to take a certain amount of dual instruction of club "Moths" at High River.... The course at High River would not likely be nearly as complete as the course at Camp Borden, but aircraft might be shipped to High River and erected there and a certain amount of dual instruction given by the Air Force officers at High River." In March Becker reported to Cowley, recently promoted to Squadron Leader, that the Edmonton club had obtained the services of Captain E.J.A. Burke, a Flying Officer with the RCAF in Vancouver, "whose name we are submitting to you in the course of the next few days for instructor for this club. He has recently been at Camp Borden and his record in flying is a long and impressive one." In addition, Becker felt that "probably the machines for the particular Western clubs could be sent to High River and assembled there and the club's own machines used for the instruction of their own instructors and then perhaps flown from High River to the particular Club."

[*Ibid.*, 23 February 1928; *Ibid.*, 1 March 1928; *Ibid.*, 2 March 1928; *Ibid.*, 12 March 1928]

Problems in obtaining a flight instructor were not yet over. Cowley expressed surprise over the choice of Burke when he wrote to Becker. "This officer was given a commission in the non-permanent R.C.A.F., upon his application from Penticton, B.C. He was granted extensive refresher training at Camp Borden and is now undergoing advanced seaplane instruction at Vancouver. The sole purpose for granting Mr. Burke a commission in the R.C.A.F. was to obtain his services during the coming season, as a large programme of work is being undertaken throughout Canada. Given sufficient notice, no Air Force officer is irreplaceable, but it is strongly felt that when an officer has received extensive training to fit him for a certain definite job, his release for a commercial company or a flying club, without any advanced notification, should not be granted. As you are aware, Mr. Burke is an ex-R.A.F. officer who has only lived a short time in Canada, and during most of that time he has been carried on the strength of the R.C.A.F., and no effort has been spared to render him a more efficient officer for the performance of the duties for which he volunteered. I would ask, therefore, that you reconsider the appointment of Mr. Burke as your club instructor."

[*Ibid.*, 22 March 1928]

Becker responded with a memo to Squadron Leader Tudhope in Ottawa, pointing out that other RCAF officers had been released from their duties to act as flight instructors of air clubs, and asking that Burke be granted the same latitude. "Mr. Burke was really chosen by this Club because of his very high qualifications as instructor.... I am sure that you will agree with us as to the qualifications of Mr. Burke, and the principle on which the Club proceeded.... I am afraid that we could not obtain another so good, and in fact, it may be impossible to obtain one at all. We have not much time left for the purpose and the Province of Alberta is not very fortunately situated for the purpose of making arrangements with such pilots.... As you probably know, interest in the 'revival' of flying has become quite general, and we have made a point of the qualifications of the Club Instructor, and in fact have given details in reference to Mr. Burke to the general public."

[*Ibid.*, 28 March 1928]

Unfortunately, after Cowley discussed the matter with Ken Blatchford and within his own department, he decided that "the Air Force find themselves unable to release Mr. Burke to act as your instructor.... Mr. Blatchford has been assured, however, that the Air force will find an instructor for your club, and at the present moment we are putting Mr. E. C. Burton through the flying instructor's course at Camp Borden, in the hope that he may prove an acceptable instructor for you...." That day Cowley sent a letter to Burton, formerly with the Ontario Provincial Air Service, suggesting that he approach Kenneth Blatchford and apply for the position. As Cowley observed in a note written to the Officer Commanding at the High River Air Station, the Edmonton Club "is ably represented in Ottawa by K.A. Blatchford, M.P., who is largely responsible for the Edmonton Municipal Air Harbour also known as Blatchford Field."

[*Ibid.*, 5 April 1928; *Ibid.*, 4 April 1928]

Such difficulties illustrate the sudden interest in civil and military aviation across the entire country. As it turns out, neither Burke nor Burton became the club air instructor: that role fell to Wilfred May. First attempts to set up an acceptable air engineer for the club also ran into some red tape. Edmonton engineer Percy Handford wished to upgrade his skills to overhaul De Havilland Moths and Cirrus engines at Camp Borden, but was directed to directly contact R.A. Loader at De Havilland in Toronto. Cowley noted that the De Havilland company was "very anxious that the club engineers should be thoroughly familiar with their aircraft...." Squadron Leader Cowley indicated the following situation regarding air engineers' instructional courses in 1928:

The only course in mechanics in the Royal Canadian Air Force is the service training given to recruits. It will be necessary, therefore, for your two young men to enlist in the Royal Canadian Air Force for a period of three years.... In regard to your mechanic spending a few days at High River, I am to advise that he will be perfectly free to do so but the messing accommodations there are very limited and it will probably be necessary for him to make his own arrangements for living in the town of High River, which is about 1 1/2 miles away from the aerodrome.... The actual date at which your

aircraft can be delivered from High River will depend upon the success of your instructor at Camp Borden [i.e. Burton] but the aircraft are at present at High River where they will be erected and test flown. It would, therefore, be in order for your mechanic to report at High River at any time.

[*Ibid.*, 8 March 1928; *Ibid.*, 13 April 1928]

Historian Stan Gordon describes a very close and important relationship between the airport and the Edmonton Aero Club in 1928. City Engineer A.W. "Bert" Haddow recommended to the City Commissioners a policy by which the control of aviation facilities be handed over to the Aero Club, while maintenance of the field and buildings remain under the control of the City. Six months later a memorandum of agreement was noted by Haddow, stating that the City would provide, construct, maintain and operate the field. The City also would provide and maintain the hangar, while the Aero Club would pay for light, power, telephone, gas and water and fuel for operating the public hangar (though it would not have gas and water for some time). If other companies or private individuals wished to lease sites and erect a hangar they would be required to pay a "use of field" rental to the club. The Aero Club also might operate any service stations constructed on the airfield site. The City would provide and maintain lights including those in the hangar, wind cone, floodlights, while the club would operate field-landing lights and regulate traffic. Traffic revenue would be turned over to the club, which then would submit quarterly statements to the City. This agreement was subject to revision and renewal at the end of each year.

[Stan Gordon, *The History of Aviation in Alberta to 1955*. Edmonton: Reynolds-Alberta Museum Report, page 95]

The Edmonton and Northern Alberta Aero Club signed an agreement with the Department of National Defence on 29 March 1928, with Cy Becker and James Bill signing for the Club. This agreement provided for the first two aircraft under the *Standard Conditions for Light Aeroplane Clubs and Associations Canada*, and specified that the club provide a flying field which filled the requirements of the Air Regulations [1920]; provide storage for the aircraft and equipment from the Department of National Defence; arrange for an air instructor and licensed air engineer; have a roll of at least thirty members prepared to qualify as pilots, and at least ten who have already qualified and were "desirous of continuing to fly". The Department of National Defence would then provide two aircraft and additional necessary equipment; a \$100 grant for each student who qualified for a pilot's license; periodical inspection of aircraft; a board of inquiry to investigate any accidents.

[*Order in Council* 24 September 1927 P.C. 1878]

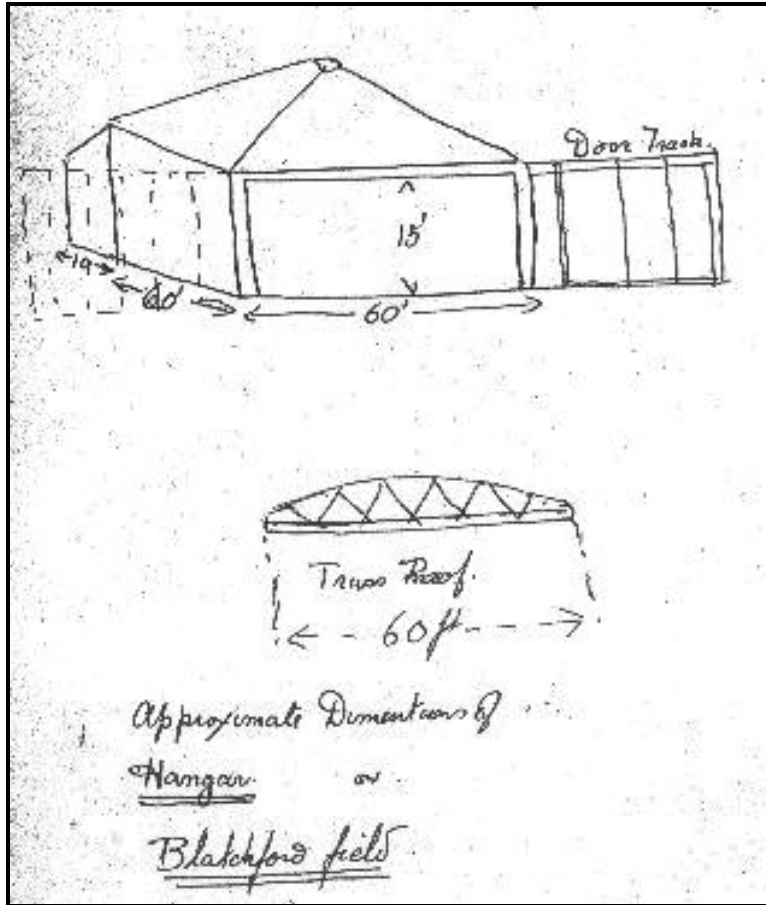
Red tape once more entangled the process when Becker was informed that the agreement had been improperly signed. James Bill had signed as the Party of the Second Part, where the Deputy Minister's name should have appeared. The first De Havilland Moth, to be delivered by air from High River, was held up further while this bureaucratic issue was resolved. When this was cleared up it was the plan to have the club air instructor, should this matter ever be clarified, pick the first plane in High River

and fly it back to Edmonton. The second aircraft was to be shipped from Toronto, where the De Havilland company had a branch, "but this aircraft will not be ready until towards the end of May. It will be shipped by train direct to Edmonton."

[*Ibid.*, 5 April 1928; *Ibid.*, 4 April 1928; *Ibid.*, 13 April 1928]

SIDEBAR

The application for the two aircraft [under provisions of Order in Council P.C. 1878] is an interesting document. It provides a concise picture of the club in its early days. The date of incorporation for the club was 19 January 1928, and its first permanent address was 42 Gariepy Block, Edmonton, Alberta. The executive included: Charles Becker, President; James Bell, Vice President; John Sydie, Second Vice President; Enock Loveseth, Treasurer; James Bill, Secretary; Tweedie Campbell Sims, Manager Director; Simon Algernon Yorke, Lecturer; Kenneth A. Blatchford, Director; James Victor Horner, Director; J.D. Oliver Mothersill, Director; John Michaels, Director; Alvin Donald Kennedy, Director; A. Stewart Matheson, Director. The legal description of the "airharbour" where the club was operating was given as "Blatchford Field, Edmonton Municipal Aerodrome." The facilities for housing the DND aircraft consisted of a "well constructed wooden hangar, single span truss roof, full length sliding doors, building approximately 60' by 70'. Height to roof 15'. All round cottage peak roof." Club personnel consisted of the controversial E.J.A. Burke, who had about 2500 hours of flying and instruction on all types of aircraft at this point, including the Moth. He was employed by the club for the season at \$200 per month and also two dollars for each dual instructional flying hour to to 300 hours, and one dollar after that. Percy Hanford was the air engineer [Qualified Air Engineer Certificate #209, 14 March 1922] Hanford was employed by the club for the season at one dollar per flying hour of all machines flown, with a minimum of \$100 per month.



This sketch shows the first Hangar at Blatchford Field.

National Archives of Canada, RG 12, Volume 2270, file 5258-771 pt.1, c. 1928.

Thirty-six members appear on the application as prepared to qualify as pilots. These were:

Thomas Armitage [druggist]

Russell Foy Brinkman [chauffeur]

James D. Bryant ["gentleman"]

Alex. Lowery Clarke [accountant]

Robert Copeman ["gentleman"]

Carlisle Blake Dagg [salesman]

John Dunn [farmer]

Cyril Ellinger [dairyman]

Clarence Entwisle [telegrapher]
Wilbur Claude Gallinger [student]
Harry Gilbert [auto body building]
Gladys Graves [secretary]
James Victor Horner ["gentleman"]
Stanley Irvine [teamster]
James Jefferson [Inspector]
Charles R. William Mager ["gentleman"]
Chester E. Moffat [advertising manager]
Alexander Sutherland [student]
Richard P. Owen [student]
George M. Peterson ["gentleman"]
Carl Douglan Pullman [an American citizen; electrician]
Arthur Rankin [clerk]
John Holmes Rutherford [an Irish citizen; electrician]
Albert William Sewell [salesman]
Charles Gordon Smail [surveyor]
Robert E. Souther [carpenter]
Kenneth G. Thompson [mechanic]
Wilfred M Thompson [mechanic]
Alfred H. Want [clerk]
Frank Brown [salesman]
Joseph P. Jubinville [mechanic]
William C. Proudfoot [master mechanic]
E.R.R. Field [student]
John Ross [student]
F.S. Robinson ["gentleman"]

The first club members also included the following twelve qualified pilots:

Charles Becher [with 1000 hours]

James Bell [with 500 hours]

Alvin D. Kennedy [with 400 hours]

Alfred E. Koch [with 400 hours]

Wilfred R. May [with 800 hours]

Raymon G. McPhie [with 150 hours]

John S. Tarbolton [with 500 hours]

James M. Taylor [with 400 hours]

Thomas E. White [with 700 hours]

James Bill [with 50 hours]

Walter J. Beaumont [in the Civil and RAF Reserve; 250 hours]

Frank Donnelly [with 700 hours, military and commercial]

In June 1928 the Edmonton club was prepared to receive its Moth, with the Granby Aero Club in Quebec, the Aeronautical Association of Canada in Toronto, and the Regina Flying Club. True to form, red tape again played a role. Flying Officer G.S. Abbott, writing for the Controller of Civil Aviation, reported that receipts given on delivery of the aircraft had been found to be not in order "and it is now found necessary to issue receipt vouchers and inventories covering this equipment, in lieu of receipts given by your club." Abbott visited the Edmonton club and completed the examination of several commercial pilots, which were already under way. Flight Lieutenant F.V. Walsh, Commanding High River Air Station, complained of the tests working at cross-purposes with established plans. It seems that Ottawa and Alberta experienced real trouble in coordinating their plans during the first years of the club. "As previously arranged with Air Headquarters, these pilots were to fly to High River and a complete their tests, the flight to High River being regarded as a cross country flight.... One of these pilots forwarded his application here ... and on 'phoning the President of the Edmonton Aero Club, asking him when we could expect this gentleman and the others, we were told that Mr. Abbott had completed their tests, but they had yet to do a triangular cross country trip. These instructions are directly opposed to those given in Air headquarters' wire.... The President of the Club was very surprised to hear that Mr. Abbott had not informed me that he had completed the applicants' tests and had changed the instruction previously issued. The situation now is, that these commercial pilots will now

have to wait until I can spare the time to visit Edmonton. If there are many of them I cannot afford to stay in Edmonton for two or three days waiting for these gentlemen to do triangular courses, particularly at this time of the year as the weather is very uncertain." R.A. Loader, general manager of De Havilland Aircraft of Canada, Ltd., notified Abbott on 4 July 1928 that Moth C-CALB "will be dispatched as rapidly as possible." Edmonton was to get its second Moth.

[*Ibid.*, 12 June 1928; *Ibid.*, 21 June 1928; *Ibid.*, 17 October 1928; *Ibid.*, 4 July 1928]]

The club set up a meteorological station at the aerodrome in late 1928. "The aerodrome stands on the 2,200 feet contour, is flat with level ground around it," Simon Yorke wrote in a report to Ottawa notes. "The Club mechanic lives in the hangar itself, and we intend to fly all winter, and on the days when flying is impossible, the hangar will be used for instructional work on rigging, maintenance and constructional details of aeroplanes for our Commercial and Private pilot's ground school courses.... We therefore would be in a position to look after, and properly attend to such a station, more especially, as the writer has himself looked after such a station at Harrow School, England." Among the requested equipment was a strut thermometer, which "would be useful for exploring the upper air, especially in winter time, as in this district we get some very curious inversions of temperature previous to the start of a Chinook wind."

[*Ibid.*, 12 September 1928]

Students began their cross-country flights to qualify for commercial air pilots in October 1928. They covered a route connecting Edmonton, Vegreville and Ponoka, and then back doubling back to Edmonton. "Arrangements will be made with local authorities at turning points," noted Abbott, "to observe the time and markings of the aircraft, when and if they arrive there."

[*Ibid.*, 6 October 1928]

When Abbott paid another visit to the club on 20 November, he reported:

There exists a spirit of dissention among the members owing to the fact that certain of the directors are engaged in commercial aviation, and that the Club Instructor is also the pilot of the aircraft of this commercial concern. A general meeting has been called for the 23rd inst. When a motion is being offered to compel these directors to relinquish control of the affairs of the Club. It is hoped that the outcome of the meeting will correct the condition so distasteful to most of their members, but should no change occur, it is recommended that a suggestion be made to the executive that at least, the Instructor should devote his entire time to the club instruction.

[*Ibid.*, 21 November 1928]

Cy Becker reported to Abbott the following year that "Wop" May "has found it necessary to sever his connection and is engaged in commercial aviation." However, Maurice Burbridge, formerly a Captain in the Royal Air Force, was reported to be sailing from

England to Canada on 22 March 1929. "We have been able to make satisfactory financial arrangements with him to act as Pilot Instructor. He holds a C.F.S. Instructors' Certificate, and we are informed has done 3,000 or 4,000 hours of instructional flying.... We have asked him to call and see you on his way through and we should be very pleased for anything you can do in the matter of granting him the necessary license, or authority, to act as such Instructor, and as Air Engineer...."

[*Ibid.*, 18 February 1929; Notification of departmental approval was sent on 13 March 1929.]

By early 1929 the club was very successful despite its many roadblocks, and seemed to be in an expansive mood. The *Edmonton Journal* reported: "Aces of the air and queens – one might almost say angels – rubbed wings at a full house on Thursday night [24 January 1929] in the King Edward Rose room, when the Edmonton and Northern Alberta Aero club put on its first annual banquet." Captain Jimmy Bell was in the chair since Cy Becker was absent. Rev. K.C. McLeod, the club chaplain, followed O Canada with a prayer. Mayor A.U.G. Bury noted that "Probably the cause of aviation owes more to 'Wop' May and to Vic Horner than to anyone else, as a result of the new spirit and interest created in flying through their flight to Fort Vermilion with the anti-toxin." Jimmy Bell tried to correct "a false impression which some may hold with regard to the purposes of the club.... [He] pointed out that the aero club is teaching the men enrolled in it a worthwhile business, which will be of great use to them in future years." Bell also "appealed to young ladies to join the club, pointing out that when more companies are organized for commercial flying they will naturally look to women familiar with flying terms and equipment to handle their office work for them." In October 1928 S.A. Yorke had organized a special class for twenty female applicants to the Ground School. Enid Norquay gained her license under instruction at the club, and in 1933 joined the executive as a director.

[*Edmonton Journal* 25 January 1929; *Edmonton Journal* 16 October 1928]

Some students were a bit too enthusiastic. A serious problem confronted the club in early 1929 when the Moth C-CALB was lost through a crash. R. F. Brinkman, the club mechanic, and J.S. Clare, mechanic for Commercial Airways, were flying it at the time. Both were students at the club; Brinkman had a Private Pilot's License, with about ten hours solo, and Clare had about nine hours dual instruction. Cy Becker reported to the Department of National Defence, his frustration little concealed:

The above two persons without any authority whatsoever, and in contravention of the essential rules of the club, took out this machine in the absence of the flying instructor, or any of the officials, and while doing low flying over the C.N. Railway tracks, crashed the machine, destroying it completely and injuring themselves.

Despite efforts from Mayor A.U.G. Bury and others, the Department of Defence refused to replace the destroyed aircraft. Becker soon found a lead on a "slightly used Moth" from the De Havilland works in Toronto, and asked Blatchford if he could "find out discreetly if government in consideration of such purchase would give us a Gypsy

Moth.” This plane [C-CYYG] was a refurbished craft previously owned by General Airways Ltd. , and was obtained by the club.

[*Ibid.*, 3 May 1929; *Ibid.*, 17 May 1929]



Outside the hangar at Baltchford Field. Note the plane's call number, G-CYYG. Library and Archives of Canada, C147002.

The club proved extremely popular during the first months of 1929, gaining 68 new members between 20 December 1928 and 17 May 1929. Members came not only from Edmonton, but Mundare, Bawlf, Vegreville, Camrose, and the now-forgotten locality of Volmer. Several women joined at this time: Miss Chauvin, Elsie McLean, Lenora Hall, and Agnes McFarlane.

Availability of inspectors for pilot testing was frequently a problem for the club. Much to the annoyance of club members, requests for such inspectors were sometimes brushed off by the overworked military personnel. Becker complained to Cowley of his “rather curt answer to the effect that ‘once a month should provide adequate opportunity for members to pass test’.” He continued: “I suppose we should take this as a final and last judgment on the point, but you will not mind, I am sure, if we murmur a protest;

especially since we are not military and can count on your continued help....” He noted that the club had three planes and a flying list of between 50 and 60. “From the point of view of actual examination it would be noted that it requires about one hour for each pupil to take his test. As a total you will see that this makes quite a time for the inspector to spend in one place, and generally the inspector is in a hurry. If the weather were good to test sixteen would probably take him three or four days and in addition the time necessary for their air regulations. Part of this is due to the fact that few of the pupils can take their tests except early in the morning or in the evening. It is also possible that with this continued examination the inspector is apt to become tired and impatient to the disadvantage of the pupil and the club.” Despite these concerns, the club received little consideration from the department at this time. By the end of 1929 the air instructor was Maurice Burbidge, the air engineer C.H. Green, and the mechanic F. Burton.

[*Ibid.*, 2 September 1929; *Ibid.*, 21 November 1929]

The annual report by the club indicated that it had more than doubled its flying time in 1929, with a total of 1,080 hours and 20 minutes, compared to 415 hours and 45 minutes in 1928. In 1928 four Private Pilots were certified; in 1929 22 were certified. At the end of 1928 the club had 158 members; at the end of 1929 it had 238. “Many of these joined during our membership campaign, in which our Club members worked very faithfully.” The club made a point of adding that “the city authorities of Edmonton have been a wonderful help to the Club by putting the Airport into first class condition. All night apparatus, as well as boundary lights in first class working order. They have also constructed at the airport a “Class A Hangar” fully equipped with workshops and office space, and are charging a very reasonable amount for storage of our machines. Too much praise cannot be given the city of Edmonton for its help in this matter, and one in particular, who sees the future possibilities of Aviation, Mr. A.W. Hadow.”

[Edmonton and Northern Alberta Aero Club, *Annual Report for 1929*.]



Gladys Walker and
instructor beside
DeHavilland Moth.

City of Edmonton
Archives, EA-146-1,
c.1920.

The club organized the first big air show in Edmonton. A special committee and executive envisioned “the greatest air show ever put on in any western city” for 17 September 1930. On the big day sixty planes participated, including 35 from Edsel Ford’s Reliability Tour. The American ace, Frank Hawkes, who flew the fastest plane in the world, was there, and Edward Reynolds flew “Wop” May’s old Jenny, the “City of Edmonton”, which had started it all after the Great War. Commercial Airways flew in three bright red Bellancas and a Lockheed Vega. “Moss” Burbidge amazed the crowd

of 35,000 with his aerobatics in a Moth, while J.D. Parkinson, with Curtiss Reid of Montreal, stunted for the crowd. Captain W.S. Brock demonstrated modern technology by carrying on an “earth-to-air” radio communication with CJCA. On the whole it was a thrilling day for all, and an auspicious beginning for years of Edmonton air shows to come.

[*Edmonton Journal* 6 August 1977]

Maurice “Moss” Burbidge was an exacting instructor. Squadron Leader Cowley reported after a visit that the “Club continues to present an agreeable surprise in the matter of efficiency, care of aircraft, and excellence of pupils turned out.” He then continues:

It is very difficult to criticize a Club instructor who has produced such results, but at the same time it does appear as if Mr. Burbidge was becoming almost too exacting in his requirements before permitting flights.... For example, on two evenings that the writer was there the weather appeared absolutely perfect, but tests were not permitted since the wind was stronger than ten miles per hour – actually, I believe, it measured eleven miles per hour. This undoubtedly tends to extend the life of the aircraft, but in several instances has apparently worked a hardship on pilots – for instance, on the day that we were at Edmonton a pilot applicant motored up from Olds, Alberta, but was not permitted to undertake his tests. Other instances have occurred where pilots have resigned from the Club since they felt they were not getting sufficient leeway in their flying.

[*Ibid.*, 4 August 1932]

Despite such efforts to preserve the department’s aircraft, by 1934 the club was complaining that their little fleet was practically worn out after years of hard service. Requests for replacements met with no success from the government, now deep into the Great Depression. The problem continued to plague clubs across the country, and in 1935 provision was made to extend government assistance to “Light Aeroplane Clubs” in Canada. This was to last for three years, beginning 1 April 1935.

[*Ibid.*, 19 January 1934; *Order-in-Council P.C. 1868*, 9 July 1935]

During the 1930s, the club struggled to keep going. City Engineer A.W.Haddow gave this report to J.A. Wilson in October 1935:

The Club has got very badly in arrears with their hangar dues, their account now standing at \$810.18.... We recognize the value of these Clubs in the training of new pilots and have done all we can to help them by reducing their hangar fees to \$7,50 per month per machine, and have written off several hundred dollars on previous occasions.... During the winter time, however, the Commercial machines from the North are in the hangar, we are crowded out, and the space is needed very badly. At the present time it is necessary to put some of the machines outside in order to have room.... During the summer time, when the commercial planes are operating from our

Cooking Lake Base, the situation is different. The field and hangar in Edmonton is not in such great demand.... We do not wish to be unreasonable, but think that the Club should at least help out to some extent, and I would like to know from you what is the general arrangement throughout Canada with the various Flying Clubs, in regard to hangar and field accommodation....

[*Ibid.*, 26 October 1935]

Haddow later reported to Wilson that he had “repeatedly taken this matter up with the Aero Club but have not made any progress at all in getting settlement of their account. It looks to me as if it will be necessary to give them a real bump before they understand what it is all about.” Plans were made to garnishee or attach the club’s grants, but the Judge Advocate-General advised against this when he was queried by the Controller of Civil Aviation. Wilson then suggested to Haddow that:

There is another way out of your difficulty, however, and that is that persons using a public airport do so under certain conditions. If the Edmonton club have not complied with the conditions under which they use the airport they might be forbidden to do so.... I should be sorry to see any action taken which would make the continuation of the Edmonton Aero Club difficult. They have a wonderful record and the Department would support any measure for an amicable settlement which would allow them to continue. At the same time, their management must have been very lax to allow such a large bill to accumulate.

But Haddow responded that “no steps will be taken which will impair the usefulness of this Club to aviation. We all are too vitally interested in the progress of aviation.”

[*Ibid.*, 11 April 1935; *Ibid.*, 16 April 1936; *Ibid.*, 17 April 1936]

Having weathered another crisis, the club struggled to its feet again in April 1936. “We are making an effort this year to alter the whole of the state of affairs of the Edmonton Aero Club,” Becker wrote to Wilson, “and we hope to have an extremely good year and get rid of all the contentious things that have troubled the Club in the past; that includes arrangements with the City which are now satisfactory....” Becker then described some further internal problems:

The Directors have just recently discovered that you were good enough to arrange for Mr. Burbidge to go to the Coast and take an instrument flying course there; the first arrangement was that he should go about the end of April. That would have suited the Club perfectly because it would not then have interfered with the busy flying season here. We have, however, discovered that Mr. Burbidge without the knowledge and consent of the Club communicated direct with Ottawa and other places attempting to put off his course until the end of April or thereabouts because of some private arrangements at the Coast. We have also heard that in the meantime Mr. Burbidge’s trip has been cancelled by Ottawa.... We should like to state that we are at least mildly irritated at Mr. Burbidge’s actions and we should like to apologize to you for any trouble caused you, although in May and June it will interfere very much with the instructional

flying here. We should like to have him take it in the quickest possible way and we are wondering if you could make any further suggestions or arrangements on that point...."

[*Ibid.*, 17 April 1936]

The RCAF notified the Controller of Civil Aviation in 1936 that it could no longer staff civil flying courses. Burbidge left for the west coast at the end of 1936, and the club replaced him temporarily with A.D. ["Ken"] Kennedy. In 1938 J.K. Lewis left to join Trans-Canada Air Lines, and T. McLaughlin replaced him temporarily as air engineer. During April 1938 Kennedy became full-time air instructor, when Burbidge finally left for good, joining Trans-Canada Airline at Winnipeg.

[*Ibid.*, 22 April 1936]

Several prominent flyers learned to fly at the club during the 1930s. Grant McConachie was one of these eager students. One story shows that his entrepreneurial inclination was keen even then. He found a way to make a few dollars while working on his solo hours. No one was the wiser until one day Jimmie Bell received a telephone call congratulating him for hiring "such a nice young man who had been taking people up for five dollar rides in the Club's aircraft." Bell apparently hit the roof, as McConachie was not yet licensed, nor were the rides noted in the logbook.

[Ronald A. Keith, *Bush Pilot with a Briefcase: The Happy-Go-Lucky Story of Grant McConachie*. Toronto: PaperJacks Ltds., 1973. page 39]

Duncan L. McLaren also intermittently honed his professional skills with the club. After leaving TCA McLaren returned to Edmonton in 1939, where he worked up his air time, and was checked out on Luscombe trainer CF-BLW and Gypsy Moth CF-CBN by "Ken" Kennedy. "Within the limits of my pocketbook, I continued flying as much as possible to build up solo hours in the air. I was also studying for the government written examinations, first for my private pilot's licence and then my commercial pilot's licence.... At every opportunity I continued to build up my flying hours at the Edmonton flying club. If any friends wanted a free ride I was happy to oblige."

[Duncan D. McLaren, *Bush to Boardroom A Personal View of Five Decades of Aviation History*. Winnipeg: Watson & Dwyer Ltd., 1992, pp. 48, 58]

Russell Bannock DSO DFC was born in Edmonton, and began his flight training in 1937, obtaining his private pilot's licence in 1938 and his commercial pilot's licence in 1939. Joining the RCAF, he was posted to Central Flying School at Trenton. In 1944 he went overseas and flew Mosquitos with 418 Squadron on intruder missions over Europe to intercept V-1 rockets. Bannock had a distinguished career in aviation after the war.

[Mary Oswald, *They Led the Way Members of Canada's Aviation Hall of Fame*. Wetaskwin: Canada's Aviation Hall of Fame, 1999, p.18]

Maurice D'Arcy Allen Fallow also took his Private Pilot's Licence under the direction of "Moss" Burbidge in 1937. After wartime RCAF service he returned to Edmonton and

established Western Aero Motive to provide flight training and aircraft maintenance. In 1948 he joined the Edmonton Flying Club as Secretary-Treasurer, and served the club until his death in 1971.

[*Ibid.*, p. 47]

Aircraft maintenance personnel remained difficult to retain, and H.W. Francis could not take duties as air engineer as soon as required in May 1938. But by this time a relationship already existed with Aircraft Repairs Ltd., which took over maintenance, and soon would become an even more indispensable part of the airport scene during the Second World War. Frank Burton, the air engineer, had already left for a position as pilot with Northern Airways that spring. Cy Becker wrote to Cowley that due to "the almost impossibility of getting a good and properly qualified air engineer, we think the tentative arrangement made with Aircraft Repair Limited is of great benefit to all concerned." At the time club flying was curtailed by airport improvements that were being undertaken, as well as the general wear and tear evident in its aircraft. Assistant District Inspector K.F. Saunders expressed the hope that the new arrangement with Aircraft Repair would reinvigorate the club. However, Leigh Brintnell, of Aircraft Repair, informed Saunders that he was not favourably inclined towards this agreement, as experience had proven that they were doing a lot of work and getting very little pay. As he saw it, should the club have a major crash, Aircraft Repair Ltd. "would stand to lose considerably." During mid-1938 Aircraft Repair had two mechanics stationed at the Airport during all club flying. "Each evening the aircraft are inspected and signed out by their charge engineer for the following day. All repairs and replacements are carried out by Aircraft Repair Ltd. at their Workshops.... The system seems to be working very efficiently, as the Club aircraft have not been so efficiently maintained for a number of years," observed Inspector J.J. Currie, who recommended a six-month trial of this system.

[*Library and Archives of Canada* RG 12 Volume 2271 File 5258 – 772 volume 2; 14 May 1938; 30 July 1938; 11 August 1938; 23 August 1938; LAC RG 12 Volume 2271 File 5258 –772 volume 3; J.J. Currie to District Inspector, Civil Aviation, Edmonton, 9 August 1938]



Maintenance of plane outside hangar at Blatchford field. City of Edmonton Archives, EA-10-1251.

At the end of 1938 W. Cameron left the position of club secretary to work for Consolidated Mining and Smelting Company. Jack Austin, another club member, took over the position in November, and became the point man for the club, dealing with the government red tape when necessary.

[*Library and Archives of Canada* RG 12 Volume 2271 File 5258 – 772 volume 3; A. D. Kennedy to District Inspector, Civil Aviation, 11 November 1938]

During the Second World War the Edmonton Flying Club found its role subsumed under the broader wartime effort on the home front. The BCATP rapidly became what US President Franklin D. Roosevelt called the “aerodrome of democracy,” with the Edmonton airport facilities directed into the war effort in ways that would transform the airport and the city forever.

Wop May retired as president of the club in March 1940 to take up other duties for the duration of the war. Maurice Plunkett was elected to replace May, while Cy Becker was elected vice-president at the annual meeting held in the Corona Hotel. May reported on the increased activities since the outbreak of war, and the contract the club held with the federal government for “war pilot training” since September 1939. The first course, with three students, was held in December 1939. May also reported that “Moss” Burbidge had returned as an air instructor, and with A.D. “Ken” Kennedy had attended special

courses at Camp Borden to prepare for their wartime instructional roles. Member Robert Wilken took a course in parachute packing at Trenton. Club equipment at the beginning of the war consisted of two Gypsy Moths, two Fleet trainers and a Luscombe trainer. Adverse weather during early 1940 delayed pilot training as the second class of seven students began. However, by late March they were preparing to take their 50-hour test.

[*Edmonton Journal* 7 March 1940]

In August 1940 the club entered into a new contract with the federal government to prepare instructors for elementary flying training, which the *Edmonton Journal* reported would greatly enlarge the wartime flying training work done by the club. Under the new plan the club would give a 100-hour training course to small quotas of future elementary flying instructors. Each quota would number about four men who would be examined at the end of the course, and the successful candidates would go to the central flying training school for a 30-hour finishing course. After this they would be reassigned to EFT Schools associated with the BCATP across the country. By this time the club had a fleet of six: a new Tiger Moth, two Gypsy Moths, the Luscombe trainer and two Fleet trainers. The club was notified that all their aircraft were to be considered military aircraft, and as such to "will be identified by the usual R.C.A.F. markings, and if now so identified, civil registration markings must not be shown." The local newspapers followed each batch of fresh RCAF students as they took their 50-hour tests with great interest.

[*Ibid.*, 9 August 1940; 19 June 1940; 8 August 1940]

One Student Pilot with the RCAF recalled training with the club early in the war:

We had four groups of five students in our class, and our group went to the last of the Flying Clubs. They hadn't all been converted to Elementary Schools, and the Edmonton and Northern Alberta Aero Club was still that. It was training RCAF pilots, but was still a club. They would send the odd instructor out to be trained in Air Force ways, but that still left others on the staff. We had two Fleets and two Tigers and they belonged to the club. One Fleet had no coupe top, no tail wheel, and no brakes. It was as close as you could get to the World War I types; all I needed was a white silk scarf flying out behind. All these aircraft became RCAF when the EFTS was formed, but at this time they still had their civilian lettering.

[James N. Williams, *The Plan Memories of the British Commonwealth Air Training Plan*, 1984, p. 37]

In November 1940 the club entered a new role in training pilots for wartime service. Ordered to facilitate operation of No. 16 Elementary Flying Training School, which opened on 11 November under the BCATP, Edmonton Flying Training School Limited was formed in accordance with the policy of the Department of National Defence. Approximately 30 Edmonton businessmen subscribed \$35,000 as paid-up capital, for which they received preferred stock and maximum dividends of five per cent. No

common dividends would be paid during the life of the contract, and all common stock will be held by the Edmonton and Northern Alberta Aero Club. A. P. Chattell, J. M. Taylor, O. C McIntyre, R. V. MacCosham, John D. Dower, D. M. Plunkett, and W. R May were the directors of the corporation. The activities of the company were under RCAF supervision and inspection, and the capital requirements were limited to working purposes with capitalization is at \$50,000. Operation and maintenance of buildings, equipment, supplies and airport facilities provided by the DND were the responsibility of the company. The Edmonton and Northern Alberta Aero Club announced that it was organizing a school and would provide the instructors and engineers. A civilian staff between 75 and 100 would also be employed.

[*Edmonton Journal* 19 October 1940]

J. M. Taylor, of Taylor and Pearson, Ltd., was elected president of the Edmonton Flying Training School Limited, with W. R. (Wop) May vice-president, Oliver C. McIntyre secretary-treasurer, and D. M. Plunkett managing-director. At the time D.M. Plunkett was the assistant provincial auditor, "Wop" May was manager of Canadian Airways Training Ltd., at No. 2 Air Observer School, and Oliver McIntyre was vice-president of the Capital City Box Company. The company would operate No. 16 Elementary Flying Training School on Kingsway, located immediately east of No. 2 Air Observer School. Seven buildings and one hangar of the new school were quickly constructed. Civilian operated, the new school would have an RCAF staff of three officers and two noncommissioned officers who would serve as examining and disciplinary officers. Thirty-two training planes would be housed in the large hangar while a machine gun target range and a Link trainer also would be included at the school. The planes used would be the Canadian-built Tiger Moths.

