

**the**  
**OBSERVAIR**  
**Ottawa Chapter Newsletter**  
**Canadian Aviation Historical Society**



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## CHAIRMAN'S MESSAGE

Hello all, and welcome to the 2016-2017 season of the Ottawa Chapter of the Canadian Aviation Historical Society. Hopefully you all had a safe and happy summer full of necks straining skywards. Canadian aviation popped up in the news several times over the summer. Back in June, the Canadian Warplane Heritage Museum's Westland Lysander (C-GCWL) received damage to its undercarriage when it experienced engine difficulty and landed in a field near Cayuga (approx. 20 minute drive south of CWHM). The aircraft was recovered the next day and returned to Hamilton where the work of repairing the Lysander began the next day.

Down East in Edmundston, NB, Avro Lancaster Mk. 10AR KB882 popped up in the news again, this time in a less positive light. Last spring, the Alberta Aviation Museum failed to raise the money required to move KB882 out to Edmonton and abandoned their plan to take it. Peter Smythe, whose family owns Reeves Warbirds in Adelaide, Australia, is looking into the possibility of purchasing the aircraft and moving it to Australia for restoration. To do this, Smythe would need to receive an exemption to the laws prohibiting objects of significant cultural heritage from leaving the country. I for one hope we find a way to get KB882 protected here in Canada (either by moving it to a museum or finally building a shelter over the aircraft).

Also this summer, we saw Calgary-based Kenn Borek Air make the news when it dispatched two DHC-6 Twin Otters to the South Pole to evacuate two sick workers from the Amundsen-Scott Research Station in Antarctica; a task they successfully completed, despite harsh winter conditions. A Basler BT-67 (Douglas DC-3 with modifications including two Pratt & Whitney Canada PT6A-67R turboprop engines) belonging to Kenn Borek Air also made an appearance at the South Pole in the IMAX film I mentioned in the May 2016 *Observair*, *Living in the Age of Airplanes* (an enjoyable film I encourage you all to see when you get the chance).

The CAHS Ottawa needs your help! As mentioned at our May meeting, we are looking for someone to take over the role of Refreshments Coordinator. The requirements of the position are regular meeting attendance and a vehicle to pick up the doughnuts before the meetings. If you are interested in doing this please speak to myself or another member of the Executive.

*Kyle Huth*  
Chairman

*The Observair* is the newsletter of the Ottawa Chapter, Canadian Aviation Historical Society (CAHS), 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.

Kyle Huth	Chairman
Mathias Joost	Secretary/Treasurer
Colin Hine	Newsletter Editor
Don MacNeil	Program Convenor
Hugh Halliday	Official Greeter
George Skinner	Museum Liaison
Erin Gregory	Research Group
Vacant	Refreshments

## PAST MEETING

# ANNUAL GENERAL MEETING

Some 31 members and guests attended the 26 May 2016 AGM of the CAHS Ottawa Chapter. The formalities of the AGM were quite brief and members voted to accept the following nominations from a returning slate of board members:

Kyle Huth, Chairman; Mathias Joost, Secretary/Treasurer; Colin Hine, Newsletter Editor; Don MacNeil, Program Convenor; Hugh Halliday, Official Greeter; George Skinner, Museum Liaison; and Erin Gregory, Research Group.

Bill Clark has stepped down from the position of Refreshments Coordinator for personal reasons; appreciation for Bill's contribution over the past two seasons was acknowledged. There were no nominations for the Refreshments Coordinator and this important position remains open. The provision of refreshments at meetings helps enhance social interchange between attendees. If you are interested in volunteering, please contact Kyle Huth.

## LAST MEETING – HUGH HALLIDAY; THE SHORT, STRANGE CAREER OF DONALD PALMER SCRATCH, RCAF

Introducing the topic Hugh spoke of “a story of talent; potential (real and wasted); and self destruction.” There are many versions of the Scratch story and as Hugh noted, many (probably most) of them include a lot of horse s###. One of the aims of Hugh's talk was to present a creditable version from the available official documentation. Hugh noted that personnel documentation for Canadian military wartime fatalities often lacks detail. In the case of Don Scratch this is particularly the case; the record is sparse and inconsistent. We know pretty well what happened, but we really do not know why. His medical records speak more of questions not asked in time.

Donald Palmer Scratch was born on 7 July 1919, in Maymount, Saskatchewan. His father was a doctor, but the family broke up when he was three. He was raised by his mother, who remarried and moved to Ashmount, Alberta. He had two brothers; both RCAF doctors and he was a pharmacy assistant before the war.

