

November – December 2016 Issue

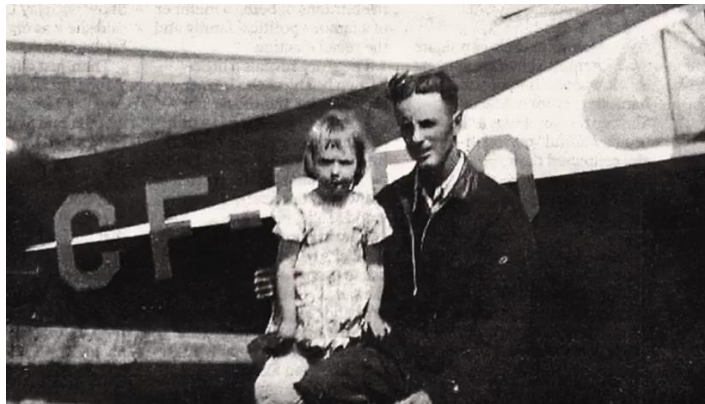
Rosella Bjornson: Breaking Barriers in the Air

By Neil Taylor

There often comes a defining moment in one's life when a decision made will affect your life forever. In the case of Rosella Bjornson, that moment came when she met with her high school guidance counsellor. When asked what sort of a career she would like to pursue, Rosella said she wanted to become an airline pilot. The counsellor noted that no Canadian airlines were hiring female pilots. Rosella's response, "There will be."

Born in Lethbridge, Alberta on July 13, 1947, Rosella Bjornson took to the air at an early age. Her father, a farmer, had learned to fly after the Second World War, and he took her aloft when she was still a baby. Some of her earliest childhood memories were of her sitting on her father's knee at the age of two or three playing with the aircraft controls.

Rosella loved to fly and to gaze down at the beauty of the earth below. Her father, ever supportive, arranged for her to have her first flying lesson at the age of 17. She trained at the



*Figure 1 - Rosella Bjornson with her father and his airplane
(Via Alberta Labour History Institute)*

Lethbridge Flying School often getting up at 4 am to drive into the city so she could fly before the southern Alberta winds began to gust during the heat of the day.

Through sheer perseverance and hard work, Rosella got her private pilot's licence in the short span of two and a half months. But flying recreationally was not her goal, she had her eyes set on flying commercially.

Knowing that the airlines gave preference to university graduates when hiring pilots, Rosella enrolled at the University of Calgary in the Bachelor of Science Program. At the same time she enrolled with Chinook Flying Service to continue training for her commercial pilot's licence and her instructor's rating. In the space of two years she had acquired both.

Upon graduation she sought out a position as a flight instructor, applying to countless flying schools across the country. The Winnipeg Flying Club agreed to hire her and in April 1970 she began teaching students at the school. While instructing, she worked hard to log as many hours in the air as possible, often averaging 100 hours per month. She also earned her multi-engine and instrument ratings, and by 1973 had logged over 3,500 hours of flying time, far in excess of what the airlines required.

Rosella applied to airlines throughout Canada for a pilot's position but all of them responded negatively. Then she learned that Transair, a regional carrier based in Winnipeg and the fourth largest airline in Canada, was seeking pilots to fly its Twin Otters and its new Fokker F28 twin engine jets. Several of the Transair pilots knew her and admired her work ethic, so Rosella quickly applied. That very evening she received a phone call from Transair's chief pilot offering her a choice of positions – First Officer on either the Twin Otter or the Fokker F28. She opted for the jet and in so doing became the first woman in North America to be hired as a First Officer on a twin engine jet and the first woman in North America to fly a commercial passenger jet aircraft on scheduled flights.



*Figure 2 - Rosella Bjornson, First Officer with Transair
(Via Alberta Labour History Institute)*

As a First Officer, she also became a member of the Canadian Air Line Pilots Association (CALPA), the first woman to do so. At the time CALPA's membership numbered about 2800 men.

In 1977, while flying with Transair, she got married to fellow pilot William Pratt. Having two pilots in the family was difficult enough what with conflicting schedules, but then Rosella became pregnant in 1979. She visited the Transport Canada doctor who duly reported her as "unfit to fly". Having failed her medical, Rosella reported to Transair and since her contract made no allowance for pregnancy leave, she had to negotiate a personal leave of absence for a year.

