

**the**

# OBSERVAIR

**Ottawa Chapter Newsletter  
Canadian Aviation Historical Society**



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## CHAIRMAN'S MESSAGE

Happy 2016 to all our CAHS Ottawa members out there! As many of you may know, this month's meeting will be a film night. I have gathered together some interesting documentary films about aviation in post-war era Canada. Both military and civil aviation is covered. Some of the aircraft featured include: the Avro Canada CF-100, the Avro Canada Jetliner, a homebuilt MacGregor MG65 biplane, various Trans-Canada Air Lines aircraft from the late 1940s and 50s and more. Come out and enjoy a film you've never seen before, or perhaps one you have not seen in some time. I hope to see many of you there!



For our members out there interested in both aviation and coin collecting, the Royal Canadian Mint has released two new coins this month. The first is a 1 oz. fine silver coin with a de Havilland DH.82C Tiger Moth on it. The Tiger Moth is shown flying over a BCATP training school and has a silhouette of Southwestern Ontario behind it. The obverse of the coin features an image of King George VI. The second coin is 1 oz. of fine silver with a Royal Aircraft Factory S.E.5a on it. This is the first of a three part *Aircraft of the First World War* series (the other aircraft in the series will be a Sopwith Triplane and a Curtiss H-12). The S.E.5a is done in colour, and can be seen sitting in a typical Royal Flying Corps airfield scene. The obverse of the coin features King George V. Both coins are worth checking out. They can be found here: <http://www.mint.ca/store/template/home.jsp>

The Canadian Aviation Historical Society is holding its 53rd Convention and Annual General Meeting in Winnipeg, Manitoba, 1-5 June 2016. The conference theme will be "Celebrating Canada's Aviation Heritage" with sessions exploring civilian and military topics. The CAHS invites proposals for papers to be presented at the convention. For more information, see the 2016 Convention pages of the CAHS website: <http://www.cahs.ca/cahs-convention-2016>

*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, Kyle Huth. All matters relating to membership should be directed to the Secretary/Treasurer: Mat Joost.

|                |                     |
|----------------|---------------------|
| Kyle Huth      | Chairman/Editor     |
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| Hugh Halliday  | Official Greeter    |
| George Skinner | Museum Liaison      |
| Erin Gregory   | Research Group      |
| Bill Clark     | Refreshments        |

# PAST MEETING – It all started with a great engine: The history of the CANADAIR Sabre Mk. 3 and how it influenced all the rest

## Bernie Runstedler

On Thursday 26 November, 2015, 57 members and their guests were in attendance to hear Bernie Runstedler give his presentation on the one of a kind Canadair Sabre Mk. 3. He began his talk with a list of those he wished to thank; family, friends, and most notably ex-Canadair employees Lewis Chow and Bill Upton. He credits these two men for providing him with information for his talk, and in Bill's case, saving a large chunk of history when he recovered many of Canadair's records from the garbage after Bombardier took over.



*Photo by Rod Digney*

In the years following the Second World War, the RCAF was searching for modern jet-powered aircraft to equip its fighter squadrons. To fulfill the roll of all-weather interceptor, they had selected the Avro Canada CF-100 Canuck; which was then in development. But the RCAF also needed a good day fighter for air defense at home and at our new NATO bases overseas. The North American F-86 Sabre was soon selected for this roll, and a contract was signed with Canadair of Montreal to build 100 Sabres; Canadair giving them the company designation CL-13. The intention was, that eventually these Canadian-built Sabres would be equipped with Canadian-built Orenda engines.

Since the Second World War, Turbo Research had been working on jet engine development. In 1946, the Federal Government decided to sell the Crown Corporation to Avro Canada. Turbo Research's engine, the TR-3, would be developed into the TR-5 Orenda 1 engine. There are six different Iroquois languages, meaning that the word "Orenda" has more than one meaning. The most fitting translation in this situation is "That Which Endows With Power". The Orenda 1 first ran on February 10, 1949 and at the time, it was considered the most powerful jet engine in the world. After running for 2000 hours, fatigue cracks were found in the 7<sup>th</sup> and 8<sup>th</sup> stage

compressors. The fixes to those stage compressors would lead to the Orenda 2.

In June 1950, Avro Canada converted one of the RCAF's surplus Lancaster Xs into an engine test bed by removing the outboard Merlins and replacing them with Orenda 2s. On flights over Lake Ontario, the Lancaster would shutdown the inboard engines, drop below radar, then pop up on the American side, causing the Air National Guard to ineffectually scramble their fighters. The Americans were excited by the development of the Orenda 2, so much so that an F-86A was pulled off the North American assembly line to have one fitted. To fit the Orenda 2, the fuselage frames were enlarged on the insides and Orenda-supplied engine mounts were installed. The Sabre was then flown first to Canadair in Montreal, then on to Avro Canada in Malton for testing; which lasted well into 1953.