[*Edmonton Journal* 26 October 1940]

With the exception of a daily weather fight all active flying operations ceased at the club by the end of 1940.

The Edmonton and Northern Alberta Aero Club changed its name in 1944, when it was incorporated without share capital by letters patent dated 31 May 1944 [issued under Part II of the Companies Act]. From this time onward it was known as the Edmonton Flying Club.

[*Ibid.*, 13 June 1944]

In July 1945, after 225,000 hours of wartime flying training, Frank Burton, in charge of reconstruction activities for the club, announced that it would "swing into its peacetime program soon." Eleven surplus Tiger Moth trainers had been purchased from the War Assets Corporation, and were soon to be ferried in from Neepawa. During the war the club had operated Flying Training School and later supervised the EFTS for the RAF at Bowden, training 4,500 pilots by 1945. Pilots and maintenance crews discharged from the RCAF or BCATP were to be the new employees of the club. Former members of the club still on operations were given priority in postwar employment.

[*Edmonton Journal* 16 July 1945]

The first four Tigers flew in from Neepawa in August. By September all eleven had arrived. The flying instruction school opened at this time, and Gavin Breckenridge, “a young North Edmonton farmer”, who possessed a private licence, became the first student enrolled for a commercial licence under Tommy Fox, co-owner (with D. Dyck) and manager of Associated Airways. “After seeing so many planes in the air over Edmonton in the last few years the general public wants to fly”, reported the *Edmonton Journal*. One of the first flight instructors was A. Bell, former RCAF Flight-Lieutenant who had instructed at No. 16 EFTS, and later with the BCATP at Prince Albert, Abbotsford, Gimli and Pearce. Tommy Fox, the first to be granted a licence to operate a charter service in Canada after the war by the Air Transport Board, also was very active in the club at this time. Fox was assistant operations manager at No. 2 AOS in Edmonton for over three years and later joined ferry command to make fifteen transatlantic flights in Liberators and Lancasters.

[*Ibid.*, 7 August 1945; 17 September 1945; 13 September 1945]

Flight Lieutenant J.E. (Jack) Bradley was soon instructing students for the club from temporary quarters in No. 1 Hangar. Bradley started flying at the club in the spring of 1940, and ferried Tiger Moths up from High River for establishment of No.16 EFTS that summer. Enlisting in October, Bradley was attached to No. 16 EFTS as an instructor in January 1941, and held that task until the summer, before being transferred to Regina. He went overseas in March 1943, doing transport work in the Middle East and Burma.

[*Ibid.*, 18 October 1945]

Several women joined the club during the war. Six were enrolled by the end of 1945, including Vera Trider from Whitelaw, in the Peace River country, and employees of the Northwest Air Command and US Air Base in Edmonton. In January 1946 there were nine women students. Ida Reber, from Valleyview, also in the Peace River district, became the first woman to solo at the club since about 1937.

[*Ibid.*, 21 November 1945; 3 December 1945; 12 December 1945; 9 February 1946; 7 January 1946]

At the end of the war, facilities on airports across the country were being declared surplus and turned over to flying clubs again. Edmonton was one of the busiest facilities in Canada, and by early 1946 the Department of National Defence reported that “[there] is no space at this site available for the flying club. However, it is anticipated that in two or three months time, certain hangar space will be made available to the DOT (Department of Transport) for civilian flying purposes.”

[*Library and Archives of Canada* RG 24 Volume 4921 File HQ123-2]

In December 1945 Robert Hunter became the first to pass tests for a private pilot's licence after the war. He took instruction at Fox's Associated Airways school under Arthur Bell, using the new “cabin aircraft” which Fox had flown up from Ohio. Hunter had been an air engineer for six years with CPA, the RCAF, US air services in Edmonton, and the RCMP. He planned to obtain his commercial licence.

[*Edmonton Journal* 3 December 1945; 19 December 1945]

Soon after the end of the war in the Pacific, J.L. Apedaile, the financial adviser to the Canadian Flying Clubs notified members that their wartime services "rendered in the training of pilots under the B.C.A.T.P. by the Civil Flying Schools sponsored by Flying Clubs are fully appreciated and in recognition of these His Majesty the King has been graciously pleased to approve the grant of the title "ROYAL" to the Canadian Flying Clubs Association." Apedaile also noted that it was the plan of the DND "to assist in the re-establishment of these Clubs ... through incorporation under Part II of the Dominion Companies Act, with a standard form of Charter and by-laws," concluding that "[the] experience gained in operating the Schools has added much to their experience in aviation as well as to their prestige in the eyes of the public." Also, he notified the club, "it is hoped to utilize the services of recognized sponsoring Flying Clubs in post-war R.C.A.F. Training Plans and for this purpose, the following facilities will be made available: Aerodromes, hangars and administration buildings, aircraft and spare parts, furnishings and tools."

[*Library and Archives of Canada* RG 12 Volume 2171 File 5156-11 volume 1; 22 September 1945]

This set the wheels in motion, but it was some time before the club was back in business. Apedaile described the difficulty in keeping up with post-war demands from the flying clubs, in a memorandum on 10 November 1945:

[A] certain amount of impatience exists resulting from the alleged delay in assisting the Flying Clubs in their re-establishment. So far as this Department is concerned, everything is being done to assist the Flying Clubs, by way of providing hangars and other facilities but circumstances are such as to make the demands of the Flying Clubs somewhat premature. At the present time hangar and other facilities for storage of R.C.A.F. equipment is overburdened to the extent that in some cases it has been necessary to lease buildings for this purpose. It is believed that by next spring the movement of surplus equipment will be so operating that hangar space and other facilities can be gradually made available to the Department of Transport, that it may in turn so fulfill the requirements of the Flying Clubs. The premature demands of the Flying Clubs for these facilities resulted from the Royal Canadian Flying Clubs Association purchasing 250 Tiger Moth Aircraft last June, without giving due consideration to the facilities then available to the Flying Clubs to enable them to take delivery of their respective shares of this purchase.

[*Ibid.*, 10 November 1945]

Another significant problem emerged after the war, and was described in detail by W.B. Burchall, the Executive Secretary of the prestigious Air Industries and Transport Association of Canada (AITAC). C.H. Dickins, long associated with Edmonton aviation, was president of this group, and it numbered among its directors aircraft manufacturer R.B.C. Noorduy. AITAC feared commercial competition from the revitalized flying clubs, and Burchall wrote directly to C.D. Howe, Minister of Reconstruction and Supply:

For some time past this office has been accumulating evidence forwarded by members of this association showing that various flying clubs, members of the Royal Canadian Flying Clubs Association, have entered or intend to enter into commercial aviation activities, even at airports where they will be in direct competition with licensed commercial air transport operators. These commercial activities may be divided into two phases (1) commercial air transport and (2) ground activities including storage, servicing and repairs to commercial and transient aircraft. Representations regarding commercial flying by the clubs have been submitted, with evidence, by this association to the Air Transport Board with a request that the activities of the clubs be restricted to instructional flying which was the original purpose for which the flying clubs were instituted and for which purpose they have received considerable material aid from the government.

With regard to the other phase of activity - ground services, including sale of fuel and oil, hangar rentals, repairs to aircraft other than the club's property - an extremely serious situation has developed in which the future existence of some commercial operators is greatly threatened. It would appear that flying clubs have obtained possession of buildings and facilities on various airports at little or no cost and without regard to commercial requirements of the area. From the information available this situation has arisen through the action of the Department of National Defence (Air) in placing reservations on certain buildings for the use of flying clubs, action which obviously was taken in consonance with the considered judgment of the authorities, but without consideration of the rights of the licensed commercial operators who are established in business at these airports. In some cases such arrangements were made without reference to the municipalities who own the airports and are desirous of developing them to the best advantage of the communities which they serve.

Despite such fears, Deputy Minister of National Defence for Air J.F. Gordon expressed the government view that the clubs were owed something for their great contribution during the war. This was, in fact, the rationale behind Order-in-Council P.C. 5844, 18 September 1945, providing buildings and aerodrome facilities "to enable them to re-establish themselves...." In fact, Gordon suggested to the Department of Transport, that as the clubs reverted to DOT control, certain costs be borne by that department. "The unavoidable delay in planning post war raining has resulted in these Clubs being burdened with charges by your Department for a longer period than was anticipated and consequently in many cases these unforeseen expenses are eating into their small financial reserves and causing them some concern. Not only are the Clubs faced with these expenses, but it is necessary that they maintain and heat the buildings occupied by them. Further it will be remembered that prior to the war your Department granted certain bonuses and subsidies to these Clubs and since the war these have not been renewed."

[Ibid., 19 October 1946, Gordon to Deputy Minister of Transport; However, such relief was turned down by the DOT - Ibid., 26 October 1946; these issues led A.D. McLean, the Controller of Civil Aviation, to suggest that a long-range policy was needed - Ibid., 13 November 1946]

Meanwhile, S.R. Bernardo, RCFCA President, wrote to Director of Air Services Cowley: "I do not believe it was ever the intention that Clubs should be burdened with heavy insurance charges on buildings turned over to them on loan, and I would ask that the matter of insurance coverage on these buildings be carefully considered by your department, and if insurance is required, that the valuation be a very nominal one."

[*Ibid.*, 21 December 1946]

By April 1949 Chief Instructor was A.J.A. Laing, with Maurice D.A. Fallow also instructing. Fallow succeeded John Barclay, who was killed in an aircraft accident in May 1948. During the war Flying Officer Fallow was an RCAF flying instructor, and later with the Western Airmotive School. He was the son of Alberta Minister of Public Works W.A. Fallow. T.A. Fairbairn was the Air Engineer, with A and C certification. The fleet now consisted of three Fleet 80s, a Cessna 140 and the Fairchild M62. The ground school had cutaway engines for instruction and a Link trainer. The District Inspector now reported: "This operation is conducted in accordance with the syllabus drawn up by the R.C.F.C.A. in a very capable manner. Personnel and equipment are good."

[*Ibid.*, Report for Approval of Federal Government Assistance of Flying Training, 5 April 1949]

During 1949 Margaret Littlewood earned her commercial licence, probably the first woman to do so in Canada. [

[*Edmonton Journal* 29 April 1949]

In July 1950 the RCFCA contacted the District Controller, Air Services in Edmonton, pointing out "the urgent and serious problem with which the Flying Clubs are confronted concerning necessary major repairs and maintenance work required on the former R.C.A.F. hangars which they occupy." These concerns included clubs in Edmonton, Calgary, Lethbridge and High River. The Association requested that the government make some estimates to bring the clubs' facilities into "first class shape." Despite several memoranda sent about among branches and departments in Ottawa, nothing came of this for some time. The RCFCA sent another memo to A.T. Cowley, now Director of Air Services for the Department of Transport. Among other things, George Hurren, the RCFCA Secretary-Treasurer, noted that: "A recent inspection of hangar No. 17, Edmonton Municipal Airport Plan, occupied by the Edmonton Flying Club, reveals dangerous conditions existing in the North half of the hangar trussing. This section of the hangar is being used by the Eldorado Mining Company for storage of their aircraft. ... these wooden trusses are badly fractured and in danger of collapsing."

[*Library and Archives of Canada* RG 12 Volume 2171 File 5156 -11 volume 2; 4 July 1950; 3 November 1951]

The club became almost too popular and active during the 1950s, and by early 1953 it had 531 members, of which 61 owned their own aircraft. Secretary-Manager Fallow reported that "[we] have thirty-six aircraft stored in our half of the hangar. Two of this

number are RCAF Chipmunk and eight are the Club's own aircraft. At the present time, we have sixteen members who own their own aircraft, who are desirous of storing with us. At this point, I would like to mention that these aircraft would not be drawn from other hangars here in Edmonton. Also it becomes very awkward as far as the storage picture is concerned, when other members with aircraft arrive in Edmonton from Calgary, Lethbridge, Winnipeg and other Flying Clubs and we are unable to accommodate a lot of them.... At the present time, we have fifty-six Private Pilots and fourteen Commercial plots who are on the Approved Dominion Government training program. We do not have adequate class room space and use the Link room both for Link and Ground School class rooms."

[*Ibid.*]

Order-in-Council P.C. 5844 (18 September 1945) was rescinded in September 1960 and the flying club leases for facilities located on airports were placed on a commercial basis.

[*Library and Archives of Canada RG 12 Volume 2171 File 5156 – 11 volume 4*]

Ross Grady, a member of the Edmonton Soaring Club, was the first recipient of the British Aviation Insurance Company's Canadian Soaring Trophy in 1963. He made his flight 19 May in a BG-12 sailplane.

On 26 February 1967 the EFC suffered a major fire, and its offices and the hangar (purchased in 1956) were totally destroyed, although the club soon announced plans to open a new facility. A drawing of the planned EFC centre, by Underwood, McLennan and Associates Ltd., appeared in the *Edmonton Journal* on 30 March. The club faced its most significant challenge at this time, since it also had lost its fleet of ten Fleet Canucks, two Cherokees, the Cessna 150, a Piper Colt and Piper Aztec in the fire. Other privately-owned aircraft and several owned by an aviation firm also were destroyed. The loss exceeded \$1,500,000. The Calgary Flying Club loaned a Piper Colt immediately, and lessons began the next day. After the fire, the club fleet included seven Fleet Canucks, five Cessna 150s, two Cherokees and a Twin Comanche. When the new EFC centre opened, a second large hangar was under construction adjacent to it, to be leased to Northwest Industries.

[*Edmonton Journal* 20 September 1967]

In 1974 Lillian Staroszcic, future Edmonton councilor, enrolled in the club, and went on to win the Maury Fallow Rally the following spring. She then won the Governor General's Flying Shield, emblematic of the top private pilot trained in Canada. She was flown to Ottawa by Air Canada to attend the award ceremony at the annual conference of the International Aviation Federation.

[*Edmonton Journal* 28 October 1975]

In 1974 Fred Weber received an EFC membership for his 65th birthday. Two years later he became the oldest student to receive a private pilot's licence in Canada.

[*Edmonton Journal* 12 March 1977]

In 1982 the EFC was hit by economic hard times with the rest of the country. President Jack Biddell was left to initiate the cutbacks at the club. Five employees were laid off, while flight instructors suffered the decline in demand for flight training. Faced with a deficit, the Club had to borrow funds. In the past the club fleet had been renewed every year, selling older planes and replacing them with newer ones. This practice ended in 1982. Also in 1982 the club faced the possibility of moving its flight instruction to the Villeneuve satellite airport, a suggestion made by a Transport Canada area aviation master plan. This was not popular with the club.

[*Edmonton Journal* 23 February 1982]

To mark its 65th anniversary, the EFC commenced its Diploma of Aviation Management programme at the Edmonton Flight College. Citing U.S. Federal Aviation Commission statements that 50,000 new airline transport pilots would be needed by 2000, the school worked to attract students to fill that need.

[*Commerce News* May 1992]

The role of the Edmonton Aero Club in its various incarnations was very important to the development of aviation in Edmonton, and in the history of the airport.

On 14 November 1919 the Edmonton Air Force Association was incorporated by former wartime flyers interested in the encouragement of flying. The objects of their club were to promote and assist aviation in Edmonton and Alberta and to maintain or foster the esprit de corps that helped to win the war. In 1928 the Department of Militia and Defence announced that it had six light training planes to be distributed to several aviation centres across Canada to train pilots. Edmonton put in a bid for these planes, but was informed that an active flying club was required. By this time the earlier Aero Club had become inactive.

On 2 August 1928 the inaugural meeting of the Edmonton and Northern Alberta Aero Club was held at the Macdonald Hotel. "Wop" May was named president, and the executive consisted of S. A. Yorke (who later became the airport meteorologist), "Punch" Dickins, John Sydie, Jimmy Bell (later first airport manager), and Enoch Loveseth. A telegram was sent to the Minister of Militia and Defence, making application for the planes. A month later, plans were made to create a ground school and in mid-October it was announced that the Aero Club would be given the use of two de Havilland 60X Gypsy Moths. The Edmonton club had been the first in Canada to make application for the planes.

There were some conditions to be met though: proper provision for maintenance, repairs and housing of planes had to be made; a flying field established; a qualified instructor and licensed air engineer secured; the club must have a membership of thirty persons physically fit to take examination and ten who already qualified as pilots. The agreement would be effective 1 April 1928 for five years. Yorke and Dickins were hired

as instructors, and by December the club had 125 members, with 90 enrolled in the ground school, which was being held at the Prince of Wales Armouries.

In 1928 May was transferred for a time to Calgary, and Cy Becker became president of the Aero Club. An experienced pilot instructor was required for the club, so on 19 June May was appointed chief instructor. A week later he flew from High River into Edmonton with the first of the de Havilland Moths assigned to the Aero Club.

BLATCHFORD FIELD 1924-1939

In June 1924 Harry Adair and "Wop" May petitioned Mayor Kenneth Blatchford, an outspoken supporter of the role of aviation in Edmonton's future, to set aside land for a permanent airfield. The Hagman estate was the recommended site, as there already was a hangar on it and the city had acquired ownership of the property through tax forfeiture in 1923.

A Commissioner's Report to Council, 8 October 1924, suggested that the area between 118 and 123 Avenues, and 113 and 121 Streets, was suitable and owned almost entirely by the City. It was close to the city centre, railway services, and utilities such as light, water, power, sewer and gas. The City Engineer and the Commanding Officer of the High River RCAF station gave advice on the best location for the planned airport buildings and general layout.

City Council endorsed the recommendation to establish an aerodrome in this area on 13 October 1924 and an application form for a federal license was sent to the City. This was not completed until the City Engineer brought it to the City Commissioner's attention in April 1926. At a Council meeting on 10 May 1926 the plan for the layout and improvement expenditure was carried, as was the authorization of the City Engineer to apply for a federal license for a Public Air Harbour.

[City of Edmonton Archives, Record Group 11, Class 8, File 1]

In June 1926 Edmonton received the first license for a Municipal Air Harbour in Canada. It read:

This certifies that the City of Edmonton, whose address is Civic Block, c/o A. W. Haddow, City Engineer, is hereby granted a license under the Air Regulations, 1920, and under the conditions specified overleaf, for the use as a Public Air Harbour by day, of the area described as follows: New Hagman Estate, Summerwilde.

Dated this 16th day of June, 1926.

Later a motion was carried to make application to Ottawa to have the Air Harbour officially named "Blatchford Field" in honour of Mayor Kenneth Blatchford.

In September 1926, three landing courses, 150 feet wide, were constructed. These runways were for daytime flying only and were not paved but were flat grassy fields until use and rain turned them into muddy fields. At that time there were no landing lights and

on the occasion that a plane had to come in to land in the dark, oil pots were put out and flares used. The total reserve was one hundred and ninety acres. McNeill's old hangar remained and could hold up to three medium planes if the wings were taken off. It had no phone or electricity at that time and apparently barrels of oil and gas would be stored there. Rental of the hangar was possibly \$15 a month at that time. In the winter of 1926 an arrangement was made allowing the Air Force to carry out winter testing of their Siskin planes with no charge. The City apparently was happy to have them use the field, which was an endorsement in a way.

[Janne Switzer, The Blatchford Field Hangar, Historical Research Report, Prepared for Fort Edmonton Park, February 2000. p. 12]

Blatchford Field was officially opened 8 January 1927. Flight Lieutenant Collis and Flying Officer "Punch" Dickins flew in two RCAF Siskins from Number Two Squadron, High River for the occasion. The planes came in on their skis, smoothly sliding down the field to a stop where Mayor A.U.G. Bury and his civic party welcomed them, and declaring the airport officially open for business. During early 1927 "Punch" Dickins remained in Edmonton conducting low-temperature testing with one of the Siskins, before returning to High River.

[*Ibid.*]

"Wop" May, Cy Becker and Vic Horner incorporated and started Commercial Airways in 1928, operating out of the new "air harbour." They purchased a new open-cockpit Avro Avion from England, which could be equipped with wheels, skis, or pontoons, and had a top speed of 100 miles per hour.

On 31 December 1928 a message was sent to the provincial Department of Health from a doctor in Fort Vermilion, setting in motion events that would enter the aviation lore of Canada. Diphtheria had broken out in Little Red River and antitoxin serum was urgently needed. With charcoal burners at their feet to keep both serum and their feet warm, May and Horner took off in the Avion on New Year's Day 1929 with the temperature at 33 degrees Fahrenheit below zero. They reached McLennan on the first day, flying low against strong headwinds and with very poor visibility. The next day they reached Peace River and stopped to refuel. Then they followed the river and managed to fly into Fort Vermilion, handing the serum over to the local doctor, and reaching Peace River on the return trip with about a gallon of fuel left.

May and Horner worked on the plane all the next day, and the day after that they took off again, but now had to battle strong headwinds and thick snow while flying at an altitude of 100 feet above ground. In Edmonton about 10,000 people lined the airfield and Portage Avenue, watching the sky for their return. May and Horner returned as heroes, and during the years that followed they would be called upon many times to fly "mercy flights" for the Department of Health.

In February 1929 Commercial Airlines purchased a new Lockheed Vega, which featured an enclosed, heated cabin and could carry four passengers or six hundred pounds of

freight. Its speed was up to 120 miles per hour, and it had an undercarriage adaptable for wheels, skis or pontoons. This plane made the inaugural mail flight from Edmonton to Grande Prairie a few months later. Commercial Airlines held the weekly air mail contract for Edmonton to Peace River, and later it got the mail contract for the Mackenzie Valley route. The company then purchased three new Bellanca Pacemakers. In November 1929 headquarters were moved up to Fort McMurray.

Western Canada Airways continued its experiments with the Prairie Air Mail Service connecting the major cities in the west, including Edmonton. In 1929 Leigh Brintnell, operations manager for Western Canada Airways, landed at Blatchford Field while flying a new Junkers on his way to Prince George. Later he touched down in a Fokker Super-Universal on his way to Vancouver. Near the end of the year Archie McMullen flew a Lockheed Vega back from Los Angeles to Edmonton. The city airport was rapidly becoming a commercial crossroads for emerging airlines in western Canada.

During the 1930s Edmonton continued to consolidate its position as the gateway to the north. Its orientation was definitely fixed on the North Star by this time. The federal Controller of Civil Aviation assessed Edmonton's role in northern aviation in 1938:

Edmonton has always been regarded as a key point and one of the principal bases of operations in commercial flying. It is the base of supplies for the whole Mackenzie and Peace River areas and an important terminal point on the trans-Canada airway. Air mail services between Winnipeg and Calgary, and Edmonton were the first to be inaugurated on the trans-Canada system in 1930, after a period of survey and construction in 1928 and 1929. The Edmonton airport has always been one of the busiest in the country. It is not only an important point on the trans-Canada airway, but the point of departure for the air mail services extending as far as Aklavik, Bear Lake and, later, a base for the important service covering the Peace and Liard Rivers, making connection with the Yukon at Whitehorse. The City of Edmonton was one of the first cities to take an active interest in airport construction, and its airport has proved to be a profitable venture for the City, as it has been self sustaining from the outset. The Flying Club of Edmonton has been one of the most successful in the country and has trained 171 private pilots and 34 commercial pilots....

[Cited in T.M. McGrath, History of Canadian Airports - Second Edition, Lugus, nd.]

EDMONTON BECOMES GATEWAY TO THE NORTH AGAIN

Edmonton has served as a gateway to the north since freight moved up the Athabasca Landing Trail for transshipment on the northern steamboats, and gold seekers jumped off from the settlement to try their luck on the All-Canadian overland route to the Klondike. By the end of the 1920s aircraft were taking over, although the steamboats of Northern Transportation Company still carried the bulk. But during the winter flying season ending May 1930 Western Canada Airways and Commercial Airways together flew over 200,000 kilometres in the north, carrying 780 passengers and over 50,000 kilograms of express and mail.

Several other companies served only prospectors. Northern Aerial Minerals Exploration Company, formed in Toronto in 1928, specialized in transporting mining personnel and equipment into the north. Edmonton was the headquarters of its Alberta and North West Territories operations. By this time aircraft were generally better designed for large-load hauling and harsh winter conditions, and had made winter flying almost as common as summer flying. Favourite aircraft for northern flying included Fairchilds, Bellancas, Noorduyt Norseman, Fokkers, and Junkers.

In addition to the rigors of northern flying itself, certain commercial difficulties were common. In a report sent to Western Canada Airways' headquarters in 1931, "Punch" Dickins explained the difficulties in collecting on personal accounts in the north. With no banks and little money in circulation - and with the fur trading companies wanting to keep it that way - it was often impossible to get accounts settled. "An example of collections received is given when on my last trip," Dickins wrote, "I arrived back at McMurray with \$15.00 in cash, \$240 in 'Wolf Bounties,' \$320 in beaver and destitute ration orders, 400 muskrats, 2 red foxes, 2 cross foxes, 7 marten, 5 mink, 1 lynx and 50 extra muskrat to come and go on."

[Quoted in Patricia Myers, *Sky Riders*, p.121]

Winter fishing also was a common source of income for people in northern Alberta and Saskatchewan during the 1920s and 1930s. The fish were hauled to the railheads, and then shipped to larger centres for distribution. Some aviation companies convinced fishers to speed this part of the transfer through aerial delivery. The W. J. Menzies Fish Company rented planes to fly their catch from local lakes to Faust during 1931 and 1932, where it was transferred to railway cars. Several air companies also freighted from Whitefish, Wabasca, Peerless, and Lesser Slave Lakes. Faust, and other northern outposts benefited from the whitefish trade, due to the air links.

A sudden spurt of mining activity took place around Great Bear Lake, and later Lake Athabasca and Yellowknife when Gilbert Labine, with Eldorado Gold Mines, hired Leigh Brintnell to fly him into Great Bear Lake in August 1929. Labine was prospecting for copper deposits, and staked several claims. At the end of the season Labine noticed discolouration of the rocks below his flight path, and when he returned in March 1930 he found deposits of silver and pitchblende, the source of radium and uranium, setting off a rush into the district. Although Fort McMurray, located at the railhead, became the main jumping off point, Edmonton remained the main supply centre for the boom. By 1932, several thousand claims had been staked in the Great Bear Lake area. Western Canada Airways soon absorbed Commercial Airways and became one of the most important suppliers for the northern mining boom. Little companies like Spence McDonough Air Transport Limited, basically two pilots with a Fokker Universal, flew out of Edmonton in 1930. (In 1933 Canadian Airways Limited absorbed this company.)

Fuel supply became one of the most serious problems faced by any northern aviation firm. Historian Patricia Myers describes the situation in 1933:

Every company had its own supply at various points throughout the north, and they were jealously guarded. Canadian Airways, for example, wrote to Mackenzie Air Service

in 1933: "This is to advise you officially that effective this date, legal action will be taken against Mackenzie Air Service Limited, should they at any time use gasoline or oil from our caches, or supply dumps, without having written authority there from our general office at Winnipeg, signed by the Assistant Controller." Clearly, if you didn't have your own supply, you didn't fly. It was a slow and expensive business to bring fuel into the north. Most of it was transported by river barge, in barrels, and transportation was limited to the summer season. It often took a year or more to establish fuel reserves for the entire run. You couldn't accept flying assignments without fuel stores in place, but without flying assignments, there was no money to establish a fuel supply. Leigh [Brintnell] managed to get gasoline on credit; Explorer's Air Transport signed for some, and he signed for the rest himself. He could now begin establishing fuel caches. In January 1933, he persuaded a friend to act as business manager so that he wouldn't miss potential contracts while he was flying or working in the plane. Leigh set him up in an Edmonton hotel in a room that doubled as an office. With fuel caches up to Fort Rae, they felt they were ready for the challenge of the north, and a flight to Great Bear Lake.

[Patricia Myers, *op. cit.*, p. 124]

By 1933 "Punch" Dickins, the area manager for Canadian Airways, had six planes operating in the north, compared to one in 1929. Great Bear Lake and the Mackenzie valley provided most of the business for the company during the Great Depression. Competition for the few profitable markets became quite heated at times. "It was difficult to enforce load restrictions in the north; in remote locations, federal officials were not on hand to carry out regular inspections. The practice of overloading caused friction between companies, as those that abided by the regulations sometimes reported those that did not. It seems to have been a tactic for reducing or eliminating competition."

[*Ibid.*, p. 126]

Leigh Brintnell had established Mackenzie Air Service in December 1931, with depots at Fort Smith and Edmonton, and headquarters at the Edmonton Municipal Airport. Brintnell left Canadian Airways in 1931 to establish his own company, and bought two Fokker Super-Universals. Mackenzie transported ore from Gilbert Labine's Eldorado Mining and Exploration Company at Great Bear Lake. Soon Brintnell added Bellanca, Fairchild, Barkley-Grow, and Noorduyt Norseman aircraft to the fleet. By 1935 Mackenzie provided service in the Mackenzie district, to Great Bear Lake, to northern British Columbia and the Yukon, and to Lake Athabasca, where Gold City had been established in 1934.

Grant McConachie went into business in late 1931 with a used Fokker Universal. He concentrated at first on hauling fish from Cold Lake to the railway station at Bonnyville and supplying the Cold Lake district. His company first was known as United Air Transport, then as Yukon Southern Air Transport in 1939. That year he purchased a Ford Trimotor, hauling fish from Peter Pond Lake in Saskatchewan to Cheecham, Alberta. UAT hauled a half million kilograms of fish during the winter of 1934-1935 alone. The Trimotor also made the first commercial crossing of the Rocky Mountains in 1935, although it was not equipped with floats, and McConachie traded it for a Fairchild

floatplane. Grant McConachie's story tells us a great deal about northern flying during the Depression.

The Edmonton airport lacked a place where planes could land on water. Pontoon-equipped aircraft were a crucial part of the northern aviation industry and such a facility was generally felt to be indispensable. Some float planes landed on the North Saskatchewan River while others landed at Cooking Lake. However, in 1933 the City of Edmonton Department of Engineering suggested a seaplane base be established at Cooking Lake. The province bought the land and built a road linking the base with the highway between Tofield and Edmonton as a Depression relief project. The Cooking Lake base was open by early 1936, and soon more craft were using Cooking Lake during the summer months than used the Muni.

The western office of the Controller of Civil Aviation moved from Regina to Edmonton in 1934, an acknowledgement of the vastly increased northern traffic out of Edmonton. Canadian Airways also decided to post an engineer at the main settlements along its route to save cargo space at this time.

Edmonton was truly becoming the new gateway to the north by 1930. In 1935 Edmonton and Mackenzie Air Service joined forces to provide greater service to northern flyers. Mackenzie Airline, which provided most of the business at the airport, leased the airport machine shop and provided engineering services to aircraft touching down in Edmonton.

THE NORTHERN RESOURCE FRONTIER

In addition to forestry patrols, there were several early attempts to use aviation for opening the north during the early 1920s. Stuart Graham seems to have been involved in the first use of an airplane to stake a mining claim when a Montreal businessman named Guy Toombs, searching for molybdenum deposits near Lac St. Jean, hired him to visit the site at Lac Wapigigonke [Sand Lake]. The party left Grande Mere on 22 June 1920, flying the famous 1876 "La Vigilance," locating the site from sketch maps provided by Toombs, and spending three days staking the claim. Other firms made similar pioneering efforts at this time.

In 1925 prospecting in northern British Columbia was begun when men and equipment were shipped in relays to a base on the Stikine River, and on Dease Lake, then taking on parties of two or three to previously inaccessible spots. The pilots were J. Scott Williams and Jack Caldwell. In 1926 Caldwell and his engineer Irene Vachon took a flight into the "barren lands" to search for gold deposits, flying from Lac La Biche to Fort Fitzgerald.

Passengers, mail and freight were being flown into the new Red Lake gold fields during 1928, necessitating fuel caches being set up to allow deeper northern extension of exploratory flights. "Punch" Dickins and his engineer Bill Naden flew 850 miles non-stop south from Baker Lake to Stony Rapids on 3 September 1928. Stan McMillan and Charles Sutton flew in mid-March 1929 into the high north where winter conditions

prevailed. Two planes flew from Winnipeg to Baker Lake, over 5000 miles. An aerial crossing of the Arctic Circle occurred during a flight to Fort Good Hope on 6 March 1929. From there a “test cargo” of furs was flown out by “Punch” Dickins, and reached the Winnipeg fur market within days. Dickins and Sutton crossed the Arctic Circle again on flights to Aklavik on 1 July 1929, and to the northwest tip of Hudson Bay on 25 August 1929. Finally, “Wop” May and Vic Horner flew their most famous mercy flight to take diphtheria antitoxin to Little Red River during the winter of this year.

By 1930 forestry patrols, aerial photography and surveys seemed to be more “routine.” Records were being set. Walter Gilbert flew from the Arctic coast to Edmonton in 1931, 1,374 miles in ten hours. Punch Dickins flew from Great Bear Lake to Edmonton with the first cargo of radium ore the same year. Of course, the most famous exploit took place during the famous hunt for the “Mad Trapper of Rat River” in 1932, a search in which “Wop” May took a prominent part.

During 1933 ten tons of mining equipment and provisions were flown from Fort Rae to Great Bear Lake by Leigh Brintnell, Stan McMillan and Matt Berry. The air mail services from Edmonton to Cameron Bay and Camsell River, established two years earlier, were extended to Coppermine on 28 January 1934. During 1935 Stan McMillan flew the first flight on the new “air loop” through the north, connecting Edmonton to Fort Rae, Great Bear Lake, Fort Norman, Whitehorse, Fort St. John, and then returning to Edmonton. Grant McConachie and Ted Field flew the inaugural airmail flight from Edmonton to Whitehorse in 1937.

“It has been said that aircraft opened the Canadian frontier. In some respects this is an exaggeration,” Halliday concludes. “The growing frontier spurred aviation at the same time that aircraft simplified the opening of that frontier. Aircraft helped many a surveyor and prospector to reach his destination and kept parties supplied in the field. Yet if a few explorers had been the only customers, flying companies would have had only the briefest existence. It should be noted that many of the great mineral strikes in Canadian history had been made before aircraft appeared on the scene. The mines had been sunk; communities were springing up around them. The existence of the mines and mining towns provided customers for the fledging air firms. The fact is that the growth of Canadian aviation coincided with the growth of Canadian mining - and what phenomenal growth it was !

[Halliday, *op. cit.*]

The costs of frontier flying in that era were staggering. In October 1930 a passenger flying from Winnipeg to Edmonton paid \$ 18.50 on Western Canada Airways; from Montreal to Toronto cost \$ 29.00 on Canadian Airways. However, the same passenger on an unscheduled Commercial Airways flight from Fort McMurray to Aklavik paid \$ 410.00; while the return flight from Aklavik to Fort McMurray cost \$ 340.00.

Canadian Airways was the first aviation firm to emerge in western Canada from the virtually unregulated competitive chaos of the small operators. In August 1926, James Richardson, the famous Winnipeg merchant and land dealer, was persuaded by James M. Clarke to establish an aviation company. Central Canada Air Lines Limited would

serve the mining districts along the northern Manitoba-Ontario border. Clarke was unsuccessful in pulling the operation together, but Richardson hired "Doc" Oaks to put the business back on its feet. Under Oaks, Western Canada Airways attracted experienced pilots and engineers. The firm began life with a Fokker Universal, G-CAFU ["The City of Winnipeg"]. On 27 December 1926 it carried out its first operation, carrying express cargo to Woman Lake, Pine Ridge and Narrow Lake.

[K.M. Molson, *Pioneering in Canadian Air Transport*. Winnipeg: James Richardson and Sons, 1974, pp.19-23.]

Canadian Airways and the other smaller sized operators also had to compete with a large number of even smaller, often one-man aircraft companies which proliferated with the opportunities in northern freight and express air transport at this time. These "vagabond" operators took away customers from the larger companies. They also were partly responsible for the condition of rate-cutting and extreme competition which weakened the air transport industry during most of the 1930s. This economic pattern was characterized by severe competition, high operating costs and insecure revenues. During 1919-1944 almost no company had consistently satisfactory financial returns.

[Russell H. Catomore, *The Civil Aviation Movement in Canada, 1919-1939*, MA thesis, Carleton University, 1971, pp. 93-94]

This fierce competition was intensified by events further south. When the federal government cancelled Prairie and eastern mail contracts in 1931 and 1932, as an economy measure, there was a surplus of personnel and aircraft in the most populated part of Canada. These resources were diverted northwards and became the nucleus of the so-called "vagabond" companies. While Canadian aviation generally was in decline between 1925 and 1927, "with the launching of air mails, Western Canada Airways and a flying clubs movement, aviation in all forms literally 'took off'." writes Halliday.

Important changes in the federal government's attitude toward the aviation industry occurred in 1927. In January Sir Alan Cobham, the famous aviation pioneer, visited Ottawa to lecture about aviation. Prime Minister Mackenzie King attended one lecture and was so impressed that he invited Cobham to lunch. Cobham stressed to the Prime Minister that governments could not stand by passively, waiting for aviation to develop of its own accord; they must help the process through federal support of aviation companies and flying clubs. Almost immediately, official Canadian indifference to civilian aviation was replaced by active support. In September 1927 a programme was launched to assist formation of Canadian flying clubs, which in turn would train civil and military pilots, promote construction of community airfields, and provide a market for Canadian aircraft suppliers.

Coinciding with this was a Post Office decision to let out airmail contracts, beginning with a service launched on 4 October 1927 between Lac du Bonnet and the mines around Bissett and Wadhope in Manitoba, and gradually spreading throughout the Canadian west. Such factors made the late 1920s a period of rapid growth in the aviation industry. In 1927 there were only 67 licensed civil aircraft in Canada; the figure jumped during the next two years to 264 (1928), and 445 (1929). While most aerial

activity remained in the south, other ventures were driving increasingly northwards. Penetration of the western Arctic increased at this time also. In 1927, Yukon Airways and Exploration Company established scheduled mail service between Whitehorse, Dawson and Mayo with a Ryan monoplane. In 1929 this aircraft was wrecked. In the winter of 1927-1928, Western Canada Airways extended its mail service down the Mackenzie River as far as Fort Simpson, and then to the Arctic Circle in March 1929. On Dominion Day 1929, "Punch" Dickins landed mail at Aklavik. Regular mail service to that community commenced in December 1929.