By the time Rosella returned to flight status in 1980, Pacific Western Airlines had purchased Transair and no longer required her in Winnipeg. The Boeing 737 was one of its mainstay aircraft so PWA had her check out on the 737, then moved her to Edmonton. Luckily Rosella's husband was also hired by PWA to fly the Hercules, and they hired a lady to look after the baby when they were both flying.

When Rosella became pregnant for a second time in 1984, she was forced to take another leave of absence but this time she also worked with Transport Canada to change its rules regarding pregnancy. As a result of her actions, Transport Canada modified its regulations, and female pilots were allowed to fly under doctor's supervision for the first six months of their pregnancy.

During Rosella's absence from the flight deck, more consolidation occurred in the airline industry. Canadian Airlines was formed, and upon Rosella's return to active duty she was posted to Toronto. Her husband, meanwhile, was flying the DC-10 out of Vancouver, and their children were still in St. Albert under a nanny's care. Commuting became the norm for Rosella and William.



*Figure 3 - Captain Rosella Bjornson, Canadian Airlines
(Via Internet)*

In 1989 Canadian Airlines formed a subsidiary, Canadian North, to serve northern communities. Rosella was able to return to Edmonton and did lots of northern flying. In 1990, Canadian Airlines promoted her to Captain, making her the first Canadian female airline captain.

Canadian Airlines' financial situation was not good and in 2000 the company was acquired by Air Canada. Canadian North was sold and the 737s were slowly sidelined except for a few used by Zip, the no frills Air Canada subsidiary headquartered in Calgary. Unfortunately the economic situation failed to improve, and after only two years, Zip ceased operations in 2004, and the Edmonton base was no longer needed.

Rosella opted for an early retirement package and formally retired on September 1, 2004. While she was no longer flying commercially, she turned her considerable energy to promoting aviation careers for women, appearing at high schools to speak to students. She believed that women needed to be strong and independent; as she often asserted, "The sky's the limit."

Rosella Bjornson has been the recipient of numerous awards for her contributions to women in aviation. In 1988 she received a certificate of appreciation from the Ninety-Nines, the international organization of women pilots that promotes the advancement of aviation among women. That same year she received a Pioneering Award from the Western Canada Aviation Museum in Winnipeg. In 1997 she was inducted into Canada's Aviation Hall of Fame at the Reynolds-Alberta Museum in Wetaskiwin, and in 2014 Canada Post issued a postage stamp in her honour on the fiftieth anniversary of her first flying lesson.

Accolades continue to come her way, and on November 5, 2016, the Alberta Labour History Institute, the Alberta Aviation Museum and Elevate Aviation held an event at the Alberta Aviation Museum celebrating Rosella Bjornson's many contributions to the advancement of women in aviation.

John Stewart Hart: The Last Surviving Canadian Airman from the Battle of Britain

By Neil Taylor

In September, I happened to be on vacation in the South Okanagan when I stumbled across a historic event quite by accident. My friend, Dave Milne, and I had headed to the Oliver Airport to watch the members of the Western Warbirds Association put their aircraft through various flying formations and aerobatic stunts.

We were enjoying the day's demonstrations from ringside seats near the airport runway when we spotted a crowd gathering around a bright yellow Harvard. Intrigued, we wandered over and witnessed an elderly gentleman being helped into the Harvard's back seat.



Figure 4 - John Stewart Hart, Oliver, British Columbia, Sept. 2016
(David Milne Collection)

Upon further inquiry, we learned his name was John Stewart Hart and he was soon to celebrate his 100th birthday. Even more exciting, we learned that he is the last surviving Canadian airman to have fought in the Second World War's Battle of Britain.

Such a milestone certainly deserves recognition so I decided to look further into Mr. Hart's background and here's what I found.

John Stewart Hart was born in Sackville, New Brunswick in September 1916. He entered Mount Allison University in 1936 but rather than finishing a degree, he decided to get his pilot's licence from the Halifax Flying Club. Upon receipt of his licence in the summer of 1938, he shipped off to England where, in January 1939, he joined the Royal Air Force on a short service commission.

John began his *ab initio* flying training on December 28, 1938, as a pupil pilot. In March 1939 he went to No. 1 RAF Depot in Uxbridge for a short induction course. From there he moved to No. 10 Flying Training School and upon completion was posted to No. 1 School of Army Cooperation where he flew the Westland Lysander.