The Orenda 2 Sabre demonstrated greatly improved performance; however, according to pilot reports, it was a bit on the unstable side, especially when doing high speed flights at low altitude. The throttle in the Orenda 2 Sabre was improvised, and only had one setting, presumably not slow. Tests showed that to make the Orenda Sabre combination work, more airflow was needed. Because the Orenda 2 was 3" wider than the original General Electric J47, there was not enough airflow around the engine, and cooling was a problem. The problems with the Orenda 2 Sabre mounted until the aircraft became a hangar queen. The J47 was put back in, and left to languish in the hangar at Malton. The Americans by now had lost interest in the Orenda and asked for their Sabre back, so in February 1954 it was flown back to Brookley AFB in Mobile, Alabama, by Bob Christie, where the Sabre was cut up and destroyed. Bob's description of that hair raising flight made it into Larry Milberry's book on the Sabre.

Examining the Orenda 2s off the Lancaster test bed, fatigue cracks were found in the 9th stage compressor, and again, that stage compressor was replaced with a stronger one; the genesis for the Orenda 3. The United States Air Force said to fit the Orenda properly, the airframe structure of the Sabre would have to be drastically altered. Dick Richmond, Chief Development Engineer at Canadair, was asked if a properly designed engine nose cone would permit better airflow into and around the Orenda engine. Lewis Chow, Dick's Chief Experimental Engineer, was soon on his way to Malton with six experimental engine nose cones, where a standard F-86 air intake duct and an Orenda engine were waiting for him. Lewis' four months of work yielded some positive results. Only the F-86's air intake duct needed to be changed, and the engine nose cone modified to improve airflow into and around the engine. Other minor modifications were made to adjust

for the Orenda's oil pump placement and shorter length; the results of this work would mean that the later Sabre 5s and 6s would have a 17% increase in thrust over the American powered Sabre!

Sabre 19200 was the 100th Sabre made by Canadair. It was originally a Mk 2, but in September 1952, it had an Orenda 3 engine installed and became the sole Sabre Mk 3. The armament was not fitted and the gun ports faired over. It bore no markings or identification, with the exception of the serial number and the letters EOP (Experimental Orenda Prototype) on the tail.

In early 1952, Jackie Cochran was looking for a jet to set some speed records in. With the Korean War on, the USAF had no jets to spare for record setting. After talking with the RCAF and the Ministry of Defence, Jackie was authorized to use the Sabre 3 for her record attempts. The record flights were originally going to be made between Montreal and Ottawa; however, there was no proper measuring equipment. Since the aircraft had to go to Edwards AFB in California for calibration testing anyways, it was decided that she could do her record attempts there. To do this, Jackie had to sign on as a consultant for Canadair, and take out a \$10,000 insurance policy on the Sabre 3.

The Sabre 3 arrived at Edwards AFB on 9 April 1953. Lewis Chow and his sixteen man support crew installed the Orenda 3 (replacing the J47 engine) and began flight testing. These tests included dives from 10, 20, 30, and 40,000 feet. Weather delays and the need to redo the initial test flights meant that it was not until 12 May 1953 that Jackie was able to fly the Sabre 3. The Sabre 3 impressed everyone who flew it, including legendary pilot Chuck Yeager, who flew as Jackie's wingman on most of her flights. Jackie flew the Sabre 3 thirteen times, setting five new world records, including being the first woman to break the sound barrier on 17 May 1953. When she died in 1980, after forty years of flying she held more world aviation records than any other pilot, man or woman. Bernie, our speaker, only holds one flying record after 39-years of flying. Still an impressive feat!

With testing done, the J47 was reinstalled and the Sabre 3 was flown back to Canadair. There it was discovered that the wings were bent. The cause, likely pulling out of those high speed dives at Edwards! The bent wing was replaced by a Mk 5 wing, the 6-3 wing (the chord was extended 6 inches at the root and 3 inches at the tip). Despite these changes, the official designation never changed on the Aircraft Inventory Card.

On 21 June 1954, the Sabre 3 was finally handed over to the RCAF, going from 11 Technical Service Unit at Canadair to Air Material Command, Central Experimental and Proving Establishment at RCAF Station Rockcliffe. However, with the runways being too short at Rockcliffe, the Sabre 3 was transferred to AFHQ Jet Flights at RCAF Station Uplands. After a year there, it was transferred to RCAF Station St.Jean, Québec and converted to an Instructional Category Airframe, with the new registration number, 613B. It was there that the one and only Sabre 3 was struck off strength in June 1969.



The Sabre 3 in Montreal after returning from Edwards AFB.  
*Photo courtesy Bill Upton*

CFB St.Jean was authorized to retain the Sabre 3 for static display, though by the late 1970s it was languishing in a farmer's field outside the base. Thankfully it was about this time that there was a move within the Canadian Armed Forces to promote the military. Gate guardians were an especially popular way of doing this, and just about every military establishment was trying to procure something to display. At CFB Downsview, 411 "County of York" squadron was searching for a Sabre to display on a pedestal outside the base's main gate.

