the
OBSERVAIR
Ottawa Chapter Newsletter
Canadian Aviation Historical Society

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CHAIRMAN'S MESSAGE

It's that time of year again. Time to get ready for air shows, but sadly also time to say farewell to another wonderful year of programming as the 2015-2016 Canadian Aviation Historical Society Ottawa Chapter season comes to an end. I would like to thank everyone who made it happen; our speakers, the Ottawa Chapter Executive, and finally you, our members. None of this would be possible without any of you.

The end of this programming year will also see Bill Clark resigning his position as refreshments person. A special thanks to Bill for ensuring that we always had enough sugary treats to go around. To that end, if you would be interested in volunteering to take over this position, please let me know. It involves ordering and picking up the doughnuts for each meeting, and being responsible for the coffee/hot chocolate. It does require regular meeting attendance, and a car.

The 2017 CAHS Calendar is now available for purchase through the CAHS website. The cost is $15.00 and it features the art of Allan Botting, Charles J. Thompson, Bill Wheeler, Robert W. Bradford, Cher Pruys, Hélène Girard, Jim Bruce, Layne Larsen, Paddy Gardiner, and Virginie Tanguay. The calendar, as well as other CAHS merchandise can be purchased here: http://www.cahs.ca/events/merchandise/online-store

For those of you who have some vacation coming up and haven't planned anything, just a reminder, the CAHS National Convention is next month, June 1-5 in Winnipeg, Manitoba. There are some great speakers lined up. For those of you who will be staying closer to home this summer, June 10 the Canadian War Museum will be opening their new exhibit entitled *Deadly Skies – Air War 1914-1918*. The exhibit will use over 80 artefacts to tell the stories of nine people from both sides of the air war. Across the river, the Canadian Museum of History is showing a CINÉ+ documentary (formerly IMAX) called *Living in the Age of Airplanes*. It is produced by National Geographic and narrated by pilot and de Havilland Canada Beaver owner Harrison Ford. I plan on seeing both the exhibit and the film! Have a safe and happy summer and we will see you all in September!

Kyle Huth
Chairman

The Observair is the newsletter of the Ottawa Chapter, Canadian Aviation Historical Society, and is available with membership. Membership fees are payable in September.
Any material for *The Observair* Newsletter should be directed to the Editor, Colin Hine
All matters relating to membership should be directed to the Secretary/Treasurer: Mat Joost

PAST MEETING – David Waechter

David Waechter © Rod Digney

Some 49 members and guests attended the 28 April 2016 meeting of the CAHS Ottawa Chapter to hear David Waechter's presentation of his book *Flight Test – The Avro Arrow and a Career in Aeronautical Engineering*. The work is a biography of this father, Ralph Waechter, featuring his career in the aviation industry and highlighting his involvement in the *Arrow* project at Avro Canada. In the book's prologue David indicates that he decided to write the book after his father was diagnosed with Alzheimer's disease. Ralph Waechter had retained a significant amount of documentation about his contributions to the Avro *Arrow* project. Also, he had retained some details of the *Jetliner*, the CF-100, and about his post Avro career. The book is dedicated to David's deceased family members: his father, Ralph; mother, Lorraine; and brother, Michael.

Ralph Waechter (1926 – 2012) studied Aeronautical Engineering at the University of Toronto (1944–1948). At the time that Ralph joined the aeronautical engineering progam it was very new; just over 20 students were in his 4th year class. Jet engine concepts pioneered by Frank Whittle in England were then being seriously considered for both civil and military applications. David notes that the jet engine concept is fairly simple; air drawn in at the front end of the engine is compressed, mixed with fuel and ignited. Explosive expansion of the air/fuel mixture drives a turbine wheel that in turn drives the compressor and a jet of hot gas then exits the rear of the engine, thus propelling the aircraft forward. The title of Ralph's fourth-year thesis was "*The Future of Propellers with the Advent of the Gas Turbine and the Jet Engine*".

The University of Toronto had a very active Aeronautical Club and Ralph was an active participant. A number of aviation companies visited the club, making presentations and looking for potential engineering talent. It was likely following a presentation from A.V. Roe Canada Limited by Edgar H. Atkin and James C. Floyd that Ralph started working for Avro, from 1948 until 1959. He began work there as a design draftsman before transferring to the flight test group as a flight-test engineer. His experience included work as an in-flight observer for the *Jetliner* aircraft. He also did stress analysis and investigated mandatory civil airworthiness requirements for the *Jetliner*. He worked as a flight-test engineer for the CF-100 interceptor program, receiving the new title of *experimental aerodynamicist*. Ralph began work on the Arrow in 1956 as an *engineering aerodynamisist*.