Injured in a road accident, John was unable to resume flying until being posted to No. 614 Squadron in April 1940, then No. 613 Squadron in July 1940. Although he was still flying Lysanders, there soon arose a pressing need for fighter pilots as the Germans swept across France and the Low Countries.

John undertook a conversion course to Supermarine Spitfires and was moved to No. 54 Squadron at Catterick on September 3, 1940. His stay there was short, and he was posted to No. 602 (City of Glasgow) Squadron, arriving at RAF Westhampnett on September 24, 1940. 602 Squadron was involved in some of the heaviest fighting of the Battle of Britain, serving longer in the front



*Figure 5 - RAF 602 Squadron (F/O JS Hart is in the rear row, 4th from left)
(Battle of Britain London Monument Website)*

line than any other RAF squadron during the battle. It also compiled the second highest total of enemy aircraft destroyed during the 3 1/2 month conflict.

During his time with 602 Squadron, John Hart had many encounters with the Luftwaffe. On September 30, his Spitfire was damaged during a skirmish with a Junkers Ju88 but he managed to land his aircraft safely. On October 10 he shared in the probable destruction of a Ju88, then claimed a Bf109E

destroyed on October 29, following that up with a shared victory on a Ju88 on November 13.

After the Battle of Britain concluded, Flying Officer John Hart continued to serve with 602 Squadron before being sent to an operational training unit as an instructor.

In January 1943 Hart arrived in India and was posted to No. 79 Squadron at Ramu in early February. By May he had been promoted to Squadron Leader, and he assumed command of No. 67 Squadron at Alipore. The squadron flew Hurricanes and during his tenure was primarily involved in the fighter defence of Calcutta.

John then took a year's staff posting with Air HQ Bengal before commencing his third tour of operations with No. 112 Squadron at Palel. In September 1944, S/L Hart moved to Egypt to assume command of the Gunnery School at No. 73 Operational Training Unit. From there, he became commander of No. 112 Squadron in Italy, leading it from April to August 1945.

After the war's conclusion, S/L Hart was awarded the Distinguished Flying Cross. His citation read, in part: "This officer has participated in a large number of varied sorties, including many attacks on heavily defended targets ... Throughout he has displayed skillful leadership, great determination and devotion to duty."

After the war, John was released from the RAF and returned to Canada. Today he lives in Naramata, British Columbia where he received one other tribute upon his 100th birthday. Two RCAF CF-18 Hornets from 4 Wing Cold Lake conducted a flyby over Hart's residence – a fitting salute to John Hart's longevity and his contribution to the allied war effort in the Second World War.



*Figure 6 - John Hart (3rd from left) surrounded by friends and family
after his 100th birthday flight
(David Milne Collection)*

A Headstone for Captain Arthur Roy Brown, DSC

By John Chalmers



*Figure 7 - Captain A Roy Brown, DSC and Bar,
in the uniform of the Royal Air Force
(Brown Family Collection)*

A century after he fired the twin .303 calibre Vickers machine guns of his Sopwith Camel biplane at Baron Manfred von Richthofen in what is the best-known aerial battle of the First World War, Captain Arthur Roy Brown of the Royal Air Force (RAF) is now remembered with a proper military headstone.

Although never officially recognized for shooting down the “Red Baron,” Roy Brown was a fighter pilot ace with 10 victories credited to him. He probably deserves more, and was twice awarded the Distinguished Service Cross. On June 4, 2015, he was inducted as a Member of Canada’s Aviation Hall of Fame.

While that famous dogfight of April 21, 1918 is well known, many people would not be aware that the story has a strong Edmonton connection. From 1913-1915, Roy Brown attended Victoria High School in Edmonton, while staying with relatives. His uncle, William Brown, married to Blanche, was a brother to Roy’s father, Morton, and while in

Edmonton Roy became a school friend with Wilfrid “Wop” May.

Roy enlisted in the Royal Naval Air Service (RNAS) in 1915 after taking rudimentary flying instruction with a primitive biplane at the Wright Flying School in Dayton, Ohio. On April 1, 1918, the RNAS combined with the Royal Flying Corps to form the Royal Air Force (RAF). It was in the RAF that Roy Brown and Wop May served together in RAF 209 Squadron, with Roy as Wop’s squadron leader.

