

the
OBSERVAIR
Ottawa Chapter Newsletter
Canadian Aviation Historical Society



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CHAIRMAN'S MESSAGE

It is a great pleasure to welcome back all our CAHS Ottawa Chapter members to another great programming year. We have a great line up this year, covering everything from commercial flying to Cold War jets! Hopefully each of you got the chance to experience some of Canada's aviation heritage while the weather was good. I myself was fortunate enough to spot the CWH's Lancaster and Mitchell flying in formation over Leaside (the site of Canada's first Airmail delivery) while in Toronto for a wedding.

In the next issue of the *Observair*, you'll find our new carpool list. On that list, you'll find contact information and the nearest intersection of those members who offered to drive. For those members who need a lift to the meetings, feel free to contact the member closest to you. For those members who offered to drive, thank you! If at any time, you wish to be removed from the list or if anyone else would like to be added to the list, let me know and we'll make the necessary updates.

Coming up at our January meeting, we'll be taking a page from our friends in Winnipeg, and instead of having a speaker, we'll be showing several aviation related films. The emphasis will be on films related to AVRO Canada, though depending on our time constraints I might add in one or two of my favourite National Film Board shorts. If anyone has any suggestions, let me know and I'll see what I can do about adding it to the list. The film line-up will be announced in the November *Observair*. I hope to see you there that night!

One more thing to look out for this year, CAHS Ottawa is joining social media! We will be establishing a Facebook and Twitter account. This way we hope to share chapter news as well as Canada's rich aviation history with you, our members, and hopefully attract some new members along the way.

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 temporary Editor, Kyle Huth. All matters relating to membership should be directed [to the Secretary/Treasurer: Mat Joost](#).

Kyle Huth
Mathias Joost
Colin Hine
Don MacNeil
Hugh Halliday
George Skinner
Erin Gregory
Bill Clark

Chairman
Secretary/Treasurer
Newsletter Editor
Program convener
Official Greeter
Museum Liaison
Research Group
Refreshments

PAST MEETING

The Battle of Britain - seen through the eyes of "One" of "The Few" Timothy Dubé

Seventy people attended the 28 May 2015 meeting in CASM's Bush Theatre to participate in the Annual General Meeting followed by an interesting presentation by Timothy Dubé on the Battle of Britain as seen through the eyes of Canadian airman, William Lidstone "Willie" McKnight – perhaps the most outstanding Canadian fighter pilot of the Battle of Britain and the first eighteen months of the war – using his flying log book and personal letters along with other resources, Timothy's presentation puts the personal story of "One" of "The Few" within the context of the larger Battle of Britain. The following presentation summary was kindly provided by Tim.

Seventy-five years ago this year, one of the most storied battles in military history took place in the skies of England – the Battle of Britain. Almost 3,000 Allied airmen – 2,342 pilots and aircrew from Britain and 595 from Overseas, including more than 100 Canadians – participated in the Battle of Britain. Perhaps the most outstanding Canadian fighter pilot of the Battle of Britain and the first eighteen months of the Second World War was William Lidstone "Willie" McKnight of No. 242 Squadron, who had travelled from Calgary, Alberta, to join the RAF before the war. Using McKnight's personal letters (held by Library and Archives Canada in Ottawa as MG 30, E527), his flying log book (held by the National Archives of the UK in London as Air 4, Volume 77), combat report claims (held by the Directorate of History and Heritage, Department of National Defence, in Ottawa as Accession 73/847), honours and awards citations (on the RCAF Association website: <http://rcfassociation.ca/honours-awards/search-awards-database>), along with newspaper accounts of the day and other resources, Tim set about to tell Willie's personal story within the larger historical context of the opening months of the Second World War and the Battle of Britain.



Pilot Officer William (Willie) McKnight, serving with No 242 (Canadian) Squadron RAF, September 1940 CH1321

Willie McKnight had begun his training on the Avro 643 Cadet Mk. II at No. 9 Elementary and Reserve Flying Training School, Ansty, in February 1939, before going on to receive his RAF Pilot's wings at No. 6 Flying Training School, Little Rissington, on the Avro 652A Anson Mk. I. On 6 November 1939, McKnight joined the newly-formed No. 242 Squadron, as one of its original pilots. Comprised largely of Canadian-born pilots and groundcrew serving in the RAF before the Second World War, the squadron had been formed at the suggestion of Canadian authorities so that Canada might have early participation in the air war. No. 242 Squadron was first equipped with the Bristol Blenheim Mk. IF twin-engine fighter, but these were soon replaced with the Hawker Hurricane Mk. I single-seat fighter.

On 10 May 1940, Germany launched its Blitzkrieg attack on Belgium, Holland, Luxembourg, and France. Four members of No. 242 Squadron, including Willie McKnight, were rushed to France as reinforcements. On 19 May 1940 (17 May in his log book), McKnight scored his first victory (and what was also the first victory by a member of No. 242 Squadron), while on an evening patrol over Cambrai. Following the Dunkirk evacuation, No. 242 Squadron – this time in its entirety – would return to France to cover the Second British Expeditionary Force south of Paris. For "exceptional skill and courage as a fighter pilot during the operations over France," Willie was awarded the Distinguished Flying Cross (DFC). Using details from Willie's air combat claims and honours and awards citations, as well as excerpts from his letters home, Tim detailed Willie's part in the chaotic six-week Battle of France. After the Battle of France, the remnants No. 242 Squadron were re-assembled at RAF Station Coltishall, under a new commanding officer, Squadron Leader Douglas Bader. The story of Douglas Bader is well known; a double amputee who had lost his legs in a low-flying accident in 1931, he had argued his way back into the RAF in 1939. No. 242 Squadron was to be his first command. By 9 July 1940, No. 242 Squadron was again operational.