- Scratch first applied for entry into the RCAF on 12 September 1939 and was interviewed on 17 June 1940; “Excellent type: gentlemanly and courteous, should make good pilot. Strongly recommended for commission and pilot.”
- Early training postings: enrolled at Edmonton, 19 July 1940; No. 1 Manning Depot, Toronto, 21 July 1940; No. 119 (BR) Sqn. Yarmouth, 16 August 1940 (guard duties); No. 1 ITS, Toronto, 11 October, 1940. While at No. 1 ITS, he did courses including maths, armament, drills, law and discipline. Visual Link Trainer, 79<sup>th</sup> out of 100. Placed 89<sup>th</sup> overall out of a class of 224; “pilot material, conscientious, quiet type, sensitive...”
- No. 2 EFTS, Fort William, 8 December 1940: Flew *Tiger Moth* 30 hrs, 55 min dual; 34 hrs, 10 min solo; Link Trainer 5 hrs. Ability as pilot “above average, an outstanding pupil, conscientious and hard worker.” Ground school results uneven, places 10<sup>th</sup> out of 27, but qualifies as officer only 110/200. “Appears quite conscientious and sensitive. His flying ability is of a high average. He is very keen and has the right attitude for service life. Should develop into a very good pilot.”
- No. 1 SFTS, Camp Borden, 8 February 1941: all instruction is in single-engine aircraft types (*Harvards* and *Yales*). He is rated “average” in flying but his ground school marks are less impressive. He writes a supplement in Signals, “anxious to learn and has a cheeful disposition.” Places 37<sup>th</sup> in a class of 42; not recommended for commission – received Wings 28 April 1941.
- 12 June 1941 posted to No. 118 (F) Sqn. flying Grumman *Goblins* at Rockcliffe – Scratch wants to be a fighter pilot: “A sound pilot but not considered fighter pilot material.”
- 18 June 1941 posted to No. 119 (BR) Sqn. flying Bristol *Bolingbroke*s; as much an OTU as an operational squadron. Assessed 10 December 1941 – “Below average (erratic) on twin engine aircraft; believe this pilot's heart is not in bomber reconnaissance work.” Recommended to return to single engine aircraft; this does not happen.
- 16 March 1942 crashes *Bolingbroke* 9064 near Sydney, NS; engine failure on takeoff, Navigator (Sgt. D. I. Parker) killed, two other crew members slightly injured, Scratch seriously injured. These injuries prove to be crucial to his story; both ankles broken, resulting in surgery and months of treatment.



Sheer seniority assured Scratch's eventual promotion to Flight Sergeant and then to WO 2; then at last on 24 March 1942 he was commissioned and on 24 September 1943, he was promoted to Flying Officer. On 16 October 1943, Scratch was posted to No. 10 (BR) Sqn. (*Liberators*). In December 1943, Scratch attends Chemical Warfare School at Suffield – "Excellent type of airman." He flies with several captains, but always as second pilot.

20 June 1944 – the following commentary contains significant conjecture and recollection. The proceedings of Scratch's Court Martial might tell more; but possibly not, as he pled guilty:

"At approximately 0430 hours local time a weird and wonderful exhibition of low flying and shooting up of barracks blocks was put on by F/O D.P. Scratch. He took off single handed in *Liberator* "Y" and was airborne for approximately four hours. F/O Scratch landed and was immediately placed under close arrest."

Secondary reports that he "buzzed" Argentia, NL, and that Americans scrambled fighters and discovered that he was in a gun turret might be true, but are unconfirmed. Another unconfirmed report suggests that the incident resulted from a "boozy" argument the night before as to whether or not a *Liberator* could be flown single-handed. What is known is that Scratch wrote a long, rambling explanation letter for the court, declaring his love of flying and a desire to keep on flying – at the MERCY OF THE COURT.

The court was not merciful, however, the charges included: Improperly and without permission flying a *Liberator* at altitudes below 1,000 feet above ground level; Flying a *Liberator* on a flight that had not been authorized.

Scratch was sentenced to be dismissed from the Service effective 2 September 1944. In the period between the court-martial and dismissal he was interviewed by a psychiatrist who's assessment was somewhat contradictory: he was over-confident and lacking self-confidence; he had been frustrated by lack of activity and hoped to get overseas, instead he was "out on his ear"; self-centred, worried about family reaction.

Then a remarkable thing happened: Scratch applied to rejoin the RCAF and following a medical examination that cleared him as physically fit; he was allowed back into the Service on 21 September 1944 as a pilot, but with the rank of sergeant and posted to No. 5 OTU at Boundary Bay, BC, on 3 October 1944. No. 5 OTU was training *Liberator* crews and used *Mitchells* to familiarize pilots with tricycle undercarriage aircraft before proceeding to *Liberators*. Scratch's immediate supervisor, F/L V.J. Faurot, testified "He was a very keen average pilot; neat in appearance with a pleasant personality. He was very quiet and generally well liked." He had flown seven hour dual, one hour solo, 50 hours as second pilot and a flight commander check.

The course was scheduled to end 12 December 1944, however on 6 December 1944 he was not in quarters. Scratch had been drinking and at 0200 hrs he visited the Signals Section and offered the WD on duty a drink. There was no flying that night and there were no lights. At about 0400 hrs he boarded *Liberator* EW282, started the engines and began to taxi. At a runway junction he missed a turn and taxied onto soft ground and bogged. All propellers touched hard ground, two tore off and the nosewheel collapsed. Scratch walked away, boarded *Mitchell* HD348, taking off in total darkness at 0454 hrs. Flying at 60 feet he switched on his lights and shot up the base for an hour before heading off for Abbotsford.

At 06:30 hours G/C D.A.R. Bradshaw went to the tower to take personal charge as Scratch returned. No. 135 Sqn. at Patricia Bay scrambled two pairs of *Kittyhawks*, arriving about 0900 hrs. One pair held back while the section led by F/O James R. McBain closed in, trying to signal Scratch or force him down. At one point McBain was only 5 feet off the *Mitchell's* wing tip (he testified that he was never above 500 feet). "The pilot of the *Mitchell* looked up at me, but made no acknowledgement of my signals. His flying was exceptional except that he skidded on his turns."

The following extract from Bradshaw's report is interesting. "From then, until he crashed at 1010 hrs the pilot of *Mitchell* HD343 beat up the buildings, aerodrome and parked aircraft at Boundary Bay. His flying was utterly incredible as he continually missed buildings and aircraft, sometimes by scant inches. At one time during the last hour he flew the entire length of the tarmac between the lines of parked aircraft and the hangars, so low that his propellers could only have been inches from the ground. As he passed below me I could see that he was not wearing earphones. His speed practically all the time I would estimate as varying between 240 to 270 miles per hour. A few minutes after 1000 hrs the aircraft climbed to approximately 1,000 feet in an area about four miles north of the aerodrome. The fighters moved away from him as if they were uncertain as to what he was going to do. The *Mitchell* started to level off and when the wings were vertical (*sic* – he probably means horizontal, or was Scratch in a vertical bank?) the nose dropped quickly and the aircraft dove vertically, crashed and exploded instantly."