The far north during the 1920s lacked beacons and weather services. Carburetor icing was a common winter problem, while rubber shock absorbers lost all resiliency. It took years of experience in northern flying before improved heaters and hydraulic shock absorbers were developed to solve these problems.

Most of the north remained a daunting wilderness at the end of the 1920s. "Punch" Dickins made a famous flight with Lieutenant-Colonel C.H. MacAlpine, the President of Dominion Explorers, a prospecting firm, between 28 August and 9 September 1928, in a Fokker Super Universal. For much of the trip, they followed well-charted coastlines such as that along Hudson Bay, but when they landed at Baker Lake on 2 September, they were only the second aircraft to visit that community. The next day, however, they flew inland, from the Hudson Bay water drainage system to the Mackenzie River drainage basin. Some of the territory crossed had never been explored, and much of that was bare rock, devoid of any vegetation other than moss.

[K.W.Molson, *op. cit.*, pp.40-42]

Late the following year, Colonel MacAlpine led another Arctic exploration flight with two aircraft, CF-AAO, a Fairchild FC-2W, and G-CASK, a Fokker Universal. On 9 September 1929, the expedition became stranded at Dease Point on Bathurst Inlet, and its disappearance triggered the famous MacAlpine Search of 1929. The annual freeze-up was imminent and there were few trading posts or fuel caches to supply the search. Only aircraft with powerful engines could participate, and few of these were available. Six aircraft were used during the search, and eight more were available to back up the main search party with supply flights. On 4 November MacAlpine and his party, guided by Inuit, reached Cambridge Bay on Victoria Island. On 4 December 1929, the last of the MacAlpine party arrived at Cranberry Portage. In the month following MacAlpine's disappearance, "the Barrens" witnessed more flying than had been performed in all the years to that date, accelerating the pace of air penetration of the northern wilderness.

The Northwest Territories and Yukon Signal System now was assisting northern flying. The Royal Canadian Corps of Signals operated their wireless stations at Dawson and Mayo using two 120-watt transmitters. They soon extended into the Mackenzie basin and by 1929 northern prospectors and mining companies relied upon its messages, including the only comprehensive weather reports in the north.

[Kenneth C. Eyre, *Custos Borealis: The Military in the Canadian North*. PhD thesis, University of London, 1981, p. 63]

The role of Canada's bush pilots was transformed once again with the outbreak of global war in 1939. The British Commonwealth Air Training Plan (BCATP) turned western Canada into a vast training area for the emerging Allied air forces. Lorne Brock, in the *Edmonton Bulletin*, reported their role in the BCATP, and concluded that already "these men had made a contribution to the Dominion's effectiveness in the air." In somewhat romantic terms he continued:

By their exploits they instilled in Canadian youth a desire to fly. To many of them it was routine business to fly mail and supplies or make a merry trip into the hinterland through bad weather. Sky-riding around the rim of the Arctic, they gathered experience and knowledge they could get nowhere else but nevertheless of great value in any air service. Today some of these northern airmen are engaged imparting flying knowledge to youngsters enrolled in the R.C.A.F. Others are on coastal patrol work and still others are contributing their share as instructors. Among those who have abandoned the bush lanes for the war effort are such veterans as Con Farrell, Stan McMillan, Harry Winny, Archie Van Hee, Tom Mahone, Jack Harriet and Wilf Cameron. North of the provinces those names are synonymous with service. They are of the brood that helped roll back the frontiers by taking into Canada's far reaches the necessities needed by on-the-ground pioneers.

[Lorne Brock, "Famed Northern Fliers Now Are Instructors For Canada's Warbirds," *Edmonton Bulletin*, 25 May 1940]

IMPACT OF THE BUSH FLYERS

The demands of northern aviation led to greater scientific study and technical innovation in the broader Canadian industry. These advances would prove useful in the Second World War, and the Cold War, during which northern aviation assumed a different character. High River became a centre for early experimentation, frequently using Edmonton as a support base, and during February 1923 the Canadian Air Force undertook winter flying trials there. S/L G.M. Croil took a DH.4 [G-CYDM] to altitudes up to 12,000 feet without difficulty, but it was noted that biplanes such as the DH.4 had to be re-rigged because temperature changes affected the bracing wires. Testing was haphazard because High River personnel were busy in summer with forestry patrols and almost as busy in winter getting ready for the next season. Wing Commander E.L. Stedman suggested, on 21 January 1924, that a special Winter Flying Flight be organized with two machines, two pilots and five technicians to study winter operations. The RCAF was short of personnel and aircraft, and such studies had to be combined with routine operations. Open cockpits in the early days were another problem. After a test of skis conducted at High River in January 1924, Wing Commander Stedman wrote, "The back seat of a DH.4 is not exactly well screened and I froze my face rather severely in the course of a few minutes flight."

[RCAF Headquarters file 1008-1-10, "Winter Flying Tests, RCAF", in *Library and Archives of Canada*, RG.24 Volume 4884, cited in Halliday, 1999]

Canada seemed slow to recognize some of its early bush flyers. However, Edmonton proved an exception, as Halliday points out. "Recognition of domestic heroes came slowly," Hugh Halliday writes, "in some places it was more noticeable than others."

There can be little doubt that Edmonton was particularly conscious of its aviation community, in part because a mayor (who later became a Member of Parliament) promoted aircraft so forcefully that the local airport, Blatchford Field, was ultimately named for him. Dramatic events like the Mad Trapper of Rat River saga (and W.R. May's role in helping the police) splashed aircraft across the headlines. Yet more routine, day-to-day freighting and surveys attracted much less attention from the public at large. The aviation industry itself was much more appreciative of the role played by bush flying. The committees that annually selected a recipient of the Trans-Canada Trophy (also known as the McKee Trophy) presented the first three such awards to a virtual "Holy Trinity" of Canadian bush pilots - Harold Oaks (1927), C.H. Dickins (1928) and W.R. May (1929). (In 1936 A.M. "Matt" Berry, also was awarded a McKee Trophy for northern transportation.)

[Halliday, *op.cit.*]

Formal state honours to Canadians were suspended in 1920, but Prime Minister R.B. Bennett revived such honours in 1934. In April 1934 he approached the Chief of the General Staff, Major General A.G.L. McNaughton, indicating that he wished to recognize notable Canadian flyers and asking for suggested candidates. McNaughton came up with three nominees - one civilian, one RCAF officer and one RCAF Non-Commissioned Officer. The civilian was W.R. "Wop" May, in recognition of his 24 mercy flights performed between 1932 and 1934. Throughout the war years, the booming fifties, and into the sixties, the legend of the bush pilots continued to grow. Jack Shadbolt was chosen to paint his heroic tribute to the bush flyers as a mural for the main terminal of the new Edmonton International Airport in the early 1960s.

By 1967, Canada's Centennial Year, most of the bush pilot pioneers were no longer active in the industry. That year an effort was made to acknowledge their contribution to the history of a nation which prided itself on its northern orientation with a monument and ceremony held in Yellowknife by the Historic Sites and Monuments Board. The *Edmonton Journal* reported on the last great gathering of the bush pilots at this event.

It was a great day in Yellowknife, for townsfolk and visitors. In Canada's youngest capital, 700 miles north of Edmonton, the monument to all Canada's bush pilots was unveiled Sunday in the presence of more than 100 of the distinguished fliers themselves. Yellowknife is in part their discovery and the National Historic Sites and Monuments Board erected a shaft of stone with the symbol of an airplane pointing north. The monument tops Dome Rock which rises on the shores of Slave Lake.... History is made while we look on. Famed bush pilot of the northland, the late Capt. W. R. Wop May would have been proud when Mrs. May unveiled the plaque to his memory with hundreds of others on the monument which sights down the lake, rock bound, shaggy with tree borders and dotted with islands.

[*Edmonton Journal*, 22 August 1967]

Bush flying did not end with the Second World War. It continues today. Air officials credit the high-technology communications with the surprisingly low fatality rate for air accidents in isolated areas today. However, the north remains a dangerous place to operate air service on occasion, and bravery is still required to get the job done. In May 1984 an Edmonton pilot who coped with "marginal" Arctic weather to save the victim of a polar bear attack was cited for his bravery. Captain "Spike" Sheret, of Pacific Western Airlines, received a National Transportation Week Award of Valour in a ceremony in Edmonton. "Sheret landed his aircraft on an unauthorized landing strip in marginal weather," said Transportation Week honorary chairman Ross Walker, in describing the 18 December 1983 incident. The pilot took his Hercules into a remote Panarctic drilling camp on King Christian Island, 1,300 kilometres northeast of the Mackenzie Delta, after a report that a company worker had been mauled by a polar bear. Such episodes certainly deserve to stand with those of the heroic pilots of earlier days.

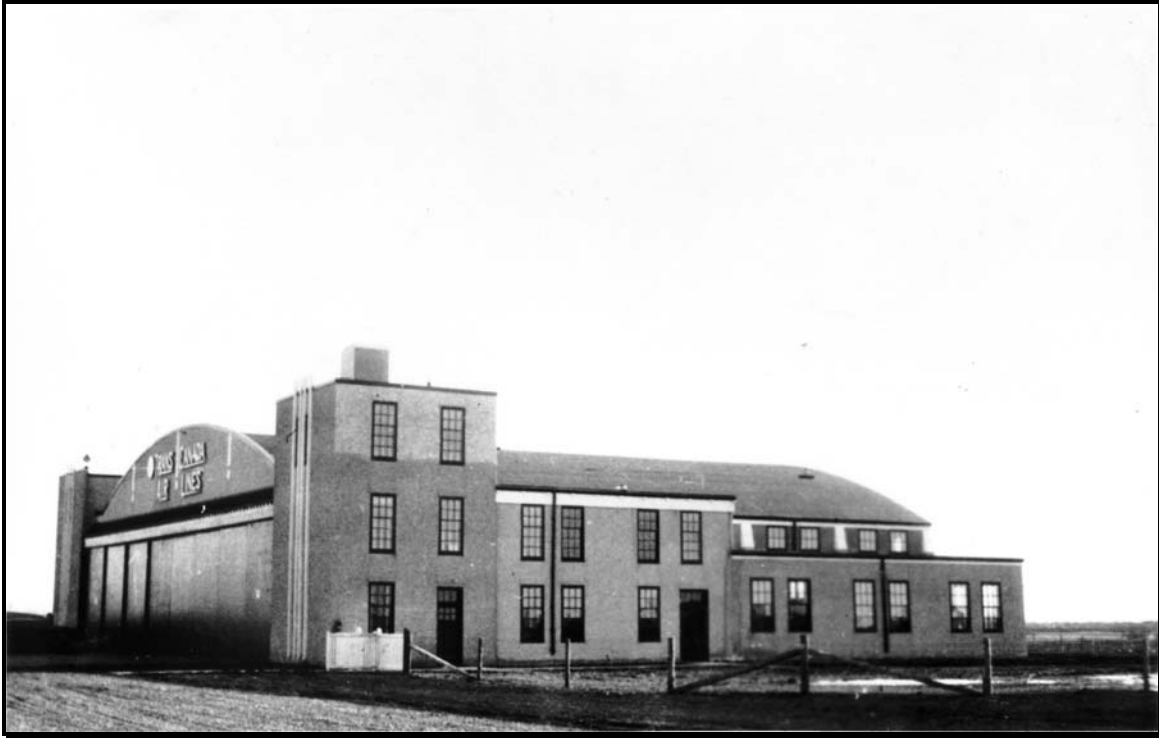
[*Edmonton Journal*, 26 May 1984]

BLATCHFORD FIELD IS TRANSFORMED BY THE SECOND WORLD WAR

Several important themes in the history of the Edmonton Municipal Airport converged during the Second World War. These include the history of the bush pilots who opened up the great resource frontier north of Edmonton, the early development of airlines to service the Northwest, the development of aerial surveys and aviation communications, the enhanced participation of women in the aviation field, and other important subjects. All contributed to the significant impact of the war on the airport and the city, and a broad appreciation of Edmonton's role in the war effort. The impact of the Second World War came swiftly to Blatchford Field. Researcher Mark Hopkins describes the first reaction of Edmonton's aviation community to the outbreak of hostilities in Europe:

In Europe, Hitler's armies rolled over Polish borders, taking the world to war in September 1939. The city of Edmonton was quick to recognize the potential use of Blatchford Field in the war effort, and offered Ottawa the use of its air harbour facilities. Ottawa was equally swift to respond; and Canada agreed to pay the city of Edmonton one dollar per annum for the duration of the war. Initially two criteria were established, the first being that Blatchford Field continue its operations as one of the nation's leading air-freight centres. Commercial business and services, especially to the north, were to continue as before. The second requested that Captain Jimmy Bell continue to manage the overall operation of the airport under the jurisdiction of the Royal Canadian Air Force. This met with full approval as Captain Bell already had been associated with, or been managing, the airfield for almost two decades with great success.

[Mark Hopkins, "Blatchford Field: The War Years, 1939-1945", *For King and Country Alberta in the Second World War*. Ed. Ken Tingley. Edmonton: Reidmore Books; Provincial Museum of Alberta, 1995, p. 229.]



Edmonton Municipal Airport, April 1st, 1939. Library and Archives of Canada, C147985.

The Second World War transformed Blatchford Field, already well known as a jumping off point for the north. Its physical appearance and infrastructure underwent a significant change, becoming a true international airport. One history describes this change:

Under the British Commonwealth Air Training Plan many Ansons and Fleet Finches were used and crashed, forcing the DND to open an aircraft repair depot on the north side of the airport, the site becoming the nucleus for aero manufacturers for decades after.... In 1941, while Montreal and Toronto were relying on federal largesse to expand their airports, Edmonton raised \$92,000 to build an impressive two-story terminal at the airport. The building had a control tower, offices for both Trans-Canada and Canadian Pacific Airlines and it housed the airport administration.... More than anything else, it was the arrival of the United States Air Force that really changed the airport. Edmonton was a major refueling base on the Northwest Staging Route the USAF used to ferry aircraft to Alaska and then to the Soviet Union. The USAF built its own hangars on the east side, but so many of its aircraft were flying through (sometimes 800 a day) that it eventually built its own air base at Namao, north of the city and moved out of Blatchford in 1945. After the war all the RCAF's military activities were also transferred from Blatchford to Namao.... With the war's end, the City of Edmonton took control of its airport once more, with the Department of Transport providing a small financial subsidy. By 1957, even this aid was unnecessary as Blatchford was busy enough to become entirely self-supporting.

[Peter Pigott, *Gateways Airports of Canada*. Lawrencetown Beach, NS: Pottersfield Press, 1996, pp. 59-60.]



Aircraft Repair Ltd. hangar. Ansons, Harvards, Lend-lease Bell P-39 Airacobras en route to Russia via Alaska. Courtesy, Alberta Aviation Museum, from For King and Country.

The British Commonwealth Air Training Plan was one of Canada's greatest contributions to the war effort, and as historian Patricia Myers observes, "[in] Alberta, the BCATP dominated aviation throughout the war years."

Alberta was quickly dotted with BCATP facilities. As well as the training command located in Calgary after September 1941, Alberta received No. 3 Manning Depot located in Edmonton; an Initial Training School [ITS] at Edmonton; Elementary Flying Training Schools [EFTS] at Lethbridge [later moved to High River], Edmonton, DeWinton, Bowden and Pearce; Service Flying Training Schools [SFTS] in Calgary, Fort Macleod, Claresholm, Vulcan, Medicine Hat, and Penhold; and a Flying Instructor School [FIS] at Vulcan that was later moved to Pearce. A Wireless School was located in Calgary and a Bombing and Gunnery School in Lethbridge, while Air Observers Schools [AOS] were run in Edmonton and Pearce. Finally, a repair depot and an equipment depot both were located in Calgary.

[Patricia A. Myers, *Sky Riders An Illustrated History of Aviation in Alberta 1906-1945*. Edmonton: Fifth House Publishers, Friends of Reynolds-Alberta Museum, 1995, p. 154; Patricia A. Myers, "Watching the War Fly By: The British Commonwealth Air Training

Plan in Alberta", *For King and Country Alberta in the Second World War*, ed. Ken Tingley. Edmonton: Reidmore Books, Provincial Museum of Alberta, 1995, p. 245]

The Royal Canadian Air Force was inextricably connected with Alberta's role in the war effort and even before the war began a detachment from No. 1 Squadron at Calgary went to Sea Island to take delivery of the first Hurricane fighters issued to replace the old Siskins. On 1 June 1939 Squadron Leader E.G. Fullerton ferried the first Hurricane to the squadron base in Calgary. In some ways this was the first direct RCAF involvement in the coming war.

[*Growth and Achievement of the Royal Canadian Air Force*. Ottawa: King's Printer, January 1949]

Soon after, the Royal Tour reminded Albertans of their British connections, and suggested the imminence of the conflict looming on the horizon. On 29 May 1939 City Council passed a special by-law renaming Portage Avenue "Kingsway." From this time on the broad avenue stretching along the boundary of the Municipal Airport would be known as Kingsway, as well as the airport environs. On 3 June 1989, the Edmonton Historical Board and Kingsway Business Association unveiled a plaque near Kingsway Avenue to commemorate the fiftieth anniversary of the Royal Tour. Many of those attending the unveiling still could clearly remember that visit half a century before.

[Ken Tingley, "The Royal Tour Comes to Strathcona", *The Best of the Strathcona Plaindealer*, ed. Ken Tingley. Edmonton: Pioneer Press, 1999, pp. 91-93.]

Following the excitement and patriotic fervor of May and June 1939, a short tense wait with all eyes fixed on Europe culminated in what seemed the inevitable outbreak of hostilities. The RCAF moved to war stations on 26 August, on 1 September Germany attacked Poland, and the RCAF was placed on active service "for the duration." Two days later Great Britain and France declared war on Germany, and on 10 September Canada followed suit. On 14 September the RCAF Special Reserve was created and placed on active service, and the following day the RCAF established its Directorate of Air Force Manning to coordinate its very rapid expansion. On 6 November the Organization and Training Division was set up at RCAF Headquarters, and on 17 December, Canada signed with an agreement with Australia, New Zealand, and Great Britain, in Ottawa, creating the British Commonwealth Air Training Plan. Training was to begin on 29 April 1940 [called Z-Day], and all planned schools were to be operational by the end of April 1942.

[RCAF, Air Historical Section, *op. cit.*]

On 2 July 1940 the Canadian Women's Auxiliary Air Force was authorized to recruit women for training in a number of ground trades to release men for combat duties. Later renamed the RCAF Women's Division, it recruited and trained 17,038 women. Women became an important part of the BCATP activities as the war progressed. Their wartime role at Aircraft Industries Inc. on the airport grounds also remains an important contribution to the home front.



Women working at No 2 AOS, Blatchford Field. City of Edmonton Archives,

On 5 June 1942 the original BCATP agreement, which was to last until 31 March 1943, was extended to 31 March 1945, and was extended to include many additional facilities. However, by 16 February 1944 the large reserve of aircrew already trained or in training led to a reduction in the BCATP. During May and June 1944 recruiting was suspended and the recruiting offices in Edmonton and across the country were closed.



Edmonton Municipal Airport, March 28th, 1939. Library and Archives of Canada, C147984.

On 1 June 1944 the North West Air Command was formed with headquarters located in Edmonton. This resulted from the incredible increase in air traffic through the city airport. The NWAC was under command of Air Vice Marshal T.A. Lawrence, whose responsibility was to take over the control, operation and maintenance of the aerodromes and aircraft control facilities comprising the North West Staging Route.

Edmontonians associated with the airport were among the combatant forces throughout the various theatres of war. For example, on 4 September 1939, the day following the Canadian declaration of war, a graduate of the Edmonton Aero Club, Clare Bisset, was with a flight of Whitley bombers over Bremen and Hamburg, dropping leaflets in the opening of the “phony war”. Howard Blatchford, Mayor Ken Blatchford’s son, would destroy six enemy aircraft, with three “probables” and two damaged aircraft to his credit as well. Russ Bannock, with 419 Squadron, was known as the “savior of London” as he pursued V-1s in his Mosquito.

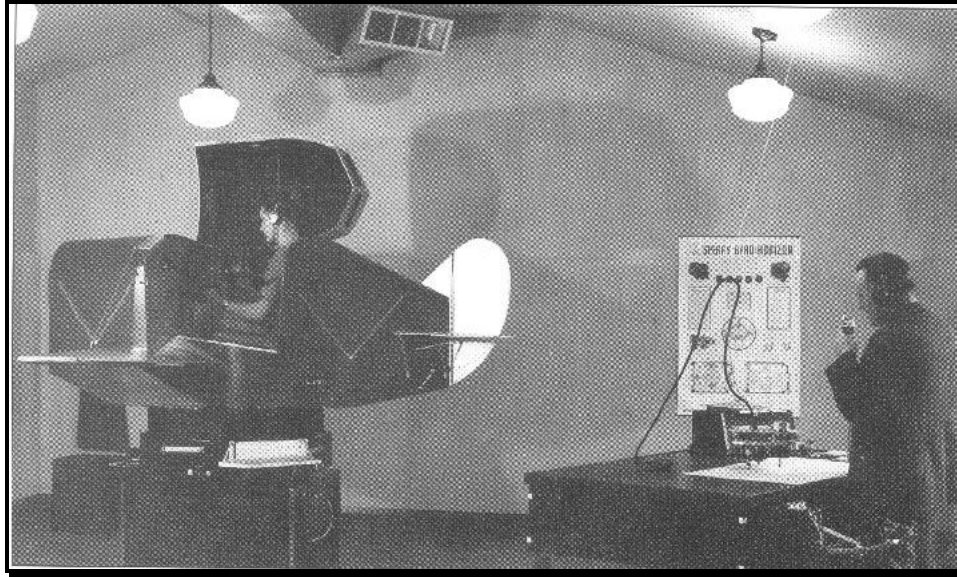
Edmonton would become the location of an Initial Training School, an Elementary Flying Training School, and an Air Observer School. Air Observer School 2 was located at the Edmonton Airport, as was Elementary Flying Training School 16. While Edmontonians assumed that it would almost automatically become the location of a significant element of the BCATP, by right of its aviation history, they were mistaken. Peter C. Conrad describes the result:

By the autumn of 1940, the city of Edmonton realized the assumption that the city would automatically receive one of the largest facilities because of its existing airport was a mistake. The Edmonton Journal reported that lobbying would be needed because the city had only received an air observer school: "Announcement of the airport development expansion came within a few hours after the Edmonton chamber of commerce had protested to Ottawa that the plans for the airport were meagre in comparison with those for other centres." The newspaper printed the contents of the protest that had been sent to Ottawa: "Edmonton businessmen are becoming disappointed over the meagre plans for the development of Edmonton's airport compared with what is being done at other points in Alberta, such as Calgary, Macleod, Medicine Hat, and Penhold, which cannot be regarded as more important than Edmonton in this respect.... The city has made strong representations which have been supported by this chamber of commerce that Edmonton insists on being equitably dealt with in this matter. " The call for more participation in Edmonton was answered when the city became the host of the Number Sixteen Elementary Flying Training School on November 11, 1940 and was given Number Four Initial Training School in the summer of 1941.

[Peter C. Conrad, *Training for Victory The British Commonwealth Air Training Plan in the West*. Saskatoon: Western Producer Prairie Books, 1989, p. 15.]

Pilot candidates in the BCATP were sent to initial flying training schools, while those men who demonstrated a high level of mechanical aptitude were sent to St. Thomas, Ontario, to learn aircraft body design, engine maintenance, or instrument repairs. Trainees selected for gunnery attended bombing and gunnery schools. Navigator candidates were sent to air observer schools located at Edmonton, Regina, Winnipeg, Prince Albert, and Portage la Prairie. Recruits trained at wireless schools, located at Winnipeg and Calgary, learned radio, electronics, and communications. Streaming and specialization were instituted throughout the system.

Canadian Airlines won the contract to operate the No. 2 AOS, and grew accordingly in commercial strength, reputation, and postwar prospects. No. 2 AOS operated from 5 August 1940 to 14 July 1944, and used Ansons for training purposes for the duration.



Training in a Link Trainer at No. 2 Air Observers School at Blatchford Field. Courtesy of Alberta Aviation Museum, 1993.42.05, from For King and Country.

The Canadian west benefited generally from the BCATP. Conrad summarizes what he feels were some of the main benefits:

In the West, there was respect for air travel before the war because aircraft serviced isolated communities across the Prairies and in the North. Many cities and towns had benefited from carriers like Canadian Airlines, Athabaska Airlines, and Prairie Airways.... An important outcome of the war was the creation of Canadian Pacific Airways from ten smaller companies that had managed the air observer schools in 1942. The largest national airline, Trans-Canada Airlines (TCA) also had expanded as a result of the war.... [There] was vigorous competition to establish routine flights in the Pacific. Domestically, Wardair was founded in 1946.... In the postwar era, the exploitation of natural resources in western Canada helped to continue the economic growth that had begun in 1938, but it was the achievement of the Air Training Plan that brought about the maturity of the region.... The British Commonwealth Air Training Plan gave the western provinces many new facilities and a new confidence.... [The] very nature of the British Commonwealth Air Training Plan brought the Prairies out of its isolation. With the arrival of the trainees from many parts of Canada and from many different countries, residents of the western provinces were made more aware of the world around them. At the same time, the development of airports across the region brought improved air transportation.

[Peter C. Conrad, *op. cit.* pp. 91-92.]

Edmonton would benefit particularly from its participation in "The Plan". Certainly many recruits and trainees would later recall their days in Edmonton. A Student Pilot in Edmonton later recalled the role of the Aero Club in the early stages of BCATP training:

We had four groups of five students in our class, and our group went to the last of the Flying Clubs. They hadn't all been converted to Elementary Schools, and the Edmonton and Northern Alberta Aero Club was still that. It was training RCAF pilots, but was still a club. They would send the odd instructor out to be trained in Air Force ways, but that still left others on the staff.... We had two Fleets and two Tigers and they belonged to the club. One Fleet had no coupe top, no tail wheel, and no brakes. It was as close as you could get to the World War I types; all I needed was a white silk scarf flying out behind. All these aircraft became RCAF when the EFTS was formed, but at this time they still had their civilian lettering.... We were the Air Force in Edmonton then - the five of us. You never walked anywhere, you always got picked up - a wonderful way of being entertained. We were issued with only two uniforms because of a short supply. We had one blue and one brown, so we never wore a uniform - we had to save them for taking girls out. We just went in our flying gear all day with old fatigues on.... We didn't have any Service aeroplanes come in; the only one would be the Examining Officer and he was an Air Force type. He came in and did our 25-hour check and our final 50-hour check. The only other aircraft that were using the field were bush planes coming in for their fall overhauls.... Our Fleet had a tendency for the engine to stop; the float would jam in the carburetor, and we'd land in a field and lift the cowling and tap it, and then try it. If it caught, you'd run like hell and grab the cockpit before the thing got going. Once we got in with horses and they wanted to come over and examine the aircraft, so I had to keep chasing them away and running back until finally the instructor said, "I'm gonna take off. If you can grab hold as I go by, OK - otherwise head for the road and I'll send a car out."

[James N. Williams, *The Plan*. Luskville, PQ: Canada's Wings, Inc., 1984, p. 37.]

The impact of wartime activity on the immediate environs of the airport was sometimes unexpected. The city was flooded with military and construction personnel, and housing was at a premium. One shop inspector noted: "There's an apartment up on 124th Street and 5th Avenue in Edmonton that was built out of Anson crates. One of the inspectors made arrangements to buy them and they built a horseshoe-shaped block. There must be twelve apartments in there."

[*Ibid.*, p. 175]

Blatchford Field continued the daily struggle to upgrade its facilities to meet peacetime demands up to the very eve of the Second World War. City Engineer "Bert" Haddow reported the situation in March 1939: "We have found when our runways are rolled that the snow builds up above the light and when we keep the lights clear by sweeping or removing the snow from around them, the first wind and the slip-stream from the planes blow the holes full again...." Another clear picture of the state of Blatchford Field emerges from the following report on an inspection conducted 28 March, and filed that April by District Airway Engineer A.L.H. Somerville:

[The] compacted ice and snow on the hardsurfaced strips had commenced breaking up due to mild weather. Owing to lack of drainage, the surface water from the areas surrounding these strips was flowing across same, principally at the intersection of the two strips. In order to accelerate the melting of the snow and ice, the City were breaking

it up with power graders, using the scarifier teeth. In addition to the above graders, a light drag was being used to smooth out the slush somewhat and swish as much of the water as possible, off the runways strips.... The side strips [later] while somewhat dry on the surface, were very wet underneath the surface and very soft and heavy.... [Power] maintainers ... were used to break up the consolidated snow and ice.... This drag consisted of an old iron gate towed behind a light runabout truck. The results attained by the use of this drag were quite satisfactory as far as attaining a smooth surface was concerned but it left the surface gravelly and loose with many voids....

[*Library and Archives of Canada RG12 Volume 2695 File 5151-W110 part 4; A.W. Haddow to A.D. McLean, Superintendent of Airways, 8 March 1939; 1 April 1939*]



Equipment on runways at Edmonton Municipal Airport, March 28th, 1939. National Archives of Canada, C147982.

Clearly Blatchford Field needed substantial work to bring it up to acceptable specifications for long-distance flights, let alone the requirements that would soon become necessary with the advent of the war. Bert Haddow reported to J.A. Wilson, Controller of Civil Aviation, on 14 July 1939:

I am very glad to say that the [Edmonton City] Council at its meeting of July 12th approved of the work proposed to be done on the Edmonton Airport this year, totalling

\$64,459.00. I am making arrangements now for putting the work in hand, letting contracts for the drainage and ordering the necessary oiling material.... With regard to financing, the Council was advised in the following terms: "The City will simply be in the position of financing the work temporarily and the Dominion Government will pay the full cost on submission of properly authorized vouchers. It is definitely understood that the City is not involved in any further program or expense arising out of the work proposed to be paid for by the Government.

[Ibid., 14 July 1939]

Under an agreement of 16 March 1939 the federal government already had agreed to fund several important improvements to the airport. These included: bitumen hardening of the existing salt stabilized runways; installation of the main drainage for a regular run-off, and additional drains for spring run-off, a significant annual stressor on the runway surfaces; elevating part of the northeast-southwest runway to a crown to improve drainage; and provision of a seal coat and sanding as a surface treatment, if necessary. On 17 November 1939, following the outbreak of war, Order-in-Council PC 3710 came into effect, giving the government authority to follow recommendations of the Ministers of Defence and Transport by selecting "suitable aerodrome sites for the purpose of the scheme for the training of Air Force personnel of the United Kingdom and Dominions in Canada", a survey of the sites, the preparation of development plans and specifications, the acquisition of the necessary properties, and the development and construction of the aerodromes.

[OC PC 3710; 17 November 1939; see *Library and Archives of Canada* RG 12 Volume 624 File 11-6-9]

As speculation grew about Edmonton's involvement in the war effort, K.S. MacLachlan, Acting Deputy Minister (Naval and Air) alerted his Deputy Minister:

It is becoming urgently necessary too make public the plans.... At the time it is realized that to do so prior to the Department securing the properties may result in serious inflation of prices and other difficulties. This department will therefore await advice from you to the effect that the properties are secured before releasing the information to the public.... In arriving at agreements for the acquisition of aerodromes belonging to municipalities it is considered essential that the control and administration of the aerodromes used in connection with the ... plan must be vested in the Department of National Defence or the Department of Transport, and not in any Municipality or private body....

On the same date MacLachlan noted that the first schools were scheduled to open on 27 May 1940. "It is, therefore, obviously essential that the development of these aerodromes be put in hand within the next few weeks."

[*Library and Archives of Canada* RG 12 Volume 624 File 11-6-6, 28 December 1939; *Ibid.*, 28 December 1939]

The war first really came to Blatchford Field when V.I. Smart, Deputy Minister of National Defence, wrote to Mayor J. W. Fry, indicating that "it would be necessary to

use certain of the municipal airports as training bases in connection with the Empire air training scheme.” Smart reported that the final location of the planned training schools rested with the Department of National Defence, “but this Department is co-operating in regard to the use of the civil airports now available in the Dominion.” A copy of the agreement which was being sent out across the country, and which would direct the fortunes of Blatchford Field and many other airports, was sent to Mayor Fry for his consideration. Fry replied almost immediately, in the general patriotic spirit of the times, and support for the plan was offered at a special meeting of City Council on the evening of 24 January. Smart then sent another letter, thanking Fry for his cooperation, and adding: “This Department will take the necessary action to ensure the efficient continuance of the trans-Canada and other commercial air operations using your airport, as it is our desire to interfere as little as possible with all essential civil air services.”

[*Library and Archives of Canada* RG 12 Volume 2695 File 5151-W110 part 5, 22 January 1940; *Ibid.*, 25 January 1940]

As usual, the details were left up to the ubiquitous and indispensable civil servant Bert Haddow, who wrote to Wilson on 25 January:

I do not know just what is in mind in the way of enlargement, and construction on the field, and also hangar and housing construction, but I would like to say that we are very anxious to co-operate in any way we can and we would be very glad if it would relieve your own Department, or the Royal Canadian Air Force, to supervise any work which you have to do here.... The question of management is one which I think might be clarified, too. No doubt when the air force operations begin on our airport, there will be somebody appointed by them to take charge of field maintenance and the equipment part of it.... Since we are continuing our Trans-Canada and Northern operations from the same field, I think we should have some arrangement whereby Captain Bell, our Airport Manager, will have some liaison position as between air force and commercial operations, and I hope that this can be arranged in some way of work. In this connection, I have addressed a note to Group Captain Cowley, who, I understand, is in charge of personnel in the R.C.A.F....

[*Ibid.*, 25 January 1940]

In reply to a teletype message sent 10 April, with regard to inventory, Haddow sent a list of the three principal hangars at Blatchford Field that spring, with their construction costs: Hangar No. 1 - \$35,000; Hangar No. 2 - \$41,918 (“This includes central heating plant serving hangars No. 1 and 2.”); and Hangar No. 3 - \$34,900. Haddow reported that the hangars would be turned over to federal jurisdiction, Edmonton retaining hangar revenue as agreed on 28 March 1940. Tariffs also would be worked out for companies such as McKenzie Air Service, Canadian Airways Ltd., Yukon Southern Air Transport, Peace River Airways and transient planes. A further agreement with Trans-Canada Air Lines provided that Edmonton would construct and maintain Hangar No. 3, and the Company pay all charges of operation and also pay the City “certain field charges set forth in the Agreement.” (Agreements also were struck between Imperial Oil Limited and the City of Edmonton, and between the British American Oil Co. and the City of

Edmonton. These agreements made provision for the sale of oil and gas by the companies, the city to receive as its commission, 1 1/2 cents per gallon of gas sold and 5 cents per gallon of oil sold.)

[*Ibid.*, A.W. Haddow to A.D. McLean, 16 April 1940]

During May 1940 Edmonton began to seriously follow the exploits of its flying fraternity. Still a small community, Edmonton was familiar with its bush flying elite, and as the *Edmonton Bulletin* reported: "Sky-riding around the rim of the Arctic they gathered experience and knowledge they could get nowhere else but nevertheless of great value in any air service." The *Bulletin* continued:

Today some of these northern airmen are engaged imparting flying knowledge to youngsters enrolled in the R.C.A.F. Others are on coastal patrol work and still others remaining civilians, are contributing their share of instructors. Among those who have abandoned the bush planes for the war effort are such veterans as con Farrell, Stan McMillan, Harry Winny, Archie Van Hee, Tom Mahone, Jack Harriet and Wilf Cameron.... They are of the breed that helped roll back the frontiers by taking into Canada's far reaches the necessities needed by on-the-ground pioneers.

[Lorne Brock, "Famed Northern Fliers Now are Instructors For Canada's Warbirds", *Edmonton Bulletin*, 25 May 1940]

The Minister of Munitions and Supply tabled a report on the transfer of the Edmonton airport with the Committee of the Privy Council dated 12 August 1940. On 13 August Order-in-Council PC 3874 authorized the agreement, and it came into effect. Under the agreement took over virtually all aspects of the operation of Blatchford Field, and made provision that hangars and other infrastructure be given to the city when the federal government no longer had need of them. The city would receive one dollar for the use of the airport. This document would govern the history of Blatchford Field for the duration of the war.

[*Library and Archives of Canada* 12 Volume 624 File 11-6-6]

A progress report for the 1940 construction season (up to 1 July 1940) indicates that the planned clearing in Edmonton was half completed, the lighting revisions 35% completed, and the grading 30% done. The Department of Transport Civil Aviation division warned pilots to "use the present runways only.... Men and equipment [still] will be engaged on certain portions of these airports [including Edmonton]." By 15 August 1940 work was virtually complete, although installation of field lighting had not yet begun.

[*Library and Archives of Canada* Information Circular No. 0/34/40, 18 May 1940; *Ibid.*, RG 12 Volume 1836 File 5158-8 part 2, 11 July 1940; *Ibid.*, RG 12 Volume 1836 File 5158-8 part 3, 29 August 1940]

The original "agreement between His Majesty and the City of Edmonton covering the operation of the Edmonton Airport for war training purposes during the period of

hostilities" [Agreement 32081] came into play in August 1940 when an inspector visited Blatchford Field to arrange the various financial details of the agreement. At this time, airport control had been instituted "using such space as is available at the top of the hangar until such time as the Control Tower is completed".

[*Library and Archives of Canada* RG 23 Volume 2695 File 5151-W110; 3 September 1940]

By 8 November 1940 the Civil Aviation Division, Department of Transport, issued a press release indicating that about 95% of the field development work on BCATP aerodromes was complete. Well ahead of schedule, C.D. Howe, Minister of Munitions and Supply, was proud of the accomplishment. "In fact, more than a score of Royal Canadian Air Force air training schools are now in active operation on these fields", Howe reported. "To accomplish this immense construction program in a few months, work had to proceed day and night."