Someone at #10 Tactical Air Group in St. Hubert, Québec remembered the Sabre 3 at St. Jean. Despite being in poor condition, it was recovered and trucked down to CFB Downsview. There, while being inspected, a technician noticed the Mk 5 wing on a Mk 2 airframe. Lt. Col. Paul Hayes was the Commanding Officer of 411 Squadron at the time. He is a former Air Division Sabre pilot and has more than 2,000 hours on the type. When Hayes heard about the oddity, a call was placed to Canadair that caused some excitement. Canadair asked 411 Squadron not to drill holes in the Sabre 3, as it was historically significant.

In 1980, the Sabre 3, sitting at Downsview, became a movie star in the sci-fi adventure film *The Last Chance*. It was used as a backdrop aircraft wearing the USAF markings of Sabre 54989. Around this time, 411 Squadron was converting to the CH-136 Kiowa helicopter. The new squadron C/O knew the Sabre 3 was historic, and also realized that CFB Downsview was not the place for it. What was left of the Sabre 3 (it was by now missing its engine and cockpit instrumentation) was donated to the Western Canadian Aviation Museum in Winnipeg, Manitoba (now called the Royal Aviation Museum of Western Canada) in exchange for some Harvard components. After several failed attempts to obtain a Mk 2 wing, museum staff reassembled the Sabre 3 with the Mk 5 wing and repainted it as close to original as they could.

In 1998, the Sabre 3 was traded to the Reynold Museum in Alberta for a well-worn Vampire. Today it can be seen sitting outside the Reynolds-Alberta Museum in Wataskiwin, Alberta. When space permits, the museum plans on bringing it inside.

The Sabre 3 proved that the Orenda-Sabre combination worked, and it worked well. It led the way for the Orenda powered Sabre 5 and Sabre 6. The latter being regarded as the best of all the Sabre variants produced. The armed services of fourteen countries (not including Canada) used the Canadair-built Sabre in various marks. By the time the last Sabre had come off the line in Montreal, 1,815 had been built.

A few privately owned Canadair Sabres continue to fly. Boeing Aircraft had operated a Sabre 5 and later a Sabre 6 as a chase plane during their 737 and 747 flight test programs (with the fitting registration N8686F). Vintage Wings of Canada of Gatineau flies a Sabre 5 in RCAF Golden Hawk colours.

The Americans would have liked us to use their J47 engine; Rolls Royce of Britain put a lot of pressure on Canada, the RCAF and the RAF to use their Avon engine in the Sabre. Rolls Royce did convince the Australians put the Avon in their CAC built Sabre, but it required a 60% modification to the airframe for performance results similar to, but still not equal to the Orenda powered Sabre 6. It is a testament to the Canadian mind-set that when someone says something is a challenge and can't be done, we rise to meet that challenge.

Kyle Huth  
Editor



## RAMBLING THROUGH RECORDS – BARRY HAIG MOFFIT

Historical accounts are not necessarily carved in stone. There are plenty of myths to be debunked and narratives to be corrected. Those who object to this as *revisionism* do no service either to history or to the icons which may have been challenged.

I had acquired a copy of **Black May** by Michael Gannon, published in 1998. The sub-title says it all - *The Epic Story of the Allies' Defeat of the German U-Boats in May 1943*. That month was indeed a turning point in the Battle of the Atlantic - as decisive as 15 September 1940 had been in the Battle of Britain. Being particularly sensitive to whether or not Canadians get their due, I looked up Barry Moffit in the index (the book is commendable for its index). I joyfully noted that he was there - but discovered his story as I had known it was subject to some revision.

Barry Haig Moffit (1920-1992) had been born in Toronto but enlisted in the RCAF in Ottawa in October 1939. By 1942 he was a Canso captain in No.5 (Bomber-Reconnaissance) Squadron, at that time operating from Gander, Newfoundland. In efforts to close the *Atlantic Gap* in air cover (the mid-ocean area at extreme range from Iceland, Britain and North America), the Canso's flew to the limits of their fuel, sometimes returning to base with barely enough gas to taxi to their hardstands. In January 1943 he was awarded the Air Force Cross, having completed 62 sorties (614 operational hours). The hazards of flying - and Moffit's skill - were demonstrated on 27 February 1943; the diary of Station Gander included the following entry:

Two aircraft on patrol. The weather closed in and a 606 was sent to the aircraft. The weather assumed blizzard proportions and it was considered unsafe for the aircraft to land at this aerodrome. At 1600 hours F/L B.H. Moffit, AFC and crew in Canso K were heard overhead. The ceiling was about 100 feet with very little forward visibility. Tower instructed Canso K to proceed to Mont Joli, and the aircraft laconically responded by requesting permission to taxi up the runway as it had already landed. F/L Moffit gave a superb exhibition of piloting by landing perfectly under difficult conditions. The other aircraft landed at Mont Joli.

