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CHAIRMAN'S MESSAGE

After last month's presentation about the broken wire incident aboard HMCS *Bonaventure* (which happened to fall on the 49th anniversary of powered flight in Canada; 23 February 1958), I thought it would be fitting to have a brief overview of the three ex-Royal Canadian Navy (RCN) McDonnell F2H-3 Banshees preserved in Canada.

Starting out West at the Naval Museum of Alberta (NMA) is Banshee 126334. It was built for the US Navy in 1952 and transferred to the RCN in 1956. This aircraft holds the honour of being the last Banshee to fly in Canada when it flew from Shearwater Naval Air Station to Calgary, Alberta, in 1963. It then spent the next 15 years as an instructional airframe at the Southern Alberta Institute of Technology before ending up as a gate guardian at HMCS *Tecumseh*. In 1988, Banshee 126334 was donated to the NMA and moved inside the museum.

Here in Ottawa, Banshee 126464 is on display in the Naval Aviation gallery of the Canada Aviation and Space Museum. Banshee 126464 was built in 1953, and taken on strength by the RCN in 1957. During its time in service, it flew as part of the Grey Ghosts aerobatic team, before being retired in 1962 and donated to the Canadian War Museum in 1965. One could argue this Banshee was ACTUALLY the last to fly in Canada (though minus its wings) when it was transported to and from CFB Downsview underneath a CH-147 Chinook. Banshee 126464 was restored at CFB Downsview by members of No. 400 Air Reserve Squadron and No. 411 Squadron between 1975 and 1986.

The final aircraft in our survey is Banshee 126402 at the Shearwater Aviation Museum in Dartmouth, Nova Scotia. It was acquired by the RCN in 1957 and struck off charge and donated to SAM in 1962. It then served as a gate guardian until 2000 when it was restored by volunteers from 12 Aircraft Maintenance Squadron and put on display inside the museum.

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

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PAST MEETING

THE BROKEN ARRESTOR WIRE INCIDENT - BILL BIALKOWSKI

53 members and guests attended the 29 September 2016 meeting to hear Bill Bialkowski, RCN (Ret'd), P Eng., talk about this February 1958 incident, due to an equipment failure 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 and Space Museum.

Introducing his presentation, Bill stated his wish to honour Joe Sosnkowski and his incredible flying skill, and his pleasure to share these details with Joe's family present including Joe's younger brother Peter; his sister-in-law Elaine; and his niece Flora Leadish, a granddaughter of General Kazimierz Sosnkowski. Bill also noted that CAHS Ottawa Chapter member Glenn Cook, Joe's fellow naval aviator, and an eye witness to the event was present. Glenn has also flown the Banshee.

The incident lasted less than 30 minutes, with Joe landing safely. His performance during these stressful minutes fully exhibited his flying skill. Until recently, Joe was the only pilot to survive a broken wire and tell the tale – in other similar incidents 3 pilots died & 4 ejected. On 18 March 2016, Lt. Matt Halliwell, USN, joined Joe as a survivor.

Bill was still in high school in 1958. He said he was only present here today because he was able to simulate this amazing flight using mathematics, physics, and computers, with some help from Joe. "Pure serendipity connects a long string events and allowing me to speak today." Bill went on to explain how the Sosnkowski family arrived in Canada and how Bill himself arrived here. Space does not permit full details but some points are of interest:



Bill Bialkowski © Rod Digney

In September 1939, General Kazimierz Sosnkowski's army in the south of Poland finally succumbed to assaults by German and Soviets forces. He escaped to England and was joined by his wife and 5 sons. In 1940, he shipped his four younger sons to Canada for safety. At Pier 21 in Halifax, when asked for his name, "Mieczyslaw", the official said "We call you Joe". And Joe stuck! In 1943, General Sosnkowski became head of the Polish government in exile. Joe followed his brothers into the military joining the Royal Canadian Navy (RCN) as a cadet at Royal Roads and volunteering to fly.

In 1940, Bill Bialkowski was born "Wojciech". His father was already training with No. 300 (Polish) Bomber Squadron in England, having evaded both the Germans and the Soviets. In 1946, Bill and his the family escaped and joined their father in England. His school chums said: "We can't handle Wojciech – we will call you Bill." In 1957, Bill's family came to Canada; Bill's dad was hired for the AVRO Arrow project. In 1958, Bill was accepted into Engineering at the University of Toronto, and the RCN as a Regular Officer Training Plan (ROTP) Cadet. Bill was offered an opportunity to train as a pilot, but he agonized that he'd make a better engineer than a pilot, and decided to put off 'flying for fun' until later.

In 2004, Bill and his wife Judy attended a Canada Aviation and Space Museum patron's luncheon in Ottawa and found themselves sharing a table with a John & Elaine Sosnkowski. "Are you related to The General, head of the Polish Government in 1943?" "I am his son." "Did you fly with the Polish Air Force?" "Yes, Lancaster's in 300 Squadron." "My God – My Dad helped form 300 (Polish) Squadron in July 1940, the first Polish squadron in the RAF." "Do you have a brother, Joe, who flew Banshees in the RCN?" "Oh yes I do, and his Banshee is parked just around the corner from this table" This was the start of a warm friendship which lasted until John and then Joe died.

In 1966, Bill resigned from the RCN and went back to engineering school to study control theory. He wrote a thesis project on the FHE-400 hydrofoil stability and control. HMCS *Bras D'Or* was a cross between a ship and an aircraft. It's foil born dynamics in roll, yaw, and pitch were identical to an aircraft. Bill became an expert in the mathematics of stability and control, as well as in computer simulation of dynamic systems. He applied this math to optimise the operation of pulp and paper mills.