[*Ibid.*, Office of Director of Public Information, For Release: 8 November 1940]

Order-in-Council PC 6642, 19 November 1940 recognized the need to extend the BCATP network, and authorized the Department of Munitions and Supply to undertake that expansion. This initiative was in addition to the original agreement covered by O-C OC 3710, 17 November 1939. Edmonton would play an important part in the supply and general logistical support of this expansion.

[*Library and Archives of Canada* RG 12 Volume 649 File 14-4-15]

By the end of November 1940 work was completed at Blatchford Field, with the exception of a wind tee yet to be installed, and the taxi strip to the EFTS school. Work had ended for the season, and coarse sand laid down for winter use. In February 1941 the Aerodrome Development Committee that oversaw much of the construction for the Department of National Defence for Air, reported the imminent transfer of aerodromes from the Department of Transport to the RCAF and the DND. The Department of Transport Engineers would provide advice regarding aerodrome maintenance, lighting, water supply and other utilities that might be required by the RCAF. By June 1941 plans were in the works to add aprons and warming-up strips at Edmonton and other BCATP airports.

[*Ibid.*, Memo, 22 November 1940; *Ibid.*, Minutes of the Meeting held 19 February 1941; *Ibid.*, Memo 6 June 1941]

In March 1941 the British Columbia lumber industry lobbied the government to use BC lumber in standard timber construction, used previously by the RCAF. One civil servant noted in a memo to Commander C.P. Edwards, Deputy Minister of Transport: "There is, of course, the advantage of utilizing a native product, available in adequate quantities in British Columbia, as compared with using steel, for which the war demand is heavy in comparison with the available Canadian supply." It was difficult for construction to keep

pace with the need for air facilities, and the prefabrication system, using British Columbia fir, was used to keep up. Canadian Creosote, a Canadian Pacific Railway company, with vast timber limits and a Vancouver plant that pre-cut the fir beams and pre-drilled them for bolts and rings, were sent to BCATP aerodromes like Edmonton's, where they were laid out for assembly, bolted and cabled together, and raised on site. Pilkington Glass framed the many multi-paned windows required by the hangars and other buildings in wood, while Rogers Wilcox shipped the massive wood doors to aerodrome sites.

[Library and Archives of Canada RG 12 Volume 1836 File5158-8 part 4, 6 March 1941]

Harold J. Williamson, Maintenance and Operations, Department of Transport representative in Edmonton, reported an important scouting mission by an American officer which occurred about a week after the Japanese attack on Pearl Harbor:

This is to advise that we have entertained in the office last evening Captain D.B. Brummel of Headquarters of No. 2 Interceptor Command, United States Army Air Corps of Seattle, at present attached for duty with the No. 2 Army Air Corps at Spokane.... The primary purpose of the visit was to gain as much information as possible for the use of the United States Army Air Corps in connection with proposed possible transfer of United States Army air craft via Lethbridge, Edmonton, Fort St. John, Fort Nelson, Watson Lake and Whitehorse to Alaska.... Captain Brummel was referred to this office by Mr. G.T. Chillcott, District Airway Engineer at Vancouver, to enable him to get first hand knowledge of the communications set-up over the particular portion of the route falling in this district and associated information on the route from Lethbridge to Edmonton as well, with which we were quite familiar.... The matter of the communications set-up and the proposed frequencies which we intend to have in operation were also mentioned, and various other points of interest were discussed, including procedure which we would be prepared to adopt or institute to facilitate the transfer of any military aircraft which they may deem advisable to send over the route.... Captain Brummel was also interested in a first hand appreciation of the various difficulties which were liable to be encountered from the standpoint of accommodation etc., and in connection with gasoline supplies.... The greater portion of this morning was spent with Captain Brummel and the local manager of the Imperial Oil Company for the Province of Alberta discussing the problems of fuel and oil.... We took the liberty of giving copies of the information which it is proposed will be incorporated in Radio Aviation Circular No. 9 covering tentative course set-ups, location of range stations, geographically and with respect to airports, short wave call signs, range call signs and identification, etc. We also gave Captain Brummel a copy of a list of the proposed frequencies which we intend to utilize on our communications circuits and he was quite pleased to be able to obtain this data, which apparently had not been made available through other sources via Ottawa and Washington....

By January 1942 Leigh Brintnell, with Aircraft Repair Limited, had made "satisfactory arrangements through the Department of Munitions and Supply to take care of the servicing and what storage can be accommodated [of USAAF aircraft]. Should there be

an overflow at any time and [Edmonton] have space available in one of the Municipal hangars, I am sure they would appreciate if you would arrange storage at the usual rates." On 9 February 1942 Colonel D.V. Gaffney, Commanding Air Corps, wrote from Ladd Field in Fairbanks, asking for detailed information regarding all Canadian airports west of the 113th Meridian. Grant McConachie had provided such information on 22 October 1941 for all airports used by American flyers at that time, but by early 1942 the need had grown incredibly due to the increasing air traffic.

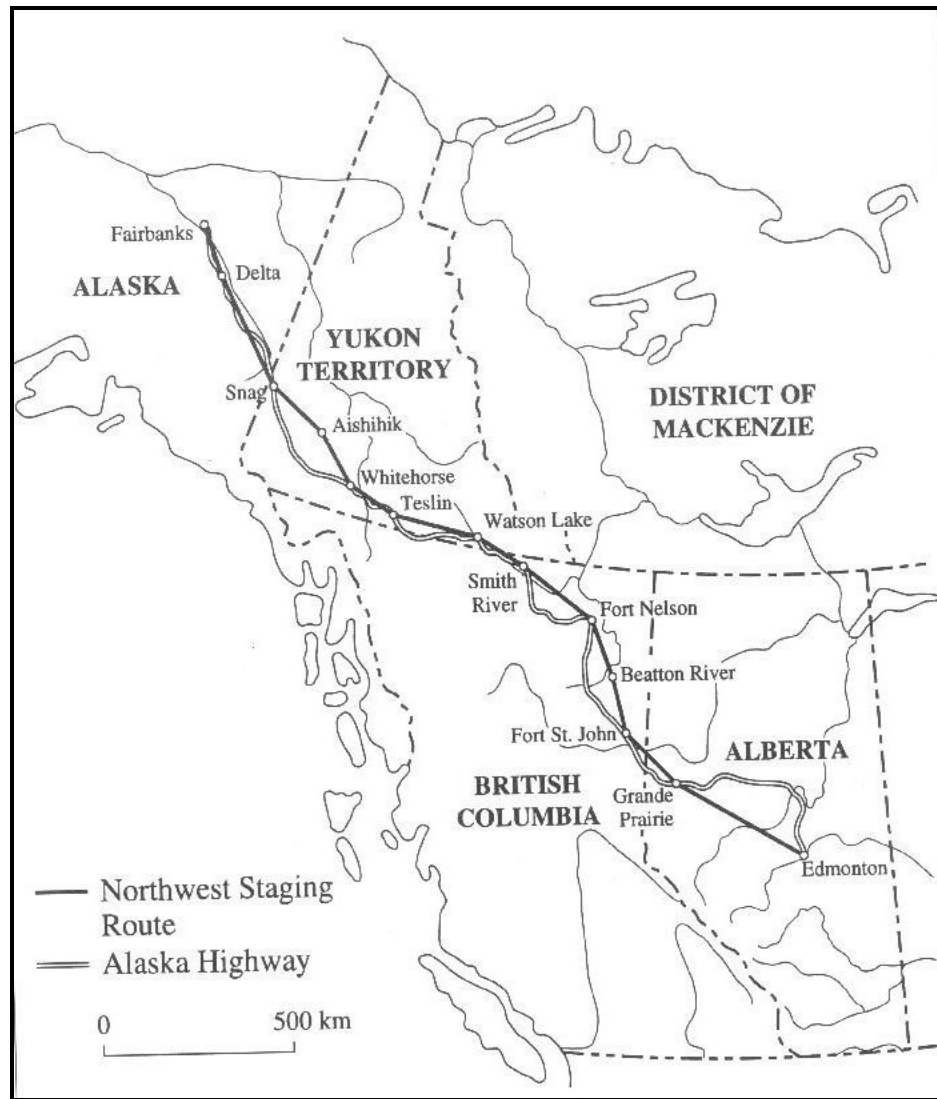
[*Library and Archives of Canada* RG 12 Volume 653 File 14-12-8 part 1; Confidential memo "Liaison contact with United States Army Air Force: 17 December 1941; *Ibid.*, RG 23 Volume 2695 File 5151-W110; Wilson to Haddow, 7 January 1942; *Ibid.*, RG 12 Volume 2400 File 22-4-1 part 1]

By May 1942 field development at Edmonton was forging ahead. A contract had been awarded for the construction of the north-south runway, and the extension and widening of the existing runways to the dimensions required. The contractor was setting up the plant for aggregate supply and placing orders for drain tile. He had ordered in additional concrete equipment for early delivery and was engaged in laying out a concrete mixing plant. Tentative sketches were prepared for the barracks, mess hall and garage. "Mr. Murphy of the Department of Munitions and Supply has been endeavouring for the last ten days to get a ruling from the Steel Controller as to whether we can get structural steel to erect the standard R.C.A.F. design for this size of hangar. We have requested Colonel Hyde to forward specifications and further details of the vaulted arch trusses of the hangar erected by NorthWest Air Lines at Fargo, so that this design can be considered in the event that we cannot get structural steel. Mr. Murphy promised to have something definite on the structural steel deliveries by the end of the week."

[*Library and Archives of Canada* RG 12 Volume 977 File 5164-11 volume 1; Memo: North-West Route, 1 May 1942]

In April 1942 the USAAF requested additional facilities and accommodation along the Northwest Staging Route for take care of their increased activity northward to Alaska and the Aleutians resulting from the Japanese invasion of these islands. Further requests were made in June, and more construction began as a large influx of workmen and engineers headed north. An RCAF report noted that "[due] to the increasing military character of the traffic over the route it was considered advisable for the RCAF to take over the care and maintenance of the aerodromes. This decision was arrived at in the month of June and supervisory officers were posted to the airports in July...." However, the demands on the local labour force was so great that the United States Army moved a Labor Battalion to Edmonton and northward to the various aerodromes along the expanding air route.

[*Library and Archives of Canada* RG 24 Volume 5170 File HQS 14-16-10, 17 September 1942]



Map of the Northwest Staging Route and the Alaska Highway. From For King and Country.

Construction planned in Edmonton for the US Ferry Command by the Aerodrome Development Committee, included a hangar, two 54-man barrack units, two 30-man barrack units, a double mess hall and a garage. The hangar was to be constructed of steel if possible. On 25 June 1942 C.P. Edwards, Deputy Minister of Munitions and Supply, reported to the Hon. James Mackinnon, MP for Edmonton West, that the Edmonton airport had received bituminous runways, power and light, and water supply, at a cost of \$201,032. The report added that additional development "to meet U.S. requirements include construction of a new runway, widening existing runways and extending taxi-strips and construction parking areas at an estimated cost of \$1,478,500."

[*Library and Archives of Canada* RG12 Volume 1836 File 5158-8 part 6; Flight Lieutenant J. Vokey, Secretary, Aerodrome Development Committee, DND for Air, Minutes of Special Meeting, 18 May 1942; *Ibid.*, RG 12 Volume 649 File 14-4-15]



State of the runway at the Edmonton Municipal Airport, April 1st, 1939. National Archives of Canada, C147992. The Second World War would transform the site.

G.L. McGee, Supervising Engineer of Aerodromes, visited Edmonton on 26 June 1942, and visited H.G. MacDonald, the architect and building contractor for the US Army projects. After inspecting the building site, McGee arranged for MacDonald to lay out the work. The amount of concrete required was immense and McKee reported: "Checked one concrete plant on the field and contractor's city plants with contractor R.C. Marshall, Assistant D.A.E. and Resident Engineer. Plants all set up and ready to operate. Excessive rains in June had slowed up the works program. Gravel base laid for concrete apron for hangar.

[*Ibid.*, Report, 17 July 1942]

On 11 July 1942 J.A. Wilson, the Director of Air Services sent a staff circular to all interested parties outlining an important change to the organization and administration of airports along the Northwest Staging Route. The Department of National Defence had decided that RCAF detachments would be operating the airports and the airway. The RCAF detachment would be similar to a civil establishment consisting of an Airport Manager and staff necessary for the operation of an airport and the organization

necessary for the operation of an air route. Senior officer personnel selected for posting to the aerodromes included Wing Commander Conn M. G. Farrell and Flight Lieutenant D. M. Shields. These officers were to act as Aerodrome Supervisors working in close co-operation with the existing personnel of the Department of Transport already in place and were to carry out liaison duties with the US Army Air Force. When a complete establishment had been provided for each aerodrome, the operation and maintenance of the aerodrome, would be taken over by the detachment.

[Library and Archives of Canada RG 12 Volume 977 File 5164-11 volume 1; Staff Circular 20/42, 11 July 1942]

Not all went smoothly in this massive transition, as the “friendly invasion” of American personnel flooded in. Air Vice-Marshal A.E. Godfrey, Deputy Inspector General, inspected the stations along the Northwest Staging Route during 1-5 September 1940, and found that “[generally] speaking construction is slow due chiefly to personnel troubles”. Although all aerodromes were in use, “R.C.A.F. accommodation at each point is sadly lacking and it is interesting to note that all along this route which is purely Canadian, United States personnel predominate and it is humiliating to have to depend on the United States for service, gasoline and transport to get anywhere.” Godfrey noted that the Department of Transport had wireless and meteorological services established, “but the United States utilize their own wireless service”.

[Library and Archives of Canada RG 24 Volume 5170 File HQS 14-16-10; 18 September 1942]

Godfrey met Colonel TM. Bolen, the commanding officer of the US Ferry Command, at Edmonton on 1 September. “He stated he would place all their facilities at our disposal. The U.S. personnel strength at Edmonton is between 350 and 400 officers and men.” It was Bolen’s opinion that the installation of gas tanks at the stations along the Northwest Staging Route were progressing slowly as Imperial Oil, which had the contract for this job, “appears to be reluctant to take the responsibility of getting on with the job.” Godfrey recommended putting pressure on the company’s head office in Toronto. More importantly, Godfrey observed that [in Edmonton] “the black top runways and taxiing [sic] strips did not stand up to the weight of the four engined B.24 aircraft. It was necessary for the U.S. Ferry Command to cover the black top with their steel corrugated landing material. It is understood they brought in thirty-five car loads of this material.” During his tour of inspection Godfrey noticed seven DB7 bombers at Edmonton, as well as 28 P-40s awaiting dispatch. Generally speaking Godfrey still found air control along the route poor, with inadequate lighting for night landing singled out for particular concern. But the rush was just beginning. On 19 August 1942 Colonel John S. Gullet, the Military Attache at the US Legation in Ottawa, telephoned J.A. Wilson, and informed him that some 350 men (two companies of the US Army engineers under Colonel Theodore Wyman, Jr., Corps of Engineers, US Army) would be arriving in Edmonton airport in about ten days, to aid in the construction on site. By September 1942 much work was being undertaken by the Department of Transport to lengthen and strengthen the runways at Edmonton.

[*Ibid.*, RG 12 Volume 1404 File 5150-32 volume 2; 19 August 1942; *Ibid.*, RG 24 Volume 5170 File HQS 14-16-10; 17 September 1942]

Control of the North West Staging Route came under the Air Officer Commanding, No. 4 Training Command, on 15 October 1942. That officer was Wing Commander Conn Farrell. But American involvement in Edmonton was further consolidated in October 1942, as described by historian Daniel Haulman:

The Air Transport Command activated the Alaskan Wing at Edmonton on 17 October 1942 under Colonel Thomas L. Mosley. On 1 November the Alaskan Wing assumed transport responsibility for the northwest route, superseding the headquarters at Great Falls. When Colonel Mosley was transferred to north Africa in May 1943, Colonel Dale V. Gaffney, who had commanded Ladd Field, replaced him (Gaffney became a brigadier general when the Alaskan Wing became the Alaskan Division). Known for his flamboyant personality, Gaffney was nicknamed the "screaming eagle of the Yukon." The Alaskan Wing (Alaskan Division) grew tremendously under Mosley and Gaffney. Personnel numbers rose from 1231 on 1 January 1943 to 5348 by December, and to almost 10,000 in November 1944. The headquarters remained at Edmonton.... While the Alaskan Wing and the Canadians handled base construction, expansion, and maintenance along the route, the Air Transport Command's Ferrying Division supplied and trained pilots. Subordinate organizations, such as the 3rd Ferrying Group, ferried planes from American factories to Great Falls Army Air Base. From there, pilots of the 7th Ferrying Group flew the planes across Canada to Alaska.... The most important and largest of the Canadian bases on the route was Edmonton. More than any other of the complexes on the route, the Edmonton air facilities were constructed by Canadians. This was because Edmonton labour and political organizations insisted that Canadian workers be used for local construction projects. Edmonton served as headquarters of the Alaskan Wing of the Air Transport Command and became home of most of the wing's Canadian-based personnel. Important modification facilities also existed in Edmonton, where airplanes could be adapted for different weather or battlefield conditions or defects could be corrected. When Soviet officials once demanded that Lend-Lease P-63 fighters be modified with strengthened fuselages before they could be accepted, Aircraft Repair, Limited, of Edmonton accomplished the work on sixty-two of the planes in two weeks.

[Daniel L. Haulman, "The Northwest Staging Route", *Three Northern Wartime Projects Alaska Highway, Northwest Staging Route, Canol*. Bob Hesketh, ed. Edmonton: University of Alberta Press, Canadian Circumpolar Institute, Edmonton and District Historical Society, 1996, pp. 39-40]

The main work along the Northwest Staging Route was to be undertaken by a flight of 165 Transport Squadron to be located at Edmonton. This flight came under A.F.H.Q. [Air Force Headquarters] for operations and under Western Air Command for other purposes. "This arrangement has proven to be most unsatisfactory", reported AVM [Air Vice Marshal] Howsam. "For example, a few days ago it was most urgent that Chief Works N.C.O. [Non Commissioned Officers] doing important C.M.U. work at Fort St. John proceed to the N.W.S.R. Headquarters for instructions. An aircraft of 165 Squadron was known to be leaving the Yukon for Edmonton, but by the time the

1 DIVISION H.Q.
2 GYMNASIUM
3 HANGAR NO. 74
4 " " T3
5 " " T3
6 " " T2
7 " " T1
8 PASSENGER TERMINAL
9 CAFETERIA
10 DRY CLEANING SHOP
11 BARBER SHOP
12 POST EXCHANGE
13 BUS TERMINAL
14 BASE H.Q.
15 FINANCE OFFICE
16 MILITARY PERSONNEL
17 A.C. SUPPLY WHE. 4
18 " " " 3
19 " " " 5
20 N.W.A. QUARTERS
21 OFFICERS BARBER SHOP
22 BILLETING OFFICE
23 TECHNICAL LIBRARY
24 DISPENSARY
25 POST OFFICE
26 W.A. ROOM
27 PERSONNEL SERVICES
28 SQUADRON H.Q.
29 CHAPEL
30 SERVICE CENTRE
31 M.P. H.Q.
32 SERVICE CENTRE
33 E.M. WESS
34 OFFICERS CLUB
35 MAIN GATE
36 TRANSPORTATION
37 CIVILIAN PERSONNEL

EDMONTON AIR BASE
EDMONTON, ALBERTA
PREPARED BY THE OFFICE OF THE POST ENGINEER

Report 2009DCM032 - Attachment 6

In late September 1943 site development was speeding ahead and construction had commenced on Hangar No. 67, Officers' Quarters No. 103, No. 105, No. 106, and No. 107, Enlisted Men's Mess No. 109, Barracks and Lavatories No. 111, No. 112, and Nos. 114-121, while No. 130 and No. 131 were in various stages of construction. Work also was under way on the "Edmonton Satellite Field" in Namao.

[*Library and Archives of Canada* RG 12 Volume 1406 File 5150-32 volume 4]

The system of weather stations necessary to carry on the massive airlift to the north was laying down an infrastructure that would prove valuable after the war. In December 1943 Colonel David H. Kennedy, the Air Corps Regional Control Officer in Great Falls, Montana, requested that the weather observations reporting station at Peace River be re-established. It had been abandoned when activities associated with the Canol project were closed down at Peace River during the winter of 1942-1943. The Commanding General, Alaska Wing Air Transport Command requested that it be brought back into operation, as well as new stations at Coronation, Lac la Biche and Trout Lake, in the Northwest Territories. "The Lac la Biche weather reporting station would serve two important needs", suggested Kennedy. "[First], it would protect Edmonton from cold frontal activity descending from the northeast and north and, second, it would provide more adequate weather service by filling in a large gap on the Airways between Edmonton and Fort McMurray."

[*Library and Archives of Canada* RG 12 Volume 652 File 14-10-14 part 1; 1 December 1943]

The American presence became even more pronounced during 1944. On 18 November 1943 the 402nd Service Squadron was attached to the Edmonton field, as was the 405th Service Squadron at Whitehorse. These units with the 6th Air Depot Group at Fairbanks and the 398th Service Squadron at Nome provided the "higher echelon aircraft maintenance required at the major bases".

[Deane R. Brandon, "ALSIB; The Northwest Ferrying Route through Alaska, 1942-45", *Journal of the American Aviation Historical Society*, Volume XX No. 1 [Spring 1975], p. 28]

In May 1944 the existing bituminous runways began to be upgraded, with steel frames set to take the conversion to concrete. The Americans, on 10 April 1942, had asked to have the Edmonton runways upgraded to accommodate aircraft up to 80,000 pounds. They then required accommodation for 130, 000 pound planes. By the end of July about a thousand cubic yards of concrete were being laid each day. Estimated costs were \$1,250,000. By the end of September 1944 heavy excavation was under way on the taxi strip from the Administration Building east. Over two hundred labourers still were working on the site. By the end of October the concrete runways were virtually complete.

[*Library and Archives of Canada* RG 12 Volume 645 File 14-4-5 part 2; NAC RG 12 Volume 1406 File 5150-32 volume 5; *Ibid.*, RG 12 Volume 646 File 14-4-5 part 3]

The RCAF North West Air Command provided this impression of the Edmonton airport in August 1944:

From the R.C.A.F. Flying control Airways Centre housed in the sleek gray administrative building of Edmonton's airport, a small staff of officers, airmen and airwomen of the R.C.A.F.'s North West Air Command direct the 200-m.p.h. traffic of the busiest air line in Canada – the North West Staging Route.

With one glance at his flight progress board, the duty controller at the center can tell immediately the location of every aircraft – civil or military, Canadian or American – flying over any part of the route at any time of the day or night. Fighters on their way to Russia, heavy transports hauling freight to Whitehorse and beyond, Trans-Canada airlines bringing passengers north from Calgary or Canadian Pacific airlines whistling priority-armed business men into the Yukon all look alike on the board. They are all just another aeroplane using the airways and requiring the service of the complex, almost foolproof system of traffic and safety control.

The Edmonton center is the only full-dress airways traffic control center in the Royal Canadian Air Force. Taken over by the R.C.A.F. a few months ago from the Department of Transport, its methods are based on standard airways practice which is virtually the same throughout Canada and the United States, so that any professional transport pilot accustomed to flying regular airways can bring his aircraft without difficulty into Edmonton or any of the other airports controlled by the center.

Inside the center, the big flight progress board almost fills one side of the room. In front of it stands the duty controller, a telephone in his hand and a small switchboard within easy reach, through which he can get an immediate direct line to any one of a number of radio stations operated by the R.C.A.F., the Department of Transport, the United States Army and each of the civilian airline companies; these stations, in turn, are in constant communication with aircraft flying over the territory.

Every aircraft, flying for any purpose whatsoever, gets a 'clearance' to use the airway before it enters the vast area controlled by the Edmonton center. From that moment on, a report on its movements reaches the center from the radio range stations over which it travels.

Estimated times of reaching the next reporting point are included in every report. And if there is no report from the next radio station along the route within a short while after that report was due, the center gets busy and checks up.

For instance, a civilian pilot took off from a small airfield in Northern Alberta the other day. He had a clearance from Edmonton to fly to one of the main airfields on the northern leg of the North West Staging Route. The weather was clear, and the forecast was good, so he anticipated no difficulties. But half-way he ran into a storm, and, unthinkingly, landed at an emergency landing strip without using his radio to advise the ground staff what he had done.

The Edmonton center promptly was informed that he had failed to arrive at his destination. As the minutes slipped by, and it looked as though he was seriously

overdue, R.C.A.F. aircraft at Edmonton were ordered to stand by to begin a search. Crews of every machine taking off who were likely to fly anywhere near his route were ordered to keep a sharp lookout. The powerful resources now behind the North West Staging Route were poised to start searching for that one small civil aircraft.

The search was never made, for a short while later the missing pilot brought his machine into his destination; he had taken off again when the weather cleared. But the incident showed everyone concerned the complexity of the organization which the R.C.A.F. now maintains on this vitally strategic airway.

Busiest days for the center are those on which the clouds hang low over the ground, and most of the flying, especially approaches for landings, must be done on instruments. Since pilots cannot see what is in the air around them when they are flying through cloud, elaborate precautions are taken to keep aircraft separated to make collision impossible....

Almost everything the duty controller does is done by telephone. But there can never be any argument afterwards over what it was he actually said at any time. Tucked away behind the flight progress board is an automatic recording machine which records every conversations he has on the telephone. It can be played back any time.

[Library and Archives of Canada RG 24 Volume 3241 File 202-4-8 - RCAF North West Air Command, Release No. 12, 16 August 1944]

The RCAF was particularly proud of its communications system. In November 1943 the first communications system over the NWSR was initiated, and by Christmas the first low-powered, high-frequency transmitters had been installed as far north as Fort St. John. In February 1944 the one-channel network was complete to Whitehorse. In September 1944 the RCAF also made the following announcement:

The most powerful system of radio telegraph and telephone communications ever established by the Royal Canadian Air force is now nearing completion on the North West Staging Route between Edmonton and Whitehorse. It has been built for the purpose of providing several alternative means of communication between air bases which handle the immense amount of air traffic flying over the route, now the busiest airline in Canada, and to ensure that the R.C.A.F.'s system of traffic control on that airline is as near foolproof as it is humanly possible to make it.

The RCAF noted proudly that its immense radio network, which incorporated radio-telephone communication between ground stations and aircraft on the route, would allow its control officers in the traffic centre in Edmonton to handle air traffic at bases as distant as Whitehorse. At Edmonton big 150-foot steel masts were going up along the route to link together the stations. "In the signals section of North West Air command in Edmonton, and other bases on the Staging Route, dozens of R.C.A.F. men and women wireless, radio-telephone and tele-printer operators maintain a 24-hours watch and handle the ceaseless flow of operational and administrative messages which keep the R.C.A.F. officials constantly informed of the movements of aircraft over the Route". The new multi-channel system provided a level of safety through its back-up characteristics.

"[When] the war is over and the North West Staging route becomes one of the world's great peacetime arterial airways, this vast radio network, built by the R.C.A.F. to increase its contribution to the United Nations' war machine, will become a major factor in the security of civilian air transportation."

[*Ibid.*, Release No. 19, 20 September 1944]

In October 1944 a dispatch describing a flying trip over the Northwest Staging Route was prepared for the War Committee of the Canadian Cabinet, and described the situation in some detail. The correspondent reported:

I had a short while in Edmonton on my return journey [from Fairbanks] and spent the evening with General Foster, the Commissioner for Defence Services in the North West.... The American "Army of Occupation" in Edmonton has substantially evaporated. There was even a bit of space empty in the dining room of the MacDonald [sic] hotel.... [The] Canadians on the North West Staging Route are only caretakers in their own house. They are the guest of the United States in the latter's palatial messes, where they see money poured out like water. (As an example, the United States fly girls from Edmonton to Fort Nelson on Saturday night to dance and fly them back on Sunday night. I suppose their return trip is well over a thousand miles.) And worst of all, the Canadians see perpetually the United States rolling up the Highway, or [flying] through the air to war along the Aleutians, while neither they themselves nor a single Canadian vehicle nor a single Canadian aircraft are on a similar errand. The men along the route feel themselves just hewers of wood and drawers of water....

[Department of National Defence, Directorate of Heritage and History (DHH), FO 371 38644; Memorandum: United States Development Work in North West Canada, 7 November 1944]

The Second World War accelerated developments already under way by 1939. Canada was the largest carrier of airfreight in the world in 1934. That year Grant McConachie made an aerial survey from Edmonton to Whitehorse, via Jasper, Prince George and Dease Lake. The following year A.D. McLean, Superintendent of Airways for the Department of Transport, authorized a survey of all alternative routes northward. It was McLean who recommended the air route that would correspond with the wartime NWSR due to its better weather and avoidance of high mountain ranges. McConachie began to fly the weekly mail route along this route in 1937, with his first scheduled flight via Grande Prairie, Ft. St. John, Fort Nelson, Lower Post and Whitehorse. In the spring of 1939 the Department of Transport initiated an ambitious survey programme with survey parties sent out to make detailed contour surveys of the airfield sites along the northern route. This work was still under way when war was declared in September. When the parties returned to Edmonton in January 1940, the government had the data to begin its plans for Northwest defence. A Permanent Joint Board on Defence was established in August 1940, as Canada and the United States anticipated Japanese aggression to continue in the Pacific Rim. In November 1940 the Joint Board recommended that the Department of Transport's existing plans to develop the northwest airway be carried on as a strategic measure, as well as an aspect of civil aviation. On 3 February 1941 actual construction work was being carried out at Fort Nelson and Watson Lake, where

no airfields existed. A war in the Pacific had been anticipated and feared for some time, and preparations were undertaken some time before the actual attack of the Japanese navy on Pearl Harbor on 7 December 1941. After that date everything moved into high gear, and Edmonton would find itself transformed by its pivotal part in the Northwest Staging Route, as well as the Canol Pipeline project, and the Alaska Highway. In September 1942 the RCAF took over administration of the Edmonton airport and the NWSR from the Department of Transport. By the end of 1943 the RCAF were organizing their airways traffic control center. That center was commissioned in January 1944, and in June 1944 the RCAF North West Command was organized to take over complete control of the NWSR. Part of its role was the establishment of a search and rescue component to cover the incredible volume of air traffic. The NWSR maintained an amazing record of safety, considering its heavy use, and this seems to have been largely the result of the excellent planning and training undertaken before it was necessary.

[DHH, 72/107; RCAF North West Air Command Public Relations Office, "The North West Staging Route: A Summary of its History and Development During the Peace-Time Years and in War-time," March 1945]

The Friendly Invasion ended fairly quickly in Edmonton. Completion of the war projects brought an abrupt end to most activity by the United States military and its civilian work force in Edmonton. By early 1945 few Americans remained in the city. The American government transferred many assets to Edmonton when the military withdrew. "Particularly valuable were the new and upgraded airport facilities built for the Northwest Staging Route," one writer concludes, "which bolstered Edmonton's ability to supply its traditional markets in the North."

[Christopher Hackett, "Coping With the 'Halcyon Days' of Wartime", Hesketh, *op. cit.*, p. 138]

In June 1992 the Edmonton and District Historical Society hosted the Alaska Highway 50th Anniversary Commemorative Symposium, and many presentations addressed the matter of the highway, the Canol pipeline, and the Northwest Staging Route. Evaluation of their immediate and long-term results for Edmonton were contested and inconclusive. However, most agreed that the most lasting contribution and impact were to be found at the Edmonton airport, which benefited greatly, and contributed greatly, to the war effort through the BCATP and the NWSR.

EDMONTON MUNICIPAL AIRPORT DURING THE COLD WAR

The transition from wartime to postwar development was attenuated by the almost immediate onset of the Cold War. Edmonton remained an important part of the Cold War continental security, in which it became a keystone in the defence of North America's exposed polar frontier. "There were no boundaries upstairs, and the most direct air routes to the U.S. major targets were through Canada," observed General Charles Foulkes, Chairman, Canadian Chiefs of Staff Committee during North American Air Defence (NORAD) planning. "Therefore, air defence was to be a joint effort from the

start. It is important to keep this point in mind: that the decision for joint air defence was taken in 1946, not 1958 as some of the critics claim when discussing NORAD."

However, the Canada-United States Joint Board on Defence began to address the matter of de-Americanizing the Canadian facilities along the Northwest Staging Route almost immediately after the capitulation of Japan. On 24 September 1945 representatives of Headquarters Alaskan Division, Sixth Service Command, RCAF and the Department of Transport held an informal fact-finding meeting at RCAF Headquarters, Northwest Air Command. It was confirmed that the United States government was obligated to Canada through various agreements endorsed by the Permanent Joint Board on Defence to maintain facilities along the NWSR for a year after the end of the war. While the Americans appeared eager to pull out of this arrangement, "small United States caretaking detachments would be left at such fields". At this meeting the senior American member of the Joint Board informed the senior Canadian member that the US Air Transport Command wished to gradually cut its personnel at various air fields, including that in Edmonton, but "would continue to occupy for the present most of the facilities at such bases". Air Transport Command wished to pull out of the smaller airfields completely by 1 October 1945. At the same meeting the Canadian representatives expressed interest in obtaining "certain United States Government property". Recommendations included the maintenance of airfield surfaces and snow removal from runways and associated surfaces to the "black top" standard at Edmonton and Namao. Other aspects of maintenance were covered as well.

[*Library and Archives of Canada* RG 12 Volume 1406 File 5150-32 part 6; "Discussion of Proposed 34th Recommendation for Consideration of the Joint Board on Defence, Canada-United States: Exhibit "B"]

On 17 October 1945 the Canadian Cabinet decided that the RCAF would be responsible for taking over the United States facilities on airfields on the NWSR, as well as the Edmonton to Alaska landline communications system. At this point the Department of Transport responsibilities along the air route were confined to meteorological and radio range services.

[*Library and Archives of Canada* RG 12 Volume 1406 File 5150-32 part 6; H.F. Gordon, Deputy Minister, Department of National Defence for Air, to Deputy Minister, Department of Transport, 15 February 1946]

At the end of 1945 the old Northwest Staging Route, the Alaska Highway, the Canol Pipeline, and the 2500 miles of telegraph and telephone lines built during the war were being described essentially as a vital link in postwar development of airline networks. This was the approach taken by Major-General W.W. Foster, the influential wartime commissioner of defence projects in the Northwest during an address to the annual meeting of the Association of Professional Engineers of British Columbia in Vancouver. Gilbert W. Ghewy, a special representative of the Wartime Information Board in Northwest Canada, presented an address titled "The New Northwest" to the Canadian

Club in Montreal. In it he optimistically pointed out that the NWSR was not only "the short cut to Russia, but also to the Orient and even to India. The route was beamed throughout and possesses all the modern advantages known to aeronautical science". He concluded by stressing "the unity that existed among all races, creeds and classes during the war, overseas, and urged that in Canada there should be the same broad vision of brotherhood...."

[*Vancouver Province* 3 December 1945; *Montreal Star* 14 January 1946]

Soon the defection of cyper clerk Igor Gouzenko in Ottawa would trigger the so-called Cold War, and add another dimension to the Edmonton airport. Defence will once again become an important part of it role. Much of the immediate postwar enthusiasm and optimism would be swept away in the climate of mistrust that would last of decades. While Gilbert Ghewy extolled the fact that the NWSR was the shortest route to Russia in 1946, by 1947 this very fact became the motivation for a rethinking of continental defence.

Not everyone along the old NWSR was happy with the changes taking place. Northerners along the lower Mackenzie River valley, in particular, voiced concerns that they might lose their air fields, if Canada decided not to maintain the wheeled-aircraft runways north of Providence. The *Edmonton Journal* reported that people in this area had enjoyed the benefits of year-round air access during the war, and "would be extremely reluctant to part with these advantages, and return to seasonal air transport on skis and pontoons". Many also voiced concern that if the government was prepared to spend thousands on Operation Muskox and its air support, it should be prepared to maintain the airstrips upon which such expeditions depended.

[*Edmonton Journal* 26 March 1946]

Operation Muskox was an important indicator of the strategic value being placed on the north after the war. Historian Donald Avery writes:

Prior to the 1946 Operation Muskox more than a hundred separate expeditions had attempted to explore the Canadian Arctic. Muskox was, however unique in a number of ways. First, it was, in reality a joint Canadian-American venture which was organized by military and scientific organizations of the two countries. In part, this was an aspect of the broader cooperative arrangements which had emerged during the Second World War, and which would be expanded during the Cold War. Another distinctive feature of the Operation was the scope and logistics of the exercise: during the three month period, a mechanized force of 48 military personnel travelled some 3,400 miles between Churchill, Manitoba and Edmonton Alberta in tracked snowmobiles, receiving regular supplies from planes of the Royal Canadian Air Force. Once the expedition had reached its final destination all of its personnel were subjected to an intensive set of physiological and stress tests carried out by doctors of the Royal Canadian Medical Corps and the Harvard Fatigue Laboratory. Operation Muskox also paved the way for

substantial federal support of Arctic medical and environmental studies related to winter warfare during the immediate post-war years.

[Donald Avery, "Operation Muskox and its Legacy: Canadian-American Environmental, Medical and A Military Assessment of the Arctic, 1940-1950", Unpublished paper presented to the Canadian Historical Association, Northern Boundaries and Strategic Planning Session, University of Toronto, 27 May 2002]

In August 1940 Prime Minister Mackenzie King and President Franklin Roosevelt signed the Ogdensburg Agreement, which established the Permanent Joint Board on Defence "to advise on immediate needs, and to constitute the permanent advisory implement for planning the defence of both countries." That is, a continental defence pact. In April 1941 cooperation was expanded through the Hyde Park Agreement which provided "for the coordination and rational integration of the war industries of Canada and the United States." Also, the British government decided to shift some of their research facilities to Canada after 1940 due to wartime security concerns. This also provided access to American military projects after the August 1940 British scientific and technical mission to North America and the formation of the British-American Combined Chiefs of Staff in January 1942. After the Japanese attacks on Pearl Harbor, and their occupation of Attu and Kiska in the Aleutians, the PJBD initiated the Alaska Highway, the Canol pipeline project, and the NWSR.