Some of the Avro papers that he wrote and retained include:

- Flight test data for the *Jetliner* & CF-100;
- Flight test data and reports for the *Arrow*;
- Computer program documentation for *Arrow* drag calculation;
- Trip report for a 1958 visit to Convair, Edwards Air Force Base and NACA.

The *C102 Jetliner* was in development whem Ralph joined Avro Canada. The *Jetliner* was the first jet airliner to fly in North America and was nearly the first in the world; however the de Havilland Aircraft Company in the UK flew the Comet two weeks earlier. In Canada, *Trans-Canada Airlines* (*TCA*), forerunner to *Air Canada*, was considering the use of jet-powered or turboprop-powered aircraft to replace its aging fleet of DC-3s. Avro Canada proposed the *Jetliner* and Vickers in the UK proposed the *Viscount*, a turboprop aircraft.

TCA eventually selected the Vickers *Viscount* over the *Jetliner*. One of the factors influencing that decision was the turboprop aircraft's superior fuel efficiency. The two aeroplanes were of equivalent weight but the *Jetliner* flew about 28% fewer air miles per pound of fuel consumed than the *Viscount*, notwithstanding that the *Jetliner's* speed was higher by nearly the same percentage. As soon as the late-1950s, the fuel efficiency gap between turboprop and turbojet aircraft narrowed significantly, making turbojet aircraft more competitive, especially when the factor of higher speed was factored in.

Although other significant sales opportunities for the *Jetliner* emerged, notably with *Trans-World Airlines* (*TWA*), especially with the influence of Howard Hughes; and the possibility of licensing the manufacture of the *Jetliner* to the Convair Corporation, Canadian Government minister, C.D. Howe, would not agree to the allocation of Avro resources to the *Jetliner* because it might slow the pace of CF-100 development and manufacture. So the sole prototype *Jetliner* was eventually retired and dismantled.

Ralph's engineering and flight observer skills were subsequently transferred to the CF-100 program. The CF-100 was the first designed-in-Canada military jet aircraft to enter mass production. The first flight of a CF-100 prototype took place on 19 January 1950. First flight of the Orenda powered CF-100 Mark 2 took place on 20 June 1951. Some 692 CF-100s were built. Most were used by the RCAF and about 50 went to the Belgian Air Force.

Some of the analysis that Ralph undertook on the CF-100 concerned takeoff and landing performance and he retained some graphs showing performance data. One graph he retained shows the distance needed for the aircraft to reach a height of 50 feet on takeoff for different gross weights. This graph also includes a curve showing the ground-run portion of this distance. Another graph shows landing distances, including both the distances covered from a 50 foot height and the ground-run distance.

A significant portion of David Waechter's book concerns the development of the Avro *Arrow* and the application of sensors to measure and analyze aircraft performance: machmeters, pitot tubes and airspeed indicators (ASIs) to measure the speed of the *Arrow* and to analyze high-speed performance. Again, Ralph did significant analytical work concerning takeoff and landing performance. He authored a report comparing theory to actual takeoff and landing performance for early *Arrow* test flights.

In mid-1958, a team compromising Ralph, along with another Avro engineer, and two RCAF personnel made a trip to California to see the methods of performance testing that were being used by the Americans for their supersonic aircraft. Establishments visited included Convair Aircraft Limited, the National Advisory Committee for Aeronautics (NACA) – the Ames Laboratory at Moffett Field. Of particular interest were techniques being used for engine thrust measurement. After returning from this trip the second *Arrow* aircraft, number 25202, took to the air. The data Ralph retained for this aircraft includes a "time to height" measurement for a flight profile that mimics an intercept mission. The data also includes results for the fastest flight of any *Arrow* aircraft.

The book includes a chapter on the aftermath of the *Arrow* cancellation including defence and cost considerations as well as politics and national pride. Ralph's post-Avro career included employment as a senior performance engineer with American Airlines; R. Dixon Speas Associates, and Aero Performance Inc. (consultant); de Havilland Aircraft of Canada Limited, STOL aircraft; and Canadair Limited, working on the Challenger.