This brings us to the afternoon of 4 May 1943 and the position 56 degrees 35 minutes north, 42 degrees 40 minutes west, south of Greenland. Canso W (serial 9747) had been airborne more than ten hours before he even reached the convoy under protection. They were at 2,000 feet; sporadic radar blips indicated a submarine, probably running surfaced in heavy

seas. Six miles from the ships, Corporal H. Knelson (second engineer, watching from the port blister) spotted the U-Boat. Moffit's account in the squadron diary reads:

I immediately picked it up. It was not more than two or two and a half miles away so I just pushed the nose down and the throttles open. It was the fastest ride I have ever had in a Canso aircraft. This U-Boat was well trimmed, ready for a dive but we caught him with his flaps down. I am sure that he had not noticed us until we were practically upon him. Coming in straight on we let our depth charges go, and as we passed over the sub we could see two Jerries still on the conning tower platform. After that part of the show I was out of the picture, but the lads in the blister who could see the depth charges striking, said that two of them landed on the port side of the U-Boat and one just ahead the other just behind the conning tower.

Moffit banked for another look, but the submarine was nowhere to be seen; instead there was some wreckage and an oil slick. Having reached his Prudent Limit of Endurance (PLE) he turned for home. By the time he landed he has been airborne for 15 hours. He modestly suggested that the target had been *probably damaged*. Eight weeks later, in London, the Admiralty U-Boat Assessment Committee, working with the best information available in wartime, identified it as U-630 (Oberleutnant Werner Winkler) which was *known sunk*. And so the story was long repeated by authors such as myself and Alex Douglas - but wait a minute.

*The best information available in wartime* could be checked after German records became available, and Robert M. Coppock (Foreign Documents Section, Naval Historical Branch, Ministry of Defence, London) has since reassessed air and sea attacks on U-Boats, and his conclusion (published in **Black May**) is that U-630 was still afloat 6 May 1943, but not for long. It was probably the submarine destroyed that day by **HMS Vidette**.

However, Moffit had clearly damaged a U-Boat on 4 May. Coppock concluded that he had crippled U-209, which reported by radio on the 6<sup>th</sup> that it had been severely damaged by an air attack. U-Boat Command ordered her to refuel from U-119 and then return to Germany. U-209 failed to rendezvous with U-119 and was never heard from again, so she probably succumbed to Moffit's depth charges.

Barry Haig Moffit was awarded the Distinguished Flying Cross. He remained in the postwar air force, retiring in the rank of Group Captain. Corporal Harry Knelson, who had first spotted the U-Boat, was awarded the Distinguished Flying Medal. His medals are in the possession of the Canadian War Museum.

*Hugh Halliday*

## **SABLE ISLAND REVISITED – PART 2**

### **The demise of a Liberator at Sable Island**

On 12 February 1945 RCAF Liberator VI No.3728-J of No.11 (Bomber-Reconnaissance) Squadron Dartmouth, N.S. was returning from an escort for convoy at 189B when icing conditions were encountered. The pilot, F/L A.A. Early, noticed symptoms of carburettor icing in number two engine. Application of carburettor heat did not clear the problem and a short time later, without warning, number one engine cut out completely. Altitude could not be gained at a speed of 130knots. As the aircraft had just passed over Sable Island a short time previously the pilot and navigator agreed to return to Sable. The depth charges were dropped but the acoustic torpedo hung up and could not be released (it was torn loose on landing). An S.O.S. was sent and the crew were warned to prepare for a forced landing. The pilots approached the Island with wheels down, full flaps, and landing lights on as the aircraft was flying in darkness.

The Liberator landed on its main wheels and tailskid and after rolling only 150 yards slid slowly into the shallow waters of the lake on Sable Island at 2217 Hours GMT. The forced landing was executed with such skill that no injuries were suffered by any of the seven crew members. The crew of Liberator 3728 were:

J14306 F/L A.A. Early, Pilot  
J42049 F/O R.D. Hoag, 2nd Pilot  
J29421 F/O H.A. Head, Navigator  
J49680 P/O W. Regan, 1st WAG  
R222164 SGT A.R. Woodman, WAG  
R220664 SGT B.E. Thatcher, WAG

Eastern Air Command HQ Halifax took action to rescue the crew and remove all secret equipment and code books from the aircraft plus begin salvage of parts from 3728, this work was to last more than a month.

On 13 February 1945, Canso 9782-N of No.161 (Bomber-Reconnaissance) Squadron detachment at Sydney, N.S. piloted by F/L W.M. Peters was flown to Dartmouth where he was sent out to Sable to pick up the crew of the Liberator. The Canso landed in the lagoon, which turned out to be rather shallow, and the aircraft became stuck on a sandbar. The crew had to remain in the Canso and wait until the tide came in. Thus they spent the night at Sable. The next morning with the incoming tide F/L Peters was able to depart with the crew of 3728 and return to Dartmouth and then proceed home to Sydney.