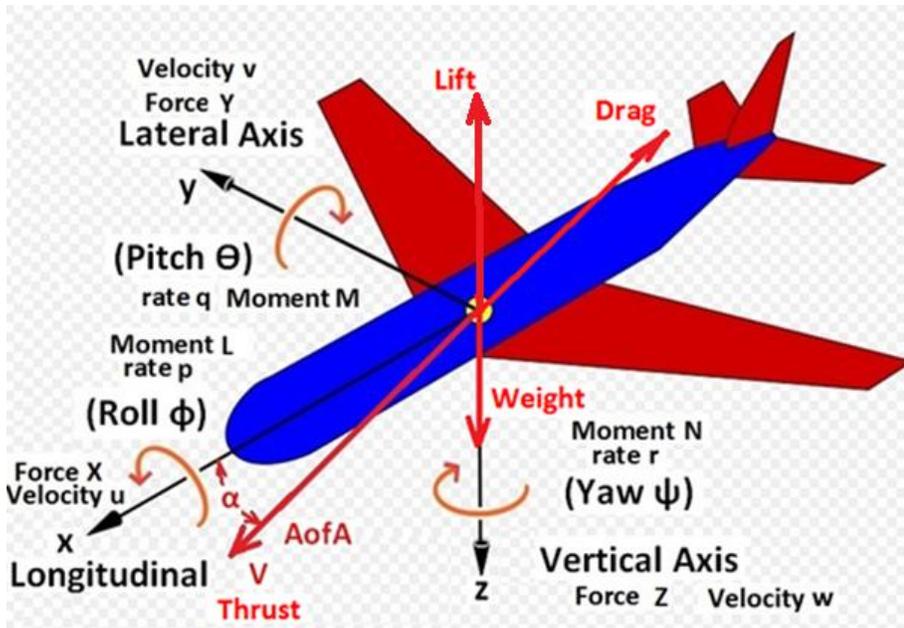
On 23 February 1958, HMCS *Bonaventure* was off the Florida coast near Jacksonville and USNAS Mayport. *Bonaventure's* commanding officer, Captain William Landymore, wrote: "On the second day an arrestor wire snapped during a full-stop landing, the whip-snapping line tearing at the aircraft's innards. As the 12-ton jet dribbled over the ship's side, the pilot, Lt. Joe Sosnkowski rammed the twin throttles wide open and eased back on the joystick. Blasting great sheets of water behind it, the Banshee howled over the wave tops. Hanging on the point of a wicked stall, Sosnkowski ever so gently

played his aircraft controls and began trading weight and drag for airspeed and lift. Milking a mouse would have been easier.”

S/Lt. Glenn Cook was flying the “Angel” rescue helicopter: “The Banshee settled over the side of the ship to an altitude of about 10 feet. With both engines at full power, two large roostertails of water blanked out any view of the aircraft. Joe’s aircraft then emerged in front of the roostertails still flying, but in an aggravated nose-up attitude.”

By 1952, the British had invented: 1) the angled flight deck; 2) the mirror landing sight; and 3) the steam catapult – together these changed carrier aviation forever. On a missed wire, the aircraft takes off again, with no threat to parked aircraft forward. On a broken wire, take-off may be possible, but only if enough flying speed remains. This technology is used by 10 navies: US, British, French, Canadian, Australian, Dutch, Brazilian, Argentinian, Russian, and Chinese.

Bill went on to discuss the parameters needed to conduct a simulation of the wire break incident these include:



6 degrees of freedom:
pitch, roll, yaw, x, y, z
landing only: pitch, x, z

Newton’s 2nd Law $F=Ma$
Hence $a=F/M$

From Newton’s Calculus
 $v = \int a$ $x = \int v$

Also, a number of other parameters need to be considered:

- Banshee aerodynamics, weight & balance
- Bonaventure/Banshee circuit
- Banshee Safe-Flight instrument
- Bonaventure flight deck, arrestor gear
- Arrestor wire tension waves
- Ground effect

The work had three phases:

- A good trap with 140 ft pullout on wire #4
- A trap with a wire break at 40 ft, and falling off the flight deck at stall speed plus 1 knot
- The next 15 minutes from “kiss the water”, “impossible attitude”, climbing out of ground effect, flight to Mayport with a small twist

The simulation took a lot of trials, but Bill was eventually able to effectively simulate all phases of Joe Sosnkowski’s amazing broken wire recovery. Joe was the only pilot to safely recover from a broken wire (until March 2016) and fly his aeroplane to a safe landing and live to tell the tale.

Colin Hine, Editor



Pubs & Mags

Legion Magazine (Sept/Oct 2016) - 4pp. (+2pp photos) cover story by Hugh Halliday on RFC/RAF Canada 1917-18 training program

FlyPast (Sept 2016) - 18pp. profile of Fairey Firefly, including 2pp. on Canadian service

FlyPast (Oct 2016) - 7pp. on Canadair Sabre's 3 years of service with the RAF

Air Classics (Oct 2016) - 14pp. on the history of the Martin Mars, part 1 (early years) of a series; includes flight checkout by Kermit Weeks, several news reports: Curtiss P-40E Kittyhawk (ex-RCAF 1034) moved from Vancouver Island to Omaka Aviation Heritage Centre in New Zealand; Buffalo Joe McBryan acquires Naval Aircraft Factory N3N-3 floatplane; updates on Buffalo Airways' Electra, DC-4, DC-3, and C-46 fleet, and on Air Spray's Lockheed Electras at Red Deer; landing incident in Alberta involving Conair Convair 580.