On April 21, Wop May in his Sopwith Camel was being pursued by von Richthofen, in his Fokker Dr. 1 red triplane when the Red Baron himself came under fire from Roy Brown. At very low level in the chase, von Richthofen also came under fire from Australian army troops. He was brought down by a single shot from a .303 calibre machine gun, the same calibre used by both the Australians and the guns on Brown’s aircraft. Thus the debate has carried on ever since, with nobody knowing for sure who actually fired the fatal shot.



*Figure 8 - Roy Brown seated in a biplane at the Wright
School of Aviation, Dayton, Ohio in 1915
(Brown Family Collection)*

A native of Carleton Place, Ontario, following the war Roy Brown worked for his father-in-law’s paint company in Toronto. Never losing his interest in aviation, in 1928 he incorporated General



Figure 9 - Prior to the placement of a headstone for Roy and Edythe Brown at the Necropolis Cemetery in Toronto, Roy's location was identified by this simple marker

(John Chalmers Collection)

Roy and Edythe, who operated his farm for 20 years after his death, were placed in unmarked graves of common ground.

Roy and Edythe Brown are now honoured at a plot acquired there by the Last Post Fund, and on a military headstone provided by members of the Brown family. The memorial is a result of publicity to recognize Captain Roy Brown, begun two years ago by Nadine Carter, then 10 years old in school at Stouffville. She had discovered that little was known locally about a Canadian aviation hero of the Great War who had lived in the area. Her contact with the school board, members of three levels of government, and attention from news media changed that situation. Then with full support of the A. Roy Brown Society of Carleton Place, the Last Post Fund became involved.

Arthur Roy Brown was not the only member of his family to serve in the Great War. A younger brother, John Horace, known by his second name, signed up with the Canadian Infantry in August 1914, shortly after the war began. He started as an NCO in the army with the Canadian Expeditionary Force. Wounded in France in 1915, and discharged after a visit home to Canada, Horace reenlisted with the RNAS. Like Roy, Horace finished as a pilot with the RAF, holding the rank of Lieutenant. Following a cycling accident in England after the war, Horace developed pneumonia, followed by influenza, and he died in England at age 22 in February, 1919. His body was brought back to Carleton Place for burial.

Airways Limited, becoming a pioneer in bush flying operations in Ontario, Québec and Manitoba. The company flew up to seven aircraft through the difficult years of the Depression and ceased operating in 1940.

Brown then bought a farm near Stouffville, Ontario. After dying at home on March 9, 1944 at the young age of 50, Roy Brown was buried in the cemetery at Aurora, Ontario. In 1955, Roy's body was removed and cremated. His remains were placed in an unmarked gravesite of common ground at the Necropolis Cemetery in Toronto. After his wife, Edythe, died in 1988, her remains were likewise placed at the cemetery. The mortal remains of both



Figure 10 - Nadine Carter and John Chalmers, historians of different generations who pursued the story of Captain Roy Brown
(John Chalmers Collection)

On June 30, 2016, a gathering of some 50 people comprised of family members, representatives of the Roy Brown Society, the Last Post Fund, ex-RCAF personnel, and members of the Toronto chapter of the Canadian Aviation Historical Society assembled at the Necropolis Cemetery to dedicate a monument to Roy and Edythe Brown.

The next day, Canada Day at the Strawberry Festival in Stouffville, two bronze plaques commemorating Roy Brown were unveiled in his memory. Nadine Carter, who had spoken at the headstone dedication, unveiled one plaque. The other was unveiled by Carol Nicholson, a daughter of Roy's brother, Howard, and by Dianne Sample, a granddaughter of Roy and Edythe Brown.

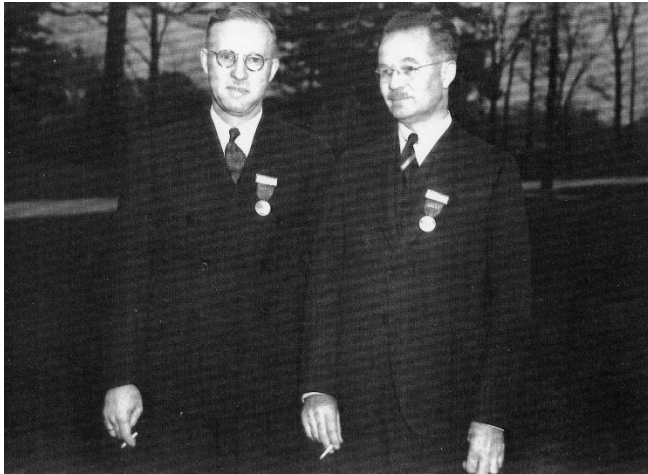


Figure 11 - Wop May (left) and Roy Brown last met in person in 1938 at the dedication of the Wright brothers' home and cycle shop after their move from Dayton, Ohio to Henry Ford's Greenfield Village at Dearborn, Michigan (Wop May Collection)