This was a fascinating talk, spoken very much from the heart. Also, the book is an excellent read, well worth the price and very much a keeper.

Colin Hine
Editor

Pubs & Mags

Airliner World (April 2016) - 5pp. on BAe/HS 748 flying with Yukon's AirNorth

Air Classics (May 2016) - ½+p. ea. on the replica Spitfire Mk. IX commemorating Jerry Billing at Essex, Ont.; the Beech Expeditor acquired by the Shearwater Museum, NS; and 2015 activity of Coulson's Martin *Mars* tankers *Hawaii Mars* (firefighting and training) and *Philippine Mars* (export to US Naval Aviation Museum, Pensacola)

Bill Clark

RAMBLING THROUGH RECORDS

On 1 December 1919, the Canadian Government instituted the Canadian Memorial Cross, now known as the Silver Cross, as a memento of personal loss and sacrifice on the part of mothers and widows of Canadian service personnel who gave their lives for their country. The Cross was a unique Canadian innovation, supplementing a cumbersome British award, the Memorial Plaque, also known as the Death Penny.

From the beginning the cross was awarded to next-of-kin who had been killed, died on active service in wartime, or died afterwards from wounds or hardships endured in the course of such service. An example of a "hardship" case is Harold Reginald Dyball, who was born on 4 August 1904, and enlisted in the RCAF in June 1941. He served in Canada as a stationary engineer and then as a fireman. Age and stress took a toll; he developed a duodenal ulcer. Dyball was discharged from the RCAF on 14 October 1944 as "medically unfit for any form of air force service." He died in Toronto on 13 December 1951 of a cerebral haemorrhage. In November 1952, the Appeal Board, Canadian Pension Commission, ruled that his death was "related to military service" and his widow was accordingly sent a Memorial Cross.

On 28 March 1941, eligibility was extended to widows and mothers of merchant seamen. Four were eventually awarded to families of Canadian fire fighters who had volunteered for service in Britain. The medal was granted to a widower for the first time on 19 May 2006, when it went to Jason Beam, husband of Nicola Goddard, who had been killed in Afghanistan. In January 2007, the criteria for awarding the Memorial Cross were altered, retroactive to 6 October 2001, so that all service related deaths were to be recognised, not simply those occurring during overseas missions. It should be noted too that eligibility was not restricted to next-of-kin of Canadian Forces veterans; service in British or Commonwealth services also counted – but no further. Thus a Canadian mother whose son died as a member of the Royal Air Force would be eligible – but not a Canadian mother whose son died in Iraq with American forces.

Over the years the Canadian War Museum has acquired many examples of the Canadian Memorial Cross, and in 2003 I was given a contract to research those in their collection. The records identified 118 at the time (more may have been added since then), but one of these turned out to be a German Mother's Cross (for child bearing). Three were blank samples, and in another three cases there was insufficient data to recognize the casualty with whom it was associated. That left 111 stories to tell, of which nineteen had air force associations.

One of the most poignant examples was that issued to the family of Donald Lloyd Breadner, only son of Air Chief Marshal Lloyd Breadner. The young man had been born at Camp Borden on 16 July 1924, enlisted in the RCAF on 31 October 1942 and received his pilot's wings at Uplands on 24 March 1944. He was then posted to No. 36 Operational Training Unit, Greenwood, NS, which was later re-designated No. 8 OTU. He was killed on 30 November 1944 in Mosquito KB278, along with Pilot Officer K.B. Bennett, in the course of a gunnery exercise. The circumstances pointed to structural failure.

Linely Douglas Wetmore was born on 27 January 1918 in Ottawa. He enlisted in the RCAF on 9 May 1941 as a Radio Mechanic but re-mustered to aircrew six months later. Having attended No. 1 Initial Training School (Toronto) and No. 3 Elementary Flying Training School (London, Ontario), he proceeded to No. 2 Service Flying Training School (Uplands) on 12 April 1942. On 1 June, during a solo cross-country training flight (Harvard 2512), he lost his way in fog, attempted a forced landing on the outskirts of Sackets Harbour, New York, and crashed wheels-up in a rough field. His harness was not secure. He died in hospital at Madison Barracks, New York, on 5 June 1942. He is buried in Beechwood Cemetery.