Also on 13 February 1945 S/L Whitney of No.4 Repair Depot, Scoudouc, N.B. travelled from Dartmouth to Sable to inspect the crashed Liberator, as his unit was tasked with the salvage of 3728.

Additionally on 13 February, Ventura 2167-W of No.145 (Bomber-Reconnaissance) Squadron at Dartmouth piloted by P/O D.W. Messecar flew to the island to check on the Liberator.

On 15 February 1945, Canso 9844-F of No.161 (Bomber-Reconnaissance) Squadron Yarmouth, N.S. piloted by F/O J.P. Morton departed for Dartmouth to start moving salvage equipment from Dartmouth to Sable.

On 16 February 1945, Digby 745-R of No.167 Communication Squadron Dartmouth was flown to No.4 Repair Depot, Scoudouc, N.B. to pick up materiel for the salvage party at Sable.

On 17 February 1945, Canso 9844-F flown by F/L J.P. Morton transported secret equipment from the crash site at Sable to Dartmouth.

On 19 February 1945, Canso 9844-F flown by F/L J.P. Morton returned to Yarmouth having completed his ferrying tasks.

On 5 March 1945, Digby 745-R of No.167 Communication Squadron Dartmouth was flown to Sable, landed on the beach and later the same day, returned with 1.5 tons of equipment salvaged from the Liberator.

On 9 March 1945, a Dakota from No.164 Transport Squadron Moncton, N.B. (serial number unknown) and Digby 748 of No.167 Communication Sqn were flown to Sable Island to collect the engines and undercarriage of the Liberator and deliver the freight to No.4 Repair Depot at Scoudouc, N.B.

On 17 March 1945, the salvage work on the Liberator at Sable was completed by personnel of No.4 Repair Depot.

**Note:** The book "Canadian Military Aircraft Serials and Photographs" lists the crash date of Liberator 3728 as 16 February 1945. This is an error. This correct date is 12 February 1945.

*R.H. Smith*

**Editor's Note:** As an amusing aside, after the forced landing of Liberator 3782, the aircrew ended up having to rescue a would-be rescuer whose boat overturned in an attempt to reach the aircraft.



## Pubs & Mags

**Airliner World (Nov 2015)** – 7pp on DHC-6 Twin Otter, and its resurrection by Viking as the Series 400

**FlyPast (Nov 2015)** – 5pp on Canadian Warplane Heritage restoration projects: Bristol Bolingbroke, Grumman Avenger and Tracker

**Airports of the World (Nov/Dec 2015)** – 3pp on the Peterborough Airport (CYPQ)

**Airways (Jan 2016)** – 8pp profile of WestJet Airlines

**Canadian Women in the Sky: 100 Years of Flight** by Elizabeth Gillan Muir – Dundurn, 6"x9", 175pp, illus., notes, \$22 sc



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



First Air (Bradley Air Services) took delivery of its second Aerospatiale-Alenia ATR-42-500 (c/n 609) in October. Seen here at the company's base at MCIA on 14 October 2015 wearing the Guernsey registration of 2-RTKC; it has since been added to the Canadian register as C-FTIQ. It is the first of its type in Canada. © Rod Digney



First Air has been upgrading its Boeing 737 fleet with the acquisition of Series 400 aircraft and the decommissioning of its older 200 Series. Seen here at MCIA on 20 November 2015 are soon-to-be-retired Boeing 737-217, C-GCPT (c/n 22258) in front of a newly arrived and as yet untitled 737-400. © Rod Digney



A retired First Air Boeing 727-200C (identity unconfirmed) suffered its final indignity at MCIA in the small hours of the morning of 3 November 2015 when it was set alight for a training exercise by the airport's fire service. The conflagration was caught in this spectacular photo by our new contributing photographer Jan Jasinski. © Jan Jasinski



The aftermath, seen here on 20 November, shows that the structure failed and the rear fuselage completely separated from the aircraft. © Rod Digney



Throughout the Fall, First Air has been leasing Boeing 737-46B, C-FLER (c/n 24573) from Kelowna-based Flair Airlines for its daily flights between Ottawa and Iqaluit. Photo taken on 13 December 2015. Will this aircraft soon be flying in the colours of the just-announced startup NewLeaf Airline? © Rod Digney



The RCAF's VIP configured CC-150 Polaris (15001) Canforce One, as it is known when the PM is aboard, is seen here returning Prime Minister Justin Trudeau to Ottawa on 20 November from his extended trip to the G-20 meeting in Ankara, Turkey, and the APEC conference in Manila, Philippines. © Rod Digney

## **SYDNEY BAKER – PART III**

### **Flying Clubs and the Outbreak of War**

On February 20th 1939 I was flying Hillson Praga registration G-AEYM at 1,500 feet about five miles east of the aerodrome at Ipswich when suddenly without warning, following a sharp crack and severe vibration, the propeller went spinning away to the left. It was my natural reaction to shut off the engine which eliminated the vibration.