Bill Clark

Wing Commander (Ret'd) Jerauld George Wright (1917 – 2016)

CAHS members may have been surprised at the brevity of the *Ottawa Citizen* obituary for Wing Commander Jerauld (Jerry) George Wright, published in mid-September. Fortunately, the newspaper in his home town of Liverpool, Nova Scotia printed more on his remarkable story. Several years earlier, Wright had addressed CAHS events. His passing – at the age of 99 – removed yet another outstanding contributor to Canadian aviation history.

Wright enlisted in the RCAF in 1940. Many who joined aspired to be pilots, but he was set on being a navigator from the outset. He went overseas in December 1940, and was subsequently posted to an RAF Catalina squadron – No. 240. He flew on some very important and dangerous missions. Chief among these was a flight lasting almost 25 hours assessing the northern supply route to Archangel (Russia) *via* Spitsbergen. In April 1942, he was awarded the Distinguished Flying Cross – something the *Ottawa Citizen* obituary did not mention. This was followed by special duties work in the Mediterranean, India and Burma, developing special techniques of celestial navigation while landing agents at night in small bays along the Burmese coast. In 1945, he attended the prestigious Empire Navigation School.

In 1946, he went to the RCAF Test and Development Establishment working on compass problems. He was named Head of Test and Development Section, Air Navigation School, Summerside to develop navigation techniques in the Arctic. There he worked out the prototype of a Synchronous Astro Compass; an aid for navigation at all latitudes. Posted to AFHQ, he took charge of the Navigation Instrument Development Branch, Air Member for Technical Services Division. Further inventions came, notably the R Theta Computer and the Position and Homing Indicator Mark 3. The former was designed to fit into the instrument panel of a fighter. Ultimately, Wright held 30 navigational patents. He was named winner of the Trans-Canada Trophy (the McKee Trophy) for 1953. In 1974, he was inducted into the Canadian Aviation Hall of Fame. The citation for that honour read, "The application of his technical brilliance to the design of numerous navigation devices has been of outstanding benefit to Canadian aviation."

Wright was a legend within the navigational community. Chapter member Ernie Cable recalls, "Every RCAF navigator who trained in the 1950s, 60s and 70s heard of Gerry Wright's achievements, whether in the classroom or at the bar." He retired from the RCAF in 1966 and died in Ottawa, 14 September 2016. His ashes have been deposited in Liverpool.

Hugh Halliday

William (Bill) Michael Wison (1948 – 2016)

Bill Wison passed away peacefully on Monday, 6 June 2016. I knew him going back many years, from the days I used to go to IPMS meetings with my late brother Gordon. Bill stood out in the local IPMS Chapter because members mostly build aircraft or tanks, but Bill liked ship models ... and I did too (Gordon was renowned within IPMS for never building any of his models, except for 2 small sheds, both with individually installed shingles. Thereafter, he was referred to as "Two Sheds Clark" – an homage to Monty Python).

Bill was a cross-over to CAHS, as were several other IPMS members. I gathered from recent conversations I had with him that his mother worked in some capacity on the Hurricane program in England. Bill was a real nice guy, and often would ask after my brother's condition.

Bill Clark



RAMBLING THROUGH RECORDS

Does anyone remember Rube Hornstein? In my youth (before TV), I listened to him on CBC radio, giving informative talks about weather – what it was, how it developed, how it was forecast. His show, “Ask the Weatherman,” began with a roll of thunder, and concluded with the observation, “We are going to have weather, whether or not.” Later, he pioneered television weather broadcasting, including the science of meteorology. A recent discovery led me to look at his story in more detail.

Reuben (Rube) Aaron Hornstein, CM, MBE, MA, D Litt, was born in London, Ontario in 1912 and died in Halifax, Nova Scotia, 30 January 2003. His undergraduate education was at the University of Western Ontario, then he obtained his MA degree in meteorology from the University of Toronto in 1938. He then joined the meteorological branch of the Department of Transport and from 1938 to 1940 he was a forecaster at St. Hubert and Malton Airports. In March 1940, he transferred to Halifax as officer-in-charge of the meteorological section of Eastern Air Command, administering meteorological services for all three branches of the Armed Forces from 1940 to 1946, with special emphasis on the RCAF anti-submarine and naval convoy operations. In July 1946, he was awarded Membership in the Order of the British Empire (MBE).

From 1946 to 1972, he was officer-in-charge of the Halifax Atlantic Weather Centre. Beyond that, he was a writer, educator and humanitarian. In 1991, he was made a Member of the Order of Canada. The citation read, in part, “Although he can no longer be blamed for the weather, he is still fondly remembered throughout Atlantic Canada as Your Weatherman, the popular television personality and professional meteorologist who made the forecasts understandable, if not always agreeable.” I invite readers to go to the Internet for his obituary, a moving description of an uncommonly good citizen.

I decided to “Google” Hornstein after perusing the RCAF service file of Squadron Leader Roy Duffy Renwick (1921-1986). Renwick earned a Mention in Dispatches in January 1944 for his work on anti-submarine patrols while serving with No. 162 (Bomber Reconnaissance) Squadron. He then went on to establish and command the Eastern Air Command Meteorological Flight at Yarmouth, Nova Scotia. He was awarded the Air Force Cross in November 1944 for this work.