THE BATTLE OF BRITAIN

seen through the eyes of "One" of "The Few"

<p>COMBAT REPORT 1/6/40</p> <p>Whilst cruising around out to sea at about 2,500 ft., I saw an E.A. carrying out dive bombing on shipping. I gave chase and ran into a formation of 15 Ju.87s. One started to carry out a diving attack and I fired at him while he was diving, and he dived into the sea. I started to climb and fired from below and behind at another E.A. The machine started to smoke then dived steeply into the sea. I then attacked another 87 and after a short burst it also started to smoke but climbed into the clouds and disappeared. I then fired at E.A. turning in front of me but when fire was beginning to be effective I ran out of ammunition, but enemy appeared badly hit. I carried out several more attacks finally driving enemy off then returned to base.</p>	<p>P/O W.L. McKnight</p>
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The Battle of Britain would open officially on 10 July 1940 with *Kanalkampf* (the Channel Battles); daylight attacks by the Luftwaffe against shipping in the English Channel, as well as attacks to English ports along the South and East coasts and to some coastal airfields. On 13 August 1940, *Aldertag* (Eagle Day) was launched with large-scale daylight attacks by the Luftwaffe against the RAF's No. 11 Group airfields and radar stations in south-east England. No. 242 Squadron, part of No. 12 Group at RAF Coltishall on the north-east flank of the main battle, saw only sporadic action throughout July and August 1940 while the Battle raged over south-east England.

All that changed on 30 August when No. 242 Squadron was moved south to fly from Duxford during the day. That day, No. 242 Squadron would claim eight Me.110s destroyed, one probably destroyed, and another damaged, and five He.111s destroyed. McKnight, flying as Red 2 to Squadron Leader Bader, claimed two Messerschmitt Me.110s and a Heinkel He.111 destroyed – McKnight's Hat Trick. In one of his letters home, Willie had written: "This game is damn good fun when you're fighting bombers as they're just like picking apples off a tree but fighters are a hell of a different proposition and keep you moving like greased lightning. It's a funny thing this fighting in the air, before you actually start or see any of the Hun you're as nervous and scared as hell but as soon as everything starts you're too busy to be afraid or worried."

On 7 September 1940, believing that RAF Fighter Command was close to defeat – and in retaliation for an RAF Bomber Command raid against Berlin on 25 August – the Luftwaffe switched its attacks to London. This shift in targets would give No. 11 Group a chance to repair its airfields and radar sites, while German raids heading for London now came within striking range of No. 12 Group. Also on 7 September 1940, the three Duxford-based squadrons, Nos. 19, 242, and 310 Squadrons, were coordinated for the first time into a single unit by Squadron Leader Bader as part of his "Big Wing" plan. Although Willie was "not along for the fun" that day, the Duxford "Big Wing" claimed a total of twenty enemy aircraft destroyed, five probables, and six damaged, for the loss of one pilot. During the Luftwaffe's next large-scale attack against London on 9 September 1940, Willie scored twice; two Me.109Es. On 18 September 1940, Willie scored again; a bomber, identified as either a Dornier Do.17 or Do.215, and a shared claim with a Spitfire for a Junkers Ju.88 shot down. On 5 November 1940, Willie would claim his final aerial victory; a shared claim for an Me.109. On 8 October 1940, Willie had been awarded a Bar to his DFC.

With the onset of winter, the daylight air battles over south-east England finally petered out. Officially, the Battle of Britain would conclude on 31 October 1940, but the Blitz – the night bombing of London and other cities – would continue until May 1941. The year 1941 would see a change in RAF air fighting tactics. Instead of continuing to fight defensive battles, RAF Fighter Command would be going on the offensive – *Leaning Forward into France*.


On 12 January 1941, with low cloud hanging over both England and the Continent, No. 242 Squadron carried out its first low-level "Mosquito" patrols. Willie McKnight, flying with Marvin Brown, attacked an E-boat in the English Channel, before turning inland near Gravelines, France, to strafe a concentration of German troops. Fired on from the ground by anti-aircraft gunners, they were then bounced by Me.109s. McKnight and Brown became separated. Brown made it home that day; McKnight, piloting his distinctively-marked Hawker Hurricane Mk. I, P2961, LE-A, did not. It was a black day for No. 242 Squadron. At the time of his death, McKnight was the leading Canadian ace with 17 confirmed kills, two shared kills, and three unconfirmed/probables officially credited to him, although Willie routinely boasted of, and newspapers reported of, "at least 23 Nazi planes downed." At war's end, McKnight remained the fifth leading Canadian air ace. McKnight's name, along with the almost 3,000 other airmen of the Battle of Britain, is included on the Battle of Britain Monument located on the Victoria Embankment of the Thames in London, as well as on the National Memorial to The Few at Capel-le-Ferne on the White Cliffs of Dover in Kent. In Calgary, McKnight Boulevard, south of the Calgary International Airport (YYC), and a display in that airport's main terminal serve to honour its local wartime airman, Willie McKnight. Vintage Wings of Canada is restoring its Hawker Hurricane Mk. XII in the colours of McKnight's Hurricane Mk. I, P2691, at Coltishall, in December 1940.

Seventy-five years on, our commitment to remember Willie McKnight as "One" of Churchill's "The Few" remains strong. Tim's presentation reminded us that History is made by such men and women.