One plaque is placed in Stouffville and one is installed at the nearby Rolling Hills Golf Club, on land which was once the Browns' farm, operated by Edythe for 20 years after Roy's death. In Carleton Place, a plaque honouring Roy had been installed at Memorial Park in 1969. The Browns' family home remains standing, next to the clubhouse, and is used today by staff members.

Captain Roy Brown, DSC, and Captain "Wop" May, OBE DFC, stayed in contact after the Great War, last seeing each other in 1936. Both are now Members of Canada's Aviation Hall of Fame, as Wop was installed as one of the original Members in 1974.

In Roy's home town of Carleton Place, June 4 is now Roy Brown Day. A century after Captain Roy Brown flew for Canada in the days before it had an air force of its own, he and his wife are now properly remembered with a military headstone in a Toronto cemetery.

EDITOR'S NOTE: John Chalmers is a former board member of the Alberta Aviation Museum and serves as Historian for Canada's Aviation Hall of Fame, located at the Reynolds-Alberta Museum in Wetaskiwin. A short video by John about Roy Brown can be seen at the web site of Canada's Aviation Hall of Fame. Go to www.cahf.ca. At the home page point to Members and select Member Profiles. Then click on B and scroll down to click on A. Roy Brown. The video appears at the bottom of the biography.



Figure 12 - John Chalmers

TCA North Star Crash on Mt. Slesse, B.C. – December 9, 1956

A Brief History

By Rien van Tilborg

Weather for the December 8/9, 1956, weekend on the south coast of British Columbia was one for the record books. Torrential rain and heavy winds caused widespread damage in parts of the Lower Mainland. It was also the weekend Vancouver hosted the East-West All-Star Football Game between the Saskatchewan Rough Riders and Winnipeg Blue Bombers. The game, at Empire Stadium, was dubbed the “soup bowl”, reflecting less than ideal conditions.

On Sunday afternoon, December 9, TCA North Star Flight 801 (Aircraft 204) was scheduled to arrive at Vancouver Airport at 12:30 p.m. but did not touch down until 2:19 p.m., having been delayed mostly by headwinds as it made its way westward from Montreal earlier in the day. Half the time lost occurred over the mountains between Calgary and Vancouver.

The aircraft went through a maintenance check and was prepared for its return eastward as Flight 810. At 4:45 p.m., Captain Alan Jack Clarke and First Officer Terry Boon arrived at the airport and proceeded to the weather office for a briefing on conditions they could expect. The crew then entered the aircraft to do their preflight check. Meanwhile, Stewardess Dorothy Bjornsson assisted the passengers who, after much delay, were finally told they could board.

At 6:10, Flight 810 lifted off Runway 11 into the night sky with 59 passengers and 3 crew on board. They followed Red 75, the southern airway out of the Fraser Valley, until Cultus Lake, then switched to airway Red 44 and headed northeast over the Cascade Mountains to Princeton. Shortly afterward they reported icing and turbulence. Upon reaching their flight planned altitude of 19,000 feet, turbulence increased and they requested a clearance for 21,000 to find smoother air. At 6:52, they reached 19,500 and reported a fire in Engine No. 2, shut the engine down and requested a clearance to return to Vancouver via the way they came up. Realizing they couldn't maintain altitude, they changed their clearance request to airway Green 1 which runs along the northern edge of the Fraser Valley (Vancouver, Maple Ridge, Hope and points beyond) and where the mountains are generally lower. Air Traffic Control cleared them to airway Green 1 and to maintain 14,000, which they should have been able to hold.

At 7:10, Flight 810 reported by the Hope beacon (no altitude given) and requested descent to 10,000 for the final leg to Vancouver. This was the last communication from Flight 810.

When the flight did not arrive, search planes followed airway Green 1 up the Fraser Valley hoping to spot some sign of the missing airliner. For the next three weeks, an intense air and ground search was conducted, frequently hampered by bad weather. By early January, 1957, considerable snow had fallen in the search area and the chance of spotting the aircraft was virtually nil. Searching was scaled back to checking only new leads that might come in before spring when a full search was scheduled to resume. One can only imagine the disappointment and heartbreak of families when the aircraft was not found.