I had briefly mentioned Renwick in *Not in the Face of the Enemy: Canadians Awarded the Air Force Cross and Air Force Medal, 1918-1966* (Robin Brass Studio: 2000), but did not have access to his documents at the time. The 20-year rule on such access now allows me to see the file, which among other things describes his flying instruction, lists his sorties with No. 162 (BR) Squadron, and follows his path through transport training that would eventually take him to a TCA captaincy. As he retired from the RCAF, his last Commanding Officer described the event as “A distinct loss to the service.”

A “surprise connection” between Renwick and Hornstein was found in a six-page document in an RCAF file, “RCAF Eastern Air Command (E.A.C.) Meteorological Flight,” dated January 1945. The document provides a history of the unit from formation through its first year of operations and it is signed by R.A. Hornstein. Favorable mention of Renwick led to its being placed in his file.

The narrative contains some surprises. In the summer of 1941, correspondence between officials in the Department of Transport Meteorological Service included a proposal to establish weather reconnaissance flights. In December 1941, the American government banned transmission of weather reports from ships in the Western Atlantic, rendering the need for independent weather observations more critical. Aircraft shortages put the idea well down priority lists, but in April 1943 it came to the attention of Air Vice-Marshal G.O. Johnson, Air Officer Commanding, Eastern Air Command. AFHQ approved the proposal and three Cansos were assigned to Yarmouth in October 1943. Mr. R.C. Jacobsen of the Meteorological Service supervised the installation and calibration of the specialist equipment, then trained the aircrews in weather reporting, coding and ciphers. The first practice flight was made on 27 November 1943, and the first complete test was conducted on 18 January 1944. After two months of “working up,” the Flight became operational on 9 February 1944.

To the end of 1944, out of 355 planned flights, 271 were undertaken; of these, seven returned short of the required radius (500 miles) due to severe weather, and 22 returned early with mechanical problems. 64 flights were cancelled (24 for weather, 40 due to serviceability problems). On 14 occasions it was necessary to divert to alternate bases (five times to Bermuda, twice to New York, and seven times to Nova Scotia and New Brunswick fields).

I do not know if Hornstein’s paper was ever published, but I hope to have it transcribed, perhaps for the *CAHS Journal*. It is another example of an unanticipated gem discovered in an unexpected source.

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.

Two highlights of the fall season for plane spotters/photographers at Ottawa’s Macdonald-Cartier International Airport (MCIA) were the Chinese Premier Li Keqiang’s Air China Boeing 747-400 during his 3-day visit to Canada, and the Boeing 787-8 Dreamliner of the United Arab Emirates’ Abu Dhabi Amiri Flight during the visit to Ottawa by His Highness Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, and His Excellency Sultan bin Saeed Al Mansouri, Minister of Economy.



Chinese Premier Li Keqiang’s Air China Boeing 747-400 (s/n 30158) B-2472, overnights on the Canada Reception Centre ramp on 22 September 2016 during his 3-day visit to Canada. © Jan Jasinski



Boeing 787-8 Dreamliner (s/n 35303), A6-PFC, of the UAEs’ Abu Dhabi Amiri Flight overnights at MCIA’s Canada Reception Centre on 26 September 2016 while the UAE Minister of Foreign Affairs and International Cooperation, and the UAE Minister of Economy, hold talks with their Canadian counterparts. © Jan Jasinski

A number of interesting photographs that were taken during the summer season are also included below.



This RAF Airbus Military A400M (c/n 025) Atlas, ZM406, from No. 70 Squadron, Brize Norton made a visit to Ottawa on 10 June 2016. An eventual fleet of 22 of the strategic and tactical transports is on order by the RAF. © Dean Hoisak



This colourful Boeing 737-8CT (c/n 37158), C-GWSV, is one of two Disney-themed liveries in WestJet’s fleet. This one, inspired by the popular children’s movie “Frozen”, passed through Ottawa on 16 May 2016. © Will Clermont



The Bombardier DHC-8-400, or Q400, has become one of the most prolific passenger airliners operating in Canada. Three representative examples operated by Westjet Encore, Air Canada Express, and Porter are seen here on 24 May 2016. © Rod Digney



An interesting view of the Ottawa airport terminal, shot from a Cessna 150 while our photographer was doing training circuits on runway 07 on 16 August 2016. © Jan Jasinski

SYDNEY BAKER – PART VII

Spartan Taken over by Kenting

In January 1973, we had a rude awakening. Spartan Aero Services was taken over by Kenting Aviation, a division of Kenting Aircraft Limited of Toronto. Kenting Aviation had been in the aerial survey business in the 1950s and 1960s, in fact our General Manager had been with them before he joined Canadian Aero. In recent years they had operated DC-4s on Arctic ice patrol and had operated a Jet Commander for charter work.

Tony Arsenault, Chief Engineer of Kenting Aviation in Toronto came into Ottawa to discuss the aircraft maintenance situation. Kenting had a maintenance facility in Toronto, so Personal Plane Services support would no longer be required. I agreed to take up the position of Field Maintenance Supervisor for Kenting Aircraft's survey section. While overhaul and repair work was now to be carried out in Toronto, I would remain in Ottawa working from an office in Spartan Aero Service's building. The company would later change its name to Kenting Earth Sciences Ltd. They decided to repaint all our aircraft; they would be white with two speed bands in two shades of blue and a large K on the tail.

I handed in my resignation to Personal Plane Services on 2 March 1973 to become effective on April 30th and I agreed to assist in any project I had been involved in on an "as time allowed" basis. I made several trips to Toronto during the next few weeks.