The Canadian Memorial Cross associated with Patrick Henry Woodruff came with a great deal more – his Distinguished Service Order, Distinguished Flying Cross, 1939-1945 Star, Atlantic Star, Italy Star, Defence Medal 1939-1945, Canadian Volunteer Service Medal with Clasp, and War Medal 1939-1945. Born in Edmonton on 11 May 1912, he obtained a Private Pilot's License (2068) in 1936, then took a cattle boat to England to join the RAF – one of hundreds of "CAN/RAF" personnel. In 1940, he acquired considerable Blenheim experience with No. 248 Squadron and in 1941 he became the first Commanding Officer of No. 404 Squadron. Instructional and staff duties followed, and then more operations in the Mediterranean. Wing Commander Woodruff was killed on active service on 27 February 1945. At the time he was flying Spitfire IX, serial MA507, No. 337 Wing. Returning from a demonstration flight of 45 minutes duration at 1620 hours, he collided with Spitfire NA397 flown by F/L S. Baltazzis of No. 336 Hellenic Squadron. The Greek pilot was injured but landed on a shoreline. Woodruff's airplane had its tail cut off and spun into the sea. He is buried in Phaleron War Cemetery, a few kilometres to the south-east of Athens.

Every life is a biography; even a short one.

Hugh Halliday

YOWza – Images of recent sightings at Ottawa's Macdonald-Cartier International Airport (MCIA) (YOW)

April was a busy month for the Dornier Alpha Jets of Top Aces as at least two of them flew numerous sorties from MCIA to CFB Petawawa. Alpha Jet (c/n 038), C-GFTO, was the lead aircraft of a 2-ship sortie on 28 April. Since 2005, Discovery Air Defence has operated a fleet of Alphas in the Contracted Airborne Training Services Project (CATS) that provides fast jet airborne training services to the Canadian Armed Forces.

© Rod Digney

Atlas Air Boeing 747-47UF (c/n 29258), N497MC, departs YOW on 26 April. Believed to be carrying a load of New Zealand's new polymer currency bills from the Canadian Bank Note Company, the 747 flew non-stop from Ottawa to Honolulu, then onwards to Auckland, NZ.

© Will Clermont

With firm orders starting and service introduction (with Swiss) fast approaching, Bombardier's CSeries prototypes are making more frequent visits to YOW, typically as low approaches or touch-and-go landings. The sixth prototype Bombardier model BD-500-1A10 Series CS100 (c/n 50006), C-FFCO was captured doing a low-and-over on Runway 32 at YOW on 20 April.

© Will Clermont

An Aerospatiale ATR 42-300 (c/n 119), C-FTJB, arrives at YOW from Trois-Rivières, QC, in Air North's striking colour scheme. Air North plans to replace older HS-748s with ATRs this spring. C-FTJB is presently registered to Bradley Air Services (First Air) but will soon be re-registered to Air North.

© Thomas Cousins

Bad weather at Toronto's Pearson International Airport (YYZ) often results in unique opportunities for Ottawa area spotters. On 8 May, a brief thunderstorm at YYZ caused this China Eastern Boeing 777-39P(ER) (c/n 43277), B-7343, to divert to Ottawa after a 14-hour flight from Shanghai. Flight CES207 is seen departing Runway 32 at YOW after taking on enough fuel to complete its trip to YYZ.

© Thomas Cousins

This page is contributed and coordinated by CAHS Ottawa Chapter member Rod Digney.

SYDNEY BAKER – PART V

Management and Ownership Changes at Spartan

During this time some significant management changes were being made. Mr. D.C. Olson was brought in as maintenance manager and Jeff Northcott as operations manager. Both men had previously held similar positions with Trans-Canada Airways (TCA). Also, Bill Doherty, who had been chief engineer, and Weldy Phipps, chief pilot, left the company and started up an aerial survey group with Bradley Air Services.

For the next five months, I worked on maintenance and modification projects in the hangar. We had recently formed a geophysical survey section and our Anson V aircraft was deployed, towing a magnetometer. In August 1957, I was appointed maintenance foreman with duties to include coordinating all installations being carried out on aircraft. I found this very interesting and a lot of hard work. I also wrote aircraft maintenance schedules for the various aircraft we owned and the type of operations they were used on.