At this point I sighted the aerodrome away in the distance and I felt pretty sure that by flattening my glide I could reach the field. The landing was quite normal but unfortunately it was downwind and a little too fast. I trundled on stopping just short of the boundary marker. One annoying part of this was that no one saw me land so I had a long walk back to the hangar. At this time I had just completed 10 hours of solo flying.

Subsequent inspection of the engine revealed that the crankshaft had sheared just forward of the first bearing. The propeller was found later on the banks of the Orwell River a few miles south of the aerodrome at Ipswich.

1939 started as a busy year for flying clubs, the Civil Air Guard was becoming very popular. We increased our fleet of four Hillson Pragas adding two Piper Cubs, G-AFTC and G-AFGM; one DH 82 Tiger Moth, G-AFSU; and one Miles Whitney Straight, G-AERC. This latter aircraft was built by Miles Aircraft after Whitney Straight approached George Miles to design and build a side-by-side seated aircraft for dual instruction. Powered by a Gypsy Major engine, this airplane was very popular. I believe that some 50 of them were built.

One other Miles Whitney Straight registration G-AFBV based at Ramsgate crashed at Ipswich on the 15th June 1939. The pilot, Mr. C. Almond along with a pupil had flown in from Ramsgate on a cross-country training flight. Upon departure the pilot did several low tight circuits of the aerodrome and on the last circuit the aircraft's wing struck a wind-sock mast shearing off a section of the wing. The plane then climbed a little before crashing to the ground. Sadly both pilot and pupil were killed. Mr. Almond had been one of my instructors while I was training.

The amount of maintenance and servicing of aircraft was now increasing. Monday was always a non-flying day enabling us to catch up on servicing activity. By now I had been given assistance in the form of an apprentice and a helper; the latter did all the refuelling and cleaning of the aircraft.

In mid-1939 a new larger hangar was constructed at Ipswich for a reserve flying training school of the Royal Air Force (RAF). This school started using Hawker Hind and Fury biplanes. These were large high performance aircraft powered by Roll Royce Kestrel engines. The pilots of these aircraft treated us to some wonderful displays of aerobatics. I remember seeing a Fury take off from one side of the aerodrome and complete a slow roll before crossing the boundary on the other side of the field.

However, war clouds were on the horizon and in early September 1939 war against Germany was declared bringing with it drastic changes to all our lives. All private flying in the U. K. was shut down. The last duty of the staff of Straight Corporation at Ipswich was to camouflage the hangars using large brooms and buckets of paint. The aerodrome was divided up into small fields by spraying black paint to represent hedges, while some of the "fields" were dusted with yellow to represent corn.

At this point all Straight corporation employees merged into one company, Western Airways Ltd. at Weston-Super-Mare in Somerset. On September 8th 1939 I left Weston as crew member engineer on DH 89 (Rapide) G-AFSO with Mr. Chatia as pilot. We were assigned to the RAF station at Tangmere where we became a part of a group called National Air Communications (NAC). This group was formed by the Air Ministry from passenger aircraft that had been impressed. Our flight orders were issued by the RAF station commander.

For the next three months we did flights to most of the aerodromes between LeHavre and Arras. On these flights we carried spares and supplies that had been requested by Numbers 1 and 73 RAF Squadrons which were now stationed in France.

We completed a total of 54 round trips during this period. On these flights we had no protection; if we were challenged in any way while flying we were told to fire off a Very light of the designated colour of the day, information that was given to us in daily orders. Fortunately all our flight proceeded without any serious problems. Our only concern was knowing where

we were going to eat and sleep; many nights were spent sleeping aboard the aircraft. Other aircraft I crewed during this period included DH 84s (Dragon) G-ACMT, G-ACJT, G-ACLE, DH 89s (Rapide) G-ACTV and G-ADDD. This latter plane was previously owned by HRH the Prince of Wales. My last flight with NAC was on December 18th 1939 from Amiens to Tangmere. NAC was disbanded in early 1940.

I then returned to Western Airways at Weston-Super-Mare where a repair and rebuild contract for Avro Anson aircraft was being organized. This was being carried out under Lord Nuffield's Civil Repair Organization (CRO). The aircraft were either flown in for a Category (B) rebuild or transported by road on a Queen Mary (a 50 foot long low trailer type vehicle designed for long loads). The Anson fuselage was transported on the floor of the vehicle with the 56 feet long wing supported above it. When one of these arrived we could almost guarantee it would require repairs to the forward wing tip which would be damaged by striking a building when the vehicle was navigating tight turns.

Instead of taking each individual aircraft and repairing or rebuilding it as needed it was decided to dismantle all planes to the same basic components i.e. fuselage, wing, trailing edges, control surfaces, power plants, landing gear and fairings. The same fuselage and wing sections were always kept together but all other components were put into a common pool. Sections were established for all components with a lead-hand in charge of each section. A lot of coordination was needed to ensure that sufficient components were always ready at the final assembly stage. Everything possible was completed on the wing and fuselage and components before final assembly. This ensured minimum elapsed time on final assembly. Assembly space was limited; all this work was carried out in a 60,000 square foot hangar and the original flying club hangar that was now used for the power plant assembly, with a section screened off for a paint shop.