On April 10th our president Al Souter came down with a mild heart attack. The next day, I received a letter from Gale Livingstone, President of Aero Services Corporation of Philadelphia, indicating that I had been appointed Acting Manager of Personal Plane Services until the return of Al Souter. I responded by Telex indicating that the resignation which I had submitted must remain valid and that any request for my services should be made through Kenting Aircraft Ltd., Toronto.

At about this time Trimac, a Calgary company with many subsidiaries, one being Klondike Helicopter, came into the picture by placing some administrative personnel in our Ottawa offices. I could only assume they had some connection with Kenting Aviation in Toronto; all of this would become clear later.

Also at this time we purchased our second Piper PA-31 Navajo registered CF-NID and a Britten-Norman Islander CF-YZT. We modified both aircraft with tail booms for geophysical surveys and a camera hatch was installed in the Navajo for photo survey work.

In May of 1973, I made an extended tour of our operations in Africa. My first stop on the way there was in Malta where Ken Smith had flown in our Aero Commander for repair and servicing. A company with a main base in Miami had started a satellite aircraft repair station in Malta using both American engineers and local labour. I stayed there for six days then flew on to Rome for a flight to Lagos, Nigeria, for a few days; then on to Kano and Jos where our Navajo CF-YLR was deployed on local photo survey contracts. I then returned to Malta checking out the completion of the work on our Aero Commander and arrived back in Ottawa on June 14th.

Late in August, we learned that CCRS were not renewing its lease on our hangar, so we were able to move back in and set up our maintenance base. This fitted in very well as Kenting Aviation in Toronto was making drastic cuts and a few months later were out of business. We were now operating under the control of our parent company Trimac of Calgary. This also worked well for CCRS as they were able to rent space in the Personal Plane Services hangar; in fact they eventually bought the hangar.

In August, I made a trip to England to inspect a Britten-Norman Islander (serial number 9) at Miles Dufon based at Shoreham on the south coast; I was to evaluate the installation of Continental engines. These engines were later removed and standard Lycoming engines were installed; all updated modifications were incorporated. The aircraft was in good shape having flown less than 100 hours. I reported the condition of the aircraft to Doug MacKay who decided to purchase it for himself and lease it back to the company.

The aircraft's British registration was G-AVVB so in November Glen Hall and I were on our way to England to transfer the aircraft to Canadian registration CF-YZF and to carry out the modifications to a survey configuration. Glen was in charge of our geophysical section at that time.

We used Miles Dufon personnel to assist in the modifications, including the installation of a tail stinger. This work was completed in early December and we did a test flight from Shoreham to Bembridge, Isle-of-Wight, where the Islanders

were manufactured. Our chief pilot Gordy Carter was the pilot on this flight on 5 December 1973. We then serviced the aircraft in preparation for a large geophysical survey in the Ivory Coast that we were about to start.

Back at base things were now beginning to get organized. The geophysical section had been set up in the old helicopter component shop. The sheet metal and machine shops had been staffed and an aircraft parts and hardware store had been set up. Once again I was rewriting our Department of Transport Maintenance Manual.

In April 1974, I was off again, this time to Bouake in the Ivory Coast where we were operating two Britten-Norman Islanders on a geophysical survey. One aircraft, CF-YZF, had struck a large dog on take-off, tearing off the nose-wheel and doing considerable damage to the nose section. This was going to be a difficult field repair.

After discussions with the insurance adjuster who had flown in from England, it was decided that Field Aviation of Castle Donnington in England would be the best company who could send out a field party to carry out the repairs. Fields were fortunate to be able to purchase a complete nose section forward of the door hinge from Britten-Norman. This was shipped to Bouake; they then sent in a team of three, including their chief inspector. Under these conditions they did an excellent job getting all the pieces together and completing the repair work took time. There were no hangars on this airfield at Bouake and it was September before I was able to return, inspect the repairs and sign-off the insurance release forms.

Not long after the repair work on CF-YZF I made a trip to Castle Donnington in England where Field Aviation Ltd. were doing some work on a DC-3. This aircraft belonged to Hunting Surveys of London, an affiliate of Field Aviation Ltd. We had purchased the aircraft from them and arranged with Fields to do the necessary work to transfer the aircraft to Canadian registry. I had arranged for an inspector from our DoT who arranged to be in England to carry out the inspection required before the issue of a Canadian C of A. These arrangements worked out very well.

Again in October 1974, I was on my way back to Ivory Coast, this time to the capital Abidjan to install long-range fuel tanks on CF-YZF. We had previously carried out the same modification to Islander CF-YZM in Ottawa. The wing tip tank configuration was unique in that the additional weight of the fuel was compensated for by the additional lift resulting from the airfoil design of the wing tip tanks.

In Abidjan, we were able to use space in an Ivory Coast Air Force hangar; this proved helpful. Unfortunately equipment shortages prolonged the completion somewhat. However, it was eventually completed and CF-YZF returned to survey with a much extended range.

Back at base I was very busy catching up with paperwork and the aircraft log control. We had quite a lot of photo survey and geophysical survey work in Canada at this time, but most of our larger contracts were overseas.

After being so busy in 1972 through 1974, 1975 started off being a little less hectic. We purchased our third Navajo; this one had been privately owned and was in good shape with low hours, it was registered CF-FRY. We requested an estimate from Personal Plane Services to convert it to a photo survey configuration but I was not happy with their bid or with their earlier work efforts on the modification of CF-NID.