Apart for a few field trips, mainly for trouble shooting, I remained at base in Ottawa until February 1960 when Spartan Air Services was taken over by the Bristol Aeroplane Company of Winnipeg. All major maintenance and modifications was now to be carried out in Winnipeg and aircraft spares and stores were to be moved to Winnipeg. Field maintenance and aircraft crews continued to be controlled from Ottawa and the photographic and geophysical laboratories remained in Ottawa.

I was transferred to Winnipeg to coordinate all work carried out on Spartan aircraft. Glen Hall was also transferred to assist with geophysical installations and Ray Allard looked after spares and stores. Some of Bristol's top executive personnel joined the Spartan management team in Ottawa. Initially, I thought this was just what the company needed, a large company for financial and administrative backing with a first class overhaul and maintenance base for our aircraft. How mistaken I turned out to be! I moved to Winnipeg in March 1960; Bristol providing me with a nice office and secretary, but with very little work to do.

Some maintenance work was carried out on aircraft passing through on their way to contract deployments. Bristol purchased a Beech C-45H (twin engine Beech 18) from the United States Navy on behalf of Spartan. The aircraft was in good shape with low flying hours. Bristol did all the modifications required by DoT to obtain a C of A. It was also modified to accept photographic, geophysical and air profile recording survey equipment. Also, a Simmond's fuel injection system was installed to improve high altitude performance. The aircraft was registered CF-MJY.

I never felt too secure in my position in Winnipeg finding it very difficult to obtain direction from either Ottawa or Bristol and I felt isolated from the survey operations. Bristol was interested only in doing maintenance and modification work. I guess this was only natural as they received payment from the survey division for this work.

The period of government-funded high-level photo surveillance contracts was coming to an end. These had been lucrative government contracts and I think that Bristol realized that without them there was no longer the revenue stream from the survey business they had previously been led to believe. On 26 September 1960, I received a letter from Bristol informing me that I was being transferred back to Spartan Air Services in Ottawa who were now under new management control.

This was a real headache for me; I had to arrange the transport of the spares, stores and equipment back to Ottawa. I left Winnipeg in late December arriving back in Ottawa just before Christmas; not a very satisfying year overall. Spartan Air Services was now under the management of John Roberts, a founding member of Spartan, and Bill McGill a mining engineer with connection to Sulmac Exploration Services.

I thought I had a headache moving out of Winnipeg but really they had only just started. Spartan had vacated the fixed wing hangar which, of course, was not appreciated by the helicopter group, even though it was the same company. The hangar had been purpose built for helicopters, but with only one door, wide enough for a Bell 47 helicopter. We had this modified, adding two more doors with removable centre posts, thus giving us an opening of 45 feet. A small enclosure was built in one corner of the hangar for fixed wing stores and a 40 ft. by 100 ft. Butler Building was erected adjacent to the hangar to store the fixed wing equipment and larger spares. 1961 was a really tough year for me; as chief engineer for fixed wing aircraft I was continuously fighting for space in the hangar to keep up with scheduled maintenance on the aircraft.

The high-level photo contracts were slowing down; also new companies were getting into the survey business, offering increased competition. We had purchased two Piper Aztecs; CF-NVH and CF-NVE. These were modified with camera hatches for medium-level photography and they were also used on geophysical survey contracts. We still had three Mosquitos operating mainly to fill out gaps from previous photo survey contracts across Canada. I made several field trips, mainly on trouble shooting exercises. We completed the season with a month of weather chasing. A high pressure system had been forecast from Winnipeg north to Churchill, but unfortunately this system never quite materialize. We did, however, manage to fill out some of the outstanding gaps. And so 1961 came to an end; overall, a troublesome and worrying year.

For the next two years things slowly improved in the hangar. With some changes in personnel the atmosphere between fixed-wing staff and the helicopter section softened somewhat. The company obtained some very good photo and geophysical survey contracts in spite of the increasing competition. We purchased two Cessna 320 Skyknight aircraft. These were modified to accept aerial cameras and registered CF-PKY and CF-SGN. These turbo-charged airplanes were capable of high-level photography providing the engines were operating at peak performance. We found the Air Research Turbo-Charger deteriorated quickly and had to be changed several times during the photo survey season. At 30,000 feet the engines were obviously working very hard. However, the aircraft did produce an awful lot of good photo survey results for the company.