Issues of territorial sovereignty became important to the Liberal government in Ottawa by the end of the war. In 1943 Prime Minister Mackenzie King was told that over 30,000 American military personnel were in the Northwest and this caused some concern. In December 1945 the Canadian Cabinet discussed a report prepared by the Canadian members of the Permanent Joint Board of Defence which recommended an extension of the so-called ABC-22 continental defence plan, which had been negotiated by the PJBD during the early stages of the war. The Cabinet felt that "joint planning should begin as soon as possible in order that US intentions might be known, and their effect estimated upon plans for Canada's postwar forces," while at the same time stipulating that measures be adopted to safeguard Canada's strategic position in respect to Newfoundland, the Northwest Territories and the Arctic.

[*Ibid.*]

In May 1946 the Canadian - United States Military Co-operation Committee (MCC) became the main organization for discussions about continental defence, lasting until 1950. It was under MCC that Operation Muskox was first given official support on 4 October 1945, when Lieutenant General Charles Foulkes, Chief of the Army General Staff, submitted a proposal to the Minister of Defence D.C. Abbott, for an integrated Army-Air Force non-tactical movement from Churchill, Manitoba to Edmonton via Victoria Island and Fort Norman:

The Exercise had four major goals: to demonstrate Army-Air Force operational cooperation; to test the performance of the snow vehicles; to demonstrate the

effectiveness of air supply including the possibility of establishing temporary landing strips on the barren ground; and to carry out "certain technical research projects in Arctic warfare." These included testing the efficiency of the existing Loran air navigational systems and the adequacy of Arctic protective clothing.... On 15 February the Moving Force, consisting of 48 men in 12 Canadian and US snowmobiles, left Churchill and headed for the Arctic barrens, with the first stop being the small meteorological station at Baker Lake. During the next three months the group would cover 3,400 miles as it moved steadily northward until it reached Victoria Island. then swinging westward to Norman Wells, before beginning the southern trek southward to Edmonton. Throughout this long ordeal the Force was regularly supplied with essentials by Dakota aircraft of the RCAF.

[*Ibid.*]

Canadian officials "usually stressed the civilian benefits associated with Operation Muskox, [but] this was not the perspective of the American observers, or the United States War Department." Military priorities were clearly emphasized in the 21 December 1946 directive, which the Adjutant General's office forwarded to the Army Chiefs of Staff:

With the development of new weapons and improved aircraft the prospect of operations, offensive and defensive, through the Arctic regions assumes increasing importance. One aspect of particular importance is the feasibility of hostile attacks through the Arctic against industrial centres in the United States, either by long-range aircraft and guided missiles from bases in Asia or Northern Europe or from advanced bases established in Northern Canada or the Arctic. In addition to making observations pertaining to the doctrine of living in the Arctic and the functioning of material observers, reports should include an over-all appreciation of the operational characteristics evolving from the climate, terrain, communications, methods of supply, means of transportation.

[*Ibid.*]

In May 1946 the Canadian Chiefs of Staff approved creation of an Inter-Service Committee on Winter Warfare, along with the Arctic Research Advisory Committee. Canada came under considerable pressure from Washington to use northern Canadian territory for bases, and further integration of the American and Canadian Armed Forces. As Avery concludes, "in many ways the lessons of the Operation meant more to the American military than their Canadian counterparts". In a report in May 1947, once American view was expressed as follows:

Reasoning that large scale operations would have the objective of destroying enemy bases and rocket launchers or guided missiles, one should consider the Arctic as an ocean. Planes should be substituted for ships.... Methods such as those employed in the Pacific might well be used, in that very weak or very strong bases could be by-passed as desired. Once troops are landed, however...tactics will change. The barren lands are like a great extremely cold desert.... In the sub-arctic conditions are those of

heavily wooded terrain with no roads or trails available. In summer this terrain would resemble the jungle.

[Ibid.]

Exercise Muskox demonstrated that the C-47 (Dakotas) worked well in cold weather conditions, could land on frozen ice, and drop supplies to the Moving Force even in windy and snowy conditions. After Operation Muskox the Arctic wastes north of Edmonton assumed a strategic value to American military thinkers. By 1947 these wanted the immediate training of US specialized Arctic troops, and were looking at other aspects of northern defence.

In February 1950 Exercise Northstar, later renamed Sweetbriar, involved over 9000 American troops, support personnel, and air support, with a small Canadian component. Northstar had the mandate "to develop procedures, doctrines and techniques for the employment of combined US-Canadian Forces in the Arctic." The 1949 Canadian memorandum to the Deputy Minister of Defence indicates the strategic thinking of the time:

(a) It is assumed that enemy forces have seized the Anchorage and Fairbanks area; that the R.C.A.F. and U.S.A.F. have prevented penetration to the Yukon; and that there is a Canadian force at Kluane Lake, Y.T. on the Alaska Highway.

(b) A U.S. Battalion Combat Team of 1900 men, plus a Service Support Company, would be moved in two squadrons of transport aircraft, and by rail and road from Colorado to Kluane Lake.

(c) These U.S. forces, together with a Canadian battalion would then move in weasels, light tanks and trucks, up the Highway to recapture Northway, about 20 miles inside Alaska.

(d) This movement would be supported logistically from Whitehorse and covered by R.C.A.F. and U.S.A.F. fighter and reconnaissance aircraft based at Nelson and Whitehorse.

(e) The whole exercise, including movement of U.S. personnel to and from the northwest, would take about five weeks.

[Ibid.]

The Korean War ended these field operations, and the Canadian government's distraction from Arctic defence limited both the Arctic Research Advisory Committee and the Inter-Service Committee on Arctic Research. It increasingly was argued that military resources should be concentrated on meeting the threat of Soviet air attacks on North American cities, and to expand the 1948 Pine Tree radar system. Later the construction of the Distance Early Warning (DEW) radar stations, built and manned by

the United States, would replace manned land operations in strategic thinking. Edmonton would play an important part in these developments, especially the DEW Line. In 1958 NORAD would build on the foundation laid during the Second World War, and during the early Cold War through exercises like Operation Muskox and Operation Northstar.

In March 1955 the Canadian government announced its participation in the planned Distant Early Warning Line, a series of 42 radar stations built along the 70th Parallel to detect any Soviet air attack over the polar regions. This led to a massive air support project somewhat reminiscent of the old days of the NWSR. Associated Airlines was the main contractor for the western Arctic, and carried vast amounts of cargo through the Edmonton airport as the project gets under way.

The scale of the “airlift” is indicated by Tony Cashman in an account of the contributions of one of the “minor players”:

CPA is a minor player, delivering fuel from Norman Wells to DEW Line sites, but the contract engages 42 crews, 8 C-46 Commandos, five DC-3s and two DC-4s. Associated has to scramble to meet its commitments, subcontracting much of the work and leasing heavy-lift capability, including four Yorks, a transport variant of the Lancaster bomber. Two Yorks are lost in crashes, one in Edmonton. A crew, just arrived from the Middle East, attempts takeoff on a hot May afternoon and smashes through lines of boxcars in the Calder yards. Another York is lost in the north, and a Bristol freighter goes down trying to return to Edmonton on one engine, trailing jettisoned cargo across the countryside. Tommy Fox needs a buyer. He finds his man among the subcontractors, and the deal brings a tenacious presence to Blatchford Field, Pacific Western Airlines (PWA).

[Cashman, *Gateway to the North*, p. 172]

“Because of the severe climate and distances involved, many of the small firms that started out flying the DEW Line in 1955 did not survive,” writes historian Peter Pigott. “Overloaded or ill-equipped, their aircraft crashed en route and their owners went bankrupt.” Russ Baker and Pacific Western Airways were among the few to benefit from the DEW Line contracts. Tommy Fox and Associated Airways also benefited from the DEW Line contracts. Despite the wartime improvements in flying safety, northern aviation remained a difficult undertaking. Much of Associated Airways’ business remained typical of the prewar bush flying days.

[Peter Pigott, *Flying Canucks III Famous Canadian Aviators*. Madeira Park, BC: Harbour Publishing, 2000. pp. 145-147]

No. 6 Hangar (later No. 14 Hangar), now the Alberta Aviation Museum, has a special relationship with the City of Edmonton Squadron, as this was the hangar used by 418 Squadron in 1946. (435 Squadron also was stationed at Edmonton after the war, occupying a hangar on the eastern “American side” of the airport.) This RCAF

squadron had a distinguished career beginning on 15 November 1941, when it was formed at Debden, Essex, flying Bostons as night fighters. On 4 September 1942 it changed to an intruder role, converting to the Mosquito IV in February 1943, shortly before being transferred to Ford, Sussex. In May the squadron was re-equipped with the DH Mosquito VI fighter-bomber. Wing commander Russ Bannock DFC assumed command at Hunsdon, Hampshire on 10 October 1944, during the height of the V-bomb attacks on Britain. On 21 November 1944 it was transferred to Hartford Bridge, Hampshire, and reformed into Second Tactical Air Force No. 2 (Bomber) Group, No. 136 (RAF) Wing. The official squadron history describes how the relationship between 418 Squadron and the City of Edmonton developed:

P/O "Gordy" Williamson always had a nose for a story. As a former sports announcer of the Edmonton radio station, CFRN, he was used to searching out an angle to catch the public's attention. Now he was going to turn the tables by deliberately feeding the press an idea. In his capacity as the Press Relations Officer for 418 Squadron he sent a letter to the *Edmonton Journal* suggesting that the City "adopt" the Squadron. After all it had been done for ships at sea, and for other squadrons, so why not do it for his squadron? In his letter he stressed that 95% of the airmen were Canadian. Secondly, by some strange coincidence, an unusually large number of these were native to Northern Alberta. In fact, there were 15 from the immediate district surrounding Edmonton. Some of these were: S/L Harold Lisson, F/O Johnny Caine [Johnny Caine's father owned a fur farm on the south side of Edmonton which eventually became part of the Derrick Golf and Winter Club], F/O Lefty Miller, P/O Gordon Williamson, F/O Bert Ford (Lacombe), LAC Gordon Haliburton, Jerry Bouten, Jimmy McMartin, Lloyd Williams (Berwyn), Capt Lorne Oatway (the dental officer), W/O JJP McGale (Lloydminster) and even W/C Paul Y. Davoud who called himself an alumnus of Edmonton since he had been stationed there for some time with Canadian Airways Ltd..... The newspaper liked the idea and referred it to the Mayor's office. Mayor Fry could see the merit of the proposal but someone would have to introduce the suggestion to City Council. Alderman Bisset decided to run with the idea. On February 26th, 1944 Alderman Bisset, seconded by Alderman Michell, moved that: "The City of Edmonton adopt a RAF or RCAF Squadron to be determined by the Commissioners after consultation with the appropriate Department of the RCAF".... The subsequent address to the motion was eloquent and patriotic. "Anything we as a Council can do to help the boys overseas carry on...then it is our duty to do so". It was mentioned that Calgary had already adopted 403 "Wolf" Squadron and Edmonton was not about to be outdone by its southern neighbour. The result was that the motion was handily carried.... The problem was that nobody actually knew what such an adoption meant. The Mayor promptly wrote to the CO of No. 4 Command at Calgary outlining their idea and stressing their preference for No. 418 Squadron. The RCAF's reply was that there was no obligation attached to such an adoption, although in other cases cigarettes or other small comforts were sent from time to time. That sounded fine to the City, but Alderman Parsons stressed that Edmonton should put all its effort into the project and in the City's traditional style that is exactly what they did. A wire was sent to the RCAF Overseas Headquarters describing the plan. Not only was approval granted but the City was told it also could have their preference — 418 Squadron.... On March 28th, 1944 a

congratulatory message was sent to the Squadron. Miss Laurette Carrigan, the Mayor's secretary, began organizing the shipment of cigarettes with the packing done by the Hudson's Bay Co. Included in the consignment was an official letter expressing the City's pleasure at the Squadron's achievements. In return a wire was sent to the City saying that, "the entire Squadron was honoured in being adopted by the City of Edmonton. Hope shooting of this team brings much honour to the city." [*Edmonton Journal* March 28. 1944] This was followed by a letter from "Gordy" Williamson that said, "even the easterners in the outfit were pleased. One chap from Toronto remarked, "Well if it couldn't be Toronto, thank goodness it was a city that really knows a good thing when it sees one ... Edmonton has that, I trained there ".... [In Edmonton] a strategy was mapped out complete with a slogan. The Lions Club offered to undertake the responsibility of raising the money and administering it. "Wop" May, the World War I fighter pilot who had almost fallen prey to the Red Baron, led off the round of speeches. "These fighting boys need our encouragement right now", he began in fine oratorical style. "It is fitting that Edmonton, the leading City in Canada as far as aviation is concerned, should be linked up with such a fine squadron. Here is the chance for the citizens to show enthusiasm for the job being done by the boys".... There were newspaper captions such as "Squadron Putting Edmonton on the Map". In addition there were almost daily accounts of the battles, victories and even anecdotes of the unit featured in the paper. CFRN rebroadcast a report of one of the Squadron's famous battles. Any of the members who happened to be home on leave were asked to address the public. S/L Hal Lisson and F/O Lefty Miller were guests of honour at a luncheon held in the Macdonald Hotel. Hal told the audience how the adoption "identified us". "Earlier ", he said, "when we did anything it was simply a Canadian Squadron that shot down so many Huns out of the air - and sometimes not even that". Later when Johnny Caine came home from the war he was asked to comment on Edmonton's support. He put into perspective what the parcels meant when he said "the ground crew were getting only \$1.30 a day". That stipend meant that it was impossible to purchase any luxuries in war-ravaged England. The boxes of real coffee, gum, chocolates, radios, recreational equipment, cigarettes, razor blades and clothes provided a tremendous boost in morale.

The public subscription drive got off to a slow start. For the first few days the noon hour band concert (from No. 3 Manning Depot) and flag raising on the corner of Jasper Avenue and 101 St. was rained out. So too were the speeches by S/L Hal Lisson. In spite of that \$4,000 had been raised by the second day. Included in the corporate donors were Northwest Utilities, C. Woodward, T. Eaton, Hudson Bay, MacCosham Storage, Safeway Stores, Edmonton Journal, United Grain Growers, Burns, McGavins, and of course the City of Edmonton. Yet the deadline had to be extended to meet the target amount. A fund drive in the form of a Sports day at Clarke Stadium put the total on the fourteenth day at \$15,230. 418 Squadron would now be taken care of until the end of the war.... The Operations Record Book for March 18th bears the notation: "News was received that City of Edmonton has officially adopted the Squadron which will henceforth be known as 418 (City of Edmonton) Squadron". That night it figuratively took the coat-of-arms of Canada's oil capital into battle. F/O G.N. "Lefty" Miller also carried something for the enemy. As a youngster Lefty had delivered the *Edmonton Journal* from Jasper Avenue to 101st Street below McDougall Hill. He decided to make

one more delivery with a copy of the paper dated 14 January 1943. He carefully wrapped his copy around a brick. Then after an uneventful Flower to Kassel he flung it from his Mossie in the hope that some German below would get the "news". F/L C.A. Walker and his navigator F/O T.J. Roberts celebrated the new association the following night by knocking down an unidentified E/A from a quarter astern attack. Yet it was the teams of MacFadyen/Wright and Luma/Finlayson that did Edmonton proud, on the first day of spring. Just after the supper hour they attacked almost at grass level the airfield of Haguenau. Luma riddled a Do 217 and He 111 parked together with cannon and machine gun shells. Following in line astern MacFadyen made short work of a Do 217 and a Go 242 glider. There was no sign of return fire so Lou risked another pass. In the process of turning sharply his aircraft "bumped" into something—at this point he was flying at 20 feet. He pulled up and checked for damage. Everything seemed O.K. so the Mossies regrouped and flew to Luzeuil where they again tore into the parked aircraft. Lou thoroughly enjoyed this nap-of-the-earth strafing—so low that a hangar forced him to pull up just as he finished off a line of Me 410 fighters. When they finally called it quits the tally was an unprecedented seven E/A destroyed and twelve damaged.

[Arnold P. Vaughan, *418 City of Edmonton Squadron History*, 1984, pp. 39-47]

After being stationed briefly in Belgium and the Netherlands, the squadron returned to Canada. On 15 April 1946 it was reformed as a Fighter Bomber Squadron with North-West Air Command in Edmonton, flying Harvards and Mosquitos. The Officer Commanding was Wing Commander D.R. Jacox, AFC. Dave Jacox has a special relationship with Edmonton. Tony Cashman writes that he was once the youngest pilot at the Edmonton and Northern Alberta Aero Club, at 14, and after the war became sales manager for the Great West Garment Company in Edmonton. On 1 January 1947 it was re-designated a Light Bomber Squadron and supplied with B-25 Mitchells and C-45 Expeditors. On 1 April 1947 it was further re-designated as a Tactical Bomber Squadron. On 18 May 1948 No. 1 Air Liaison Section (Reserve Force) was attached to 418 Squadron. On 1 April 1949 it once again became a Light Bomber Squadron. On 14 May 1950 it was reformed as No. 18 Wing, and on 1 August 1951 was attached to Tactical Air Command. The official squadron history describes the postwar move to Edmonton:

The first order of business was to find a new home for the Squadron. No. 6 hangar at the south-west corner of the airfield was selected. It had been used by the No. 2 Air Observer School during the war but was now empty and neglected. At the same time F/L Doug Catrano requested the files of all "E" class reserves who had settled in Edmonton after the war. He then began the long process of contacting each veteran with the offer of a position in the new Squadron. He discovered that there was a general sentiment of "war weariness" that caused many to decline the offer. Some joined only to quit later because of the demands placed on their spare time. Others were forced out by family pressures, in particular some wives objected to the hazards of military flying or the lengthy "socializing" that usually took place in the Mess after flights. Nevertheless some of those first members who did answer the call were F/L Jack Barclay, F/L Johnnie Caine, F/O Don McLaughlin (all three were war-time 418), S/L Bill Speed, F/L's

Hodgson, Don Laubman (Permanent Force) and Smalhik. Some of the first NCOs were LAC Les Fogler (Permanent Force safety equipment), W/O Dawes (aero-engine), W/O Wyman (airframe), Sgt Dawson (sheet metal) W/O Giles and C/J Couves.... The first aircraft to arrive were three Harvards (Nos AJ 757, 733 and 3825).... After the acceptance check flights training began in the second week of July 1946. Plans called for the pilots to be given four hours of circuits and two hours of forced landings and aerobatics to exercise flying skills that had become rusty after the war. Academic topics were reviewed on Tuesday evenings after the Squadron had paraded on the hangar floor. Later night flying was programmed for Thursday evenings and local flight training was conducted on Saturday and Sunday. It was also understood that the regular force staff were prepared to support the training program on a seven-day-a-week basis. As a result of this dedication, 418 was the first auxiliary squadron to "check-out" all of its pilots. The first operational aircraft to arrive was Mosquito "H 1." It was a bomber variant that had been ferried in from a wartime OTU on the east coast. Unfortunately for those who had flown the Mossie during the war H1 was push into the hangar and didn't fly again until it was ferried back east. Its departure was caused by concern about the ability of the Mossie to meet the Squadron's role as well as whether wooden construction would endure Edmonton's climatic extremes. Then, on December 26th, 1946, Organization Order 776 was issued. It converted the Squadron to the light bomber role, flying the B-25 Mitchell. This was a disappointment for the "Mossie Boys" who classified the Mitchell as an "abortion". Those who criticized the B-25 were nevertheless quick to join the scramble to get checked out on the new aircraft. In order to upgrade to the B-25 thirty hours had to be flown on the newly acquired Beechcraft Expeditor Mk 3 (C-45). This put a heavy strain on maintenance crews who had to learn about the three types of aircraft that were now on strength and at the same time keep them flying. Much to their credit aircraft serviceability was never, at any time, a hindrance to flying. This was due in large measure to the team spirit between the aircrew and ground crew. Pilots often took ground crew flying, especially if there was an "overnight" in another city.... During the formative months of the Squadron the goal was to create an autonomous unit. The next addition was, therefore, a medical section under Dr. Jack Lees who took time from his practice at the Baker Clinic to perform recruit medicals. The only two areas where the Squadron was found wanting were administration and accounting. Most who were recruited in these sections had similar jobs in civy street, but employers were reluctant to grant time-off, especially during the busy re-construction phase of the post-war economy. As a result attendance suffered and the burden fell heavily on the Support Squadron personnel. This was an unacceptable state of affairs from a military point of view since if war should develop the permanent force staff would be posted out very quickly. Without these key people the auxiliary squadron would not function and it would probably disintegrate as had occurred at the beginning of WWII. An advertising campaign was therefore launched to recruit personnel for the sections which were short staffed.

[Ibid., pp. 66-67]

During 1948, 418 Squadron performed close support duties for several exercises: "The first was on May 30th, when F/L Don Laubman provided "strafing fire" with a flight of

Harvards for an advance of "C" Squadron of the 19th Armoured Car Regiment during their exercise east of St Albert along the Sturgeon River. This was followed in July by an exercise with the Canadian Army at Wainwright". On 3 September 1952 the squadron was re-designated 418 (City of Edmonton) Light Bomber Squadron (Auxiliary). During August 1957 the squadron moved to RCAF Station Namao. There, on 31 March 1958 it was once again re-designated 418 City of Edmonton Squadron (Auxiliary) and took on the role of a national emergency and rescue unit, flying Expeditor 3TMs. Over the subsequent years it was attached to Training Command and Transport Command, and in October 1966 was re-equipped entirely with DHC-3 Otters.

The Squadron moved from RCAF Station Edmonton to RCAF Namao in 1957. Aircraft were transferred on 27 August, and the navigation, radio, armament and maintenance sections soon followed "but for the interim the headquarters staff remained in the 'down town' facilities."

The move was spawned by the City's desire to relieve aircraft congestion over the residential area. This concern meshed with the Air Force authorities desire to gain more control over the Squadron's operations. The Department of Transport turned over the 418 Squadron hangar to the Department of National Defence. The Department of National Defence was in turn to give it to the city. It was planned that it would then be leased to Pacific Western Airlines for use of the DEW Line flights.] Besides which, the sprawling station needed more tenants as it was considerably under-used.... Construction of the Namao air base had been started in 1943 to meet the wartime needs of the U.S. government. Until this time the cramped east side of the municipal airport had been the headquarters of the Alaskan Wing as well as the starting point for the North West Staging Route. The Canadian government, through the negotiations of the Hon. C.D. Howe, had agreed to pay for all the work let to Canadian contractors. A good proportion of the work was nevertheless done by the U. S. Army Corps of Engineers. The Americans had decided that this would be one of their best airfields in keeping with the concept that Edmonton was one of the crossroads of world air travel. Four square miles of some of the best farm land in Alberta were bought for \$35 to \$50 per acre. A railway track was laid and four locomotives pulled long lines of cars filled with sand and gravel from the Saskatchewan River bank for the sub-base of the runways. By December 6th, 1944 the project was finished. The engineers had outdone themselves for Namao was classified as the finest airport on the North American continent. It had 100,000 square yards of aircraft parking space, 18 modern buildings, a 7,000 foot runway designed to take the biggest and heaviest aircraft, the latest radio beam approach for "zero-zero" landing and an obstruction-free take-off and landing path. The first user was the USAAF Alaskan Division of Air Transport Command. They flew their Transport aircraft to the next USAAF bases up the line at Fort Nelson and Whitehorse. Although consideration was given to handing over the airport to Edmonton to serve as its international airport after the war it remained virtually empty, save for the RAF and RN who used it to conduct cold weather trials. In January 1948 Air Marshall W.A. Curtis announced that Edmonton had been selected as the RCAF's main base in the west. A seven million dollar expansion was started to make Namao the "Trenton of the west". It was also hoped that civilian aircraft flying over the north pole to Europe and

Asia would use the airport as a fuel stop. Such was not to be the case, however, and the two principal users were the Central Experimental and Proving Establishment and 435 Transport Squadron. When 418's aircraft did arrive at Namao's No. 3 hangar they brought a welcome increase in the level of activity.

[*Ibid.*, pp. 89-91]

With military integration the squadron was rolled into the CAF as 418 City of Edmonton Air Reserve Squadron under Mobile Command. On 7 October 1979 the squadron was granted Freedom of the City of Edmonton.

"Wartime Assets" and what to do with them, became a problem that required greater attention fairly quickly. By 1948 an audit of equipment at the RCAF station in Edmonton indicated that "[the] area involved is so large a special review is required". Later, another attempted audit inundated that "[because] of the previous joint occupancy of this site by RCAF/USAF, during the past few years, it has been extremely difficult to define responsibility in many instances. This airport has now been returned to the control of the City of Edmonton. Landing fees as such are not collected by the RCAF. Where service facilities are provided for any reason, specific action is taken to collect the appropriate charges".

[*Library and Archives of Canada* RG 24 Volume 4921 File HQ 123-37/0]

Much confusion surrounded the question of which authority had responsibility or ownership of which facility for some time after the war. Everything from the storage sheds to the Yehau Lake Practice Bombing Range located on the Winterburn Reserve west of Edmonton were up for discussion. Vast files and some confusion were created. The lineup for such building was long. For example, a prefabricated hut located between 116 Avenue and Kingsway was declared surplus, and the DND Deputy Minister suggested that it be made available to the Edmonton Air force Mothers Auxiliary Wings Club. "This Club is said to have operated for some time, at their own expense, a downtown recreation centre for Air Force personnel and to have supplied comforts and services to men Overseas or on remote Northern Air Stations."

[*Library and Archives of Canada* RG 24 Volume 4814 File HQ 122-E4 volume 1; H.F. Gordon, Memo: Surplus R.C.A.F. Property", 24 July 1945]

Briefly a part of the "US Camp Area" was taken over by the RCAF for use by the University of Alberta. Emergency Shelter authorities from Edmonton approached the NWAC to use 118 "stout houses" and several latrines. Wing Commander L.H. Randall reported: "These buildings, which are not required by the RCAF, are declared surplus effective [5 March 1946] on the understanding that occupancy in their present location by the City of Edmonton may be permitted until 1 Sept next, when the buildings are to be removed from the site".

[*Ibid.*, 5 March 1946]

In June the Crown Assets Allocation Corporation recommended that Hangar 58, and Building 59 [Area Repair Shop] be transferred to the Department of Transport. Buildings also were moved onto the Edmonton Airport, including several from the 142 Street Edmonton Railhead Depot, while others were transferred to the Department of National Health and Welfare. The Edmonton Flying Club requested Hangars 28 and 18, the Administration Building [No. 19], with the Link Trainer and classrooms, Building 48 [garage], Building 42 [Recreation Hall] and Buildings 20 and 36 [Officers' Quarters]. [Ibid., J.E. Bradley, Chief Flying instructor, Edmonton Flying Club, to J.L. Apedaile, Financial Adviser, Department of the Deputy Minister for Air, 6 February 1946] Although Wop May himself followed up on the requests, it was some time before the club obtained facilities from War Assets.

In October 1946 Mayor Harry Ainlay approached the War Assets Corporation with a request that ten warehouses located at the "American Railhead" be turned over to the city for industrial development. "The situation in Edmonton in regard to [industrial development] is rather desperate. Our population has increased rapidly and unless we are able to locate industries here, we are facing a very difficult employment situation.... The above mentioned ten warehouses and the American warehouses on the C.N.R. in Calder, are the only buildings in Edmonton which can be reconverted for industrial purposes.... It would seem useless to talk of rehabilitation here, unless we can give some encouragement to industrial development and greater employment".

[*Library and Archives of Canada* RG 24 Volume 4814 File HQ 122-E4 volume 2; 2 October 1946]

In June 1947 the "stout houses," occupied as emergency shelters, were still not vacated. NWAC admitted that they still seemed to be required due to the extreme housing shortages, and Air Commander J.L. Hurley recommended successfully that the occupants be allowed to stay until the end of the 1947-1948 winter. Hurley also noted that "this area constitutes a serious fire hazard and also is not kept in the best of condition with regards to refuse, paper.... If representations can be made by [RCAF] HQ to the Emergency Shelter Administrators' Office towards obtaining an improvement in this area, it would be of great help".

[*Ibid.*, 27 May 1947]

By November 1946 all the buildings at the American Railhead Depot on 142 Street and 110 Avenue were vacant, and were available for sale. [See NAC RG 24 Volume 4815 File HQ 122-E4 volume 3 for an inventory of these buildings.]

In August 1947 the US Hospital at the airport had been turned over to the Red Cross by the Department of Veterans Affairs, been returned to the Air Service, and then went back to use as a blood clinic. It was given to the province as compensation for its postwar expenses toward the Administration Building.

[*Library and Archives of Canada* RG 24 Volume 4815 File HQ 122-E4 volume 4]

In late 1947 Chief of Air Staff Air Marshal W.A. Curtis reported to his Minister that the “need for housing for Army and Air Force personnel in Edmonton is acute”. He noted that there was an area within the boundary fence for the NWAC Headquarters “which is very suitable for housing and sufficiently large to take 50 units”. This land, located in the angle of Kingsway and 115 Street, was held on lease from the city of Edmonton, and already held the NWAC Headquarters. Engineered Buildings (Alberta) Limited, of Calgary, had plans to build permanent married quarters on this property, if permission could be obtained from the city. The Assistant Deputy Minister of Defence, Basil B. Campbell, suggested to the mayor that DND would build a number of houses, perhaps one hundred, at the Edmonton Airport and at Namao “so as to relieve the situation in the city proper, and that the matter would receive more favourable consideration if the City would consider donating the land at the Airport free of cost. I feel that such an approach, at the worst, would result in the land being obtained at a reasonably low figure should the City refuse to donate it free. I understand that the Mayor has had some difficulties with his Executive Council over permitting the Department to retain possession until the present time.”

[*Library and Archives of Canada* RG 24 Volume 4813 File HQ 101-E4 volume 3; 15 November 1947; 17 December 1947]

City Council demanded something in return, in this case a building. Campbell reported that “the Mayor advised me that there would be some difficulty and brought up the question of congested conditions at the City Airport and asked if this Department could report surplus a building adjacent to the Airport administration buildings in order that a cafeteria and hostel might be installed. Due to the shortage of hotel accommodation in Edmonton companies using the administration building, no provision could be made for the large numbers of personnel in transit from the North country between flights or for meals where the transport companies did not provide them en route. The city desired to turn the existing cafeteria over to administration accommodation and customs and to relieve other congestion”. On 11 March 1948 Council passed a motion authorizing the Commissioners to enter into the agreement with the federal government. At this time H Building [No. 5] was released by DND to the city to use as a concession. Transfer of the property took place on 13 May 1948.

[*Ibid.*, “Negotiations with City of Edmonton re transfer of land from City to Crown-Dominion as site for houses at Edmonton Airport”, 13 March 1948; Edmonton City Council, Minutes Meeting No. 14, 11 March 1949; Order-in-Council PC 2124]

In 1948 Canadian Pacific Air Lines decided to move its headquarters from Winnipeg to Edmonton, and the city requested that they be allowed to use the so-called H Building for the CPAL facilities, rather than for concessions, as previously planned. The RCAF had planned construction of married quarters in this building, but the DND decided to turn it over to the city for CPAL use instead.

[*Ibid.*, 15 October 1948; RG 24 Volume 4813 File HQ 101-E4 volume 1]

By 1950 the RCAF turned over the many H-type buildings in the southwest angle of 118 Avenue and 106 Street to the Central Mortgage and Housing Corporation. These American barracks were made of frame construction, single story, had been converted to emergency housing for married servicemen. At the time each unit contained seven four-room suites. CMHC regarded them as in a fair state only.

[*Library and Archives of Canada* RG 24 Volume 4815 File HQ 122-E4 volume 5]

The Korean War began in 1950, and raised the possibility that the old NWSR might be called upon to do war duty again. The Minister of Defence communicated with his opposite number at DND: "As you will realize, this Staging Route may well assume major importance in the event of an emergency and the arrangements agreed to between our departments should provide for the entire Route coming under RCAF control on short notice. This could most readily be done by transferring the civilian personnel employed at these various bases to this department should the need arise". However, this never became necessary.

[*Library and Archives of Canada* RG 12 Volume 662 File 22-5-7 part 1; 26 March 1950]

By the end of the war in 1953 Edmonton Municipal Airport handled 198,782 aircraft movements (in and out), higher than any other Canadian airport other than Montreal. Of these 24,295 were military, and 16,363 scheduled or charter flights. That is 12.2% were military movements.

[*Library and Archives of Canada* RG 12 Volume 1028 File 5170-1 volume 1]

A history of Canada's postwar air defence makes the following observation:

Canada, in her haste to demobilize after World War II, had neglected the control of her sovereign airspace. The fiscal year 1948-49 became one of the most significant in the twenty-five year history of the Royal Canadian Air Force, supported by the largest peacetime appropriation ever devoted to the forces. In training, the year was marked by the graduation of the first post-war trained pilots, radio officers and radio navigators. The RCAF flew 128,435 hours that year, an increase of about 80% over the previous year. Only 27% of this flying was for transport.

[Don Nicks, John Bradley, Chris Charland, *A History of the Air Defence of Canada 1948-1997*. Ottawa: The NBC Group, 1997. pp. 9-10]

On 28 December 1948 Defence Minister Brooke Claxton announced a new defence programme to meet "changing circumstances". The ceilings on the personnel strength of the armed forces were removed, reconditioning of older air stations and development of new training bases began, and the development and production of jet fighters and the continued conversion and reconditioning of other aircraft accelerated. The postwar

RCAF had to acquire air strength adequate to meet an immediate Soviet attack. Its priority was modern fighter-interceptor squadrons.

The most significant steps in the air defence of Canada at this time were the introduction of jet aircraft and the establishment of an air defence organization. No.1 Air Defence Group Headquarters was first organized at Ottawa on 1 December 1948 as a planning group to evaluate an experimental air interceptor and air warning system, and take control over 1 Fighter Operational Unit, the first postwar Regular fighter squadron, 410 Interceptor Squadron and the Auxiliary fighter squadrons. On 1 June 1951, the Group was re-designated Air Defence Command and Air Vice Marshal C.R. Dunlap was moved from North West Air Command at Edmonton to become the first Air Officer Commanding (AOC). The Operational Training Unit at Cold Lake, which moved there from North Bay in 1955, carried out training with the Canuck all-weather jet fighter.

In 1949 the Military Cooperation Committee (MCC) had drawn up an emergency plan for common defence with the United States and directed that the air defence organizations of the two countries prepare detailed emergency air defence plans. The first was issued in 1950. In 1954, MCC authorized a combined planning group formed by representatives from the RCAF and USAF Air Defence Commands. This group recommended that the best continental air defence consisted of an integrated defence, with forces from Canada and the United States operating under a single commander responsible to both governments. This was better because "forces deployed to defend against attack from one direction are not now under one commander, which imposes serious practical limitations in the day-to-day training and in our capability to conduct a properly coordinated air battle in case of actual attack." In 1956 another high level joint group (the Military Study Group, or MSG) also recommended the integration of operational control of the two forces.

On 1 August 1957, in a joint announcement by the Minister of National Defence of Canada and the Secretary of Defense of the United States, the agreement of the two governments was noted for integration of operational control of the air defence forces in the continental USA, Alaska and Canada under an integrated Command responsible to the Chiefs of Staff of both countries. The integrated headquarters of the North America Air Defence Command (NORAD) became operational on 12 September 1957 on an interim basis until the original NORAD Agreement was signed on 12 May 1958. The NORAD Agreement stipulated that NORAD was to be maintained for a period of ten years or a shorter period as agreed to by both countries.

Two artifacts located along Kingsway remind Edmonton of the Cold War:

1. The Voodoo carried two MB-2 Genie (AIR-2A) and two GAR-I Falcon (AIM-4D) on a rotary weapons door, located on the belly of the aircraft under the crew compartment. In April 1964, the Voodoo squadron in Ottawa disbanded and later in June 1964 the Voodoo squadron in North Bay followed. Their aircraft were redistributed to the other squadrons, increasing the squadrons in Bagotville and Chatham to 18 aircraft. These were later reduced back to 12 aircraft in 1974. During "Operation Peace Wings", the

original 66 CF-101s (reduced slightly by attrition to 58, but reduced to a final number of 56) were replaced with 66 of the Improved Interceptor Package (IIP) Voodoo. These Voodoos had a much improved radar and fire control system (FCS), and it now had an infrared tracking system (MG-13 FCS). This Radar/ FCS was also very ECM resistant, using a very broad frequency band for the radar and was able to tune through this frequency band at varying rates and speeds. This programme started in July 1970 when the first "low-time" IIP Voodoos were ferried from Davis-Monthan AFB to Bristol Aerospace Industries in Winnipeg. After the Canadian modifications were completed (these included replacing the engines and ejection seats with the Canadian ones), they were ferried down to Ling-Temco-Vaught (LTV) Corporation in Greenville, South Carolina, for painting and upgrading the MG-13 FCS and MB-5 Redundant Limiting System (RLS)/autopilot. After completion they were flown back to Canada for squadron operational use. The "Peace Wings" programme was completed in January 1972. A final chapter in the Voodoo's history commenced in October 1982 when F-101 serial no 58-0300 (renumbered 101067) was the last Voodoo accepted by Canada. This Voodoo was not an interceptor model; the USAF had converted it in late 1979 to be an EW target. The CF operated this unique aircraft as the all black "Electric Voodoo" until April 1987 when it too was retired. [Ibid., pp. 21-23]

2. The Bomarc also played an important part in the late 20th-century continental defence:

To go hand-in-hand with the Voodoo, the Canadian Government decided to include the CIM-99B Bomarc to their air defence arsenal. The Bomarc ("BO" for Boeing and "MARC" for Michigan Air Research) was a supersonic airbreathing, rocket-boosted missile with a range exceeding 400 miles. It eventually equipped two squadrons in Canada, the first in December 1961 at North Bay, and the other in September 1962 at La Macaza, each with 28 Bomarcs. However, plans had been considered for four squadrons. These squadrons would have been located at Kapuskasing, Val d'Or, Bagotville and Casey, or Kapuskasing, North Bay, Ottawa (Mount Laurier) and Bagotville. The Bomarc was controlled by the SAGE system. It was designed to intercept and destroy the large bomber formations that were envisioned flying over Canada if there was an attack on North America. The two squadrons continued to serve until April 1972 when they ceased operations and finally disbanded in September 1972.