Colin Hine, Editor

THE BATTLE OF BRITAIN

seen through the eyes of "One" of "The Few"



Pastel portrait of Willie McKnight from Eric Kennington's 1942 book, *Painting the RAF*

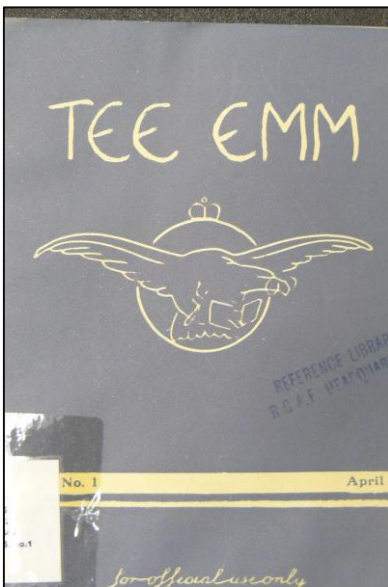
McKnight was credited with 17 confirmed kills, two shared kills, and three unconfirmed/probables.

- 19 May 1940: one Me.109E
- 28 May 1940: one Me.109E
- 29 May 1940: one Me.109E (plus one Me.109E unconfirmed) and one Do.17
- 31 May 1940: two Me.110s and one Me.109E
- 1 June 1940: two Ju.87s (plus two more Ju.87s unconfirmed)
- 14 June 1940: two Me.109Es (recorded in his log book)
- 30 August 1940: two Me.110s and one He.111
- 9 September 1940: two Me.109Es
- 18 September 1940: one Do.17 and one shared Ju.88
- 5 November 1940: one shared Me.109E

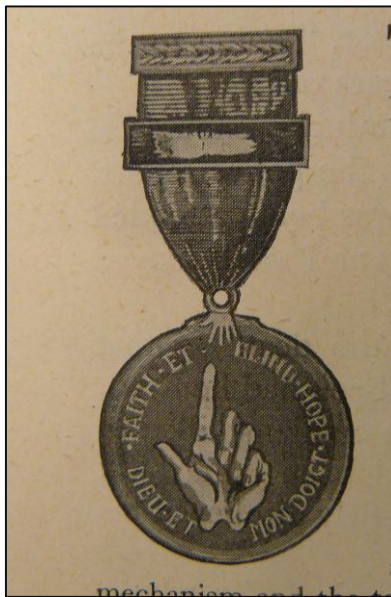


RAMBLING THROUGH RECORDS – PILOT OFFICER PERCIVAL PRUNE

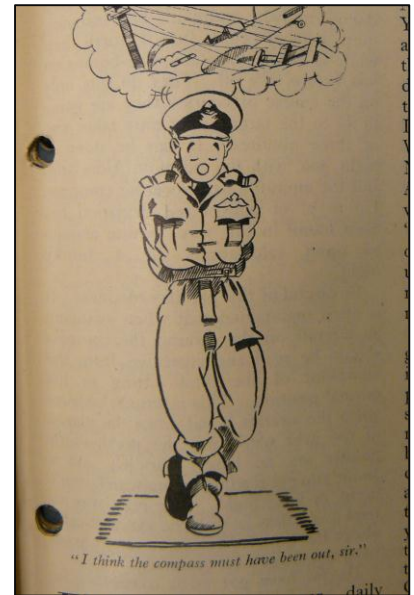
The most famous pilot of the Second World War was fictitious, but surprisingly real. He was Pilot Officer Percival Prune, who graced the pages of an RAF magazine, *Tee Emm* (short for “Training Memoranda”), which first appeared in April 1941. The editor, Squadron Leader Anthony A. Willis, was awarded Membership in the Order of the British Empire (MBE) in June 1944, but much credit for its success must go to his cartoonist, William Hooper. A complete facsimile reprint of *Tee Emm* was published in Australia in 1986, and one such copy is in the library of the Canadian War Museum.



Tee Emm First Edition cover
© RAF



Order of the Irremovable finger medal
© RAF



Pilot Officer Percival Prune
© RAF

Pilot Officer Percy Prune appeared in the very first issue of *Tee Emm* – a clueless clot who managed to remain in that rank throughout the war by means of bone-headed errors resulting in succession of crashed Wellingtons, Ansons, Spitfires, etc. His definition of a “good landing” was “one that you can walk away from.”

Although best known as a flight safety publication, preaching through satire, *Tee Emm* covered many topics and it did not rely solely on teaching by “negative example.” The August 1941 issue carried a lengthy description of a Wellington crew ditching at sea and doing everything right - the crew being successfully rescued from their dinghy two days later. The November 1941 issue had an article, “Two Dozen Don’ts for Prisoners” stressing security aspects.

Aircraft pilots were the principal targets for ridicule, but by no means the only ones. The December 1941 issue carried “A Tale for Bomb Aimers” which related the story (apparently true) of an RAF bomb aimer who, on four successive missions, blundered in his task - the first time by dropping his bombs “safe” on a target, the second by forgetting to hit the switches that would have released his bombs, the third by forgetting to fuse his bombs, and the fourth by mistakenly dropping his bombs well short of his target, into the North Sea, “probably killing a lot of fish but no Huns.”

Advice to gunners was frequent - do not use unnecessary chatter, be careful at aircraft recognition - but also small things – “A word to air gunners who have any sort of accent or dialect, whether it be Lancashire or Canadian, Australian, Sussex or Highland. Of course we realize that no one ever admits to having an accent, but the trouble is, other people - who probably have an accent of their own - frequently accuse you of it.” (August 1943).