Marriage of the wing and fuselage took place outside the hangar. Two cranes were used to lift the fuselage high enough for the wing on its bogie to be wheeled beneath. The fuselage was then lowered onto the wing and the attachment bolts were put in place and tightened. The whole aircraft was then lifted and the manually operated landing gear was lowered. The cranes could then be removed, the power plants installed and the aircraft placed on the final assembly line. The line usually consisted of five or six aircraft.

Various stages of inspection were carried out by a staff of four company inspectors to ensure that all work complied with airworthiness standards. Also we had two resident Air Ministry inspectors who carried out the final inspection of the aircraft before test flight.

I was in charge of the final assembly section and believe me when I say it was not without its headaches; but in the end we were very proud of what we had accomplished, bearing in mind that some 60% of our workforce was unskilled. One must remember that in the war years there was a serious shortage of skilled labour, so in most cases it was on-the-job training which involved extra work for supervisory and inspection staff. At the peak of our efforts we were test flying 16 aircraft a month.

In late 1943 a further contract was awarded for the repair of American-built Curtiss Tomahawk aircraft. This was quite a change for us, as this was an all metal aircraft. All the maintenance and repair manuals were made available to us but the American terminology caused a few headaches. For instance, if we wanted to tighten a nut on a quarter inch bolt we would use a quarter inch spanner (wrench). In American terms if you wanted to do the same thing you would use a seven sixteenth wrench (spanner). In England we measure the diameter of the bolt while Americans measure across the flats of the nut

The Curtiss Tomahawk was a fighter aircraft (similar to the Spitfire) powered by an Allison V 12 cylinder engine. It appeared it was subject to ground loops. Almost all aircraft brought in for repair exhibited extensive port wing damage. Spares for this aircraft type were in short supply and it was some time before we received the American tool kits to work on the aircraft. A few Fairy Battles were also repaired; these were mostly fly-ins for patching of bullet holes.

Bristol Aeroplane Company built a factory on the aerodrome at Weston-Super-Mare for the production of Bristol Beaufighters. A 4,200 foot hard top runway was laid down in order to avoid test flying delays resulting from soggy airfield conditions after periods of rain.

During the war years there were frequent air raid warnings and alerts. Bombs were dropped on two occasions with substantial damage and loss of life in the town of Weston-Super-Mare. However most enemy activity was focussed on Bristol and Cardiff, both within 15 miles of Weston. A dummy aerodrome was constructed at Bleadon. This also received

attention from German bombers and many nights were spent in air raid shelters, or on home-guard or air raid warden duties.

After the war in early 1946, following completion of CRO contracts, Western Airways returned to civilian flying activities. Under the direction of Mr. F. Jeans the company purchased ten Avro 652A Ansons from war surplus for conversion to passenger carrying configuration.

Colin Hine

## **WALLY KASPER – April 12, 1921 - November 19, 2015**

On November 19, 2015 Walter (Wally) Kasper passed away. CAHS Ottawa was lucky enough to have him as our speaker last February. Below is his obituary published in the Ottawa Citizen and one of his poems taken from his book *Letter to a New Grandson*.

**KASPER, Walter W.** - Chevalier de la Légion d'honneur, CD, B.A., M.Sc.(Econ).

It is with profound sadness that we announce the peaceful passing of Walter W. Kasper at the Perley & Rideau Veterans' Health Centre with his loving wife Ruth Baier by his side. Cherished father of Mark Christopher, Russell James, Jennifer Noelle (Paul Totten), Tamara Louise (Gary Miller); and proud grandfather of Kyle and Ryan Totten. Dear brother of Terrence (Gail). Predeceased by parents William Kasper and Adolina Wenzel and his siblings Mabel (Alvin Wenzel), Louis (Marie), Russell and Ethel. In addition to his family, he will be missed by all of his friends. As a member of the RCAF, Wally was active as both a Lancaster bomber and fighter pilot in Europe during and after World War II. Wally was inducted in the Veterans Hall of Valour. He held degrees in Economics from the University of Toronto and the London School of Economics. Wrote and published five books and numerous articles in "Canadian Stories", including many short stories and poems. He was active in the community - member of the Legion, Kiwanis and the Rotary, where he received the Paul Harris Fellowship. On November 11, 2015, was invested as a Knight of the National Order of the Legion of Honour by the Republic of France. The family would like to thank the dedicated staff at the Queensway-Carleton hospital, for their love and care during his last days.

Rest well, Wally. Your crew is home, safe.