Edmonton would remain an important part of the northern defence system during the Cold War. However, the Namao field built by and for the Americans during the Second World War, would soon take over the main Cold War logistical support role through its military structure. By the time of Operation Morning Light, most of the northern support took place through Namao. Operation Morning Light was the code name for the ambitious recovery project that occurred in December 1977. At that time NORAD determined that a Soviet satellite had begun to malfunction, and would soon crash back into the earth's atmosphere. Cosmos 954, a Soviet spy satellite carrying a hundred pounds of enriched Uranium 235, soon crashed into the tundra in the Northwest Territories, and the first group of scientists arrived in Edmonton from Andrews Air Force Base on 23 January 1978. Military security in the Canadian north was the responsibility

of Canadian Forces Northern Command at the time. This in turn was under the authority of CFB Edmonton, located in Namao. During January and February 1978 air movements would quadruple from the average 7500 at Namao. Hangar 5 became the center for Operation Morning Light, and 435 Squadron would much of the heavy lifting for the search and recovery. Eventually nuclear contamination would be documented over a wide area of the north. But by this time, such situations were handled from Namao, not Edmonton.

EDMONTON AND THE EARLY AIRLINES

There is a natural and organic connection between the early bush flying out of Edmonton, and the development of the first airlines. The histories of the two overlap in the personal stories of those who built the first airlines to service the Edmonton airport and the people of northern Alberta and western Canada, and later pursued their ambitions into the broader international context. Max Ward personifies this connection. "When I was still in public school," he recalled, "I used to go over to the Edmonton Municipal Airport, which was quite close by, and make a nuisance of myself around the hangar, catching an occasional long-distance glimpse of one of my bush-pilot heroes." Wardair developed from these early influences.

Airlines are simply any organization providing a regular public service of air transport on one or more routes, according to the Canadian Oxford Dictionary (1998). This definition leaves much latitude for interpretation, and clearly the early development of airlines in western Canada overlaps with several other significant thematic concerns such as the early development of bush flying, the initiation of women into the general aviation industry, the mobilization of wartime training and transportation, continental defence during the Second World War, and the general growth and character of the Edmonton airport itself.

Canadian Airlines have their roots in the development of airmail services. Aviation historian R.E.G. Davies writes that in Canada "the need for air transport was for a long time insufficient to justify services. The reasons were mainly that in the southern part of Canada, where the greater part of the population lives ... there was an efficient railway system; and the Frozen North, by its extremes of climate, presented a very difficult assignment for any airline."

[R. E. G. Davies, *A History of the World's Airlines*. London: Oxford University Press, 1964, p. 82]

The result was that Canadian airlines developed later than those in Europe, Latin America, Australia and the United States, where on 17 September 1911 pilot C.P. Rodgers had already left New York on the first flight across America, reaching Los Angeles on 5 November. Rodgers provided an example of how planes could cross long distances of the continental interior, but Davies describes a different situation in Canada:

The Canadian Pacific Railway is almost a household word all over the world and a national institution in its own country. With the state-owned Canadian National Railways as well, Canada's travelling public was able to choose between two of the finest railways in the world. This was a considerable deterrent to the establishment of an airline, in striking contrast to the situation in Latin America, where only Argentina had efficient railways, and in Australia, where the system left much to be desired.... In Canada one difficulty was to find landing strips in huge areas of continuous forest and the water problem was one of controlling an excess. In a land where so great a percentage of the total area was taken up by lakes, the fact that all the early airline services made use of water-borne aircraft was merely a reflection of the way in which the pioneers made a virtue out of necessity.

[*Ibid.*, pp. 82-83]

The year 1918 marked not only the end of the First World War, but also a turning point in the history of aviation in Canada. The weather vane on the tower of the Confederation Building in Ottawa commemorates the first trans-Atlantic flight, from Newfoundland to Ireland, in March 1918, by John Alcock and Arthur Whitten-Brown. Such events added to the public interest in aviation created by the war, and demonstrated the potential for long-distance travel in the air, although it would take some time to build a viable airline in Canada despite this interest.

Historian Lorne Manchester, more significantly, also dates the first Canadian airmail service to 1918, when a Curtiss Jenny took off from Montreal's Polo Grounds on 24 June 1918 carrying 120 letters for delivery in Toronto, stirring the public imagination and focusing attention on the potentialities of airmail service. By the early 1920s enterprising commercial flying companies were handling mail as routine cargo, along with freight and passengers, in the sparsely populated northern areas of Canada. "The Post Office Department was delighted to cooperate," writes Manchester, "because in many cases the existing surface transportation facilities consisted of river boats in summer and dog teams in winter."

[Lorne Manchester. *Canada's Aviation Industry*. Toronto; New York: McGraw-Hill Company of Canada Limited, 1968]

The Canadian section of the Royal Air Force had briefly operated an airmail service, starting on 27 August 1918, from Ottawa to Toronto. The Ontario government had, during 1922 and 1923, contracted air forestry patrol work to the Laurentide Pulp and Paper Company, whose fleet of HS2Ls became known as Laurentide Air Services. When the government took over the work itself, Laurentide curtailed its own services but kept four aircraft to provide a service between Haileybury, Ontario, and the Rouyn goldfields, in Quebec. When the route was flown regularly carrying airmail from 11 September 1924, the company qualified as the operators of the first scheduled air route in Canada. "The first transportation of mail by air across Canada was the flight by the Canadian Air Force in 1920," writes Manchester. "Pilots of the planes involved carried letters from Mayor J. S. Parker of Halifax, addressed to federal, provincial, and civic authorities. The small packet of mail increased as the party moved westward, and

mayors of other cities addressed letters to officials on the west coast.” This venture was a unique event and led to no further services.

[Manchester, *op. cit.*, p. 50]

Western Canada Air on 10 December 1928 launched an experimental daylight service from Winnipeg to Edmonton and Calgary via Regina. However, the problem of completing the journey on a competitive schedule meant that night flying was essential and arrangements were made for setting up a series of beacons. In January 1929 mail service from Fort McMurray, the northern terminus of the railway from Edmonton, was established to Fort Simpson on the Mackenzie River. Ten flights were made during 1929, with regular monthly flights beginning on 29 November 1929 under Rutledge Air Service. Later Western Canada took over the trunk route along the Mackenzie River, while Commercial and Rutledge operated local services in Alberta.

In 1928 the Canadian government began preparing for an inter-city airmail service based on the chain of municipal airports being built with government encouragement across the country.

In January 1929 the Post Office Department gave a contract to a commercial company, which had arranged a schedule of winter flights between Waterways, Alberta, and Fort Simpson. On his second trip north on 5 March, "Punch" Dickins, the company pilot, extended his northern journey by going on to the Hudson's Bay Company post at Fort Good Hope on the Mackenzie River. This was the farthest point north a plane had reached in that area. Dickins made the return trip to Edmonton with a full load of baled furs, the first time a substantial cargo had been flown out of the north.

A route joining the provincial capitals of the Prairie Provinces began on 3 March 1930 as the Prairie Air Mail. The route from Winnipeg to Calgary was flown by night, using "the beacon system," often consisting of flares; a branch from Moose Jaw made the connection to Edmonton via Saskatoon and North Battleford. What might have evolved into a real airline ended on 1 March 1932 when the Prairie Air Mail was discontinued due to the financial constraints of the Great Depression.

The first Trans-Canada Air Pageant air show was seen at the Edmonton airport on 31 July 1931. Such events reinforced the feeling among Edmontonians that the potential for long-distance air transportation was just around the corner. Such hopes were to take some time to be realized in Canada, although during the two years preceding the Second World War, progress in opening the Canadian north and west to real airline service was making headway. There was sufficient air service to prompt northern communities to launch their own airport projects to take advantage of this situation. Much of this was accomplished through the local initiative of Albertans. In 1938, Mayor P.J. Tooley of Grande Prairie wrote to C.D. Howe, Minister of Transport, and James McKinnon, MP for Edmonton West, as part of a bid for additional funding:

Many Air Routes have been established from Edmonton throughout the Peace River to the Yukon and to Vancouver and northern British Columbia, and the Town of Grande Prairie is increasingly becoming a large Air Centre on these Routes.... The Town of

Grande Prairie has spent considerable monies on the development of our own Airfield. We are licensed and have one of the best Airfields North of Edmonton.

[Library and Archives of Canada RG 12 Volume 2291 File 5150 – 7 – 13 part 1; 20 May 1938]

A seaplane base within the city appeared to be a distinct possibility during the 1938-1939. Many northern aircraft used pontoons, and by 1938 Commercial Airways was making good use of the “seaplane” base at Cooking Lake. This was not entirely satisfactory for Wop May, and when J.R. Robertson (District Inspector, Western Airways, Department of Transport) visited Edmonton in December 1938, May requested that he determine the suitability of another water base nearer to Edmonton, on the North Saskatchewan River just downstream from the Canadian National Railway bridge near Beverly. Robertson reported that “the objections to the continued use of Cooking Lake as a seaplane base are said to be, first, its distance from the City; and second, the fact that the water is gradually becoming lower [in Cooking Lake]. These are the considerations which have led Canadian Airways to search for a possible new base. The Provincial Government is said to favour the establishment of a base on the river, but the City authorities have not been consulted, and it is thought that they will not look with favour on the scheme.”

[*Ibid.*, 14 December 1938]

Nat Tanner, Minister of Lands and Mines, soon announced plans for such a base, and the *Edmonton Journal* raised concerns about competition with the municipal airport:

The significance to Edmonton of the proposal lies, not so much in the effect it may have on the city's air base at Cooking lake, but on the year round use of the municipal airport itself.... Mr. Tanner himself declares 'the proposed location offers possibilities ultimately for an all-year-round landing field' and a description of the area notes that 'fine, flat land' lies within the curve of the river.... Here, then, would appear to be the first step in a plan that 'ultimately' may include a combined land and sea base within six miles of the city limits.... If it is developed – with the aid of the provincial government – what is to become of the municipal airport, on which the city, with federal assistance, already has spent hundreds of thousands of dollars? The municipal airport today represents an investment of close to half a million dollars. The city has an agreement with Trans-Canada Airlines which ties that company to the airport for a period of at least 10 years. But it has no agreement with other air companies, none of whom have signed leases with the city for hangar accommodation.... All the companies operating out of Edmonton in 1937 urged Edmonton ratepayers to support the building of a new hangar. But if the province proceeds to develop a new air base outside Edmonton, there does not appear to be any reason why the air companies should not use it in preference to the municipal port, if they so desire.... The reason given for the plan to develop an air base on the river is that the level of Cooking lake is falling, making the use of the city's airport there somewhat hazardous. When the matter was brought before council last summer, however, City Engineer Haddow and Airport Manager Bell both declared there was no need for alarm. That the water level has fallen is obvious. Stripping of the watershed of tree growth, owing to extension of cultivation, is the underlying cause.

Possible remedies should be studied at once.... Another reason advanced for a river base is the difference in distance. But rather than allow this to endanger the city's whole airport investment, it might be advisable to operate a municipal air ferry between the lake and the city.... Surely it would be better to improve an existing airport that already has won high praise from air executives than to develop a new nearby air base. Two year-round airports within six miles of each other would appear to be unnecessary.

[Edmonton Journal 13 December 1938]

Robertson returned to Edmonton the following March, and reported that only Commercial Airlines seemed to support the plan. City Engineer A.W. Haddow wrote to J.A. Wilson, Controller of Civil Aviation, that April:

Frankly, I am a bit disturbed by the suggestion of using a portion of the river at Clover Bar in connection with our Seaplane Base operations. The location has merit from the point of view of it being only seven or eight miles from the centre of the City as against twenty-two to Cooking Lake, but against that I see quite a few objections.... The immediate approach by road is down a steep grade of 12% to 14%. This, of course, can be made fairly satisfactory by grading and gravelling, but it would involve considerable expense. Mr. May tells me that the Provincial Government have offered to do this for them.. My main objection, however, is due to the immediate river conditions. The outer bank of the curve is from 125' to 150' high with trees on it. The C.N.R. High Level Bridge across the river at the South end of the North and South arm is 137' high and when a freight train is crossing it, provision would have to be made for 150' clearance at least. We all know that river valley conditions are somewhat uncertain due to cross currents and fog will settle in the valley very much more frequently than it does on the high land. The water level has a variation of as much as 32' from ice level to extreme flood, and probably 15' to 20' to normal high water. At the higher stages it flows very rapidly and carries considerable floating debris which would certainly be rather dangerous for the operation of aircraft.... It has been proposed to make this stretch more satisfactory by a reinforced concrete submerged dam across the river. This will cost at least \$250,000.00....

It has occurred to me ... we could utilize Big Lake, just West of St. Albert and only about seven or eight miles from our present Airport. This lake has been used a great deal for a number of years by the commercial operators who fly in there, change to wheels and then come to our Airport when the snow is not suitable for ski landings.... The development of this area would require the construction of a fairly simple dam in the vicinity of St. Albert and the flooding of the lake and the hay lands in the lake, for which I presume arrangement could be made....

Wilson still felt that the proposed airport, although "by no means ideal", it was "comparable to other locations from which satisfactory operations have been carried out for a number of years, and we therefore feel that, since Canadian Airways and, according to our information, Consolidated Mining and Smelting Company have proposed to use the base in any case, a temporary licence should be issued for an experimental period."

[*Library and Archives of Canada* RG 12 Volume 2291 File 5150 – 7 – 13 part 1; 20 May 1938; 28 March 1939; 6 April 1939; 26 April 1939]

In 1934 Grant McConachie used his United Air Transport, based at Edmonton, to do charter work with his Fokker Universal as far north as the Yukon. On 7 July 1937 UAT began scheduled mail and passenger flights from Edmonton to Whitehorse. United Air Transport made a connection at Edmonton with Mackenzie Air Services, formed by W. Leigh Brintnell in 1932, which from 1 January 1933 maintained the service (started by Commercial Airways in 1929) to the North-west Territories as far as Aklavik and Herschel Island on the Arctic coastline.

[Stan Gordon, *op. cit.*, pp. 211-212]

Civil aviation was placed under the control of the new Department of Transport in 1936. Hon. C. D. Howe, Minister of Transport, also introduced legislation in Parliament that led to establishment in 1937 of Trans-Canada Airlines (now Air Canada). Trans-Canada Air Lines (TCA) began express cargo service flights on 17 October 1938, mail on 1 December and passenger services on 1 April 1939. A branch from Lethbridge, opened on 1 August 1938, linking Edmonton with the TCA trunk route.

[Lorne Manchester, *op. cit.*, pp. 50-56]

Early Alberta "airlines" faced a struggle to stay solvent, due to their very small size. According to historian Stan Gordon: *Some years were very profitable. In 1919, for instance, Wop May was able to pay himself \$1213.50 out of a total income accruing to May Airplanes Ltd from commercial services (\$296.00), passenger fares (\$2558.50), and exhibition fees (\$4225.00) of \$7079.50. Yet two years later the company was out of business.*

[Stan Gordon, *The History of Aviation in Alberta to 1955*, Background Paper No.25, Reynolds-Alberta Museum, 1985, pp. 16-17]

By 1925 no airlines survived in Alberta. "While aviation recovered from its nadir in 1925, it was an uneven recovery. Aviation in the north, centred at Edmonton, grew vigorously after the late 1920's; aviation in the south did not."

[*Ibid.*, p.17]

The lack of aircraft suitable for passenger and freight transport was the most obvious problem facing early commercial ventures. Until a new generation of aircraft appeared to succeed the Curtiss Jennies and Avro 504s there seemed little chance for those attempting to become long distance carriers of passengers or freight.

The post office contracts to deliver mail through the Mackenzie River valley to Aklavik provided the opportunity to expand into a long-distance northern operation. Commercial Airlines purchased a Lockheed Vega which made its inaugural mail flight between Edmonton and Grande Prairie on 21 April 1929. Until the introduction of the streamlined Douglas DC-3 passenger liner in the late 1930s in the United States (and in the late 1940s in Canada) cut operating costs sufficiently that some airlines could

survive on passenger fares alone, most airlines were dependent on government mail contracts to survive.

[*Ibid.*, p.22]

W. C. Solloway's firm, Solloway and Mills, opened offices in Calgary and Edmonton, and financed the organization in Calgary of the Rutledge Air Service, to provide charter and scheduled flights from the American border as far north as Edmonton. "Anxious not to lose an opportunity to forestall the expansion of Western Canada Airways in the Mackenzie valley, May and his partners agreed to a reorganization of their company which saw Solloway and Mills put \$100,000 into the company treasury for the purchase of new aircraft, and Solloway himself become president, while May assumed the lesser office of chief pilot." May decided to sell out to Canadian Airways on 1 May 1931, but continued to fly, usually in his favourite Bellanca CF-AKI, the "Lady Edmonton," until 1936, when he was appointed Superintendent of the Mackenzie River District for Canadian Airways and was transferred from Fort McMurray to Edmonton.

[*Ibid.*, pp.22-26]

Grant McConachie's early efforts to introduce regular air service to the region between Edmonton and the southern Yukon made him a promoter of the polar route for intercontinental flights in the northern hemisphere. McConachie introduced operating principles like the regular use of wheeled, multi-engine aircraft on scheduled routes into northern flying, which significantly benefited airline safety and efficiency. His aircraft were the first to use radio compasses for navigation over the vast stretches of the north. McConachie himself located radio compass stations along the route between Edmonton and Whitehorse. That network, completed in 1938, was used until replaced by an advanced system installed by the Department of Transport in 1941. The DOT system soon was replaced by a more extensive system installed by the United States Air Force along the great wartime North West Staging Route to Alaska and The USSR.

[*Ibid.*, p. 26]

McConachie's aviation career began in Edmonton in 1932 when he and his partners set up Independent Airways, hauling whitefish from the north. United Air Transport, incorporated in August 1934, grew out of his first company, and remained based in Edmonton. United inaugurated a regular run in Alberta, flying from Edmonton to Peace River and Grande Prairie on Saturdays and returning on Mondays, carrying passengers, freight and mail. In 1939 United was renamed Yukon Southern, and it began clearing and preparing its own landing fields, many of which would later be developed into wartime fields. During 1940 Southern Yukon upgraded its fleet, and each of the new machines was equipped with two-way radio and radio compass directional instruments. All flight personnel were required to wear a company uniform when they were on duty. Yukon Southern was just launching a major effort to establish a modern airline when on 1 January 1942 the Canadian Pacific Railway Company took advantage of a permit, granted by the federal government in 1919, to own and operate commercial aircraft within Canada and on international routes. CPR bought ten established companies

outright, with their assets and routes. Yukon Southern was one of the ten companies. McConachie joined the new company as assistant to the vice-president.

Mackenzie Air Services Limited (MAS) was incorporated on 30 January 1930 by Leigh Brintnell. (Cy Becker was another prominent aviator associated with this company.) Brintnell learned to fly during the First World War, serving as a flying instructor for the duration and then joining the Ontario Provincial Air Service (OPAS) upon its formation in 1924. He left OPAS to join James Richardson's Western Canada Airways in 1927, and the following year he assessed the feasibility of flying a regularly scheduled, triangular route from Winnipeg to Calgary and Edmonton and return, so Western Canada Airways could make a realistic bid for the first prairie air mail contract. Western won the contract and in 1929 Brintnell made another survey flight to explore the possibility of airmail delivery to the west coast. This flight touched Winnipeg and Aklavik, south to Dawson City, Skagway and Prince Rupert, then east to Edmonton and Winnipeg. "At least two firsts were accomplished: the first aerial circumnavigation of Great Bear Lake and the first flight over the northern end of the Rocky Mountains."

In 1931 Brintnell quit Richardson to establish his own company and was assured an important contract with the Eldorado Mining Company, since in 1929 he had flown Gilbert Labine, an Eldorado employee, to Great Bear Lake, leading to the discovery of a very rich deposit of pitchblende (the ore for uranium concentrate) the following year. MAS was established to transport uranium concentrate from Great Bear Lake to Edmonton, and was the most successful "airline" in Alberta and the north during the early 1930s, and was the first air service in Canada to be equipped with an airborne communications system. Its station CYZH Edmonton operated fifteen-minute schedules maintained with the RCS stations north of Edmonton. The offices were located in the Macdonald Hotel in Edmonton and in Fort Smith, Northwest Territories.

[*Ibid.*, p. 37-38; *Library and Archives of Alberta* RG 12 Volume 1379 File 5258-268 volume 1, Application for a Licence to Operate a Scheduled Air Transport Service, 1937.]

The Second World War had a significant impact on the development of airlines. The Controller of Civil Aviation called a meeting on 12 September 1939 to discuss with the interested federal departments which air services should be considered essential during the war and the Post Office Department and Department of Mines and Resources agreed that the route from Edmonton to Whitehorse should be retained, and that it was essential that a minimum service should be retained over the Edmonton-Aklavik-Yellowknife-Coppermine-Goldfields circle. Many other lines were curtailed or shut down. By this time, however, Edmonton had established itself as the true gateway to the north, and its air routes would grow.

[*Library and Archives of Canada* RG 12 Volume 1407 File 5216-3 volume 1; Minutes of Meeting...., 12 September 1939]

In February 1940 the Department of National Defence, desperately in need of aircraft, arranged with MAS to take over aircraft. Brintnell noted that due to the higher rates of pay being offered by the RCAF for pilots, "as well as carrying out instructional work in

connection with the air training program,” it was becoming harder to hold onto pilots. “It has been announced by the Department of Transport that Pilot personnel engaged in carrying out airmail contracts in Canada will not be disturbed for other purposes”, he wrote to the Minister of Transport. “Would it be possible for you to write me a letter to this effect, as it would greatly assist us in holding together our organization?”

[*Ibid.*, 23 May 1940]

By June 1940 MAS pilots included Harry W. Hayter, R.C. Randall, A.M. McMullen, H.A. Brown, J.K. Potter and D.P. MacPhee, as well as a fir number of “mechanical personnel.” This attracted the attention of C.P. Edwards, Chief of Air Services, who wrote to Brintnell that the Board of Transport Commissioners was investigating duplication of services in civil flying. “[In] this connection we cannot too strongly urge upon you the necessity for co-operation with other operators and taking such steps as are possible within your own organization to cut your requirements to the bone.,” he advised. Brintnell replied with some irritation “we have six licenced aircraft at the present time, and that the number of Pilots which we have is absolutely necessary to maintain the minimum service in connection with the terms of the Mackenzie River airmail contract....”

In regard to our list of mechanical personnel, I would like to point out that we have an overhaul and repair organization called "Aircraft Repair", where we now employ forty-seven men. These are all skilled and trained personnel, and this organization is going to be used on overhaul work for the Air Force, in connection with the air training program. We have been advised by the Department of Munitions and Supply that these men will not be disturbed for any purpose whatsoever, and furthermore, if they do join any branch of the Service, they will be taken back for this work.... We have also been advised by the Minister of Transport that our staff used in connection with airmail operation will not be disturbed, as it is an essential service. Our personnel would feel better if they saw something in writing to this effect, which is the reason for my request for a letter confirming the above.... Since we have commenced our business, we have been working against grim necessity, and had we not known how to economize, taking into consideration the unstable conditions of Northern aviation, we would not have been in existence at all by now.... You can rest assured, therefore, that we do not retain any personnel or spend any money which is not necessary....

[*Ibid.*, 13 June 1940; 25 June 1940]

Other western airlines found that the war caused problems for them. G.A. Thompson, General manager of Canadian Airways Limited, wrote to the Chief of Air Services in 1940 to complain about personnel “poaching,” and continued to complain of personnel shortages after the British Commonwealth Air Training Plan began to fall into stride:

In order to fulfill our contract to operate No. 2 Air Observers' School at Edmonton it will be necessary for us to draw on Canadian Airways' engineers for key positions and for training of other mechanics at the Observers' School. This means that on some of our longer runs it will be difficult for us to send as crew men licenced air engineers to certify the aircraft and engine airworthy each day as required by Air Regulations.... To take

care of this situation might we suggest that our experienced pilots be granted temporary air engineers' certificates for the duration of the war, so that they will be in a position to sign out any aircraft and will only require a helper with them as crew men.... This would materially assist not only Canadian Airways northern operations but most probably the operations of all companies operating in the north.... I understand a very similar arrangement has been made to provide B and D licensed air engineers for the elementary pilots training schools....

Canadian Airways (Training) Limited also had personnel on staff in Edmonton.

[*Library and Archives of Canada* RG 12 Volume 1378 File 5258-118 volume 3; 28 June 1940; RG 12 Volume 1377 File 5258-118 volume 2; 2 July 1940; Memo, 25 October 1940]

The war also brought some improvements and benefits to the airlines. In June 1939, shortly before the outbreak of the war, G.G. Johnson, the vice president of Trans-Canada Air Lines, reported to the Department of Transport that Edmonton was one of the points serviced by TCA where “considerable difficulty is being experienced... due to loose gravel, which is resulting in some damage to propellers.” Johnson looked forward to the summer work for that year, when hard surfacing of the runways was planned in Edmonton and other airports. Other improvements included the extension and surfacing of all runways and installation of approach lights on both ends of the northeast-southwest runway, on the east end of the east-west runway, and the north end of the north-south runway. RAC also wished to see the removal of the pole line from the southwest end of the northeast-southwest runway.

[*Library and Archives of Canada* RG 12 Volume 1601 File 5158-6 part 1; 1 June 1939; Essential Improvements to Airports, c1940]

On the whole the larger airlines were forced to cooperate, and place their interests after those of the war effort. The phenomenal wartime activity generally led to an overextension of the lines. Typically, by early 1943 the lines out of Edmonton were under great stress to keep up with demands placed on them. Airways Inspector J.R.K. Main visited Edmonton and reported that priority passengers on the Edmonton to Whitehorse route were up to 63 “in arrears” on the day he was there. Discussions began with the Department of Transport and the Post Office about cutting back air routes not essential to the war effort. “[It] was suggested that the Prairie section between Edmonton and Fort St. John might be run with lighter craft such as Barkley-Grows or twin engine Beechcrafts, in order to permit a concentration of Lockheeds between Fort St. John and Whitehorse.” It was also noted that Canadian Pacific Air Lines had acquired up to 36 different types of aircraft during its amalgamation. “They state that it is impossible to get repairs or spares for most of these and that they are managing to carry on merely by robbing one aircraft to keep another in flight.”

[*Library and Archives of Canada* RG 12 Volume 1407 File 5216-3 volume 3; nd – c December 1943]

In 1936 Leigh Brintnell had established Aircraft Repair at Blatchford Field, "the largest and best equipped maintenance shops west of Winnipeg." Established by a partnership between MAS and two non-Alberta aviation companies, General Airways and Wings Ltd., the shops included aircraft service bays, spares storage, engine test stands with the latest in analysis equipment and enough floor space to accommodate the largest aircraft likely to be brought into the facility. In 1938 Aircraft Repair became a separate division of MAS under the name Aircraft Repair Ltd. Aircraft Repair Ltd. played an important role in war work, laying the foundations for its postwar expansion. It repaired or rebuilt more than 1,500 aircraft by 1945; many had been shipped to Canada from the European battlefields, as well as aircraft damaged by BCATP student pilots in western Canada, and others needing maintenance on their way to Alaska and the Soviet Union over the Northwest Staging Route.

[Stan Gordon, *op. cit.*, pp. 42-44.]

In 1941 Mackenzie Air Service was one of the ten companies absorbed by Canadian Pacific Air Lines. Brintnell was appointed to the board of directors of the new airline, but his major interest focused on Aircraft Repair Ltd. As the Second World War wore on, many began to look to the period of postwar reconstruction as a time to rebuild and expand commercial aviation in Canada.

RCAF Flight Lieutenant Wallace Ward described his vision of postwar aviation in 1944. Such hopes and predictions would lead to the establishment of organizations like the ICAO, and take Canada, and Edmonton, into a broader international aviation world in the postwar years.

Much ... discussion on civil aviation was aroused by the bill to establish an Air Transport Board. R.A.C. Henry, of Montreal, has been appointed chairman of the newly-created Board, with the other two members being Air Vice Marshal Alan Ferrier, M.C., of Ottawa, and J.P.R. Vachon, of Montreal. The new Board has been designed not only to regulate and license air traffic in Canada but it also has the responsibility of advising the Government on ways and means of bringing about a rapid and well-planned expansion of transport by air.

Just what rights a foreign aircraft will enjoy in another country will have to be determined by agreement among the nations. To that end Canada has taken the initiative by proposing the establishment of an International Air Convention. It proposed that an International Air Authority be set up to make the rules of international air commerce and to grant licences to international airlines. The Authority would have the normal structure of an international organization—an Assembly representing all the member states and a small executive committee which would be called a Board of Directors. In each region a Regional Council would be set up to deal with matters of regional concern. The whole structure would fit into the general organization for world security, and would be subject to instructions from that body for action in the interest of peace, such as building airfields in a specified area.

Other countries have studied the Canadian proposal. The United States has objected on the ground that any such international body would be "too rigid", that it should have

advisory rather than governing or regulating powers. The United Kingdom is sympathetic to these U.S. objections in spite of the fact that the Canadian proposal has been officially described as "wholly consistent with the conclusions which were unanimously reached" at the British Commonwealth conference on aviation, held in London in 1943. But the smaller countries, such as Norway, the Netherlands and Belgium look with favour on the Canadian idea.

[The] official Canadian view favours international co-operation. Assurance has been given for support of any policy "calculated to serve not only the immediate national interests of Canada but also our over-riding interests in the establishment of an international order which will prevent the outbreak of a third world war."

[F/L Wallace Ward, "Skyways of the Future", *Canadian Affairs*, Canadian Edition Vol. 1 No. 20, 1 November 1944]



[TCA aircraft refueling in 1948 at the Edmonton Airport. EA 160 1374]

As early as 1943 Canada was looking forward to postwar reconstruction, and an extension of its prosperity based on the great economic and technological advances made during the war. Aviation was an important part of its postwar dream. R.T. Elson, the "resident correspondent of the Vancouver Daily Province, living in Washington, DC, reported on a special report of the US Office of War Information (OWI). "Because Canada stands at the 'crossroads' of the air", Elson wrote, "the implications of this report should spur Canadian planning and thinking on the part the Dominion should play

in future development.” He noted that the OWI report described Canadian airways, already closely integrated with American air services, as the “largest and most efficient system” in the world. The great wartime expansion of aviation was accompanied by “a vast world-wide development of airways communications and airports which will be available to serve civilian air transport needs after the war.” The *Financial Post* had painted an equally glowing picture of postwar aviation in Canada the previous month in an article that identified several benefits Canada would have after the war: wartime consolidation and rationalization of air services, Canada’s geographic position “that makes her the hub of international air routes”, an investment of over \$300 million in airports such as that in Edmonton, maintenance facilities and meteorological services, and recently, two national airlines with the creation of Canadian Pacific Air Line. It also quoted Prime Minister Mackenzie King to the effect that the government was viewing ways to facilitate postwar aviation developments. Following Mackenzie King’s address to the House of Commons, J.A. Wilson wrote a confidential memorandum to all his inspectors, indicating that a departmental committee had been set up to consider the issues of postwar civil aviation.

[*The Vancouver Daily Province* 12 June 1943; *The Financial Post* 29 May 1943; *Library and Archives of Canada* RG 12 Volume 657 File 16-4-35 part 1; 16 April 1943]

TCA came out ahead after the war, and the bigger airlines like Mackenzie fared better than the smaller lines, which were swept up in the war and eventually into various amalgamations. R.E.G. Davis observes that Commonwealth countries like Canada had “gone a long way towards rationalization of their air transport industries by transfer to state control.”

The aim was to provide a more efficient service to the public than could have been possible with private enterprise. This has been the theory and on the whole it may be said to have worked in practice. State-owned airlines have customarily enjoyed certain advantages—such as loan facilities at low interest rates—but these benefits are among the main arguments in support of state ownership.

[Davis, *op. cit.*, p. 369]

During the 1940 inquiry into duplication of air services, the greatest objection voiced by the smaller lines was a fear of monopoly, but Davis dismissed these arguments.

After the war there was a growing trend toward international air travel that had increased considerably by the 1950s. By the time TCA began its Atlantic services on 1 May 1947 it had a comprehensive network of routes throughout Canada as well.

Canadian Pacific Airlines felt it was restricted by “T.C.A.-biased legislation,” but CP. was awarded the emerging Pacific route by the Canadian Air Transport Board since it had built up a considerable fleet during the war years. At the same time CPA reduced its local network almost entirely to British Columbia and the Yukon Territory. During the postwar years the big fight was between TCA and CPA. Unlike these big companies, the smaller airlines did not attempt to compete in major markets but acted as feeder services to the trunk routes.

[*Ibid.*, pp. 372-373]

Almost all the small carriers supplemented their scheduled services with work like contract flights supporting the DEW-line Defence System in the far north, or as bush taxis. Pacific Western Airlines (PWA), On 6 July 1959, PWA took over the first sector of the CPA Mackenzie River service from Edmonton to Uranium City.

In August 1945, with the war in Europe and the Pacific over, Canadian Pacific Air Lines (CPAL) was operating a sizeable fleet into the Mackenzie River district. All aircraft operated by the CPAL out of Edmonton were handled under a Routing Department, and were subject to change as business conditions changed. The mainline aircraft were used over two routes: Edmonton-Fort McMurray-Fort Smith-Resolution-Yellowknife; and Edmonton-Norman Wells via-Fort St. John-Nelson-Fort Simpson-Norman Wells, and Fort Smith-Hay River-Providence-Fort Simpson-Norman Wells.

[*Library and Archives of Canada* RG 12 Volume 1378 File 5258-118 part 4; 13 August 1945]

In 1946 TCA was looking to the future with big plans. These included the Edmonton Airport, but only peripherally. W.F. English reported to Director of Air Services A.T. Cowley in late 1946 that he had concluded within four years 30,000-50,000 pound turbo jet aircraft would require 5,000-foot runways. "Obviously the impact of a turbo jet is going to change our thinking considerably and we are trying to appraise the effect it will have on the DC-4's and on plans that we had for the rest of our system," he reported. "We intend, as soon as DC-4's are available, to remove all twin-engine aircraft from the mountain operation...."

Next summer when the Saskatoon Airport is completed we will be able to operate a direct Winnipeg-Saskatoon-Edmonton Service, then if we operate one transcontinental service through Lethbridge and the balance through Calgary, we can pretty well eliminate the Lethbridge-Calgary-Edmonton shuttle except as a purely local operation.... It appears that the two major airport projects for the year 1947 ... will be Calgary and Fort William....

English also assessed the Edmonton facilities in 1946:

A large R.C.A.F. hangar can accommodate twin-engined aircraft of the DC3 type and the U.S. Army Transport Command hangar on the east side of the field can accommodate four-engined aircraft. T.C.A. should be assured of use of this shelter when required. If four-engined service is later established through Edmonton, consideration will have to be given to moving from the present airport to Namao.... The facilities in the present building are inadequate but space can be secured without any new construction by arranging to move from the building non-operating offices, such as Canadian Pacific Air Lines' executive offices, Canadian Air Line Pilot' Association office, etc. It is understood the municipal authorities who own the Administration Building, are favorable to such a move and would prefer to see only operational offices at the airport.

[*Ibid.*]

By early 1947 it became clear that the move to DC-4s was driving demands on airport expansion. "With the additional speed and operating flexibility of DC-4s, I feel quite confident that in a short time their operation will be justified extensively on our Maritime Services, Inter-City Services and even Winnipeg-Saskatoon-Edmonton and Winnipeg-Regina-Calgary, in addition to our Transcontinental Services," English concluded.

[*Ibid.*, "TCA Comments" 11 April 1947] The Edmonton Chamber of Commerce petitioned the federal government to inaugurate direct air service between Edmonton and Vancouver during September 1950. Despite some early encouragement the proposal was turned down after a survey was conducted of the proposed route by TCA. C.D. Howe turned down the request, noting that it would mean organizing another route over the mountains, involving a radio beam; the extra cost was felt to outweigh any benefits to TCA.

[*Edmonton Journal* 7 September 1950; *Library and Archives of Canada* RG 12 Volume 1601 File 5158-6 part 4]

Air traffic had increased considerably north of Edmonton by 1953. R.M Ryan, vice president of CPAL, wrote to R. Dodds, Controller of Civil Aviation, expressing the following concerns:

For some time now we have been quite concerned with the volume of uncontrolled traffic, which operates on instruments over the route Edmonton - McMurray - Fort Smith - Yellowknife generally, but more particularly between Edmonton and Fort McMurray.... It is anticipated that during the next few weeks the volume of aircraft movements will increase appreciably as summer operations commence in Northern Alberta and the North West Territories, and we feel that the traffic volume has now reached a point where some form of airways traffic control should be exercised on the route.... We should advise you that some of the aircraft operating on instruments through the area communicate with Canadian Pacific Air Lines' Radio Stations, while others contact R.C.C.S. Facilities, and still others do not report their position to any ground organization We do not believe that this is a healthy situation and feel that it can only lead to misfortune in due course. Accordingly, we respectfully suggest that the Department take immediate action towards establishing a controlled airway over this route.

[*Library and Archives of Canada* RG 12 Volume 1601 File 5158-6 part 5; 28 April 1953]

The following year TCA recommended upgrading airports across the country to accommodate its planned use of Viscounts between 1955, and 1957. The International Civil Aviation Organization (ICAO) was busy establishing international rules for civil aviation, and this became the rationale for TCA to recommend the construction of "a new civil airport in the vicinity of Edmonton, Alta." TCA felt that this new airport "should meet the requirements of an I.C.A.O. Class 'C' airport except that all runways should have a width of 200 feet."