On one of my previous visits to England, Meridian Airmaps Limited had told me of a company, Mann Aviation of Fair Oaks (just south of Windsor); they had been carrying out modification work on aircraft for several years. After many phone calls with them and discussions with the DoT they agreed to allow this aircraft to be modified by Mann Aviation providing the work was approved and monitored by the British ARB. This worked out very well although it took a little longer than it should. I made a visit to check and found they were having a few problems with the autopilot due to re-routing of the flying controls; this was eventually overcome.

While on this visit I made a point of contacting my old company Western Airways Limited and was surprised to learn that they were still owned by Whitney Straight and still in the aircraft repair and servicing business. My old friend Mr. Dann was managing the base. I arranged to meet with him at Heathrow where I had booked a day room before my late flight back to Ottawa. Mr. Dann drove down from Weston-Super-Mare and we had a very interesting couple of hours talking over old times and the possibility of them servicing our aircraft.

Edited by Colin Hine

REPORT OF AIRCRAFT DETECTION CORPS ACTIVITIES April – June, 1944

The following details of RCAF Aircraft Detection Corps Activities were obtained from a DND Directorate of History and Heritage document. The records denote typical activities conducted by ADC during the Second World War.

Date	Aircraft	Records	Crew Members
4 April 1944	<i>Harvard</i> FE459 from No. 129 Sqn., Dartmouth, NS.	The crew was on an instrument practice flight when the engine cut out and a forced landing was carried out in a field east of Porters Lake near Chezzetook, NS. Report stated that due to the isolated location of the aircraft (a/c) it was not possible to reach the crash site to investigate cause.	WO2 D.L. Osborne, Pilot. P/O C.B. MacConnell, Pilot. No injuries reported.
15 April 1944	<i>Hudson V</i> AM902 c/n 414-2984 from No. 31 OTU, Debert, NS.	The crew was on a depth charge dropping exercise when the aircraft was observed to plunge into the sea in Minas Basin at the head of Bay of Fundy. The a/c was flying at altitudes between 50 and 200 feet in high wind conditions with gusts of up to 50 mph. It is believe that the a/c stalled while executing a steep low altitude turn. An empty dingy from the a/c was recovered after the crash.	P/O J.W. Gibson, Pilot, Hamilton, ON. P/O I.A. MacDonald 2 nd Pilot, Courtenay BC. P/O M.A. Warwick, Nav., Hamilton, ON. P/O D.G. Reynolds, Nav., Chatham, ON. Sgt G.A. Stewart, WAG, London, ON. Sgt A.E. Cloutier, WAG, Sault Ste. Marie, ON. All six crew members listed as missing.
17 April 1944	<i>Digby</i> 741 No. 167 Sqn., Dartmouth, NS.	Divers from Eastern Air Command. Marine Sqn. flown to Debert with equipment to be used to locate and salvage <i>Hudson V</i> , AM902 and recover bodies of crew.	F/O D.S. Johnson, Pilot. Six divers.
22 April 1944	<i>Digby</i> 745 from No. 167 Sqn., Dartmouth, NS.	<i>Digby</i> 745 flown to Debert to pick up dragging and diving equipment used in connection with AM902 salvage and returned to Dartmouth, NS.	None of the crew members of AM902 have any known grave.
1 May 1944	<i>Harvard</i> FE398 from No. 1 OTU, Bagotville, PQ.	Aircraft crashed near St. Ambrose, PQ, due to engine failure. Failure caused by shearing of a taper pin in the throttle lever that in-turn caused failure of the carburettor and engine. Both crew members were killed.	F/O C.R. Olmstead, Pilot, Ottawa, ON. P/O K.R. Smith, Pilot, Sherbrook, PQ.
2 May 1944	<i>Hurricane</i> XII, 5397-L From No. 135 Sqn., Patricia Bay, BC.	Crashed and burned following engine failure near Beaver Point on Salt Spring Island. Pilot bailed out and landed safely; was picked up and returned to Patricia Bay.	J12261, F/O K.R. Smith, Pilot.
9 May 1944	Northrop <i>Nomad</i> , 3513 from: No. 9 Bombing & Gunnery School, Mont Joli, PQ.	While flying on target towing exercise, after streaming a drogue and initiating climb, engine smoke detected. Pilot instructed drogue operator to drop drogue as engine was overheating. Fire then broke out at rear of engine. The drogue operator was ordered to bail out. The pilot bailed out but failed to pull his rip cord and was killed. It is believed he was hit by the tail plane as he jumped. The <i>Nomad</i> crashed two miles southwest of the airfield and was destroyed.	F/Sgt. C.A.R. Robertson, Pilot, Harrow, ON. LAC J.P. Mercier, Drogue Operator, uninjured.
14 May 1944	<i>Anson V</i> No. 11600 from No. 2 ANS, Charlottetown, PEI.	On the night of 13/14 May 1944, a total of 24 <i>Anson V</i> aircraft of No. 2 ANS were detailed for night navigation exercises. The weather rapidly deteriorated and at 02:00 hrs GMT RCAF Station Charlottetown issued a general recall due to high winds. Three <i>Ansons</i> , 1158, 11600 and 11687 failed to return. At 02:25 hrs GMT 11600 was recalled and acknowledged the call. At 02:57 the aircraft requested a change of radio frequency which was granted. This was the final communication from 11600. Apparently the crew became lost and could not locate their base. The aircraft ran out of fuel and crashed into the sea at an unknown time and location. All five crew members were lost. On 14 May 1944, No. 1 Air Gunnery School at Yarmouth, NS, sent a total of 11 <i>Ansons</i> out to search for the missing <i>Ansons</i> . Nothing was found. The body of WO2 A.C. Murchie was later found on the southwest shore of Newfoundland. On 27 May 1944, the body of LAC W.J.S. Mathers, RAF, washed ashore at Cape St. George on the Port Au Port Peninsula, Newfoundland.	WO2 A.C. Murchie, RCAF, Pilot, Milltown, NB. CPL C.E. Logan, RCAF, WOP, St. John, NB. LAC W.J.S. Mathers, RAF, NAV, UK. LAC F. Duncan, RAF, NAV, UK. LAC A.C. Kilsby, RCAF, AB, Toronto, ON.
19 May 1944	<i>Hudson</i> III BW646-F from No. 11 (BR) Sqn, Torbay, NL	While on a depth charge dropping exercise the aircraft crashed into the sea, six miles north of Cape St. Francis, Conception Bay, Newfoundland, at 12:30 hrs GMT. The captain of a fishing trawler reported seeing the aircraft crash into the sea in flames. Nothing was recovered. All three crew members were lost.	Sgt D.J. Jones, Pilot, Toronto, ON. WO2 L.G. Martin, NAV, Winnipeg, MB. WO1 J.J.H. Cowan, WOPAG, Vancouver, BC.