Colin Hine, Editor



## **Pubs & Mags**

**FlyPast** (June 2016) - 6pp on 50<sup>th</sup> anniversary world flight of 2 RAF DHC-1 Chipmunks in 1996

**Combat Aircraft** (July 2016) - 6pp on Exercise *Resilient Resolve*, held in Romania in March, involving four CF-188 Hornets from 425 Sqn and Romanian MiG-21 aircraft.

**Aeroplane** (Aug 2016) - 7pp of experiences of an RAF AirCdre flying the DHC-1 Chipmunk since 1953, on the aircraft's 70<sup>th</sup> anniversary.

*Bill Clark*

## **ARCHIE GRAHAM (1919 – 2016)**

The Ottawa *Citizen* had the very sad news that our old friend Archie Graham passed away on Wednesday, 3 August 2016 at the Perley and Rideau Veteran's Health Centre at the age of 97 years. For Archie's full obituary, see: <http://www.legacy.com/obituaries/ottawacitizen/obituary.aspx?n=archie-e-graham&pid=180990251&fhid=5973>

As many members of the CAHS Ottawa Chapter will remember, from September 1997 until May 2003, Archie, along with his son Peter, were responsible for the coffee and donuts for our Thursday evening meetings in the Bush Theatre. Also, for as long as I knew (from 1985 on, but he was probably doing it before this), Archie would regularly fold, stuff, address, stamp and mail the newsletters that his son, Andy Graham, until 1997 had printed, and again with Peter, Archie had been setting out the chairs in the Bush Theatre from our move to the Museum in the Fall of 1988; a job they had continued to do until only a few years ago. Archie had shared several of his stories as an RCAF firefighter with the members in the Ottawa newsletter. One, from September 1997, stands out. I have copied it below.

*Timothy Dubé*

## **SOMETIMES WE HAD TRAGEDIES**

The Air Force Fire Marshall Wing Commander (W/C) Bill MacCallum and I (*at that time the Air Division Fire Marshall*) had just completed an inspection of the four Air Division wings and Metz. It was then decided that the we would visit the Pyrene Company in England which was in the process of building the G-19 Foam Crash Tenders. It had been a busy week so the W/C decided that he would go to London on the Friday evening to get rested up. I would join him Monday for the visit to the plant.

Saturday morning (3 December 1955), I proceeded to 2 (F) Wing at Grostenquin to catch the Bristol Freighter to Langar. The aircraft had to make a stop at 1 (F) Wing Marville to pick up some freight and a couple of passengers. Because of the foggy conditions, the flight crew was making their approach into Marville by GCA. About 5 miles out, contact with the GCA was lost and the aircraft flew into the side of a heavily wooded hill about two miles short of the runway. The Bristol Freighter was ripped apart on contact. The fuel tanks were ruptured – spraying gas over a large area – and a fire had started.

My immediate concern was to get as far away from the crash site as possible. In addition to the crew of four, there had been thirteen passengers on board; 7 passengers died in the crash and 4 were seriously injured. I was fortunate, I only suffered two broken ribs and a bruised ankle. The Flight Attendant, LAC J. Novak, and I dragged the passengers – some living, some dead – several yards away. The pilot, co-pilot and navigator were some distance away in another part of the wreckage and were only slightly injured, but had trouble walking.

Because I was the least injured, it was decided that I should go for help. After a five minute walk, I encountered two Frenchmen cutting wood. They assisted me in getting to the village of Lre-le-Sec and a telephone. I called the base and requested a crash tender and ambulance, and then directed them to the edge of the woods and the route that I had covered. Unfortunately, I never did get to complete the journey to England and spent several weeks recuperating.

*Archie Graham*

**Note:** The full crash investigation report will be found amongst the records of the Department of National Defence (RG 24, 1989-90/322, Box 7, file 093-9696) at the National Archives of Canada. Access to this file is governed by the provisions of the Access to Information and Privacy Acts.



## RAMBLING THROUGH RECORDS

Every now and then one stumbles upon a document that is so peculiar that one wonders if it is authentic. Last July, I was perusing the service file of Air Vice-Marshal (AVM) Arthur Thomas Noel Cowley, RCAF C9, (1888-1960), originally from Winnipeg. Cowley, when serving as a Royal Naval Air Service (RNAS) seaplane pilot based at Dunkirk, was taken prisoner in May 1916, apparently through zealous pursuit of an enemy aircraft. Between the world wars, he was employed by the Air Board and then the RCAF, principally as an inspector checking out civilian aircraft and commercial certificates. From 1936 to 1940, he was seconded to the Department of Transport, performing much the same type of work. Following the outbreak of war, he returned to RCAF duty, first in command of BCATP training units (Commanding Officer, No. 1 Service Flying Training School, Camp Borden; Air Officer Commanding, No. 4 Training Command, Regina), then, in 1942, as Air Member for Organization at Air Force Headquarters. He was appointed a Commander, Order of the British Empire (CBE) in May 1944.