We installed the 36 foot air profile recording dish antenna on the underside of our Beech 18, CF-MJY and designed and built a fibre-glass fairing to protect the dish antenna. This, however, did not enhance the flying characteristics of the aircraft, as the dish needed to be level at all altitudes of flight. To accomplish this, a mercury switch coupled to an actuator was installed. We also purchased an early version of the Beech 18, registered CF-RZX; it was used for medium level photo survey contracts.

All our modifications were carried out with approval from H. Aass Engineering who held a DoT approval. Approval was mandatory for any modifications affecting the basic aircraft design or flying characteristics. This required the production of drawings and performance of stress analyses for the modifications. These modifications could be carried out as a one-off deal or on a Supplementary Type Approval (STC). One-off approvals covered one specific aircraft only but under STC approval the modifications could be carried out on any aircraft of the same type.

The helicopter section was awarded a contract to repair and overhaul Bell 47 series helicopters for the Royal Canadian Navy and an inspector from the Department of National Defence (DND) was located on site.

The helicopter section had remained independent of the fixed-wing section, but this was changing. Some staff worked on fixed-wing as well as helicopters. Early in 1964, the chief inspector of the helicopter section left the company to join the National Research Council Aviation Section. I was asked if I would assume this responsibility and I agreed on condition I attend a Bell 47 series helicopter training course in Fort Worth, Texas. The company agreed to this and I attended a course from March 1 to 12 April 1964. I received the Bell 47 series helicopter endorsement on my engineer's license and took on the title of Chief Inspector, in charge of all inspections and maintenance on helicopters and fixed-wing aircraft.

Spartan's hangar at peak of helicopter operations 1964. © Sydney Baker

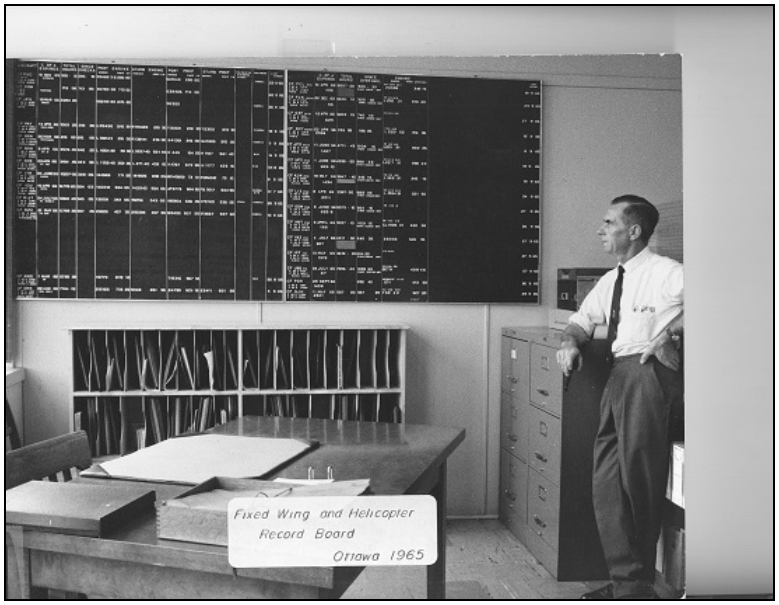
The next three years were very interesting and saw many changes. Affiliations were made with several companies including Sulmac Exploration Services, Toronto; Velocity Surveys Limited, Calgary; Spartan Air Services, Buenos Aries, Argentina; and Meridian Airmaps Limited, Lancing, England. All these companies were in the geophysical or photo survey businesses.

For the next years the helicopter side of the business was very active with lots of repair and maintenance work. Helicopter incidents were frequent; this required a certain amount of report work, but there was very little we could not repair ourselves; in fact it was said as long as the serial number plate was intact the helicopter could be rebuilt. We had

both tail boom and main structure jigs and Bell approved us as a repair station, which meant that spares were supplied to us at a discount.

The main structure and the tail boom were constructed from various gauges of 4130 tubular steel. We were fortunate with the welding as our military contract called for us to have approved welders on staff. This approval was granted or declined by the military after submission of test pieces (tube to tube in the form of a gate; tube to plate; and a butt weld plate to plate). Test pieces were sectioned, stamped by the inspector and submitted for testing. If I remember correctly these tests were carried out every year.