The March 1942 issue introduced The Most Highly Derogatory Order of the Irremovable Finger. The “medal” featured a motto – “Faith and Blind Hope.” Soon afterwards another motto was added – “Dieu et Mon Doigt” and it was awarded for all manner of blunders. Typical was the bomber pilot who ran out of fuel and made a forced landing. Believing he had come down in Holland, he set fire to his aircraft. He and his crew then began to walk across the countryside - and almost immediately encountered an English pub.

The September 1942 issue noted, "We occasionally receive letters from Canada saying *Tee Emm* can't be obtained. Well, *Tee Emm* is now printed in Canada. It has been ever since the fourth issue, in fact." (This would be July 1941). Copies of this Canadian edition must indeed be rare; I have never seen one.

The July 1945 issue introduced the Most Highly Desirable Order of the Vacated Orifice - stories of brilliant flying in bad situations. This was retitled "Good Show" in September 1945 after which it was never as popular. People were more clearly anxious to tell tales of ineptitude than of professionalism.

The final issue of *Tee Emm*, printed in March 1946, included background on the Prune family which included such notables as Sir Pritchard Proon (1530-1592) who fired by Sir Walter Raleigh's example, once spread a cloak over a puddle for Queen Elizabeth. The fact that he was a trifle short-sighted and that what he took for a puddle was really an open manhole, led to his very speedy retirement from the Court.

The genealogical survey finally provided Prune's immediate background. Born on 1 April 1922 at Ineyne Manor, he crashed his cradle at six months, and within the next six months had crashed five more. He "enlisted" on 1 April 1941. In Fighter Command, he accounted for so many Spitfires that he was transferred to Bomber Command, where he accounted for so many Lancasters that he was transferred to Transport Command, who wouldn't let him touch a single one of their planes. He was transferred to the Air Ministry where from sheer force of habit, he promptly accounted for three model aircraft hanging in his office.

A story circulated that a Luftwaffe officer had drawn up a certificate, awarding Prune the Iron Cross for having destroyed so many Allied aircraft. The tale (and the document) were undoubtedly created by Mssrs Hooper and Willis. Prune had few rivals and no equals. A French magazine, *Bulletin des Forces Aeriennes Francaise en Grande Bretagne*, featured "Aspirant la Praline." The only other Allied equivalent was *Dilbert*, drawn by Robert C. Osborn (USN) who was featured more on posters than in publications.

Hugh Halliday

SYDNEY BAKER CENTENARY

CAHS Ottawa Chapter Member Sydney Baker celebrated his 100th birthday on September 15, 2015. Chapter members will recall a presentation of his video interview with CASM Director General Stephen Quick when he was still a sprightly 97 year old. Well, he is just as sprightly today; his memory is amazing and several writers and historian still consult Syd, particularly about the 30 years he spent with Spartan Air Services in the firm's several manifestations. Syd wrote a career memoir *My 53 Years in Civil Aviation* and I thought it would be interesting to print a few extracts from it in *the Observair* over the coming season.

Colin Hine, Editor

The Early Years

I had my first airplane flight at Somerton aerodrome, Cowes, Isle-of-Wight in 1924. It was in a de Havilland DH 4 aircraft called "The Youth of Britain" and was flown by Alan Cobham who was later to be knighted for his work in aviation. His company "Flight Refuelling" pioneered the development of the flight refuelling systems still used in aircraft today. My flight took place from a base in Bournemouth on the south coast of England.

I left school in 1929 at the age of 14 and commenced an apprenticeship with John Samuel Whites a boat builder at Cowes, Isle-of-Wight. This company was building destroyers, lightships and cargo vessels. I started work in the shop where small rowing boats and dinghies were being built. Although I found the work very interesting I never seemed to settle in; some of my best friends were working for Saunders Roe a company building flying boats, so after about 10 months at boat building I thought I would try the aircraft industry and I obtained a position with Saunders Roe.



Sydney Baker alongside DH Tiger Moth at Canada Aviation and Space Museum (CASM) with circa 1915 clinometer he donated © Colin Hine

My start at Saunders Roe (the name is an amalgamation between S. E. Saunders and A. V. Roe - both these gentlemen being pioneers in the aircraft industry) was in the foundry where parts for small boats were being cast. These were all sand castings and required a wooden pattern of the item to be cast. A mould was made from the pattern and molten metal (was) poured into it from a crucible.

When items being cast were for military contracts a test bar was cast with the item. The test bar was cleaned of sand (we called this fettling); a government inspector would stamp all the cast items and the test bar for identification purposes. The test bar was then cut off and submitted for testing. On completion of tests the casting would be released for machining and further checks. Some of the castings I remember quite well were side plates for aircraft bomb winches; these were cast in aluminium. We also cast small propellers for small boats out of phosphor bronze. I stayed at this for about a year.

At about this time a small aircraft company called Spartan Aircraft Ltd. moved their operation from Southampton to Cowes and negotiated an arrangement with Saunders Roe to use their facilities. At the time this company was building two types of light biplanes. Both planes had open cockpits; one was called the Spartan Arrow, the other Spartan Three-Seater.

The latter aircraft was a unique design with a Clark Y symmetrical wing. Using this design the same wing type can be used in any of the four positions. This made production and the purchase of spare parts more economical. The left and right elevators were also identical and one of these could also be used as a rudder.