His service file, viewed at Library and Archives Canada, contains an odd document, the more so because it seemed to be unconnected with anything in his career. It is an Information Circular issued on 24 October 1923 and is described as being "for the information of RCAF officers only." The subject of the circular is "Aerial Gunnery"; only direct quotation from the document can do it justice:

1. An experiment with regard to a new method of teaching Aerial Gunnery was carried out at Camp Borden on October 2<sup>nd</sup>.
2. Machine - Avro 504K  
Pilot - Wing Commander W.G. Barker, VC, etc.  
Observer - Flight Lieutenant G.V. Walsh  
Armament - 12 gauge pump gun, using the regular trap load  
Target - a large grey Sea-Gull.
3. The target was thrown overboard by the observer at 3,500 feet. The tail of the machine was kicked smartly to the left in order to prevent damage to the target. The Sea-Gull behaved as expected, it quickly began to fly and rapidly gained height, and did climbing left hand turns past the machine when pursued, with a tendency to double back at close range. After a short pursuit, the observer destroyed the target on his second round.
4. This experiment has established that this form of target is most excellent, as the bird apparently endeavours to climb and cannot be chased down, turns very rapidly and flies very fast. The Avro can just equal it at the above mentioned height.
5. For the further development of this method a Winchester automatic shotgun is being installed as a fixed gun in an Avro, shooting through the propeller in the ordinary manner. Further training is now being held up, owing to the default of the contractor, who has been granted a permit by the Canadian National Parks Branch to supply the necessary Sea-Gulls.
6. The Sea-Gull is a bird protected by international agreement and can only be captured and used for target purposes under special permit issued by the Canadian National Parks Branch for scientific purposes. The permit must be issued in the name of the person who is to capture the birds. It is also very essential that the birds should be captured in localities not under the observation of Indians and others, who would not appreciate that they were being captured under special permit for scientific purposes.

There appears to have been no follow-up on the experiment, such as the proposed installation of a synchronized forward-firing shotgun. My own reaction on reading the report was to ask, "Is this for real?"



Group Captain A.T.N. Cowley seated at his desk at No. 4 Training Command, Regina, SK, 1940.  
Library and Archives Canada, PL1579

*Hugh Halliday*



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

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

Probably the highlight of the summer for plane spotters/photographers at Ottawa’s Macdonald-Cartier International Airport (MCIA) was the North American Leaders’ Summit that brought US President Barack Obama and Mexican President Enrique Peña Nieto to Ottawa for a one-day meeting on 29 June 2016. Despite tight security and warnings to stay clear of the airport, spotters from Ottawa, Montreal and Toronto managed to catch a glimpse and photos of the leaders’ unique VIP and support aircraft.

Barack Obama came in his famous Boeing VC-25A (88-28000), known as “Air Force One” when the president is aboard, his visit being supported by an advance contingent of USAF C-17 (Boeing Globemaster III), VC-32 (Boeing 757) and VC-37 (Gulfstream) transports. Arguably upstaging the nearly 30-year-old Air Force One on the Canada Reception Centre (CRC) ramp was the Mexican president’s new Boeing 787-8 Dreamliner (XC-MEX, TP-01, c/n 40695). An Armada de Mexico Gulfstream 450 also accompanied the Mexican delegation.



The Mexican President’s Boeing 787-8 Dreamliner on the CRC ramp on 28 June. © Will Clermont



Air Force One remained under heavy security during its 9-hour stay on the CRC ramp. © Will Clermont



US Air Force One, Mexican Air Force One and two USAF C-17s crowded the CRC ramp. © Jan Jasinski



US Air Force One lifts off into the early evening sun from Ottawa’s Runway 32. © Dean Hoisak



Mexican Air Force B787, call sign “MAF1”, was caught from Kanata after take-off from runway 32. © Rod Digney

# SYDNEY BAKER – PART VI

## A New Name and New Ownership for Spartan

The arrangement with the new group of directors lasted until July 1970 when a new company was formed under the name Spartan Aero Limited. The new company acquired the assets of Spartan Air Services and Canada Aero Services, the latter being a subsidiary of Litton Industries, who also owned Aero Services of Philadelphia. Canada Aero Services had operated an aerial survey business out of Ottawa for some time. They were using PBY-5A Canso and an Aero Commander on geophysical surveys.

Spartan Air Services continued as a corporate entity but it was no longer in the aviation business. Over the years the name changed several times and today is known as Digital Fusion Multimedia Corp. I still own a few shares but they are worth very little.<sup>1</sup>

A sideline to all this was that I became indirectly connected with a small aircraft maintenance and repair company called Personal Plane Services who had done a lot of work for Canadian Aero Services. This company started business in the late fifties and struggled through the years until the late sixties when it was bought out by Litton Industries. The small hangar that Personal Plane Services had built was torn down and a new larger, more efficient hangar was built. The new hangar could accommodate the DC-3 and PBY Canso at the same time.

Spartan Air Services' offices and laboratories were consolidated into one building belonging to Canadian Aero Services. This was located quite close to the airport. The rest of 1970 was spent reorganizing and amalgamating the various departments. Canada Aero Services did not have a permanent aircraft maintenance staff, so Spartan Aero Services staff, of which I was chief engineer, took on additional aircraft and duties.

The DoT required any company operating more than three aircraft on commercial operations to submit aircraft operations and maintenance manuals for their approval. The chief pilot usually writes the operation manual while the maintenance manual is the responsibility of the chief engineer. I had written two of these before and was now working on my third. The manual details the facilities at base and the procedures for maintaining aircraft in airworthy condition.

During the 1968 – 1970, the Royal Canadian Navy helicopter repair contract was terminated and due to decreasing government contracts and ever increasing competition from new companies, our own helicopter operations were slowing down. Management decided it was no longer a profitable operation, so all the helicopters and equipment were sold off.