### **A Bomber Pilot's Song of the Night**

Now we have escaped from the runway's earth-bound grasp,  
And disappeared into the deepening dark of the forbidding night,  
The trace of our engines' sound  
is no longer found upon the ground,  
And we pursue our climbing course to deliver  
horror, death and fright.  
To the target, to the nation, which first brought this war to us,  
and forced us to this sad, demeaning task.

This is another night in the long tale of an unwanted war,  
At least, unwanted by the free men  
who have the burden now to bear;  
The issue is clear, freedom must prevail; but oh! the getting there,  
For two thousand days men like us have flown this bitter flight  
And dared intrude into the fury of the German sky at night.

The Germans taught us how to bring  
death and destruction from the air,  
Guernica, Warsaw, Rotterdam, London, so many cities, each so faint,  
And now the tide is turning, slowly it seems, from ebb to flood,  
But how tragic it is that the tide  
becomes awash with airmen's blood,  
For we, in Bomber Command stand alone in the whole free world,  
As the one arm of free men that fights at the door of Hitler's lair.

The bleeding hearts do rant about the terror from the sky,  
They were silent at Guernica. Will some one tell me why?  
A murmur at Warsaw, and a bit for Rotterdam or Coventry,  
But now, when Bomber Command delivers a fair tit-for-tat  
The bleeding hearts are screaming "We should not do that".

It's true that we have raised the ante, as the game of power goes,  
We have four engine heavies, each with the large explosive loads,  
But this is a quantitative function, not a qualitative one,  
Death and destruction is the game, this is just more of the same,  
And for every bomber lost add seven to the list of hero's names.

75,000 strong, this list of hero's names; they fought the war for you,  
And did the things that you will never do, for no one has matched you  
With an hour that has called for courage tried and true,  
They took the shot and shell, flew into that airborne hell,  
and did it all for you.  
But you know nothing of them, living in your little selfish world,  
But pause, and think well of them, those heroes,  
When e'er your flag's unfurled.

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## REQUEST FOR ASSISTANCE – SPITFIRE RESEARCH

Kurt Turchan, who also built [www.trailpeak.com](http://www.trailpeak.com) (Canada's largest trails database), is requesting assistance adding more content to his new website [www.allspitfirepilots.org](http://www.allspitfirepilots.org); a website that supports a linkage between pilot and specific aircraft, with ability to link to sortie or timeframes a pilot may have flown a particular aircraft.

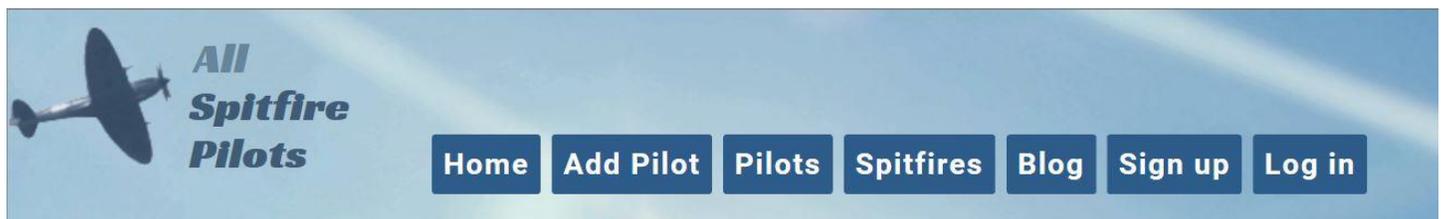
The pilot page of the site is a wiki, allowing anyone to add more information, images, links to other sites (a key feature); the idea being that we document all spitfire pilots and bring together some of the fragmented pieces of information from various sources. Over-time, the ability to add more sortie / squadron information will be added.

Some new contributors e.g. \*father was a spitfire pilot\* have added information (including our own Hugh Halliday), but anyone can do research and add pilot or aircraft information. It would be nice to add other aircraft; however, the Spitfire had 22,000+ produced, and likely triple that in pilots. It's also an iconic fighter of WWII that was in service throughout and after.

The site is entirely volunteer effort based, where anyone can add information to an existing page, or, add a new pilot page. A goal, with increased traffic is to support a memorial project each year.

Another goal of the site is to answer questions raised by users, and perhaps solve some mysteries or missing history. For that, users can "follow" a pilot, ask a question / comment, and, all questions are easily seen at the bottom of all pages, along with a feed showing the most recently added content of aircraft, pilots, and, questions / comments.

Kurt is also looking for to find a small board of directors (3 or 4) to help guide / operate the site. To contact Kurt, head to the **contact us** page on [www.allspitfirepilots.org](http://www.allspitfirepilots.org).



# **NEXT MEETING OF THE OTTAWA CHAPTER CANADIAN AVIATION HISTORICAL SOCIETY**



## **CANADIAN AVIATION DOCUMENTARY FILM NIGHT**

**Featuring films about Canada's post-war era aviation**

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

**DATE/TIME: Thursday, 28 January, 2016, 1930 Hours**

**LANDING FEES: \$1.00**

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

**Visitors and guests are always welcome**