I managed to get a transfer to the wing manufacturing section at Spartan Aircraft Ltd. Complete wings were manufactured here. The two main spars for these wings were constructed of Sitka spruce and were cut from logs 6 by 6 inches square and 25 feet long. Before the logs were cut a measurement of moisture content was required. This was carried out by cutting a one inch cube from the log. The cube was split into matchstick size pieces that were weighed, dried in a small oven then weighed again. The difference in weights was calculated to determine moisture content percentage. Spars were cut from these logs then machined and spindled to the design drawings and templates. The spars were then placed into a jig and ribs, internal struts and diagonal bracing wires were installed. The completed wing was covered with fabric (Irish linen); this work was mostly carried out by women as it involved a lot of sewing. It was then treated with several coats of red dope to tauten the fabric.

All this work was carried out under the watchful eye of the company's inspectors and the resident Air Ministry aeronautical inspector. I found this work to be very interesting and I think it was then I decided to make the aircraft industry my career.

Around 1933-34 Spartan Aircraft Ltd. designed and built a new airplane called the Spartan Cruiser. This was a low wing cabin-type airplane powered by three 130 hp DH Gypsy Major engines. It had a fixed landing gear and seating for eight passengers and was designed for a then growing airline industry.

The airplane was built at Saunders Roe facility at Cowes, Isle-of-Wight. The fuselage was of monocoque construction using aluminium corrugated sheet metal for the skin; the corrugations were about six inches apart. The wing was of all wood construction with two main spars of lamination design and a birch plywood skin covered with madapolam (Indian cotton). The wing itself was of the very efficient Fokker design.



*G-EBYU the Prototype Spartan, piloted by Sir Alan Cobham
© Flight via Dave Fagan)*

For final assembly the wing and fuselage were transported by road to Somerton aerodrome about two miles south of Cowes. On completion of the assembly and after numerous stages of inspection the aircraft was ground tested and test flown by either Capt. Ash or Col. L. A. Strange. The latter was a First World War pilot; he wrote a very interesting book entitled "Recollections of an Airman" that relates his experiences flying in the First World War. It is well worth reading.

I remember flying as a passenger (ballast for all-up weight) on altitude tests with Col. Strange as pilot. On one flight we reached an altitude of 13,000 feet. This was just about the maximum for the Gypsy Major engines and no pressurization or oxygen was available in those early days of airline flying!

One interesting feature of the aircraft was the electrical power supply; a Marconi Newton wind driven generator with a small constant speed propeller mounted on the underside of the fuselage nose section. It provided power for the radio, navigation

and landing lights. There were no electrical starters on the aircraft; the engines were hand started by swinging the propellers.

On completion of the test flights an application was made to the Air Ministry for a Certification of Airworthiness (C of A). This was duly issued and the aircraft was then ready to go into service. To achieve this, a new company under the name Spartan Air Lines Ltd was formed.; this I think was in early 1935. The company commenced a daily service between Cowes Isle-of-Wight and Heston airport near London. The service was successful especially at weekends when London business men would fly down to Cowes to do their sailing; one flight on Fridays was nicknamed "The Yachtsman's Special."

At this time I transferred to Spartan Airlines Ltd. thus starting my career as an aircraft maintenance engineer. The pilots for this new company were Mr. Lynch Bloss, Mr. Halliwell, Mr. Nash and Mr. Lindsey Rood. Lindsey Rood was later to become chief pilot for Trans-Canada Airways (later to become Air Canada). The engineers were Mr. F. J. Jeans, Mr. C. Tubb, Mr. G Hill and Mr. R. Robinson.

Later the company set up an engine overhaul shop for the Gypsy Major engines. This shop was attached to the hangar at Somerton. Mr. Jas Bain was engineer-in-charge of the shop; he later joined Trans-Canada Airways (TCA) becoming their chief engineer. While working for TCA he was responsible for the cross-over exhaust system of the Rolls Royce engines installed in the Douglas DC-4 aircraft they operated. This modification greatly reduced the aircraft cabin noise level.

Spartan Aircraft Ltd. also built a Mk II version of the Spartan Cruiser; the fuselage was modified to accommodate two more passengers and the fixed landing gear was faired in. These fairings were always coming loose and became an engineers nightmare. I believe eight Mk I and two Mk II Spartan Cruisers were built. One Mk I was sold to the Bata Shoe Company of Czechoslovakia. Another Mk I was used on the longest charter flight ever undertaken up to that time; this flight from England to Australia was chartered by Lord Cowdray. The aircraft was piloted by Mr. Lynch Bloss. Mr. Bloss and Mr. Bishop, the flight engineer were both Australians. I cannot recall how long the flight took but it was very successful.

One other aircraft constructed by Spartan Aircraft was the Spartan Clipper, a small low winged monoplane with fabric covered mono-spar ST 6 wings of metal construction. It was a side-by-side seater powered by a Pobjoy seven cylinder radial engine of 90 horsepower. It was flown in one of the King's Cup races by Col. L. A. Strange. Only one was ever built.

In those days, apart from daily inspection, aircraft maintenance consisted of a 25 hour inspection. This was required to be carried out under the supervision of a licensed aircraft engineer. The inspection included draining and changing of the oil, cleaning and gapping of sparkplugs, checking and adjusting valve clearances, cleaning and adjusting of contact breaker points on the BTH magnetos, cleaning fuel filters and checking distributor blocks for arcing and cracks.