In October 1970, I was off on a trouble shooting tour in Africa. This included a short stop in Paris, then on to Nairobi, Kenya, where our Navajo CF-YLR was deployed on an air profile recording contract. Then it was on to Lagos, Nigeria, where we were setting up an office and a photographic laboratory and also training native personnel in their operations. In Lagos, we were operating a Cessna 310, CF-JFS<sup>2</sup>, on local photo survey contracts. This interesting tour lasted from October 27<sup>th</sup> to November 7<sup>th</sup>. Any spare time I had was spent sight-seeing and taking in the local culture.

Things continued fairly well with the new company; more overseas contracts were coming in and it appeared the original administration staff at Canadian Aero Services was taking over under general manager Doug MacKay, a well-known personality in the aerial survey business.

Early in January 1971, we were notified that an Aero Commander 680 we were operating at Pointe Noire in the Congo on a photo survey mission had crashed and that the pilot and camera operator had died in the crash. It was arranged that I would accompany a French speaking DoT inspector from Montreal to assist local authorities to investigate the crash. After an overnight stop in Paris to obtain visas for the Congo and a short stop in Brazzaville for a change of airlines, we arrived in Pointe Noire on January 6<sup>th</sup>.

The next day, along with a local investigation team we visited the crash site. The aircraft had caught fire and was completely destroyed. The investigation lasted until January 16<sup>th</sup> and at that time it was concluded that the left engine must have failed just after take-off. In an effort to return to the airport the pilot executed a left turn into the dead engine and at this point the aircraft stalled and plunged to the ground, striking a large tree. I have never seen the official accident report.

On the return flight, the DC-4 flying from Brazzaville to Lagos landed in Libreville, Gabon, and I learned we would not be flying on to Lagos until the next day. This made things difficult for me as I did not have a visa for Gabon and I was still travelling on a British

<sup>1</sup> Editor's note: Digital Fusion Multimedia Corporation was de-listed in 1996.

<sup>2</sup> Note, this registration must be incorrect. Records indicate CF-JFS crashed while taking off from Armstrong Airport, ON, on 30 June 1960 and was a total loss. It was removed from the Register in 1966. ([http://heritage.canadiana.ca/view/oocihm.lac\\_reel\\_t7790/583?i=0&s=2](http://heritage.canadiana.ca/view/oocihm.lac_reel_t7790/583?i=0&s=2))

passport. After some frustrating discussions my passport was taken from me and I was escorted to a hotel for the night. The next morning my escort picked me up, returned my passport, and I was on my way to Lagos.

I stayed in Lagos for four days and received instructions from Ottawa to stop off in Accra, Ghana, on my way back to inspect some single engine Otters that the Ghana Air Force had put up for sale. A Ghana Air Force officer had been advised of my visit; he met me at the airport and drove me to the air force base where I was introduced to a Royal Air Force squadron leader; I had not previously known that the Ghana Air Force was administered by the RAF. He advised me that the Otters were located at Taxdrai, about 150 miles up the coast and he agreed to fly me there the next morning. They had booked a hotel for me and arranged to pick me up the next morning.

The flight to Taxdrai in a Beaver was very interesting. The Ghana Air Force pilot even let me fly the aircraft for a while. As we hugged the coast flying at 2,000 feet we passed over several fort-like buildings. Apparently, these buildings had been used to house slaves before they were shipped to the Americas or England.

I had expected to find that the Otter aircraft had suffered from salt damage but they all seemed to be free of any corrosion and were in very good condition. After making notes on the condition of each aircraft, we flew back to Accra where I was able to catch an evening flight to Rome and a connecting flight to Amsterdam for a one day stop over and a little more sight-seeing. I arrived back in Ottawa on January 24<sup>th</sup>.

Back in Ottawa, our existing aircraft maintenance arrangements came to an abrupt end, I believe due to some unknown involvement by Litton Industries. The management of Spartan Aero Limited decided that since Personal Plane Service now had a large hangar and maintenance repair set-up in Ottawa they would do all our aircraft servicing, modifications and repairs while they were in Ottawa.

Engineers on Spartan Aero Limited payroll would continue to carry out field maintenance; my own position in these new arrangements became clear on March 30, 1971. From now on I would wear two hats; one for Spartan Aero Limited as engineer in charge of all maintenance of Spartan's aircraft as well as liaison with the DoT; the other hat was for Personal Plane Services, as supervisor with the following responsibilities:

1. All maintenance, repair, overhaul and modifications work at and away from Personal Plane Services' facility;
2. All sheet metal work at and away from our facility;
3. Hiring of maintenance personnel to meet out in-house requirements and field operations and assignments of same;
4. Preparation of quotations for 1 and 2 above; Control of labour costs for 1 and 2 above; and
5. Custom liaison associated responsibility.

For these responsibilities I reported to Al Soutar who had been appointed President of Personal Plane Services and just happened to be a friend of Dog McKay who was once General Manager of Spartan Aero Limited.

All this sounded very nice but I could see that it was going to be quite a challenge for me. I had a few reservations; one was Personal Plane Services previous owner Harry Smith, a fellow English compatriot. I knew that Harry was difficult to work with; there was one way to do a job, and that was Harry's way. He held the position of Chief Inspector and Technical Supervisor, which meant that our positions overlapped somewhat. I had known Harry since 1954 and I realized that to make things work there would have to be a completely amicable working relationship. After careful consideration, I thought perhaps we might make a go of it.

I was relieved of my responsibility for the aircraft log control and field spares requirements and all our aircraft maintenance equipment and aircraft spares were transferred to Personal Plane Services' hangar. The Spartan Aero Limited hangar was leased to a new Canadian Government department called the Canadian Centre for Remote Sensing (CCRS). The sheet metal and machine shops complete with their equipment were included in the lease. These new arrangements started in March 1971.