[*Library and Archives of Canada* RG 12 Volume 1602 File 5158-6 volume 6; W.F. English, vice president, operations, TCA, to Air Vice marshal J.L.E.A. de Niverville,

Director of Air Services, 16 September 1954; TCA, "Recommendations to the Dept. of Transport in Connection with 1956-1957 Air Services Construction Vote"]

In 1956 English wrote to Air Vice Marshal de Niverville, noting that TCA had purchased several DC-8s for delivery in 1960, for use in the transatlantic service, as well as the transcontinental service. He also indicated TCA's plans to introduce sixty to eighty passenger aircraft of turbo prop or turbo jet configuration to replace their North Stars. These were to operate into the major airports, including Edmonton. English also noted that since 1954 there had been increasing pressure for a direct service between Edmonton and Vancouver and suggested development of radio aids on the Edmonton-Vancouver airway.

[*Ibid.*, 7 August 1956]

Despite TCA's obstruction, the Edmonton-Vancouver route went ahead. In August 1956 Deputy Minister of Transport J. R. Baldwin wrote to F.R. McGregor, the president of TCA, that the Edmonton-Vancouver airway was an approved project.

[*Ibid.*, 10 August 1956]

In 1959, with the new airport under construction south of Edmonton, but not yet completed, CPAL reported:

We find it very difficult to comply with your request for information as to our anticipated requirements for the years 1962-1965 inclusive. This is due in part to uncertainty as to the route expansion and frequency of service we may be permitted by Federal and other authorities. We are, however, currently studying the use of heavy jet aircraft of the 300,000 lbs. Gross weight class and we hope to place such equipment in service across Canada late in 1961. The need for larger terminal facilities at our major airports is reflected in the fact that such aircraft carry upwards of 150 passengers. Runway lengths and bearing strength must also be improved in many cases....

About this time CPAL revised its runway requirements upward to 13,200 feet. "The gross weight of the DC-8 would definitely be limited with the present runway length in attempting non-stop operation between Edmonton and Amsterdam".

[*Library and Archives of Canada* RG 12 Volume 1602 File 5158-6 volume 7; 15 July 1959; *Ibid.*, "Summary of Reasons for CPA Expansion or Improvement Requests"]

There were 57,984 aircraft movements in Edmonton during 1959 and 64,951 in 1960. Edmonton Municipal Airport experienced "sharp reductions in activity compared to the second quarter 1960." By 1961 the Department of Transport's Civil Aviation Branch concluded that there was a "general decline in air movements ... , the result of further introduction of longer-range, higher-capacity aircraft into civil and military operations, reduced military training and movement of small aircraft to uncontrolled locations." During the first quarter of 1961 Edmonton Municipal Airport recorded 717 scheduled flights, with 9612 itinerant civil flights and 688 itinerant military flights. By comparison the Edmonton International Airport recorded 2500 scheduled flights, with 376 itinerant civil flights and 167 itinerant military flights. Local flights at the Muni included 31,782

civil flights and 216 military flights; the International recorded 142 civil flights and 277 military flights. The Muni was down 18% in total operations from 1960. The Regional Director of Air Services drew the obvious conclusion: "Under scheduled and itinerant traffic, we feel the decrease is due to the opening of the International Airport plus a reduction in the number of scheduled flights brought about by the use of larger type aircraft. Itinerant traffic has been reduced partly due to the move to the International Airport and to the reduction in the operation of oil company aircraft.... Local traffic dropped chiefly because there was less air cadet training during the month of July in 1960 compared to the same month in 1959. This difference amounted to just over 4,000 movements in this month."

[*Library and Archives of Canada* RG 12 Volume 1029 File 5170-1, volumes 4-5; 1960-1964]

The Edmonton Industrial Airport, as it was then designated, was holding its own against the new airport near Nisku during 1964. While the International Airport was up 731 in total aircraft movements in the first quarter, the Industrial Airport was up 5,767, although these "were contained mainly in Local Civil movements and partially in Itinerant Civil".

[*Ibid.*, 1964]

The Industrial Airport now was entering a period in which it would see its connection with airlines steadily and almost completely disappear. The Edmonton Industrial Airport (aka the Edmonton Municipal Airport) began to struggle from the earliest days of the postwar jet age. The smaller airlines in particular faced many difficulties. Max Ward writes that "conditions at the Edmonton airport at this time [c 1963] were pretty primitive, especially for us, the non-scheduled pariahs of the airline business.... We had to load our passengers in a draughty, noisy hangar, with little in the way of seating space, telephones, or washrooms for the passengers while they waited...."

[Max Ward, *The Max Ward Story A Bush Pilot in the Bureaucratic Jungle*. Toronto: McClelland and Stewart, 1991, pp. 175-176]

The role of airlines is inextricably connected with the early history of the airport and its subsequent struggles to survive in a changing world. The regional airlines can trace their origins to Blatchford Field, but they outgrew the Industrial Airport with the advent of international jet liners, with their greater demands for enhanced runways and accommodation for passengers.

WOMEN AVIATORS AT THE EDMONTON AIRPORT

Women have been participants in the progress of aviation from the beginning and continue to play an increasingly important role to the present. Madame Elisabeth Thible was the first woman to make a free flight ascent in a hot air balloon piloted by an artist named Fleurant over Lyon, France, on 20 May 1784. In September 1815 the first woman parachuted from a hot air balloon in Paris. Madame Madeleine Sophie Blanchard became the first woman air casualty on 7 July 1819 when her hydrogen balloon caught fire at Paris during a fireworks party. M. Blanchard first flew solo in

1805, was appointed official Aeronaut of the Empire by Napoleon, and toured Europe. On 8 July 1908 Madame Therese Pelher became the first woman passenger in an airplane, when she was taken aloft in a Voisin biplane. Madame la Baronne de Laroche became the first woman to become a certified pilot in March 1910, when only 35 other Frenchmen held such certificates.

[Valerie Moolman, *The Epic of Flight: Women Aloft*. Alexandria, Virginia: Time-Life Books Ltd., 1981, p. 9]

Canadian girls and women were fascinated by the early pioneers of flight, just as were Canadian boys and men, although for some time there was some general social uneasiness about women flying. Canadian women looked to some quite famous "aviatrixes," mostly in Britain and the United States, for their inspiration and as role models. Women were among the earliest aviation pioneers in the United States, where Blanche Scott accidentally became the first American woman pilot in 1910 when the plane that she was allowed to taxi "mysteriously" became airborne, a year before Harriet Quimby became the first licensed woman pilot in the United States. On 1 August 1911 Quimby became the second woman pilot in the world, and on 5 September 1911 the first woman to pilot an airplane across the English Channel. On 16 April 1912, she set out on the then perilous flight from Dover, England to Hardelot, France, in her open Bleriot monoplane. The crossing took one hour and six minutes, but her achievement was overshadowed by the larger headlines resulting from the sinking of the Titanic the preceding night. Quimby died in Boston on 1 July 1912 when she was thrown from her airplane during an exhibition flight.

[Aerofiles, "Harriett Quimby," by Peter Bergenson]

Women's air races organized during the 1920s proved to be very popular and influential. The biggest was the National Women's Air Derby in 1929, from Santa Monica, California to Cleveland, Ohio. This famous race was flown over the course of eight days. The Derby drew twenty women from across the country and gave them the chance to meet face-to-face for the first time. Women aviators were setting examples of their skill and enthusiasm in several very public ways that year. Among these was Louise Thaden, who set the women's flying endurance record from Oakland Municipal Airport, California, on 16 March 1929. Louise McPhetridge Thaden set several speed and endurance records during the 1920s and 1930s. In February 1929 she set a new American women's endurance record, remaining in the air in the same Travel Air for 22 hours and 3 minutes. In 1929 she earned her transport pilot license, only the fourth woman to do so.

Women would make greater progress in the United States than in Canada. In September 1942 the United States Army Air Forces was assigned its first members of the Women's Army Auxiliary Corps (WAAC), for work in the Aircraft and Warning Service. This service operated listening posts during the tense days following the invasion of Attu and other Alaskan islands, when enemy attacks on the United States were expected. After several times rejecting proposals to use qualified women pilots for flying duties, USAAF Commanding General Henry H. Arnold agreed to the formation of two groups to help ferry aircraft. The Women's Auxiliary Ferrying Squadron (WAFS) and

the Women's Flying Training Detachment were both activated in September 1942. Both were to use women employed as civilians in military tasks. The WAFS was designed to use already qualified women aviators to ferry aircraft for the Air Corps Ferrying Command (later the Air Transport Service), and the WFTD was to include an intensive training program to qualify women to replace men in a number of flying duties. On 5 August 1943, the WAFS and the pilot trainees were merged into one organization, Womens Airforce Service Pilots (WASP), headed by Jacqueline Cochran. Training of women pilots preceded the merger, and by November 1942 trainees, who earlier were required to have a private pilot license and 200 hours of flight time, were accepted without prior flying experience. WASP was terminated on 20 December 1944. Most American women who learned to fly during the Second World War received instruction through the Civil Pilot Training Program, with more than 935 women gaining their licenses in 1941 alone. As the Second World War progressed more American women served as ferry and test pilots, mechanics, flight controllers, instructors, and aircraft production line workers. At the beginning of 1943, almost a third of the American aviation work force were women. WASP members remained civil service employees who did not receive the pay and benefits received by male pilots sharing the same risks.

The death of one famous woman aviator who died on ferry duty during the Second World War hit Canadian aviators particularly hard. Amy Johnson, the British aviation pioneer was a legend among women flyers at the time of her death in 1941. Women also began to become part of the air traffic control organization that developed during the Second World War. Mary VanScyoc was the first female civilian air traffic controller in the United States.

[Andrew Pitas, historian with the Air Traffic Controllers Association]

Women have been part of aviation history in Canada since at least 1891. During 2-3 September 1891 the first parachute descent in Canada by a woman occurred, when Professor W.W. McEwen and Miss Nellie Lamont performed hot air balloon ascensions and parachute descents at the Great Eastern Exhibition at Sherbrooke, Quebec. The first Canadian woman to pilot an aircraft was Grace MacKenzie, who flew with the famous aviator de Lesseps over New York City on 25 October 1910. Canada's first women fliers, called "aeronauts" or "astronauts" by the press, were passengers, navigators, sky divers or glider pilots. The first Canadian woman believed to have gone aloft in a powered aircraft in Canada was Mrs. William M. Stark of Vancouver, British Columbia. Mrs. Stark appears to have flown as a passenger with her husband, near Minoru Park in Vancouver, in his Curtiss biplane pusher, on 24 April 1912. The first actual flight undertaken by a Canadian woman pilot also seems to have taken place at Minoru racetrack in Vancouver, on 13 July 1913. This also was in a Curtiss pusher biplane, which her husband John Milton Bryant flew twice that day for the crowds who gathered to view the marvel of the new century. Several Canadian women also became involved in aviation shortly after the Great War of 1914-1918, but their numbers were few due to the social and economic pressures brought to bear on their ambitions.

[G. A. Fuller, J. A. Griffin, and K. M. Molson, *125 Years of Canadian Aeronautics: A Chronology 1840-1965*; *Daily News-Advertiser*, Vancouver, British Columbia, 1 August 1913]

Unlike the United States, Great Britain, and Europe, Canada did not encourage "the gentler sex" to participate in the pioneering aviation endeavours. Other countries first established a network of airways between their major cities with government assistance. In Canada aviation was seen as a more rugged, manly undertaking out on the fringes of civilization. No government encouragement or control existed for commercial aviation before the First World War. After the war little opportunity existed for air force veterans to practice their new skills, except by using surplus military aircraft to open up the dangerous maritime and boreal resource frontiers in competition with more traditional means of transportation and freighting. The federal government, because of its over-expanded railway system, did not support early development of a national airways system, so in Canada it came almost entirely under the military, further constraining women's participation, since the Canadian Air Force was handling work that could have gone to commercial companies during the 1920s. The Department of National Defence [1923] grouped civil and military air services under one directorate in the Chief of General Staff Branch. In 1927 a separate directorate for civil aviation was created, but it was still administered by the Department of National Defence. It was not until 1936, when the Department of Transport was formed, that civil aviation was separated from military control.

The Department of National Defence also granted a \$100 bonus to Canadian flying clubs for every male pilot who qualified for a private pilot's licence, and an extra \$4 per hour for first pilot (solo) flying time (up to a maximum of forty hours) for each male pilot training for his commercial licence. Of course, the clubs preferred to train men instead of women.

[From: Shirley Render, *No Place for a Lady The Story of Canadian Women Pilots 1928-1992*. Winnipeg: Portage & Main Press, 1992.]

Alberta women undoubtedly were inspired, as were Albertans generally, by a visit from one of the great aviation figures of the early years. Katherine Stinson, "The Flying Schoolgirl", who had turned to barnstorming when unable to afford the training to become a concert pianist, visited the province at a time when women were becoming involved in the struggle to gain a more active part in the broader social and political context. Ironically, Stinson would later be excluded from participation in the armed forces of the United States, would contract tuberculosis while working in France as an ambulance driver, and never fly again after the Great War. However, her influence was earlier and undoubtedly as powerful as that of the later Amy Johnson and Amelia Earhart. Historian Pat Myers describes the excitement that followed Stinson wherever she went in Alberta. First appearing at exhibitions in Edmonton in 1916 and 1917, she returned in 1918:

Katherine Stinson would carry mail from Calgary to Edmonton. It was only the second time mail had travelled by air in Canada. Three weeks before, the first airmail had been carried from Toronto to Montreal. Hastily written letters were dropped off at the post office. On 9 July, at 1:03 PM, wearing a heavy coat and carrying a horse shoe for good luck, Stinson took off from a hill outside the city.

Motor trouble forced her down fourteen and a half kilometres out, but mechanics rushed to the scene and by early evening she was once again in the air. All along the route the telegraph tapped out her progress to the waiting crowds in Edmonton. Passengers on the Calgary-to-Edmonton train "raced" her between Lacombe and Morningside, crowding the windows and doorways for a view. Shouts erupted from the grandstand crowd in Edmonton as a sharp-eyed spectator picked out her plane on the horizon. A large white arrow had been laid in the race track oval to mark her landing place. She circled a couple of times, then headed down to earth. The crowd rushed the oval. The police and fair officials were "swept out of the way like straws," reported the Edmonton Bulletin.

Stinson was escorted to the platform for a brief ceremony that included three rousing cheers. Then she was whisked away to the Macdonald Hotel for a rest. She had delivered 259 letters in a trip that had taken just two hours and five minutes.

[Patricia A. Myers, *Sky Riders An Illustrated History of Aviation in Alberta 1906-1945*. Edmonton: Fifth House Publishers; Friends of the Reynolds-Alberta Museum Society, 1995, pp. 29-32.]

Other native Alberta women would soon follow in the trail blazed by luminaries like Stinson. Gertrude de la Vergne was Canada's third, and Alberta's first, licenced woman pilot. Gertrude had fond memories of her flying days.

Even though I was the only girl the boys always included me in their discussions and activities. In fact, it was Wop May, a World War I pilot and the first instructor at the Edmonton and Northern Alberta Aero Club, who encouraged me to do aerobatics. I still vividly remember doing inside and outside loops with Wop." Despite her acceptance by the men and her skill as a pilot, they discouraged her from taking further training. "Flying was expensive and I knew if I were to continue I needed to find a job in aviation. The airmail service from Edmonton to Aklavik had recently been inaugurated and I inquired about flying the mail if I qualified for my commercial licence. They told me a woman would not be suitable. The commercial licence was too expensive to take without the assurance of finding work so I regretablely [sic]gave up flying about a year later.

[Rendel, *op. cit.*]

Other Alberta women soon followed. Louise J.C.M. Burka of Calgary earned her flying license in 1929, becoming Alberta's second licensed woman pilot. Margaret Fane began her flying career in Edmonton, where she started a life-long love of aviation with her first airplane ride in 1928. Three years later the famous Trans- Canada Air Pageant appeared in Edmonton and that event inspired her to learn to fly. Margaret Fane made a real life's career of aviation, and remains one of the most influential women in the history of aviation in Alberta. "My parents were both very air-minded; they flew in the first aircraft to arrive in Edmonton and my father helped to build a glider," she recalled. After two years of saving money she enrolled at the Northern Alberta and Edmonton Aero Club and received her licence on 12 October 1933. Of her instructor she said, "Moss Burbidge was terrific. I got nothing but help from him." About this time she also began working towards her ham radio operator's licence and her air engineer's licence.

Next she decided to improve her flying by taking her commercial training. "I earned \$22 a week and lessons were \$12 an hour," said Margaret. "I used to do the club's bookkeeping and cover wings [stretch fabric over the wooden ribs] in return for free flying time." It took Margaret more than two years to accumulate enough time to take her commercial training but she received her commercial licence on 29 August 1935, the first woman in western Canada to do so. In the fall of 1935, the Fanes moved to Vancouver. In 1941, the Canadian Pacific Railway bought ten bush companies, including Ginger Coote Airways, and amalgamated them to form Canadian Pacific Air Lines. Margaret was hired by the Vancouver office to handle reservations, later becoming superintendent of reservations and traffic training, the first woman to hold such a position.

[*Ibid.*]

Evelyn Hudson was born in England and educated in Edmonton. "She was attracted to flying by the derring-do of bush pilots who flew in and out of Blatchford Field, " an article in the *Edmonton Journal* reported in 1963.

She was in the public eye here as an expert swimmer and diver and held an Alberta diving championship. She trained as a pilot in the United States and in 1936 became the first Canadian woman to operate her own flying school. In 1937 at Ventura, California, Miss Hudson claimed a world record for women's solo endurance flying — nineteen hours and fifty-seven minutes.... By the time she was twenty-five Miss Hudson was internationally known as a racing pilot. Early in the 1930s she took part in a transcontinental U.S. air race. It was following this that she opened her flying school, in Hawaii. Aviation ran strong in the Hudsons' blood. Evelyn's sister Winnifred, who also received her schooling in Edmonton, became an aviation writer.

["The Old-Timer," The Third Column, "Air-borne Ladies," *Edmonton Journal*, 8 February 1963]

Marjorie Chauvin Herity, Canada's first woman demonstration pilot, also was a native Edmontonian. For her fifteenth birthday Marjorie Chauvin's father treated her to a ride in a "Jenny" with "Wop" May at the controls. She found it so thrilling that she decided to learn to fly. Captain "Moss" Burbidge, the chief flying instructor of the Northern Alberta and Edmonton Aero Club, and a flying veteran, refused to accept her as a student, expressing the view that 'only men had the right temperament to pilot a plane.' Burbidge finally agreed to hold a separate class for girls but only if there were a minimum of a dozen. When she could not do this, Marjorie checked the Civil Aviation Rules and Regulations, discovered that pilots did not have to be men, and informed Burbidge that she would sue him if he did not teach her and her friend Elsie MacLean. "To make ourselves as inconspicuous as possible Marjorie and I wore men's riding breeks, a man's shirt, tie, leather jacket, and shoes," recalled MacLean. "But it didn't help. We were the butt of many jokes and Burbidge used to call us the snivets, which meant 'insignificant birds. We leaned on each other for support because the other students all followed his lead and made fun of us. We tried to ignore the worst of the remarks and to keep smiling." Marjorie Herity received her licence on 27 December 1929. Her husband later recalled that "she realized from her experiences with Burbidge that she

would never get a job in the west where most of the flying was in the bush. In January 1930 she moved to Toronto, where she successfully pursued her career. Margaret Fane and Enid Norquay, who took instruction from Moss Burbidge a few years later, had nothing but praise for him. "I used to think that Captain Burbidge helped me more than some of the boys. He told me he liked my interest in flying and many times he would pick me up at 5:00 AM and take me to the airfield for my lessons," said Norquay.

[*Ibid.*]

Gladys Graves Walker, an executive secretary with the Alberta government and a well-known equestrian, was in the first class of students at the Edmonton Aero Club and became Alberta's second licenced woman pilot. "There were fifty men and me," wrote Gladys. "Because there was only one aircraft, Wop May held the ground school course first and stated that the first ten people to pass the oral and written exams would be the first to fly. I was the ninth to pass."

In those days the airport was just a field on the outskirts of Edmonton with three grassy lanes full of gopher holes and lumps. Getting my licence was slow going because the weather always left the field soggy and wet. Then Wop got an infected hand, which prevented him from flying for about six weeks. I would get up at 4:00 AM, take a streetcar as far as it went and walk the rest of the way, have my lessons, get back and go to work. After work I would exercise my horses. When the newspapers reported that there was a girl student I found myself simply invaded by insurance salesmen trying to sell me both life and accident. I took neither.

Her training was interrupted when she married George Walker, a Calgary lawyer, but she returned to Edmonton for instruction. "I was ready to take my test in the spring of '29 but had to wait until September when there were enough boys to qualify before they brought a government man up from Regina to give us the test." She received her licence on 27 September 1929, the eighth woman in Canada to qualify.

[*Ibid.*]

Enid Norquay, another Edmontonian, came from a prominent family. Her paternal grandfather was a former premier of Manitoba, her maternal grandfather was the first mayor of Edmonton, her father was a magistrate for the Northwest Territories, and her mother was a well-known horsewoman. "When the prairie airmail service began in 1930 I used to go to the airport to watch the planes. I was so enthralled with the whole idea of flying that I asked my parents if I could go to Winnipeg on one of the airmail planes." She received her licence on 23 November 1931.

[*Ibid.*, pp. 30-32]

Isobel Secord also was an Edmontonian woman who was attracted to flying. As a young woman she skied and climbed mountains in Canada, the United States, Europe, and Asia, toured China on foot, and worked as a nurse in South Africa. By 1933 she was looking for another challenge. "I flew simply for the challenge of learning another sport which promised to provide some thrills and adventure," she later recalled.

[*Ibid.*, pp. 33-34]

Not every woman could take up flying in the 1920s, due to the expensive lessons, just as is the case today. Elsie MacLean recalled that "[airplanes] fascinated me but I never thought of taking lessons until I saw Marjorie Chauvin's advertisement in the paper. My father had always encouraged me to try new things. He had taught me how to drive a car before I was the proper age and later, when I took flying lessons, he often gave me the family car so Marjorie and I could get out to the airfield for our lessons at six in the morning." A graduate of Alberta College and an employee of the Bank of Nova Scotia, she earned \$75 a month. "That was a top salary for a girl in 1929. My father also helped me out." She received her licence on 12 November 1929 but flew for less than a year after that.

Canadian women became involved in the technical and commercial end of aviation as early as 1929. In that year Miss E.G. MacGill obtained her MSE at the University of Michigan, becoming the first Canadian woman to earn a Masters degree in Aeronautical Engineering. On 5 February 1930 that Mrs. J.M. Miller of New York City was issued Canadian commercial pilot's license No. 631, the first issued to a woman in Canada.

Moretta Fenton Beall "Molly" Reilly joined the Royal Canadian Air Force, Women's Division, in 1942 as a photographer and served in Canada as a Non-commissioned Officer until 1946. She graduated with her Commercial Licence in 1946. In 1965 Reilly joined Canadian Coachways of Edmonton, and when Canadian Utilities absorbed that company several years later she was named Chief Pilot.

[Molly Oswald, They Led the Way Members of Canada's Aviation Hall of Fame 25th Anniversary - 1973 to 1998. Wetaskiwin: Canada's Aviation Hall of Fame, 1999.]

Women still had difficulties after the Second World War finding acceptance in the commercial aviation world. This was symptomatic of the general trend to encourage women to once again assume traditional roles, and to allow male veterans to fill the available postwar jobs.

SEARCH AND RESCUE AT THE EDMONTON AIRPORT

Search and Rescue operations have played a vital and sometimes even a romantic role in the history of aviation in western Canada. The recent rescue of a medical doctor from Antarctica by a crew of Calgary fliers points out how the world still can follow such adventures with bated breath.

Pat Callison rescued those in distress as a sideline during the course of his aviation career, and points out the value of rapid air ambulance service in the north.

Many people in the Yukon are alive today thanks to the fast transportation to hospitals provided by aircraft. I certainly carried my share of accident ... and several cases of communicable diseases. In 1949 there was almost an epidemic of T.B. around Dawson and in all the villages in northern Yukon. CP Air found that their passengers objected to having patients on the regular carriers, so I would fly the patients to Whitehorse from where Canadian Air Forces aircraft would take them to a hospital in Edmonton.

[Pat Callison. *Pack Dogs to Helicopters. Pat Callison's Story*. Chapter 25, "Ambulance". Vancouver: Evergreen Press; Pat Callison, 1983. pp. 153-155]

Before the Second World War coordinated air Search and Rescue (SAR) in Canada was virtually non-existent. More and more aircraft were flying in remote areas such as the still mostly unexplored north. Still, no organization with the resources and the mandate to rescue downed aviators as yet existed. During the early years of the Second World War Canada began to train thousands of airmen through the British Commonwealth Air Training Plan, and a need for personnel capable of rescuing downed fliers immediately became apparent as the novice flyers' craft crashed in alarming numbers. In 1944, a small, highly trained cadre of rescue specialists was created within the Royal Canadian Air Force. But when the war ended, these rescue units were disbanded and their members returned to civilian life.

The first aircraft to be used for Search and Rescue were small, usually Canadian-built bush planes and converted Second World War transport, bomber and maritime reconnaissance airplanes. (The consistent use of helicopters in SAR did not occur until the mid 1950s.) Because of the absence of emergency radio beacons on these early airplanes, search crews had to rely entirely on "visual indicators" to locate downed aircraft, sunken boats or missing people. Long searches lasting weeks were common in the early days of SAR.

[Canada. National Search and Rescue Secretariat, 1997, p. 30]

The advent of Emergency Locator Transmitters (ELTs), and their almost universal introduction during the 1960s and 1970s, allowed SAR planes to conduct "aerial electronic searches", speeding up discovery of disabled craft and improving the chance of survival by accident survivors. Today COSPAS-SARSAT (Search and Rescue Satellite system) enables search aircraft to respond quickly and accurately to radio distress beacons, saving more lives and drastically reducing the cost of SAR operations. In the mid-1960s, Hercules and Buffalo transports entered SAR service, allowing effective, slow-speed search and aerial delivery operations by parachute in all environmental conditions. Medium-lift Labrador helicopters also entered service during this time, providing recovery and hoisting capabilities at sea or over the land.

By 1944 a structured search and rescue organization was required to support the growing Canadian aviation community. That year the federal government created an Interdepartmental Committee on Search and Rescue chaired by the RCMP, which was directed to study the problem and make recommendations. On 29 December 1945, Cabinet reviewed its report, submitted through the Minister of Justice. Although Cabinet recognized the requirement for a more professional SAR service, it decided not to authorize such a service under the RCMP. Instead, Cabinet suggested an SAR service could be created using National Defence resources. The Cabinet Defence Committee was then directed to comment on the proposed organization for the provision of aid to aircraft in distress. The Defence Committee found that "...An adequate Rescue Organization for aircraft in distress could be provided by existing services in cooperation, and that the Department of National Defence for Air should undertake responsibility for the necessary co-ordination to this end...". On 16 January 1946, the

Royal Canadian Air Force assumed chairmanship of the Interdepartmental Committee on Search and Rescue. This committee included representation from Defence, Fisheries, Transport and Justice Departments, and established the foundations for Canadian SAR organization as it still exists. Their mandate was to make maximum use of existing resources and services wherever possible and to structure them to provide an adequate response capability. Additions as required, had to be made "in the most economical manner compatible with reasonable efficiency." The RCAF volunteered to undertake the co-ordination and supervision of the Search and Rescue service. This development worked in close cooperation with other developments in Edmonton.

In December 1944, a new United Nations organization designated the International Civil Aviation Organization (ICAO) drafted agreements at a meeting in Chicago that each signatory nation should be responsible for air Search and Rescue on its territory and on the ocean approaches to it. At this time ICAO's primary concern still was for the safety of the large number of Allied aircraft that would be returning from war service overseas. In December 1945, the Cabinet rejected a proposal to make SAR a responsibility of the RCMP, and instead ordered a study to assess the ability of the RCAF to conduct SAR operations. On 18 June 1947, Cabinet Directive Number 18 was signed, making the RCAF responsible for the provision and coordination of air rescue in Canada. This marked the beginning of the Canadian military SAR system.

The RCAF established five Rescue Coordination Centres (RCCs) and divided the country into four SAR Regions (SRRs). Dedicated rescue units were formed and trained to carry out the new mandate. The RCCs were located in Halifax, Nova Scotia, responsible for the Atlantic SRR; Rockcliffe, Ontario and Winnipeg, Manitoba, responsible for the Eastern SRR; and Vancouver, British Columbia, responsible for the Pacific SRR. RCC Edmonton was responsible for the SRR covering Alberta, the Northwest Territories, Yukon and the eastern slopes of the Rocky Mountains. North West Air Command in Edmonton had administrative control of 11 Group in Winnipeg, and 12 Group in Vancouver. A number of primary SAR units within each group were established and numbered in sequence, such as 123 SAR Flight within 12 Group, and so on.

By the early 1950s, a sixth RCC had been opened at Torbay, Newfoundland, and the RCC at Rockcliffe had been replaced by one in Trenton, Ontario. Rescue aircraft were located in Torbay, Newfoundland; Goose Bay, Labrador; Greenwood, Nova Scotia; Trenton, Ontario; Winnipeg, Manitoba; Churchill, Manitoba; Namao, Alberta; Whitehorse, Yukon and Sea Island (Vancouver), British Columbia.

[*Ibid.*, pp. 9-11]

The first aircraft assigned for SAR duties were converted Lancaster and Hudson bombers, Canso flying boats, Dakota transport planes and Single Otter bush-planes. (In the early 1950s, small Sikorski S51 helicopters were brought into SAR service, but their numbers and availability were limited.) In 1955, RCAF SAR had 27 planes and five helicopters. Also available were a limited number of Royal Canadian Navy (RCN) aircraft and RCAF high-speed rescue boats in Halifax, Victoria, Trenton and Goose Bay.

In their first year of operation, the Rescue Coordination Centres responded to 50 air incidents.

The installation of DEW Line air defense radar across northern Canada in the late 1950s led to a decrease in the number of "air incidents". Radar operators could locate lost pilots and direct them to the nearest airstrip. The introduction of aircraft emergency radio beacons in 1956 enabled SAR aircraft to track radio distress signals. These signals were initiated either manually before a crash, or automatically when the aircraft impacted the ground.

The most effective SAR aircraft included the Hercules, Buffalo and Labrador. The CC-130 Hercules, built by the Lockheed Aircraft Corporation, was considered one of the most versatile transport aircraft in the world. In 1970, the SAR system received another modernization with the introduction of the de Havilland built CC-115 Buffalo, one of the world's best short-take-off-and-landing (STOL) aircraft. The CH-113 Labrador is a twin-engine, tandem rotor helicopter designed and manufactured by the Boeing Vertol Company and used by the Canadian Forces in the Search and Rescue role.

In 1982, the world-wide Search and Rescue satellite aided tracking system (SARSAT) became operational. This system can determine the general location of emergency locator transmitter (ELT) signals, in all weather, 24 hours per day. Once the satellites localize the signals, search aircraft are sent to pinpoint its source. The system has resulted in a tremendous number of lives saved and drastically reduced aircraft flying time, and in turn the cost of SAR.

In 1994, the number of SAR regions and Rescue Coordination Centres was reduced to three, operated in conjunction with the Canadian Coast Guard (CCG) at Halifax, Trenton, and Victoria. The Canadian Mission Control Centre (CMCC) is a sub-unit of Rescue Coordination Centre Trenton and is part of the ever-growing international COSPAS-SARSAT program. In addition to the primary SAR resources, there are numerous secondary resources available for SAR operations. One such resource is the combat support squadrons located at Cold Lake, Bagotville, Quebec; and Goose Bay, Labrador. 417 Combat Support Squadron, 4 Wing Cold Lake, operates the CH-146 Griffon helicopter to fulfill its mandate. All CF aircraft have SAR as a secondary role. Thus, any aircraft, crew, or squadron may be tasked to support a SAR operation at any time. In addition, any other CF resource may be called upon to provide assistance to a SAR operation, if necessary. Edmonton has frequently played a support and logistical role in such operations.

[*Ibid.*, pp. 14-16]

The early development of aerial safety procedures and equipment can be said to have begun in Canada on 26 September 1888, when the first parachute descents were made by Canadian-born Edward D. Hogan, then of Jackson, Michigan, who parachuted out of a balloon at Sherbrooke, Quebec. Ironically, the first aerial fatality in Canada occurred on the same date during a balloon ascension by Professor C.W. Williams at the Ottawa Exhibition. Tom Wensley was carried into the air clinging to a rope hanging from the balloon and fell to his death before the horrified crowds. On 16 July 1889 the first

Canadian-born "aeronaut" to die in an aerial mishap, E.D. Hogan, was lost at sea while testing the Campbell "airship" balloon from Brooklyn, New York.

On 23 February 1909 the first flight in Canada by a powered heavier-than-air machine was made by J.A.D. McCurdy, who flew the Aerial Experiment Association's *Silver Dart* biplane in Baddeck, Nova Scotia. On 9 March 1910 the first serving member of the Canadian armed forces, Major G.S. Maunsell, took an aeroplane flight in Canada. These events truly signalled the beginning of serious aviation in Canada. Safety measures would become a more serious concern after this.

On 24 May 1912 the first parachute jump from an aircraft in flight over Canada was made at Vancouver by Charles Saunders, from a Gage tractor biplane piloted by P.O. Parmelee. On 6 August 1913 the first airplane accident fatality in Canada occurred when John M. Bryant was killed in the crash of a "Curtiss-type" hydro-airplane at Victoria. On 5 July 1919 the first parachute jump from an aircraft by a Canadian was made by Frank H. Ellis, later an aviation historian, from a Curtiss JN-4 at Crystal Beach, Ontario.

The formation of Canadian Air Force on 18 February 1920 led to its assumption of many duties, including aerial surveying, search and rescue, and fire spotting. On 9 August 1920 the first ambulance flight in Canada took place when a Lieutenant Townley, suffering from "old war wounds", was flown from Camp Borden, Ontario to Toronto for treatment. On 1 April 1921 the first Canadian Air Force flying fatality occurred at Camp Borden when Squadron Leader Keith Tailyour, the Edmonton aviation pioneer, crashed while performing aerobatics in a Avro 504K. However, it was not until April 1925 that it became obligatory to wear parachutes in RCAF aircraft while in flight. (On 15 February 1924 the Canadian Air Force became the Royal Canadian Air Force.) On 17 May 1929 the first Canadian to save his life by a parachute was test pilot Colin Spenser "Jack" Caldwell, who parachuted from a Vedette flying boat, spinning out of control, at Montreal.

Wop May and Vic Horner flew diphtheria anti-toxin from Edmonton to Fort Vermilion, Alberta in a wheel-equipped Avro 594 Avian on 2-3 January 1929. This very famous mercy flight made the importance of air services quite clear to Edmontonians.

The difficult rescue of two Army Signal Corps men in northern Alberta in October 1932 was a formative influence in the establishment of search and rescue organization. Joe Sens and his brother were severely burned while living in an isolated cabin about 150 miles north of Edmonton. Joe's eyes and hands were seared from the explosion of their natural gas stove, so he had to use his elbow to pound out a desperate SOS on his telegraph key. When the garbled message was received in Edmonton, Major Jim Burwash, Commanding Officer of Army Signals, sent out an immediate request for a bush pilot, and Grant McConachie, then only 23 years old, stepped forward. Early next morning he flew his Fokker northward with his mechanic, Chris "Limey" Green. They carried a cardboard box filled with medical supplies on board, because Major Burwash had decided the flight was too risky to allow a doctor to go with them. After three attempts, the Fokker landed on a narrow strip of beach and ploughed through the bulrushes straight for the cabin. It came to a stop just short of the cabin. McConachie

gave medical aid to the Sens brothers and "Limey" Green stitched up the belly of the plane, which had been torn out when it had caught the stake of a muskrat trap during landing. The takeoff was even more difficult, and has become a part of northern lore. McConachie knew that the short strip of beach was an inadequate runway, lacking room to get off the ground, among other things. With the help of a trapper and his mechanic, he hauled the Fokker backwards up a slight slope into the heavy brush and secured a rope to its tail. Then he ran it across a stump to use as a chopping block, and tied the other end to a large tree. After loading McConachie opened the throttle, revved the engine to full power, and signalled the trapper to chop the rope. Suddenly, just after takeoff, the Fokker began to shake. As McConachie applied more power, the vibration increased, but it lessened when he pulled back on the throttle. This situation continued throughout the return flight. McConachie set the plane down on the runway in Edmonton where doctors, police cars and reporters were waiting. McConachie and 'Limey' were shocked to discover that their propeller had split right down the middle during take-off as it had slashed through the heavy bush. Only a thin strip of metal binding had kept the prop from flying apart.

Other milestones in public awareness occurred during 1936. Between 17 August and 16 September 1936 the largest search in Canadian history up to that time took place north of Great Slave Lake, in the search for Flight Lieutenant S. Coleman and Leading Aircraftman J. Fortey of the RCAF. In December 1936 a rescue was successfully conducted by Matt Berry at Hornaday River on the Arctic Ocean, during the search for R.C. Bishop and his party of four.

The RCAF was decimated by austerity measures during the Depression, and although it kept an air search and rescue service, there was no central coordinating authority for SAR activities in Canada. Calls for help could be received by the RCMP, the Navy, the Army, the Air Force, municipal police or any other organization.