Date	Aircraft	Records	Crew Members
23 May 1944	<i>Anson</i> V 11678-C5 from No. 8 AOS, Ancienne Lorette, PQ.	The aircraft departed on a routine navigation exercise and disintegrated in the air due to structural failure induced by excessive strain. An explosion "loud noise" was reported by an eye witness. The <i>Anson</i> crashed at 10:35 hrs GMT at Pointe Au Pic, County Charlevoix on the north side of the St. Lawrence River near Lamabate P.Q. All four crew members were killed. 24 May 1944, F/L I. Poulin arrived from AFHQ, Ottawa, to investigate the crash.	Sgt. J.E. Trow, RCAF, Pilot, Westmount, PQ. LAC F.A. Aspinall, RCAF, NAV, Montreal, PQ. LAC K. Fieldsend, RAF, NAV, UK. LAC J.S. Kitts, RCAF, NAV, Sudbury, ON.
5 June 1944	<i>Anson</i> V 12232 from No. 1 General Reconnaissance School, Summerside, PEI.	The aircraft departed Stephenville, Newfoundland, enroute to Summerside. The radio failed after take-off, and as a result of a snowstorm the crew were unable to establish their location. The aircraft ran out of fuel at 03:02 hrs. GMT and the crew were forced to ditch the aircraft into the Gulf of St. Lawrence, some two miles off the islands of St. Pierre and Miquelon in conditions of rain and fog. The crew were uninjured and were able to board a dinghy. The <i>Anson</i> completely submerged and was a total loss. After drifting for some hours the dinghy was blown a further 10 miles off-shore. The crew were picked up by a Free French Navy motor launch <i>Revenge</i> and escorted to St. Pierre. On 7 June 1944, aircraft wreckage was picked up at Allan Island and High Beach, both located on Burin Peninsula Newfoundland. The wreckage was subsequently identified as part of <i>Anson</i> 12232.	F/O D.H. Prentice, RCAF, Pilot. P/O W.H. Carr, RAF, NAV. F/Sgt S.G. Johnson, RCAF, WAG. Sgt E.C. Monks, RCAF, WAG.

Author's Notes:

1. The original document used to create this article was very sparse, with many details missing. Additional research into squadron and station operational record books has provided more information.
2. Many thanks to CAHS Ottawa Chapter member Terry Judge for his assistance in the preparation of this article.

Bob Smith

NO UNCERTAIN SOUND

Here's the scenario: something flies overhead – a Harvard, or a Dakota, or a CF-104 – and you don't look up, because you identify the aircraft entirely by the distinctive sound of its engine. Welcome to the aviation soundscape.

So what's distinctive about a Harvard? I went Googling in search of an answer, and got bogged down in an endless, heated, on-line discussion about ungeared propellers, and whether or not the Harvard's propeller tips go supersonic at some point. Enough, already – all I want to do is just listen to a Harvard! You can do that by watching the New Zealand Warbirds Association's "Roaring 40's" Harvard display team at the Wings Over Wairapa airshow in 2013 (<https://www.youtube.com/watch?v=19uNWKEqUS4>).

And what about the sound of a Dak – that ringing, metallic overtone that tells you right away that one is overhead? Writing in 2012, John Korovilos has an interesting take on the subject: "DC-3 buffs surely must be familiar with the distinctive sound of the DC-3's 3-bladed Hamilton-Standard constant-speed full-feathering propellers and Pratt and Whitney R-1830 14-cylinder engines. I learned to imitate the sound fairly accurately, and performed it frequently and, finally, once too often. One Saturday, I was at a local movie theatre in my home town of Piqua, Ohio, enjoying a movie in which DC-3's figured prominently, when I got caught up in the spirit of the moment, and began mimicking the sound of the DC-3's in the movie. There I sat, oblivious to the reactions of fellow movie patrons, until the theatre manager came rushing down the aisle and ordered me to stop upsetting the other patrons, or leave....Chastened, I remained to enjoy the thrilling saga to the end, and went home fulfilled with the euphoria of a day well spent." You can watch and listen to Swissair's historic DC-3 starting up and taking off in 2014 (<https://www.youtube.com/watch?v=7YECHxEoyY8>).