One of the first major contracts for Personal Plane Services was to replace the fabric covering on the trailing edges of Spartan Aero's PBY Canso CF-JJG with light weight 2024 alclad sheet and a complete repaint of the aircraft. Also, several private aircraft owners were storing their aircraft in the hangar and requesting servicing.

By July 1971, I was off on another field trip; this time to Kenya and Malawi. I spent six days in Nairobi. Don Bell was the pilot of Navajo CF-YLR and we were making arrangements for servicing of his aircraft. I then went on to Blantyre in Malawi, where we had been engaged on a photo survey contract working with Meridian Airmaps Limited of Lancing, England, using our Cessna 320, CF-PKY. At the end of the contract we were to take the aircraft to Nairobi where we would transfer it to a British air registry.



Eddy Kozstko was the pilot of this aircraft and I flew with him from Blantyre to Nairobi. This was a most interesting flight of just over 1,200 miles. We flew up the east coast of Lake Malawi and landed at Karonga at the north end of the lake to refuel. We then flew over Tanzania into Nairobi; most of the flight was at 2,000 feet, the terrain was wild, rugged and very interesting. Also on this tour, I did a test flight of our Piper Navajo CF-YLR with Don Bell piloting. We flew within good photo taking distance of the summit of Mount Kilimanjaro.

I stayed in Nairobi for another two weeks to organize the new registration for Cessna 320 CF-PKY. This was quite a procedure and meant opening up the aircraft for inspection by the resident Air Registration Board (ARB) inspector. He would list all the items he considered necessary to meet the requirements of British regulations before a C of A would be issued. When I was satisfied that all the items called for could be completed, and as Eddy Kozstko was also a licensed engineer so could sign all the necessary paperwork, I returned to Ottawa via Amsterdam where I had a two night stop-over, allowing me to take in some sight-seeing. I arrived back in Ottawa on August 3<sup>rd</sup>, where things were beginning to settle down at Personal Plane Services and a load of work was waiting for me.

I was in technical discussions with Piper Aircraft at Lockhaven, USA with regard to camera installations in Navajos, for which they had received many requests. Also, Aero Services of Philadelphia sent in one of their Aero Commanders for modification to a geophysical survey configuration. So with some local aircraft repair and servicing work added on we were able to keep pretty busy.

In October, I made a trip to Aeroquipa in Peru where we were on a high level photo survey contract flying our Piper Aztec CF-UULL. Ken Smith was flying this aircraft and was having problems in reaching the altitude needed for photography. However, the problem seemed to resolve itself by the time I arrived. They had been refuelling the aircraft in the mornings from underground fuel storage tanks, the aircraft was parked outside and at that time of year (October) and at that altitude the aircraft got fairly cold. For some unknown reason the next refuelling was carried out in the evening and the following day the aircraft completed a full photo survey flight with no problems. We concluded that vapour locks might possibly have been caused by pumping warm gasoline into the cold aircraft, but we will never know for sure.

I was able to take in some sight-seeing on this seven day trip. Aeroquipa is a very old and beautiful city with many old Spanish buildings and with the spectacular back-prop of the Andes Mountains.

Later in October, I made a second trip to Aeroquipa to help change an engine that had failed just before the photo survey contract was completed. We experienced problems getting the replacement engine released from customs, but, as in many other countries, the U.S. dollar helped solve most of our problems. The engine change went very smoothly and the remainder of the survey contract was completed without further problems. On both of these trips to Aeroquipa I had stop-overs in Mexico City and in Lima, Peru.

1972 was a busy year at Personal Plane Services. We were awarded a contract by Piper Aircraft to modify a Navajo for aerial photo survey work. Al Souter and myself flew down to Lockhaven to negotiate the contract. The modification included a sliding door over the camera hatch and a kit to simplify restoration of the plane to standard configuration for passenger work. Also at this time, Britten-Norman Islander aircraft arrived in Canada and Larry Robillard (an ex-Spitfire pilot) set up a dealership from an office in our hangar. This interesting aircraft showed some good potential. With long range wing tip tanks installed, it had a range of nearly seven hours, so Spartan Aero Services decided to evaluate its overall suitability for use as a platform for geophysical surveys. We did a fair amount of private aircraft servicing and repair, but the high operating cost of the facility made our services non-competitive. We required a greater volume of business to help bring our costs down.



**Aerial view of Mount Kilimanjaro taken from Spartan's Piper Navajo CF-YLR, 1971**



**Spartan's Piper Aztec CF-UULL at Aeroquipa, Peru, with Andean mountain background 1971**

*Edited by Colin Hine*

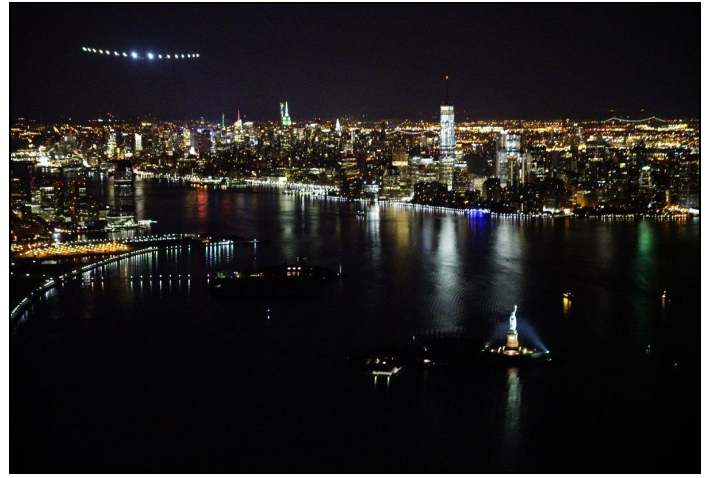
## SOLAR IMPULSE 2 – MISSION COMPLETED

April 21, 2016 saw the resumption of Solar Impulse 2's (Si2) mission to fly around the world using no fossil fuels, depending entirely on electrical power generated from solar energy. The aircraft had been grounded in Hawaii since July 2015. But with new batteries made and installed, and with northern hemisphere days again long enough to permit multi-day solar-powered flights, the mission was resumed. Most of the following content was obtained from the Solar Impulse web site (<https://www.solarimpulse.com/adventure>) where more details and photographs can be found.