On the airframe side the inspection included checks for free movement and lubricating hinge points of the ailerons, elevators and rudder; checking flying control cables for fraying and wear where they ran over pulleys; checking all fabric covered control surfaces for damage; checking the underside of wings and fuselage for stone damage (no paved runways in those days!); checking tire pressure; and adjusting oleo legs for correct movement. Additional inspections were carried out at 50 hr. and 100 hr. intervals of flying time. Before each day's flying the aircraft were inspected and certified airworthy by a licensed maintenance engineer who must hold an endorsement for that aircraft type.

Sometime in 1935 or 1936 Spartan Air Lines, Hillman Airways and United Airways joined forces to form the original British Airways Limited, operating from a new modern airport at Gatwick. This new company set up an aircraft overhaul and maintenance base at Eastleigh aerodrome a few miles northeast of Southampton in southern England. The base included an engine overhaul shop with Bill Lancaster in charge. I moved with the company to the new base and spent the next year working on the overhaul of Gypsy Major and Gypsy Six engines.

PUBS & MAGS

Aeroplane (June 2015) - 15pp Database feature on the Bristol F2B Fighter, including 1/2p on Andrew McKeever, and a list of CASM and other survivors **Air International (June 2015)** - 8pp on Bombardier's Global 7000 and 8000 bizjets **Air International (July 2015)** - 4pp on Air Canada's business upswing **Airliner World (July 2015)** - 7pp on Nairobi's Air Kenya, flying 2 DHC Dash-7s, 1 Dash-8, 3 Twin Otters, and a Cessna Grand Caravan **Aviation News (July 2015)** - 6pp on the Canadair CL-44 and Yukon **Combat Aircraft (July 2015)** - 6pp on 450 Tactical Helicopter Sqn at CFB Petawawa, operating the new CH-147F Chinook **FlyPast (July 2015)**- 6pp on the restoration and operation of the CWH Lysander IIIA **Jets (July/Aug 2015)**- 5pp on DHC Dash-7 **Model Aircraft (Aug 2015)**- 3pp on the RCAF's 2015 demo CF-18 in Battle of Britain 75th Anniversary retro markings - 3pp profile on the Avro CF-100 **Warbirds International (July/Aug 2015)** - 4pp on the airshow Acemakers: Greg Colyer's ex-RCAF CT-133s (21306 and 21452)

Images of recent sightings at the Ottawa Macdonald-Cartier International Airport (YOW).



This colourful Philippine Airlines Airbus A340-313, RP-C3438 (c/n 387) brought Filipino President Benigno Aquino for a three-day state visit to Canada in May. It is seen here at Ottawa's Macdonald-Cartier International Airport (MCIA) on 8 May 2015. (© Rod Digney)



Lufthansa Airbus A330-343, D-AIKS (c/n 1497) is seen taking off from runway 07 on 31 May after delivering the German women's soccer team for the FIFA Women's World Cup Soccer Tournament. For this one trip only the airline rerouted its daily Munich-to-Montreal service to make the drop in Ottawa before continuing to Montreal. (© Rod Digney)



This classy looking Boeing 757-23N, M-RISE (c/n 27972) made a short stopover at MCIA on 10 July 2015. Operated as a VIP transport by Talos Aviation of British Virgin Islands, the aircraft is registered in Isle of Man, UK, thus the M-registration seldom seen on this side of the pond. (© Rod Digney)



The long awaited delivery of Environment Canada's retired Convair 580/340, C-GRSC (c/n 72) to its final home at the Canada Aviation & Space Museum (CASM) finally took place on 23 June 2015. The museum hopes to incorporate the aircraft in a future display highlighting Canadian innovation in the field of remote sensing.. (© Rod Digney)



Final touchdown close to the button and quick application of brakes made the final landing of Environment Canada's retired Convair 580/340 on Rockcliffe Airport's 3900-ft runway 28 a piece of cake. (© Rod Digney)



NRC Flight Research pilots Anthony Brown and Paul Kissman mingle with former Environment Canada and CCRS employees following their delivery of Convair 580/340 to CASM on 23 June 2015. (© Rod Digney)

Solar Impulse 2 – The Story Continues

Solar Impulse 2 (Si2) around the world flight has flown two more legs since we last reported. However, there will now be an unscheduled delay in the onward flight from Hawaii due to an irreparable battery overheating problem. The following text is taken from the Solar Impulse web site.

In the moment of truth - since Bertrand Piccard had the idea of an airplane flying day and night without fuel - André Borschberg originally took off with Solar Impulse from Nanjing on Sunday 31 (2:39am local time) in what was the first oceanic, exploration, solar flight to Hawaii. Unfortunately, weather deteriorated on day 2, with a cold front blocking our path on the 5th day. We decided to land in Nagoya on the 1st of June at 23:49 local time, and are waiting for the weather situation to improve.

To recap: Solar Impulse 2 took off from Nanjing on the 30th of May attempting to fly to Hawaii, by far our most challenging flight so far. However, after two days, pilot and Solar Impulse CEO André Borschberg had to land in Nagoya, Japan due to deteriorating weather conditions. After the landing, the Solar Team had to face more problems while waiting for our Mobile Hangar to arrive; one of the wings was damaged by strong winds and had to be repaired. The team has now been waiting patiently in Japan for over two weeks.

Endeavoring to reach Hawaii from Japan to encourage the use of clean technologies, the solar powered aircraft of Bertrand Piccard and André Borschberg achieved the longest exploration leg of the Solar Impulse's Round-The-World mission.

At the controls of Solar Impulse 2, André Borschberg landed safely at Kalaeloa on July 3rd at 05:55 local time, after a perilous non-stop flight of 5 days and nights.