What is the meaning of the term "moose call?" Well, you can look it up in Tom Langeste's definitive book *Words on the Wing: Slang, Aphorisms, Catchphrases and Jargon of Canadian Military Aviation Since 1914*. Here's Tom's definition: "The 'moose call' was a distinctive howling noise unique to the engine of the Lockheed Starfighter. This sound was best described as an abrupt and sometimes unnerving change of pitch, caused by the movement of the variable exhaust nozzle on the Starfighter's J-79 engine. The sound of the moose call was compared by some to the call of a bull moose in rut!" Chapter members will recall the meeting back in November 2005, when Starfighter panelist Ross Betts got things rolling by accessing the Canadian Starfighter Association's website (<http://canadianstarfighterassociation.org>), piping the

engine's distinctive wail throughout the room. You can also listen to one of the Royal Norwegian Air Force's CF-104s in 2008 (<https://www.youtube.com/watch?v=ozIRwMhRVRY>).

So what can you do to explore the aviation soundscape? There are of course airshows, such as 2016's Quinte International Air Show. And engine run-ups are part of the program at many aviation museums. You can join the large US-based Aircraft Engine Historical Society (http://www.enginehistory.org/about_aehs.shtml), which fosters an appreciation of aircraft engine development, manufacture and use, and encourages the restoration and public display of historical aircraft engines. You can also obtain recordings from a number of sources, such as James Huckle's Classic Aircraft Sound Recording Museum (<http://www.field-recording.org.uk>), which currently preserves 136 recordings representing 67 types of aircraft – Camels, Bristol Fighters, Spitfires, Lancasters, Vulcans, to name just a few.

I read somewhere that the RAF's Javelins used sonic booms as a weapon during the Indonesian Confrontation back in 1965. Come to think of it, when was the last time you heard someone break the sound barrier? I'm thinking (tongue in cheek!) of forming a pressure group to bring back the sound of their Sapphire engines in reheat. We'll call it Canada in Boom. Anyone with me on that?

Peter Robertson

Elsie MacGill

The following extracts (edited) from the Montréal *Gazette* and Innovations Canada web site were brought to my attention by Timothy Dubé. We thought this might be of interest to CASM members:

The 'Queen of the Hurricanes,' Elsie MacGill, may yet inspire a new generation of girls in Montreal when they learn of why the city is about to inscribe her name on a street sign in St-Laurent borough. But within her own family, MacGill, who was the first woman in the world to become an aircraft designer in the 1920s, has already inspired three generations of pilots and engineers.

"I'm delighted," Rohan Soulsby, MacGill's step-grandson, an engineer, said after learning from an article in the Montréal *Gazette* that the city plans to designate a new street in the Bois-Franc neighbourhood as "rue Elsie-MacGill." His step-grandmother passed away in 1980 at age 75. Soulsby, who was born in Montréal and now lives in Vancouver, said "I think it's totally appropriate," of the honour planned for his step-grandmother. "We need to celebrate the accomplishments of women in business and in the sciences, in particular." Soulsby's daughter, Nicole – MacGill's step-great-granddaughter – is about to graduate from mechanical engineering at the University of Victoria.

In 1927, Elsie MacGill graduated from the University of Toronto, becoming the first woman in Canada to receive a degree in electrical engineering, and later became the world's first female aircraft designer. In 1929, MacGill earned her master's degree in aeronautical engineering from the University of Michigan, and was shortly thereafter afflicted with acute infantile myelitis, a form of polio. Determined to walk again, MacGill supported herself during her recovery by writing articles on aviation, and studied at the Massachusetts Institute of Technology (MIT).

Her Canadian career began in 1934 at Fairchild Aircraft Ltd. in Longueuil, Québec, as an aeronautical engineer. There, she helped design the first Canadian all-metal aircraft, the Fairchild Super 71. In 1938, MacGill accepted the position of chief aeronautical engineer at Canadian Car and Foundry where she helped design Canada's first all-metal fighter plane, the FBD-1. In addition, she designed, tested and supervised the construction of the Maple Leaf II trainer, and it wasn't long before she was overseeing Canadian production for the Hawker Hurricane, and later the Curtiss-Wright Helldiver.

During the Second World War, the Hurricane was used by both the Royal Air Force and the Royal Canadian Air Force, and played a key role in the Battle of Britain. Although it never made it into production, MacGill also designed a Hurricane equipped with 2 skis for take-offs and landings on snow-covered runways, a very Canadian challenge!

In 1943, MacGill opened a consulting firm in Toronto and became the Canadian Technical Advisor to the United Nations Civil Aviation Organization. She was later the commissioner for the Ontario Building Materials Evaluation Commission.

Throughout her lifetime MacGill received many Canadian and international honours, including the Gzowski Medal by the Engineering Institute of Canada (1941), the Centennial Medal by the Government of Canada (1967), the Order of Canada (1971), and the Gold Medal by the Association of Professional Engineers of Ontario (1979). She was inducted into Canada's Aviation Hall of Fame in the 1983, and the Canadian Science and Engineering Hall of Fame in 1992.

NEXT MEETING OF THE OTTAWA CHAPTER CANADIAN AVIATION HISTORICAL SOCIETY



CANADAIR T-33 #441 (C-FUPN) © Jet Aircraft Museum, London ON

WHEN THINGS GO BUMP IN THE NIGHT NORM HULL

On a sunny morning in 1969, an Ottawa-based Canadian Air Force pilot volunteered for a short 300 mile T-33 jet trainer mission to *Gore Bay*, west of Ottawa. That proposed mission eventually ended with a life-threatening descent into *Torbay*, a different town a thousand miles east of Ottawa.

Norm Hull, now retired, recounts his voluntary adventure.

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

DATE/TIME: Thursday, 27 October 2016, 1930 Hours

LANDING FEES: \$1.00

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