It took Amelia Earhart 18 hours to fly solo from Hawaii to California in 1935. Following in her footsteps 81 years later, it took Bertrand Piccard 62h 29m to do it, but he did it without any fuel; completing the Pacific crossing initiated by André Borschberg back in June 2015.



Solar Impulse Si2 flying over San Francisco's iconic landscape.  
© solarimpulse.com



Solar Impulse Si2 flying above New York City and the Statue of Liberty.  
© solarimpulse.com

After departing from San Francisco, pilot André Borschberg overflew the Mojave Desert and the SpaceX airbase, where other pioneering aviation ideas are being developed today. After a flight of 15h 52m, Solar Impulse was welcomed in Phoenix, Arizona, one of the states with the highest penetration of solar energy.

Bertrand Piccard flew Solar Impulse on the 1570km solar flight from Phoenix to Tulsa, Oklahoma, where the aircraft was sheltered in the American Airlines hangar. Bertrand Piccard, André Borschberg and the Si2 team were now more than halfway across the USA.

On 21 May, Si2 was off to Dayton, Ohio; the city where the Wright Brothers lived and developed all their ideas and first airplanes. At Dayton, they were greeted by Stephen and Amanda Wright, the great grandnephew and great grandniece of Wilbur and Orville Wright; quite a meaningful moment. After spending three days at the Dayton International Airport, a clear weather path to Lehigh Valley was found by the Mission Control Center, allowing for a departure on May 25th.

After the 16h 49m flight from Dayton, Ohio, Solar Impulse 2 landed at Lehigh Valley Airport at Allentown, Pennsylvania, on 26 May 2016, however, the flight from Lehigh Valley to New York City would be delayed until 11 June due to weather conditions. The whole flight to NYC, a short 265km leg, was flown at less than 1000 feet. Pilot André Borschberg was reported to have flapped the solar airplane's giant wings over the Statue of Liberty.

To prepare for the Atlantic crossing, four potential destinations – Seville, Rabat, Toulouse, and Paris – were examined, with factors such as flight time, pilot health, logistics, and, of course, weather conditions entering into the equation. Finally, on 20 June 2016, Bertrand Piccard took off from New York City to attempt the Atlantic crossing. Some 44 hours into the flight, he had to cope with some air turbulence over the Azores Islands, but the Atlantic crossing was successfully completed after 71 hours when Bernard landed in Seville, Spain, at 5:38AM UTC on 23 June 2016; the first transatlantic solar and electric crossing, with zero fuel and zero emissions.

The aircraft next stopped in Cairo, Egypt, on 13 July, and finally landed in Abu Dhabi on 26 July 2016, completing the around-the-world trip in a total of 17 stages and 16½ months; the first circumnavigation of the Earth by a piloted fixed-wing aircraft using only solar power.