Solar Impulse 2 in Hawaii, 3 July 2015 @solarimpulse

Despite the hard work of the Solar Impulse team to repair the batteries which overheated in the record breaking oceanic flight from Nagoya to Hawaii, the solar powered airplane of Bertrand Piccard and André Borschberg will stay in Hawaii until early spring 2016.

Following the longest and most difficult leg of the round-the-world journey which lasted 5 days and 5 nights (117 hours and 52 minutes), Solar Impulse will undergo maintenance repairs on the batteries due to damages brought about by overheating.

During the first ascent on day one of the flight from Nagoya to Hawaii, the battery temperature increased due to a high climb rate and an over insulation of the gondolas. And while the Mission Team was monitoring this very closely during the flight, there was no way to decrease the temperature for the remaining duration as each daily cycle requires an ascent to 28,000 feet and descent for optimal energy management.

Overall the airplane performed very well during the flight. The damage to the batteries is not a technical failure or a weakness in the technology but rather an evaluation error in terms of the profile of the mission and the cooling design specifications of the batteries. The temperature of the batteries in a quick ascent / descent in tropical climates was not properly anticipated.

Irreversible damage to certain parts of the batteries will require repairs which will take several months. In parallel, the Solar Impulse engineering team will be studying various options for better cooling and heating processes for very long flights.

The University of Hawaii with the support of the Department of Transportation will host the airplane in its hangar at Kalaeloa airport. Post-maintenance check flights will start in 2016 to test the new battery heating and cooling systems. The Round-The-World mission will resume early April from Hawaii to the USA West Coast. From there Solar Impulse will cross the USA to JFK in New York before making the Atlantic crossing to Europe and then returning the point of departure in Abu Dhabi.

OUR VETERANS - WALLY KASPER PART THREE

This is the FINAL of a three part series written by Second World War RCAF veteran Wally Kasper. The previous episode in the May 2015 issue of the *Observair* covered Wally's introduction to the RCAF and his early bombing missions in England and his introduction to the mighty Mark II *Lancaster*.

Colin Hine, Editor

(Despite sad feelings following the loss of so many comrades) we soldiered on until the famous night of the strong winds. No one knew anything about jet streams in those days and we were given a forecast wind of 30 knots. When we turned at Flensburg to head straight down to Berlin our navigator had calculated it at 60 knots. And it was blowing right up our jumpers. Later calculations put the wind at twenty thousand feet at 120 knots so we were gaily moving along at 265 knots airspeed plus 120 windspeed = 365knots groundspeed.

As we approached the ring of defenses around the city the Germans presented us with their well-orchestrated welcome and we waited for the Pathfinder markers to go down so we could do the necessary. At this ground speed it didn't take long to get through the major area of the city and my heart sank as I heard the rear gunner say "The marker flares have just gone down behind us." So I did a wide turn to port not realizing that my ground speed was rapidly changing from 365 knots to 265-120 = 145knots or just about standing still as far as the German radar was concerned. In a flash we had what seemed like a hundred searchlights on us and the flak was sure to follow, not to mention the swarm of night fighters who were out looking for business. I was blinded, of course, but knew I had to change altitude and direction rather quickly. So we corkscrewed like mad with lights still on us and finally, at about ten thousand feet, we lost the searchlights, stabilized the aircraft, found the target marker flares and then went across the defenses from our location a mile or so to the east and dropped our bombs on the flares. It was probably the stupidest thing any pilot ever did as the bombs were dropping all around us as we went through and then we were out and gone back into the darkness of the night. .

Our fuel reserve was not enough for us to try to do a rapid climb back up to the relative safety of the main force bomber pack so I tried to inch up a few hundred feet at a time until we got to where our track took us between Osnabruck and Munster. All was dark and quiet but we were not yet high enough to get any cover from their radar. Suddenly a burst of flak came up and we decided to change our position with all due dispatch, as it were.

Now you should know that these air-cooled Hercules engines on the Lancaster II had a large kind of oval exhaust collector wrapped around the outer circumference of the engine and a piece of flak had torn a chunk of the steel out of the collector on the port inner engine and, as we flew along, I was now looking at a large red burst of flame coming out of this hole shooting up some feet into the night sky like an enlarged Christmas candle.

It did occur to me that if there were any German night fighters grazing around in the night sky they might regard this as an invitation to play so I shut down the engine and pressed onward on three engines. Flying on three always takes more fuel than cruising on four so I decided to carefully trade the height we had for a bit of speed and we made our way as best we could back to the nearest English base we could find. We were somewhat relieved when we crossed the Dutch coast and were over the North Sea hoping all German patrols were in bed for the night. The emergency base at Woodbridge gave us a bed and some breakfast next morning while we waited for a crew from Linton to take us home.

Life was uneventful until we got to trip number 13 for the crew. I was surprised at the degree of superstition generally among the aircrew. These were all well-educated young men out of the schools of Canada and Great Britain, and yet here we were with comments like "I sure hope we don't have to go tonight" and so on. But we were and off to Dortmund we went. On the way home a German night fighter picked us up, and it was just a fraction of a second late when the gunner saw him coming and said "Port Go", I did but he had managed to get number of bullets in and through the plane. One left the mid-upper gunner with a large number of bits of explosive metal pieces in his chest and face and another caught the wireless operator in the back of his left leg. The navigator and bomb aimer bandaged them up as best they could and were rather disconcerted to find that someone had stolen the morphine out of the medicine kit. Once more we landed at the Woodbridge base to get them into the hospital as soon as possible.