A photo of our aircraft records chart taken in my office in September 1965 shows we were operating 13 fixed-wing aircraft and fifteen helicopters at that time. Keeping track of all the aircraft and ensuring that scheduled inspections were carried out was quite a task. The pilot of each aircraft would send in a report on the week's activities, these details were then transferred into the aircraft log books.



Aircraft record chart in Sydney Baker's office - Uplands 1965. © Sydney Baker

Another item of particular interest during this period was the modification to a Cessna 185, CF-PUC, for high-level photo surveys. We replaced the Lycoming engine with a Continental TISO 470. This was a turbo-charged engine, the same as used in the Cessna Skyknight. Also, we fitted a dorsal fin and a low pressure oxygen system was installed. The aircraft reached 30,000 feet altitude on occasion, but the low forward speed and a nose-up attitude made aerial photography unreliable. One Air Canada pilot could not believe his eyes when he passed CF-PUC near Winnipeg while flying at 29,000 feet. We had another Cessna 185, CF-SOW, that we used for low-level photo survey work.

This time saw the end of our relationship with the Mk. 35 Mosquito and Mk. V Ansons. Six Mosquitos were written off in serious crashes with the loss of six lives. Five were left in England and later broken up for spares and one was broken up in Ottawa. To the best of my knowledge three Mk 35 Mosquitos remain in Canada in various stages of restoration. One of our Mk V Ansons also remains; I believe it is at the museum in Hamilton and I know others were used for airport fire drill exercises.

Once again in late-1967 and early-1968, operations began to slow down in both fixed-wing and helicopter sections. This was mainly due to cut backs in government expenditures, as well as increasing competition. Arrangements were in hand for refinancing; this happened in June 1969 when a group of Montreal business men joined the board of directors.

Early in 1969, the company purchased its first Piper Navajo, registered CF-YLR, after Sam Taylor and myself flew down to Lockhaven, Pennsylvania, to evaluate it. Sam Taylor was quite impressed with its performance at 30,000 feet; it was powered by Lycoming TIO 540 engines. We designed and installed a camera hatch for Wild RC 8 or RC 10 aerial cameras. Later, it was also modified for air profile recording; the 36 inch dish antenna was protected with a fibreglass fairing. The drag from the antenna dish certainly decreased the performance of this aircraft and gave it the name "The Pregnant Guppy."

A little later we purchased a Piper Aztec C fitted with Lycoming TIO 540 turbo charged engines and capable of flying at 30,000 feet. It was modified with a camera hatch and registered CF-ULL.

During this period, we were awarded a contract by Energy, Mines and Resources (EMR) to supply pilots and engineers for their Skyvan and Queen Air aircraft. They were operating on geophysical and photo experimental survey work.

Edited by Colin Hine

REUNION OF GIANTS

On Saturday, May 14 Project North Star hosted a screening of the documentary *Reunion of Giants* in the Main Auditorium of the Canada Aviation & Space Museum. The documentary was made during the summer of 2014 to record the trip of the Canadian Lancaster to the UK to join the British Lancaster for a tour of British air shows to commemorate the crews of Bomber Command in WW2. The event proved to be a great success with excellent attendance.

After we broadcast a message to Ottawa Chapter CAHS members announcing this event I received a message from Jerry Vernon letting us know that *FlyPast* magazine is giving away a free copy of the "Reunion of Giants" DVD to anyone who renews or subscribes new to a 2-year subscription to *FlyPast*. So if you would like to have a copy of Reunion of Giants for yourself, you now know what to do.

NEW HISTORICAL CANADIAN CIVIL AIRCRAFT REGISTER WEB SITE

The Historical Canadian Civil Aircraft Register team (including Terry Judge and John Rodney) are pleased to announce that their website, www.historicccar.ca is now up and running. As the name indicates they're attempting to produce a complete, historical Canadian Civil Aircraft Register; please see the "Home" page for more details.

Initially, they're offering the CF-DAA/C-FDAA to CF-ZZZ/C-FZZZ registration range, much of which will be new to most people. They'll then go back to CF-AAA and continue from there. Photo galleries will be added in due course.

Since this is a huge project with much work needed to prepare this material for publication, the team is looking for volunteers to help. So, if after you have checked out the website and you'd be interested in being involved in this fascinating project, please let them know by clicking the "Contact Us" link on the web site.