When the Second World War began, many young, inexperienced pilots were called upon to fly planes over isolated and dangerous northern territory as they navigated the Northwest Staging Route. Mechanical problems, unpredictable weather and inadequate navigational aids caused many forced landings. Many airmen were left stranded in the largely uninhabited north, and many of these crash victims suffered needlessly because help could not be provided to them quickly enough. "Wop" May was at the time the civilian manager of 2 Air Observer School (2 AOS) in Edmonton. The School, formed 5 August, 1940 was part of the Joint Air Training Plan organization and was responsible for training Observers and Navigators for the war effort. The school was run by a civilian company, Canadian Airways Training Limited, using aircraft supplied by the RCAF. In addition to the civilian staff there were RCAF supervisory and instructional staff provided. During the flying training, aircraft from the School spent a lot of time on the North West Staging Route.

Operations Hart and Mensing sought two transports that went missing on 5 February 1943. Aircraft from 2 AOS found Hart's aircraft after 19 days. There were two survivors but both pilots had perished. The other transport, with 11 on board, was never found. May decided to organize his own air rescue team, able to parachute in to the crash site and administer first-aid. This turned out to be one of the first parachute rescue teams of

its kind in the world. It was composed entirely of civilians employed by Canadian Airways Training Limited, working for #2 Air Observer School. Larry Poulson, an Instrument Mechanic, Owen Hargreaves, involved in Flight Line Maintenance, Wilfred Rivet, a crew chief Airframe Engineer, and Scotty Thompson volunteered to help organize and be part of the team. Sergeant Wilf Rivet, Jumpmaster for the wartime courses, was one of the original members of the 2 Air Observer School Para Rescue team. Hargreaves, Poulson and Rivet were enlisted into the RCAF as Sergeants in June 1944.

Early in 1943 Owen Hargreaves and Scotty Thompson were sent to Missoula, Montana, where the US Forestry School was training "Smoke Jumpers" to get to fires quickly by parachute. The US Forest Service had identified the need to use airplanes and firefighters trained as parachutists to reach remote areas by 1939. International military services took an active interest in the project in 1942, as Search and Rescue units more frequently needed to assist plane crews forced down over uninhabited mountainous country. To the Forest Service school in Missoula came representatives of the Army's Second Air Force, Coast Guardsmen, and the two members from the 2 Air Observer School. From this cooperative training grew the first Edmonton Search and Rescue service.

After the intensive six-week course, Hargreaves and Thompson returned to 2 AOS in Edmonton, but in late summer the team suffered a major setback when Thompson died in an accident. Training continued but lacking equipment and facilities, it was a struggle. Jumps were made at considerable risk to members of the team, who had several close calls, so May presented his plan to the RCAF Rescue Section. An inspection by an Air Force Headquarters team in April 1944 allowed the rescue unit to demonstrate their skills. The AFHQ team was impressed and parachute rescue capability began to be introduced into the RCAF, although approval from Ottawa did not come until the North West Air Command (NWAC) was formed on 1 June 1944, with headquarters in Edmonton. With the advent of NWAC, 2 AOS would be phased out as part of the BCATP. There were fears that if the rescue unit was not brought into the RCAF before this happened then this important initiative would be lost. But when Air Vice Marshall T.A. Lawrence was appointed commander of the NWAC, he became interested in integrating the civilian rescue unit into the RCAF. Hargreaves, Poulson and Rivet were enlisted as Sergeant Aero Engine Mechanics into the RCAF and attached to #6 Communication Flight, based in Edmonton, in June 1944.

Flight Lieutenant Stan C. Knapp recalls the start up of the first RCAF Para Rescue unit:

How to rescue the air crews and determine if there was salvage had become a critical issue. To meet this situation, the first policy meeting was called by AVM Lawrence.... At the time the first meeting was called in AVM Lawrence's office, I was North West Air Command Navigation Officer and also responsible for Search and Rescue for the North West Staging Route.... The subject was, "What were we going to do with three Sergeants who we had recently enlisted in the RCAF, and how were we going to cope with future crashes in the bush up to the Yukon/Alaska border. AVM Lawrence, in his opening statements made it clear that the three Sergeants were not to be used until

they had been thoroughly trained in all aspects that they would encounter at a crash site.

The second meeting was about two weeks after the first and again took place in AVM Lawrence's office.... [Group Captain] Patriarch then presented our recommendations which in short were: a course of training should be set up with 12 students to be selected from Air Frame and Air Engine Mechanics. The reason for this was that these two trades would be able to get into the wreckage and assess if any part of the aircraft was salvageable.

The training was to consist of jump training, bush lore, survival training, mountain climbing, medical training to the point where Para Rescue personnel could give assistance to keep an injured crash victim alive under radio direction from a doctor, and maintenance of rescue equipment and unit responsibilities. This plan was approved in principle, and Group Captain Dave Harding, Commanding Officer of Edmonton Air Force Station, was tasked with finding a suitable training area and office at the airport, and Stan Knapp was appointed Officer in Charge of the new training facility. "As my duties as Command Navigation Officer were not heavy, I accepted," Knapp recalls. "AVM Lawrence said to me 'You are in charge of this project from now on and you had better make it work.' Of course I said 'Yes Sir!'"

At our third meeting we presented a training schedule. We recommended that Sergeant Hargreaves be placed in charge of Jump Training with Sgts Poulson and Rivet as his assistants. I would direct the training in bush lore, survival, mountain climbing, evacuation of crash personnel and obtain outside instructors as required. Dr. Woywitka, whom [Wing Commander] Cohen had recommended, would be in charge of all medical training. As well, Dr. Woywitka was to carry out tests of all personnel to determine if they had the required stamina and attitude of mind to lead under difficult conditions at a crash site. The Chief Personnel Officer was to be responsible for recruiting the first twelve students, with the final selection to be made by [Group Captain] Patriarch and myself. Our recommendations were accepted, and at this point direction of the program was delegated to G/C Patriarch. I was to report directly to him from now on. G/C Harding was to make space and facilities available with the discipline and administrative function placed under his command. At last we were in business!

Wilf Rivet remembers the local interest in the new unit:

[Our] activities also attracted the local media, and on one occasion, a reporter asked, "What do we call your Section?" After some thought, Poulson suggested Para Rescue. Since then, the term "Para" has been adopted by many different types of operations, although the term itself is used in a different context. On another occasion, a group of visiting Russian officers were very interested in the new Para Rescue Section.

F/L Nicholas W. Woywitka was appointed Medical Officer and instructor for the Para Rescue School. He remembers the challenges facing him:

My role turned out to be a rather unusual one in that I was the first MO [Medical Officer] in Canada to be assigned such a challenging and unique project. It was pioneering work

and there was no one to turn to who had previous experience in this type of undertaking. Apart from drafting lectures and teaching basic medical techniques in first aid, treatment of shock, hypothermia, burns, wounds, intravenous, blood plasma administration and knowledge of food kits, there were other pursuits which had to be addressed. It was a matter of experimentation, research, trial and error and adaptation within the total training process. The underlying theme was survival for both the rescuer and rescued, the ultimate aim being to save lives.... By November 1944 the machinery was in place to begin training.

Brochures were sent out seeking volunteers for the Parachute Air Rescue School. Volunteers were to be selected under the following requirements: age between 22 and 30 years; weight between 135 and 165 pounds; sound physical condition; temperamentally stable; and preference given to those having previous bush experience. The first Para Rescue graduates were stationed in Edmonton, Sea Island and Dartmouth.

Twenty thousand applications were received for volunteers to participate in this training, and on 12 February 1945 the twelve chosen men arrived in Edmonton to begin training for the first course. The course consisted of lectures and practical work in equal proportions. Once the classroom demonstrations and other basic in-house instructions, including three weeks of medical training were completed, the more active fieldwork sessions commenced. Bush lore exercises were carried out for ten days in the Cooking Lake area near Edmonton where the students also learned first aid methods in the deep snow and cold of winter. On 19 March 1945, the Para Rescue School departed Edmonton for the Whirlpool River camp near Jasper where parachute training was carried out. Much of the students' time was taken up with the upkeep of the camp and their training was being hampered. Soon after an inspection by AVM Lawrence on the 27 March, it was decided by the staff to move the students to the Astoria Hotel in Jasper. Flying from the Henry House airstrip in a Norseman 362, the students conducted their first jumps on 24 March. The first open field jumps were made to the airfield and the later bush jumps to specially selected stands of timber around the Jasper area. Other rigorous training followed.

The Para Rescue School was reorganized after the first course. No longer a unit on its own, it came under the command of the Officer Commanding 6 Communication Flight. Flight Lieutenant Stan Knapp remained the Officer Commanding of the School, and Flight Lieutenant Nick Woywitka remained as the Medical Officer. After conducting the ground school and open country jumps in the Edmonton area, the class was loaded on a Canso and flown to the Air Base at Fort Nelson, British Columbia. Timber parachute jumps and field training were conducted here. For the graduation exercise students were parachuted into wilderness 90 miles north of Fort Nelson, from which they had to trek for three days to a point on the Muskwa River about 50 mile away. Here they built rafts and their downstream trip took about seven days. After Edmonton graduation ceremonies the men were given new summer weight uniforms and the Para Rescue Badge to wear on their left sleeve. Following graduation some members were posted to rescue units but most were discharged because the war was winding down. Many of the Sea Island Para Rescue men resigned and the section was disbanded.

Hargreaves, Dick, Bartlett, Poulson and Rivet remained in 6 Communications Flight Edmonton, and survival training became one of the tasks assigned to the Para Rescue school in addition to its normal responsibilities. In January 1946 Owen Hargreaves and several members from 6 Communications Flight Edmonton were involved in the search for an RCAF Dakota in southern Alberta. F/L Watt, the pilot for the first course in Jasper, was killed in the crash. The aircraft was found on Mount Ptolemy near Blairmore, Alberta, where it had crashed into the mountain, with no survivors.

On 7 July 1946 Corporal George Bartlett and Sergeant Larry Poulson conducted the first RCAF operational parachute jump. A Piper Cub piloted by a Mr. Barber crashed in wilderness northwest of Fort Nelson. He survived the crash and after unsuccessfully trying to right the Piper Cub, decided to attempt to walk out. When the rescue team parachuted from their Norseman they could find no trace of Barber. After an extensive ground search was conducted by RCAF and Army personnel, the search was suspended with no success. At this point, Hargreaves and Dick obtained their discharge, Poulson and Bartlett enlisted in the peacetime permanent force, and Rivet was granted an extension on his wartime reserve status so as to assist in training Class #3, which began February 1947.

DND policy with respect to SAR still remained uncertain to most people in 1947, and commercial firms involved in rescue services wanted to know how they fit into the overall domestic SAR picture in Canada. Owen S. Hargreaves, Jack Bond Dick and Dr. Colin Ross, an ex-paratrooper, were commercially employed at the Municipal Airport, "B" Hangar, in Edmonton, and were engaged in Air Search and Rescue work as well as training parachutists for the Saskatchewan Forestry Department. On 14 November 1947 the law firm of Rankin & Welsh, representing Hargreaves, Dick and Ross, sent a letter to DND requesting a policy statement to clarify the role of commercial and government-owned aircraft in Search and Rescue operations. The letter listed the Search and Rescue backgrounds of Hargreaves and Dick and some of the rescue and training projects they had undertaken while at Hangar "B". It stated that these men were "prepared to jump at any time, on any terrain, under any circumstances." It was felt that "it is not an established Governmental policy to enter into competition with commercial enterprises." When this letter was written, Hargreaves, Dick and Ross were unaware that the RCAF had once again entered the Search and Rescue game and that the role of commercial aircraft in search activities had been determined. The total complement of Para Rescue trained personnel in the RCAF in 1949 was 21, stationed across the country at Edmonton, Greenwood, Trenton, Whitehorse and Vancouver.

Search and rescue operations could take personnel to distant locations from their Edmonton headquarters. On 28 September 1948 a Stinson A/C NC1602 was reported overdue at Ft. Nelson on a flight from Anchorage, Alaska. On board were a Mrs. Lintner and her 11 year old son. Mrs. Lintner, who was flying along the Alaska Highway, had become lost in snow around Steamboat Mountain (near Ft. Nelson). That afternoon a Para Rescue team from 6 Communications Flight flew out of Edmonton to search for the Lintners in SAR Dakota 448, and the next day the crew spotted the downed aircraft on its roof with wings sheared off in a burned area surrounded by snags and deadfall, making it too dangerous to parachute into. Returning to the area of the crash via an

abandoned part of the Alaska Highway the rescue crew walked to the wreckage while carrying a small medical kit and axes with which to enter the aircraft. As Sergeant Larry Poulson approached the side of the aircraft, he heard a cry for help. The injured passengers were evacuated successfully. Michael Lintner had partially frozen toes and was flown to Edmonton and taken to the Royal Alexandra Hospital for treatment.

On 16 September 1948, SAR aircraft with Para Rescue teams from Edmonton and Greenwood flew to The Pas, Manitoba to search for a missing USN Beechcraft. The USN plane, carrying five people, had gone missing on a flight from Winnipeg to Churchill. Two of the passengers were Captain (N) Stirling Hamilton and Captain (N) Custer, the British and United States Naval Attaches to Canada. A large scale search headed by Group Captain Z. Lewis Leigh, was launched. The downed aircraft was located on 24 September by a Lancaster crew from 123 C&R Flight, Sea Island. They discovered that all five passengers were alive, and a Para Rescue team from 6 Communications Flight left Edmonton in a Dakota carrying Steve Trent and Ken Clark with Larry Poulson as Jump Master. Supplies of food, clothing and shelter were dropped. During the operation, the RCAF and USAF had searched more than 170,000 square miles of northern Manitoba and Saskatchewan.

The farthest northward mercy flight carried out by the RCAF was in a ski wheel, JATO-equipped (jet assisted take off) Dakota. The flight was made from Edmonton to a point just over 600 miles south of the North Pole to evacuate Charles Havens, a mechanic with the Department of Transport weather station at Eureka Sound. Havens was suffering from blood poisoning in his left hand and arm, which had failed to respond to treatment. The aircraft, piloted by Squadron Leader J. F. Mitchell, left Edmonton early on 20 September 1950. Onboard were Para Rescuemen Corporal Ken Clark, LAC A.M. Smith and the RCAF's only Para Rescue doctor, Squadron Leader J.R. Jackson, in case it might not be possible to land at Eureka. (The first Medical Officer to be trained in SAR techniques was Squadron Leader Jackson, who instructed and attended the 1950 course. He later served on stand-by duty in Edmonton.) To lighten the load, two of the crew and about 1000 pounds of equipment were left at Resolute Bay, a short distance from Eureka Sound. Unable to use his compass because of the magnetic pole disturbance, navigator Flight Lieutenant M. G. Utas, used astral navigation to pinpoint the area. After a flight of 2,150 miles, Squadron Leader Mitchell put the aircraft down safely on a 2,000-foot runway of ice and snow at Eureka Sound. Dr. Jackson attended to the patient and then made him comfortable aboard the Dakota, while the crew prepared for a JATO take-off. The plane was airborne in about 900 feet and Charles Havens was brought safely to the hospital at Fort Churchill. Operation Havens was the first time JATO equipment had been used operationally on a Dakota Rescue aircraft. When it was over, the aircraft had travelled 4,300 miles in 32 hours flying time.

By 1951 Para Rescue training was formally organized for RCAF medical personnel. Students included Medical Officers, Flight Lieutenants Dick Wynne and Jerry Coons, nine Medical Assistants, and five Nursing Sisters, who were the first to undergo such training in Canada. Because this was the first course which included Nursing Sisters, the RCAF borrowed an instructor with wartime experience training female parachutists,

from the RAF Parachute School, to assist with the parachuting and landing techniques at Namao.

Gerrard Pare and Dr. D. Wynne described the 1951 course, one of the last held at the old airport.

Course five was organized for medical personnel and included two medical doctors, nine medical assistants and for the first time, five very capable nursing sisters. The first part of the course was conducted at RCAF Station Edmonton, which was then located on the grounds of what later became known as the Industrial Airport. The barracks were located on the North-West Air Command side of the airfield and this is where all the ground training classes were also held. Most of each morning was taken up with physical training, swimming, gymnastics, tumbling exercises and simulated parachute landings. The ground school consisted of classes in Morse code, map reading, parachute packing and bush lore. The Royal Air Force provided F/O "Knobby" Clarke, from their parachute school at RAF Abingdon, to teach landing techniques. This instruction started in the gymnasium and continued throughout all the jumps. "Knobby" soon became a very popular member of the instructional staff. Practice exits from a mock-up Norseman were conducted in one of the buildings on the station. The first jump took place on Sept. 3, at RCAF Station Namao, which was under construction at the time.

A new badge to be worn by all qualified RCAF Para Rescue personnel was approved on 9 June 1951 by Air Force Headquarters. The design featured a white parachute between golden upswept wings and was topped by a Queen's crown. The letters "RCAF" were inscribed in gold above the parachute. All Medical Officers, Nursing Sisters, and Airmen who had completed the Para Rescue Course could wear this badge. It marked the first time that female officers of any Canadian service could wear a Canadian Badge emblematic of aerial operations. However, the last Para Rescue Nursing Sister left the RCAF on 17 December 1956. This ended the era of Doctors and Nursing Sisters being employed in Para Rescue operations. Many of the doctors stayed involved with SAR and with training future courses, but it proved very difficult to keep Doctors and Nursing Sisters trained as Para Rescue while still practicing their professional skills. Medical Assistants remained in the Para Rescue units, however.

One of the best-known SAR units of the RCAF ceased to exist on the 31 December 1958 when 105 C&R Flight was officially disbanded. Responsibility for SAR in the western portions of the NWT, Alberta, Saskatchewan, Northwestern British Columbia and the Yukon would now be split between Vancouver and Winnipeg SAR units. 105 was created in 1947 at RCAF Station Edmonton, as a unit of Northwest Air Command. The Flight, then known as "K" Flight, moved to Namao from the Kingsway site in 1952. It then came under the control of TAC and in January 1957 was renamed 105 C&R Flight. The closing of the unit in Edmonton had a great impact on the Para Rescue world. Only the few Para Rescuemen who were Survival Instructors remained in Edmonton, which had been the birthplace of Para Rescue. They would be used as the core of instructors for future Para Rescue training but there would be no operations conducted by Edmonton-based Para Rescue until 111 KU moved there in 1971.

During 1959 overflights by USAF aircraft carrying nuclear weapons became a cause for concern by the Progressive Conservative government under the Rt. Hon. John Diefenbaker. In the event of an accident or crash on Canadian soil, it was feared that the Canadian military did not have any trained people to deal with "safetizing" of the nuclear weapons.

Volunteers from the RCAF Munitions and Weapons trade were trained in Para Rescue and "nuclear weapons safetizing procedures." These Para Armament Technicians filled established positions at the four Rescue Units across Canada. The 1959 Para Rescue course was the first to train Munitions and Weapons Technicians for these new duties: to accompany an SAR flight investigating any incident involving an aircraft carrying conventional, nuclear, biological or chemical weapons.

A significant advancement to Search and Rescue was the contribution of the radar units of Air Defence Command. They vectored lost aircraft, pinpointed ejections by parachute chaff bundles or ejection tones, provided communication relay services and supplied trained volunteers for ground search tasks. These factors, along with a growing public education programme, produced a reduction in the total number of SAR cases across the country in 1959.

During the 1960s Para Rescue still drew from other trades as a source of recruiting and their total establishment had not increased. The established Rescue Specialist positions at the time included ten with 440 (T&R) Squadron, Edmonton. Integration and the subsequent change into the CF green uniform necessitated a new badge be designed that did not make reference to the RCAF. This new badge coincided with the name change to Rescue Specialist. The badge consisted of a set of upswept wings with a red and white parachute surrounded by a wreath and topped by a Queens crown.

Since 1974, 435 Transport Squadron had conducted long- range SAR operations using SAR Techs from 440 Squadron. During October 1981 CFB Edmonton replaced CFB Trenton as the primary staging base of operations for a Major Air Disaster (MAJAID). MAJAID involved the transfer of enough rescue equipment to sustain 360 victims of a major disaster, and consisted of toboggans that were rigged and ready for airdrop from a C-130. Inside the toboggans were tents, stoves, lanterns, rations and clothing. Specialized medical toboggans, stretcher kits and snowmobiles were also rigged to supplement normal aircraft loads. The MAJAID kits were stored on the already crowded hangar floor until an addition could be built the following year. But by this time Edmonton airport was not the actual staging area for such operations.

On 1 July 1993 418 Squadron became the primary SAR Squadron in the Edmonton SRR. This was the first time an Air Reserve unit had taken on the primary SAR role.

Previously 418 Squadron was twinned with 440 Squadron and shared Twin Otter aircraft. With 418 Squadron's change in mandate they made a transition to the Hercules which they shared with 435 Squadron. Also in the summer of 1993, four recently retired SAR Techs, Sergeants Bob Lang, Doug Wheeler, Master Corporal Amos Ingram and Corporal Jim Atkins joined the ranks of 418 Squadron. This was the first time that operational SAR Techs were employed by an Air Reserve unit.

Course Six was held in January 1952 at Tactical Air Group Headquarters (TAGpHQ) located on the Kingsway side of RCAF Station Edmonton. This site, across the road from the Station Hospital, shared facilities with Western Army Command Headquarters. "Dutch" Fader, the swimming and first aid instructor, later recalled that "[it] was an ideal location for Phase One training because of the proximity of Housing, Messing and Administration Services for both staff and students. The gymnasium was large enough to permit Physical Training (PT), Parachute Packing and Paralanding techniques to be carried out daily...."

In 1959 RCAF Munitions and Weapons personnel were trained in Para Rescue and nuclear weapons "safelying" procedures. They were to be known as Para Armament Technicians and would fill established positions at the four rescue units across Canada. Para Rescue course 9 was the first course to train volunteer Munitions and Weapons Technicians for this purpose. Their duties would be to be available at all times to accompany a SAR flight investigating any incident involving an aircraft carrying conventional, nuclear, biological or chemical weapons. The volunteers would serve for a minimum period of six years upon graduation. Para Armament Technicians accompanying SAR flights would be responsible for taking immediate action to make safe any weapons encountered, ensuring that the rescue and medical personnel were not necessarily endangered by the high explosives or radioactive hazards. They would determine the approximate extent of the radioactive or toxic contamination and request the assistance of an explosives ordnance disposal (EOD) team if necessary, guarding the weapon until removed by the EOD team. The course began in June 1959, with the first phase held at the old North West Air Command (NWAC) facilities located on Kingsway Avenue. The air training itself during this phase was carried out at RCAF Station Namao.

In 1960, Para Rescue Course 10 was conducted from the Survival Training School, which was situated at Kingsway Detachment at the Industrial Airport. Para Rescue Course 11 (1961) was conducted at CFB Trenton, but was conducted in Alberta at Namao, Griesbach Barracks and Jarvis Lake again in 1964. In January 1969 candidates trained at Canadian Forces Base Edmonton, the last Para Rescue course as the name was changed to Rescue Specialist in 1972, becoming the first integrated course after the three services became the Canadian Armed Forces.

Men from different trades and elements within the Canadian Forces came together at the Canadian Forces Survival Training School in January 1972. For the first time trainees were selected from almost all occupations within the Canadian Forces. Before this trainees were chosen from three traditional vocations, Safety Systems, Armourer and Medical Assistant. By this time the direct connection with the Municipal Airport was growing more distant.

Survival training was developed in Edmonton as a response to the tragedies of war. Aircrew members were regularly being forced to ditch, land or parachute into remote terrain. The requirement to train them to survive until their rescue could be completed was a priority, so the first wartime survival training consisted of unit level exercises during normal aircrew training. By April 1944, the Group HQs were conducting survival training within their own organizations. When the Para Rescue School was formed in

Edmonton in 1944, one of the most significant curriculum topics was survival. Survival training for the wartime Para Rescue courses was first conducted at Cooking Lake, southeast of Edmonton. After the war support for survival training seemed to decline. In January 1948 "K" Flight in Edmonton requested permission to run survival training for aircrew stationed there. "K" Flight received authority and ran the first course on 10 December 1948 in the Easy Ford area about 90 miles west of Edmonton. Students on the first course consisted of three officers and two men from "K" Flight and four officers from 435 Squadron. The Survival School remained at RCAF Station Edmonton until 1957, when it was moved to TAC HQ on Kingsway Avenue in Edmonton. When Namao Air Station opened in 1961, the STS was moved to 5 Hangar. The School moved to SAC Alert Building in 1968.

AIR FIREFIGHTING

Systematic large scale forest fire fighting is only a little over a century old, and aerial fire ranging and fire fighting younger still. On 7 July 1919 the first forest fire was spotted from the air in Canada by S. Graham and W. Kahre. Much has changed in those years, including fire suppression techniques and tools, and the fundamental philosophy of forest conservation and renewal. From the early settlement period in Alberta, when individuals relied upon their own resources to control wildfire as it threatened them, concerted efforts in Canada and the United States were made to bring the authority of their governments to bear on the problem.

As late as 1918, few reliable statistics were available which would allow an estimate of the amount of "forest fire waste." Estimates ranged from \$8,000,000 to \$15,000,000 annually. J. Grove Smith, the author of the first significant study of fire waste in Canada, observed that "such guesses only include the merchantable timber, as measured by current standards, that has been destroyed. They ignore the enormous, but incalculable, potential values of the timber which has not attained merchantable dimensions." But it was generally recognized that the economic dimensions of the problem were immense.

[J. Grove Smith, *Fire Waste in Canada*, Ottawa: The Commission on Conservation, 1918, p.13]

In 1905, Parliament established three western provinces, but retained control of natural resources within the federal government. This led to a form of dual administration for the next 25 years. Between 1905 and 1930, the federal government administered the natural resources, including forests and minerals. The federal government directed its attention to the new forest reserves. Alberta assumed responsibility for prairie fires in settled areas. The National Forestry Conference was convened by Sir Wilfrid Laurier in 1906. It directed public attention to national problems in forest protection. The Forest Reserves Act (1906) consolidated reserves previously established under Orders-in-Council and created many new reserves. The Forest Reserves and Parks Act (1911) consolidated the forest reserves along the Rocky Mountain foothills, and began a buildup of fire control capability on the forest reserves. Recruitment of qualified rangers continued to be difficult. Supporting facilities such as lookouts, trails, communication lines, tool caches, and cabins also were hard to obtain. Forest rangers remained

seasonal workers. A movement began to make rangers permanent employees assigned to specific districts who would live near the reserve and make frequent patrols of their areas.

The Dominion Forestry Branch had selected the US Forest Service as its model by 1911, and pursued the "National Forest" concept. Surveys for new forest reserves continued in Alberta, leading to an extension to the Rocky Mountains Forest Reserve, and the establishment of the Lesser Slave Lake Forest Reserve in 1913. These increasing timber reserves, and the increasing interface with expanding settlement, demanded greater manpower for their protection. Fire ranging in the northern Alberta forests outside the reserves also was extended, and included boat patrols on the Athabasca, Slave and Peace river systems using canoes and, later, steamers. Railway inspections were increased, to prevent fires on main lines, and to closely inspect lines under construction were closely inspected as well. An amendment to the Railways Act (1912) allowed the Railway Commission to require companies to employ fire rangers, require maintenance of patrols on the railway lines, and make the railway companies liable for damage caused by fires started by any locomotives. This legislation finally made it possible to obtain convictions against the big railway companies.

The use of Canadian aircraft for fire patrols began in 1920, following the disastrous fire year of 1919, through cooperation of the Air Board of Canada. This program was expanded and maintained through to 1930. Another important step in Alberta-federal cooperation took place in 1921 when Alberta amended the Forest and Prairie Fire Protection Act to give Dominion Forestry Branch staff and fire rangers *ex officio* authority to enforce provincial legislation

Following the Transfer of Resources Act (1930), which was effective 1 October 1930, the Dominion Forestry Branch shifted its activities largely to research and information gathering. In 1932, the Alberta Forest Service assumed responsibility for the Prairie Fires Act which included authority for the fire permit system.

The first Alberta Forest Service aircraft for use in fire suppression was obtained in 1957. The first defensive action on fires outside Alberta was taken in 1958, with initial attack crews from Alberta used on fires in British Columbia and Saskatchewan before their potential spread into Alberta.

The Forest Protection Branch was reorganized in 1966, establishing six administrative sections dealing with fire control, weather, forest fire research, communications, equipment development, and construction. A new training centre had been constructed at Hinton in 1960, with programs developed to provide technician-level training to rangers, specialized training in various aspects of forest fire control, and a qualification and certification program.

Today, observers still live in high fire towers and lookouts, and carry on the tradition. But now technology can help them more efficiently. Lightning strikes can be tracked by computer, so aircraft can later fly over areas hit during electrical storms and check for smoke. The heat from such strikes can exceed 33,300°C, and can leave tree sap boiling and root systems superheated. Lightning struck trees can simmer away for

some time before breaking out into flames. One of the most sophisticated technologies for fighting forest fires is the Airborne Visible and Infra-Red Imaging Spectrometer (AVIRIS), developed in the United States for the National Aeronautical and Space Administration (NASA). This technology allows an aircraft flying 19 kilometers above sea level, at 720 kilometers per hour, to examine a target forest in great detail. AVIRIS can measure molecules of chlorophyll, water and cellulose, measurements which can be used to provide a profile of the plant life in the area, and indicate how dry they are. (Ibid., p.72) Global Positioning Systems operating from satellites located in geo-stationary orbit also aid in the rapid response to wildfires through the use of computer models. The FARSITE computer model also provides a complex predictive tool by interrelating fuel, weather and topographical data for the fire site.

[Gena K. Gorrell, *Catching Fire The Story of Firefighting*, Toronto: McClelland and Stewart, Tundra Books, 1999 p.71]

Aircraft and helicopters provide logistical support for the men and women working at the firelines. They airlift pumps, literally miles of hose, and other equipment to the necessary supply dropoffs. Air observers fly around the fire, warning the fire crews of changes in speed or direction on the ground. Aerial ignition devices filled with incendiary chemicals are dropped from a helicopter to set backfires which rob advancing conflagrations of fuel.

Aircraft also deliver water to the fires. For example, the Canadair CL-415 is a water bomber built especially for fighting fires. Equipped with both water floats and wheels, it can land on the ground or on water. Tanks in its hull hold about 1,400 gallons of water and fire fighting foam. The CL-415 is capable of skimming over the surface of a lake at high speed for just twelve seconds, and can suck up enough water to refill its tanks in that time. Some helicopters can airlift a water bucket holding about 400 gallons, and refillable from sloughs and lakes adjacent to the fireline. Other helicopters have built-in water tanks. This water is dumped directly on the fire, or into a tank to supply the fire crews' hoses. Aircraft also can smother the fire with "slurry", a fire retardant designed to cut off the fire's oxygen supply.

Over the years, from the first fire ranging flights of the 1920s, to the recent past when logistical support was provided through the city airport on different occasions, the airport has played a small but important supporting role in the aerial suppression of wildfire.

CONCLUSIONS

The principal historical themes to be recognized include the roots of aviation in Edmonton, selection of the site for the first air harbour in Canada, the role of the Edmonton Flying Club in the history of the site, the role of women in the emerging field of aviation, the central role of bush flying in the opening of the northern resource frontier, the transformation of the airport during the Second World War through participation in the British Commonwealth Air Training Plan, the postwar role in the Cold War, the significant role of the site in the development of aerial fire suppression and search and rescue, the influence of the emerging airlines of the 1930s onward, the

development of commercial enterprise on site such as Aircraft Repair, and the importance of those individuals who dominated the development of the airport.

The built heritage of the site is of paramount importance, including the significance of the site itself, as it has evolved over time, to the remaining structures such as the BCATP hangar that are reminders of the central role played by aviation and the airport in our shared history.

The City Centre Airport ranks with the Rosedale site and the provincial government precinct as among the three most significant historical locations in the City of Edmonton.

As such everything possible should be done to acknowledge that fact through commemorative and interpretive initiatives. These include:

1. A naming program, directed through the Planning and Development Department and the appropriate committee of the Edmonton Historical Board.
2. An interpretive program, developed through Planning and Development Department, Alberta Historic Sites Service, and the Alberta Aviation Museum.
3. A renewed commitment to the preservation and interpretation of the Aviation Museum British Commonwealth Air Training Plan era hangar as a fundamental reminder of the role of the airport in Edmonton history.
4. Recognition of the national significance of the site as the first registered "air harbour" in Canada.
5. Recognition of Hangar 14 and the international significance of the site during the Second World War.

HANGAR 14 11410 Kingsway Lot 1 Block 15C Plan 5328MC

Hangar #14 is an enormous wooden flat-roofed aircraft hangar on the north side of Kingsway Avenue adjacent to the Edmonton City Centre Airport. It is a rare example of the many hangars built in Canada under the British Commonwealth Air Training Plan (BCATP) during the Second World War, and is closely associated with the wartime career of W.R. "Wop" May, the famous Canadian pilot, who helped run the Air Observers School there.

Hangar #14 was constructed in 1942 at what was then the Edmonton Municipal Airport as a facility for the BCATP that trained Allied pilots, navigators and other aircrew in Canada for duty overseas. Edmonton was chosen as the location for an Initial Training School, an Elementary Flying Training School, and an Air Observers School in No. 4 Training Command.

Hangar #14 served as a supply, staging, training and repair centre. It was used primarily by the Air Observers School (AOS2) and to store planes used in training.

BCATP hangars were of standard design, but that design could be doubled in width and length depending on the need of the school; Hangar #14 is a double-wide, double-long model - the only such hangar known to survive in Canada. It clearly demonstrates the scope of activity at the Edmonton school.

Hangar #14 retains an international significance uncommon in Alberta structures because of its role in the BCATP. It also represents the Edmonton airport's role in the development of Canada's northland, and as a transportation hub in western Canada.

Hangar #14 retains its significance through its association with several important historical themes. Wop May is one of these associations. After serving in the Royal Flying Corps during the First World War, May established the first commercial air service in Edmonton, and famously flew as a bush pilot from Edmonton to northern communities. The hangar was also home to the City of Edmonton 418 Squadron, the most successful fighter wing during the Second World War, after its return from Europe until 1957. Today it is home to the Edmonton Aviation Heritage Centre, which houses a large number of restored and vintage aircraft and interprets our shared aviation history in Edmonton.

Hangar #14 is the only remaining "double wide, double long" Hangar in Canada. Hangar #14 is a large (6686 square meters) rectangular structure that stands on the southwest side of the city's Municipal Airport located north of Kingsway. It backs onto the airport on its north and east flanks and faces a car parking lot to the south. As a large WWII wooden hangar located on the runway at the City Municipal Airport, Hangar #14 is a conspicuous structure within the context of the area. Hangar #14 is a physical structure that symbolizes Canada's wartime aviation experiences. It is located in an area where industrial structures are quite common and several buildings in the vicinity were constructed during the same era, though they lack significant ties to aviation history in Edmonton and Canada. Hangar #14 is designed on a rectangular plan with a clear span of 34 meters. The roof is subdivided into four quadrants that slope from the center to the outer walls. The Hangar is clad in cedar shingles, creating a mild horizontal linear pattern along each elevation. Originally the building was clad in brick embossed asphalt siding. On the interior of the structure the framing and truss members are exposed. The upper portion of the east and west elevations has large, industrial-style, rectangular 36-pane wooden windows. The lower portion (the lean-to space) has 6-over-6 single hung wood windows and 12-pane wood storm windows. Both the upper and lower windows possess glass panes with proportions at a 2:3 ratio. Integral to the wide-span design of Hangar #14 is the operation and plan of the steel section doors. The doors are equivalent to one half of the Hangar in length and they are top hung and slide horizontally on rails, allowing them to open fully. The southeast frontage reveals a modern permanent in-fill with large windows that form the entrance to the Alberta Aviation Museum and Learning Center. The building is constructed on a system of Douglas fir vertical wood posts supporting long Warren trusses set equidistant apart along the north-south axis. The Warren trusses are reinforced with bays of double diagonal frames also set equidistant apart. This reinforcement is located in key bays on the south, central and north locations. The balance of the truss system is reinforced with a series of strong-back built up beams running equidistant along the bottom chord and a

system of rods set diagonally in key bays at the south, central and north locations. The truss system is unique because of the use of a Canadian patented system of connection with steel bolts and split-ring connectors. It is also unique by its use of many small wood members engineered and bolted/nailed together to span long distances. The framework is clad on all elevations with a layer of diagonal sheathing building paper and cedar shingles on vertical 2x6 studs. The roof is layered in sheathing and an asphalt system of building paper, bitumen and washed stone. The floors throughout are reinforced concrete slabs. The lean-tos on the east and west are constructed of wood frame with cedar shingle siding.

Hangar #14 has undergone some changes over since 1942. The building was originally clad in brick embossed asphalt siding which has since been replaced with cedar shingles. A central partition that runs north and south was added at a later date. A new wall and window elevation exists on the southern elevation hangar door and there have been upgrades such as electrical, sprinkler systems and internally new walls and flooring exist in the offices. Despite the changes outlined, the building retains its historical character and many of the original features are still intact. The building's integrity has not been compromised.

The south facade facing Kingsway shows the original sliding steel section hanger doors on the western half of the frontage with all glazing (3 x 4 or 12 panes) on each door panel, wood shingle siding, central timber column with shingle siding, door openings within hanger door panels, and lean-tos side elevations with single door and window. The east facade shows seventeen (17) upper floor large rectangular 36 pane windows (6 X 6) broken into 4 quadrants, lean-tos additions running the length of the east facade with 4 doors and 32 single hung 6 pane over 6 pane windows, cedar shingle siding on, as on all elevations; and an off centre 2-storey vehicle entrance with rolling door, and 2 storey rectangular addition. The north facade shows the original sliding steel section hanger doors on the western half of the frontage with all glazing (3 x 4 or 12 panes) on each door panel. The west facade shows eighteen (18) upper floor large rectangular 36 pane windows (6 X 6) broken into 4 quadrants, lean-tos additions running the length of the east facade with 5 doors and 27 single hung pane over 6 pane windows, and central one and a half storey addition with smaller garage doors. The interior is notable for the impressive double warren truss system and its supporting elements.