Things were uneventful for a while and then came the nasty night of "the big storm". It was raining cats and dogs but the weather man assured us it was just local. The wind was gusting up to 50 knots so we had to take off on the short runway for the first time since I was on the squadron. As we were thundering down the runway on take-off, not yet at flying speed we heard a sharp report, sounding like a gunshot, and the engineer and I realized in the instant that we had blown a tire. Now a blown tire in a Lanc or Halifax with a full fuel load and full bomb load usually means that the metal rim of the blown tire rapidly cuts the tire to bits, digs into the asphalt and brings the aircraft to a crashing sideswiping halt with catastrophic results for the plane, the crew and if the bomb load blows up then for the base as well.

In an instant after the sound of the blown tire the engineer had the wheels on the way up, I drove the throttles into overboost and pulled up on the column to see if I could keep the aircraft in the air. My heart sank as I felt the aircraft sink and then the overboost kicked in and we assumed a flying posture close enough to the ground to knock out the 10 foot high cedar palings around the non-directional beacon at the end of the runway and then we were off into the night sky. We must have had a regiment of angels holding up those wings and keeping us from sinking back onto the runway but we made it and went off to do our assigned bombing mission. It was, by any standards of measurement "a close run thing", as Wellington said at Waterloo.

We landed at Carnaby emergency aerodrome. With a good deal of help from our clever engineer we landed with the blown tire about six inches from the outer edge of the runway so that when the metal rim dug into the asphalt and we swerved to the right out onto the grass. We came to a stop about forty feet from one of the blast shelters scattered around the base. To our astonishment and amusement we saw an airman and his airwoman girlfriend jump out of the shelter and run like the very devil in the opposite direction. No doubt this was what Shakespeare meant when he said, in Romeo and Juliet "the course of true love never did run smooth.

The ground crew at Carnaby soon had the aircraft up on jacks, had a new tire on, some new brake lines fitted and a few gallons of brake fluid in the tank. We did a couple of retraction tests, and, as all was well, were given permission to get on the runway and make our way home to Linton. On the way back we had a few relaxing moments and I recall the engineer and I congratulating ourselves and each other for what was, we thought, a superlative piece of "heads-up" flying through the evening, from take-off to landing,

At Linton we parked the aircraft by the Maintenance Hangar as we thought they would want to have a look. The Intelligence people were in this hangar as well, and after debriefing, us I was told that the Wing Commander, whose office was upstairs, wanted to see me Right Now. The crew went to breakfast and I climbed the stairs to the WingCo's office, his door was wide open, so I stepped in and saluted. He was, as usual, hung over, and after taking a long look at me broke into one of his dirty-mouth tirades about how I was a stupid no good etc., etc., etc., of a pilot who had done such a bad take-off as to knock off the cedar palings around the beacon, and in so doing had damaged the tire and then on landing at Carnaby had wrecked the aircraft on landing.

When he finally ran out of steam I suggested that he look out of the window and he could see the aircraft right there. He then realized what a colossal ass he had made of himself, with orderly room staff listening to all this dirty-mouth tirade, and then he shouted at me "Get Out". I saluted and went to the mess to join my crew at breakfast. They expected that he had already made arrangements to have me "gonged" and were as wide eyed in disbelief as I had been. Instead of at least a pat on the back for a good night's work he was going to make me pay for eight ten foot high cedar palings I had damaged on take-off.

Years later, when I was inducted into the Canadian Veterans Hall of Valour I was told that we had been the only crew in the history of Bomber Command that managed to survive a flat tire on take-off. I don't know who did the research so I cannot verify this but the probabilities are high. When you only have two tires, fully loaded, it only takes about five seconds for the metal rim to cut the tire to bits with the loaded aircraft at 74,000 pounds, the rim digs into the asphalt and ... the world ends.

We were soon finished our tour and the crew went off to various postings with me going to the iconic Spitfire unit at Dishforth where I spent the next fourteen months before coming home to Canada when the war was over.

With the Soviets being a nuisance in Europe and NATO having been organized in response, Canada undertook the training of the aircrew for the newly restructured Air Forces of the NATO countries. The RCAF called a number of "retreads" back into the service to act as instructors and fly in the Canadian Air Divisions twelve F-86 Sabre squadrons that were sent off to Europe as the Cold War heated up. I had two years on these splendid aircraft based in southern Germany and it was with some reluctance that I left and went to the Air Division HQ to fly a desk.

The splendid memories of the mighty Lancaster Mark II, the Spitfire Mark VB, and the F-86 Mark 6 Sabre were an unusual experience in one pilot's life, all of it happily remembered.

NEXT MEETING OF THE OTTAWA CHAPTER, CANADIAN AVIATION HISTORICAL SOCIETY



In 1928 Howard Watt flew the only Ryan M-2 ever registered in Canada for Manitoba Basin Mining, operating from The Pas. He later bought the plane himself. © San Diego Air and Space Museum.

HOWARD WATT: PIONEER IN COMMERCIAL AVIATION 1926-1941

The planes he flew, his time as an air mail pilot, his years as small owner-operator.

Diana Trafford

After many years freelancing as a writer and editor, Diana Trafford turned her attention to genealogy. Three years ago that led to aviation history, when she decided to focus on her uncle Howard Watt (1900-1970). Her presentation is based on original documents such as aircraft registration and accident files, and material in the Canadian Airways Ltd. archives.

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

Date/Time: Thursday, 24 September, 2015, 1930 Hours

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

Visitors and guests are always welcome.

Landing Fees: \$1.00