Some of the work, such as reformatting data from Word to Excel (straightforward, if a bit tedious!) can be done anywhere. Some of the checking can also be done anywhere by using the Transport Canada website.

Other work can only be done by people with physical access to Library and Archives Canada, in Ottawa, because the data is only available there. This includes the checking of data for the Index, and the transcribing of new data for the details. However, it's recently been brought to their attention that many of the microfilm reels of Aircraft Inspection & Registration files (one of their main sources) are currently being digitized and are becoming available at the Canadiana website (http://heritage.canadiana.ca/view/oocihm.lac_mikan_133868). The team is also swamped with donated photos as people have been very generous – so the team is anxious for help in scanning and documenting this material.

Again, if you're interested in helping please click the "Contact Us" link on the web site.

Don MacNeil

CANADA'S AVIATION HALL OF FAME, 9 JUNE 2016

Major-General J.C. Madower, OMM, will be the guest speaker at the 43rd annual induction ceremony of Canada's Aviation Hall of Fame, to be held Thursday, 9 June 2016 at the Canada Aviation and Space Museum at the Rockcliffe Airport in Ottawa.

MGen Madower has had a long and distinguished military career. He is a graduate of Royal Roads, and Royal Military College, with a Bachelor of Mechanical Engineering. He is also a graduate of the United States Air Force Air Command and Staff College; holds a Masters of Public Administration from Auburn University; and is a graduate of the National Strategic Studies Program at the Canadian Forces College in Toronto. He is an Honorary Lieutenant-Colonel in the Alabama Air National Guard.

A veteran of Afghanistan and the First Gulf War, where he served as an Aerospace Engineer in Canada's Naval Task Group of ships deployed to the Arabian Gulf, MGen Madower has also served in numerous staff positions in Ottawa, Winnipeg and Halifax. However, as the RCAF's senior serving member of Canada's shipboard Maritime Helicopter Community, his most memorable postings are those at sea and the numerous shore postings to Shearwater, the historic home of Canada's Naval Air Branch.

For tickets to this special, annual, black-tie event, go to: http://www.cahf.ca/induction-ceremony
or by phone to: 780-312-2084.

NEXT MEETING OF THE OTTAWA CHAPTER CANADIAN AVIATION HISTORICAL SOCIETY

THE SHORT, STRANGE CAREER OF DONALD PALMER SCRATCH, RCAF

Hugh Halliday

Below is an extract from an *AirForce Magazine* story; one of many tales about this legendary character.

"On December 6, 1944, the RCAF lost two bombers; a B-24 Liberator and a B-25 Mitchell; and also one of its most gifted pilots, Sgt Donald Palmer Scratch of Maymont, Saskatchewan."

"It was wartime but Don Scratch did not die in a theatre of operations. He was killed at an air base at Boundary Bay, British Columbia. His flight was not authorized. He was joy riding. For some 5½ hours, he terrorized airports in Seattle, Vancouver, and nearby Boundary Bay with risky, low-altitude aerobatic flying."

"Scratch's folly began in Gander, Newfoundland, in August 1944. He was then a Flight Lieutenant piloting Liberators on monotonous 20-hour anti-submarine patrols. He wasn't happy with the assignment. He wanted a posting to a war zone."

"One night he was part of an alcohol-fuelled debate in the Officer's Club. Pilots argued whether one man could take off and land a Liberator. The consensus was that it was impossible – too many switches and controls. In total darkness, Scratch stole a Liberator and "beat-up" the U.S. base at Argentia and RCAF Station Gander. He threw the Liberator around like a fighter. He flew between hangars, skimmed rooftops, blew pebbles off tarred roofs and rattled windows…." And the tale goes on and on! Hugh Halliday will tell us more, in the process correcting the record; it should be a fascinating evening!

Don't forget that the CAHS Ottawa Chapter AGM will also be held at this meeting; please attend if you can. Most of the Executive are willing to stand for another year; but we are looking for someone to take responsibility for the refreshments at our regular meetings. Please let us know if you are willing to help out?

LOCATION: Bush Theatre, Canada Aviation and Space Museum, Rockcliffe

DATE/TIME: Thursday, 26 May 2016, 1930 Hours

LANDING FEES: $1.00

Meetings include guest speakers, films, slide shows, coffee and donuts

Visitors and guests are always welcome