## Aircraft Statistics

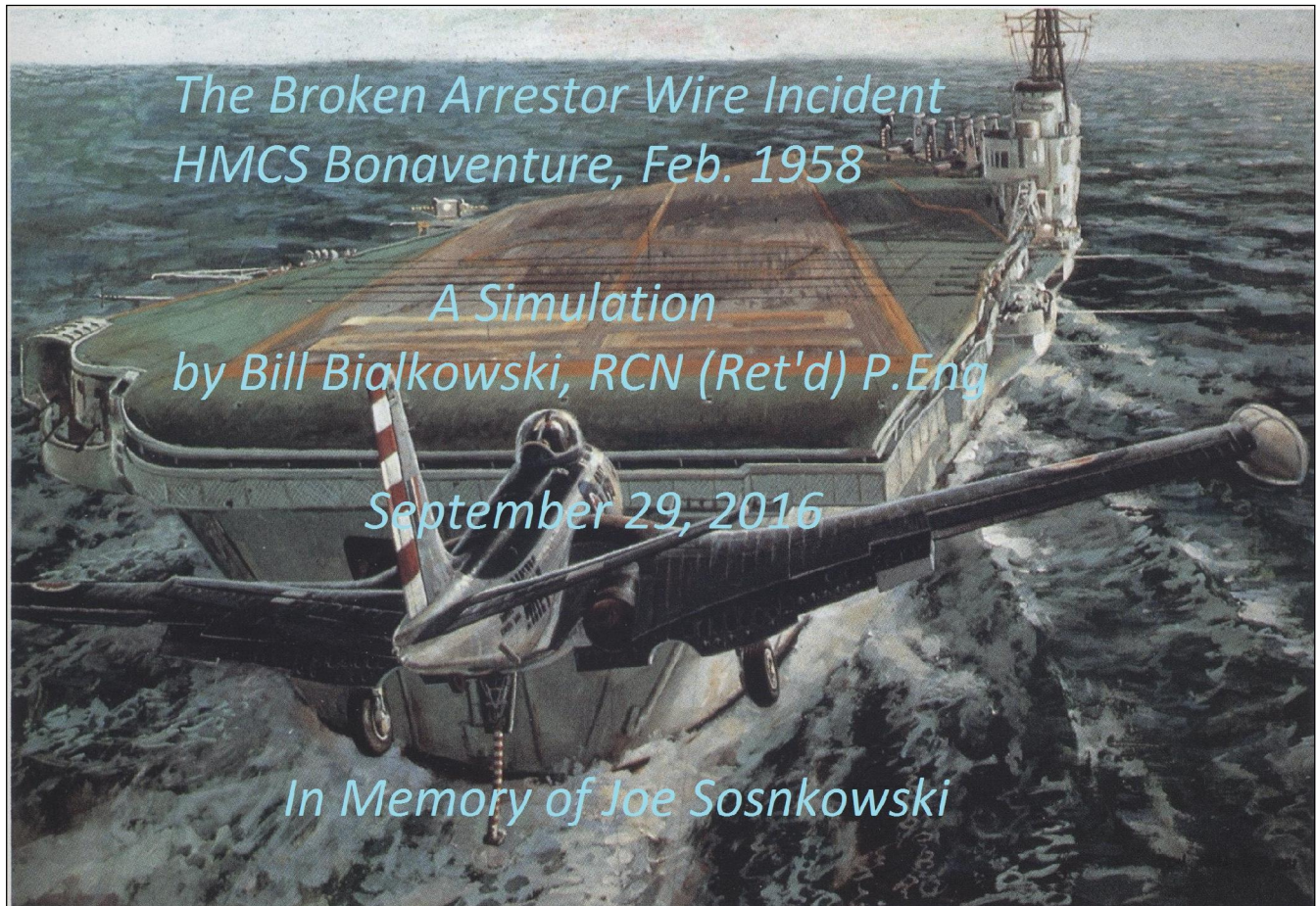
Capacity	1 pilot
Wingspan	72 m
Weight	2.3 tons
Number of solar cells	17,248
Number of propellers and batteries	4
Total energy produced from	Abu Dhabi to Abu Dhabi 11,655 kWh
Maximum flight time achieved	117 hours 52 minutes (André Borschberg)
Maximum altitude	28,000 feet
Average airspeed	75 km/h
Maximum recorded ground speed	216 km/h
Fuel consumption	0 L

## Mission Statistics

Leg	Pilot	Duration	Distance (km)	Energy Produced (kWh)	Take-off Dates
1: Abu Dhabi, UAR – Muscat, Oman	André Borschberg	13h 1m	772	383	March 9, 2015
2: Muscat – Ahmedabad, India	Bertrand Piccard	15h 20m	1593	304	March 10, 2015
3.: Ahmedabad – Varanasi, India	André Borschberg	13h 15m	1170	428	March 18, 2015
4: Varanasi – Mandalay, Burma	Bertrand Piccard	13h 29m	1536	397	March 18, 2015
5: Mandalay – Chongqing, China	Bertrand Piccard	20h 29m	1470	440	March 29, 2015
6: Chongqing – Nanjing, China	Bertrand Piccard	17h 22m	1241	325	April 20, 2015
7: Nanjing – Nagoya, Japan	André Borschberg	44h 9m	2852	958	May 30, 2015
8: Nagoya – Honolulu, USA	André Borschberg	117h 52m	7212	2409	June 28, 2015
9: Hawaii – San Francisco, CA	Bertrand Piccard	62h 29m	4086	1121	April 21, 2016
10: San Francisco – Phoenix, AR	André Borschberg	15h 52m	1113	480	May 2, 2016
11: Phoenix – Tulsa, OK	Bertrand Piccard	18h 10m	1570	445	May 12, 2016
12: Tulsa – Dayton, OH	André Borschberg	16h 34m	1113	480	May 21, 2016
13: Dayton – Lehigh Valley, PA	Bertrand Piccard	16h 49m	1044	391	May 25, 2016
14: Lehigh Valley – New York, NY	André Borschberg	4h 41m	265	0	June 11, 2016
15: New York – Seville, Spain	Bertrand Piccard	71h 8m	6765	1388	June 20, 2016
16: Seville – Cairo, Egypt	André Borschberg	48h 50m	3745	808	July 11, 2016
17: Cairo – Abu Dhabi, UAR	Bertrand Piccard	48h 37m	2694	917	July 24, 2016



# NEXT MEETING OF THE OTTAWA CHAPTER CANADIAN AVIATION HISTORICAL SOCIETY



## THE BROKEN ARRESTOR WIRE INCIDENT Bill Bialkowski, RCN (Ret'd), P Eng.

In February 1958, an equipment failure occurred onboard HMCS *Bonaventure* while Lt. (P) Joe Sosnkowski, RCN, was landing his Banshee jet fighter; the same aircraft currently on display in the Canada Aviation & Space Museum.

Fifty years later, Bill Bialkowski, an expert then in stability, control and simulation, took up flying as a hobby. By pure chance Joe and Bill became friends and Bill offered to put his skills to a test to simulate Joe's flight. This presentation covers the flight envelope as well as many personal recollections from those involved.

Bill Bialkowski was born in Poland in 1940; his father flew with the RAF in England. In 1957 the family moved to Canada. Bill joined the RCN and served in anti-submarine destroyers. Leaving the navy he earned a Master's degree in stability and control at the University of Toronto in 1968, becoming an expert in the design, modelling and simulation of complex dynamic systems.

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

**DATE/TIME:** Thursday, 29 September 2016, 1930 Hours

**LANDING FEES:** \$1.00

**Meetings include guest speakers, films, slide shows, coffee and donuts  
Visitors and guests are always welcome**