*Figure 13 - Crash remains on the ledge at the 7,600 foot level
(Fips Broda Collection)*

On May 9, 1957, all the search stakeholders met to discuss resumption of the search. However, their plans were not acted on because on May 12th, three climbers, on an ascent of Mt. Slesse, spotted a two-foot piece of aluminum from an aircraft wing that proved to be from Flight 810. On May 13th, the impact point was discovered on Mt. Slesse's third peak at the 7,600 foot level. Approximately ten to fifteen percent of the aircraft remained on the ledge where it struck and the remainder dropped 2,000 feet to the base of the mountain where it was buried in snow estimated to be seventy feet deep in places.

With melting and avalanching already underway, recovery efforts were postponed until late summer when most of the snow would be gone and conditions safer. Again, disappointment for grieving families looking for answers.

At the end of August, officials went in to assess the site.

The crash had reduced the aircraft to small pieces, the largest being a fourteen foot length of wing spar. Enough of the aircraft was identified to determine that it was whole on impact. It was hoped that cockpit gauges with needles "frozen" might shed some light on the aircraft's performance prior to the crash, but no intact ones were found.

No human remains were removed and on September 11, the Coroner conducted a service at the lower crash site for the 62 passengers and crew.



*Figure 14 - Memorial service, December 9, 1957, at the monument in the Chilliwack River Valley
(The Province Photo)*

Meanwhile, TCA commissioned a granite memorial displaying a bronze plaque bearing the names of all who perished on the ill-fated flight. A site had been secured in the Chilliwack River Valley for the monument and a memorial service was held there on December 9, 1957, exactly a year after the crash.

In the mid 1990s, attention was focused once more on the tragedy when two hikers returned from a trip to Mt. Slesse and reported that logging had taken place in the crash site. Families of the victims understood the crash area had been given cemetery status and were shocked to discover this was not done. They formed the group, "Families of Slesse", and resolved that the area would finally be protected. An archaeological company was hired by the provincial government to do the assessment and establish the boundaries for a commemorative site. Upon completion, a

582 hectare area had been defined and formally established on May 29, 1995. As it turned out, logging had not occurred in the crash area but came close to it.

On December 9, 2006, a 50th Anniversary Memorial Service was conducted at the monument in the Chilliwack River Valley. The service was organized by Max Abrams, who served during World War II under Major Philip Edwin Gower, one of the passengers on Flight 810.

To this day, two key questions remain unanswered about Flight 810: a) Why was the aircraft 20 miles south of airway Green 1 to which it had been cleared? b) Why was it at an altitude low enough to strike Mt. Slesse?

The crash remains the worst ever recorded in western Canada.



Figure 15 - Photo taken from the east boundary of the commemorative site with Mt. Slesse in the background (Janice Phelps Collection)



Figure 16 - 50th Anniversary TCA North Star Crash - RCMP and Royal Canadian Legion Honour Guard at the memorial in the Chilliwack River Valley (Rien van Tilborg Collection)

The loss of Flight 810 stayed with him over the years and when he retired in 2000, he decided to find out if anything had been written about the event. All he found were two books that devoted a chapter to the crash. That's when he decided to research the tragedy and record his findings. It became an unforgettable journey.

EDITOR'S NOTE: Rien van Tilborg remembers well the night Flight 810 was lost. He was an eleven year old youngster living on a farm in Sumas Prairie, halfway between Abbotsford and Chilliwack and some thirty miles west of the crash site.

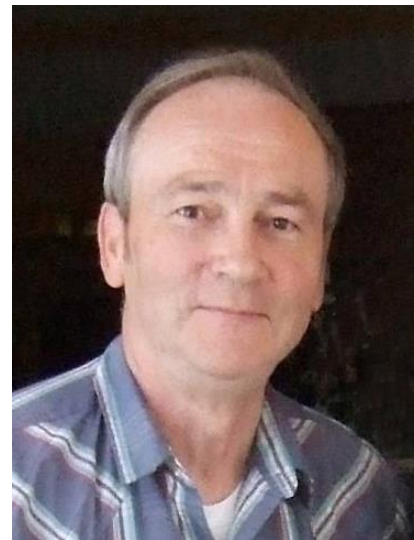


Figure 17 - Rien van Tilborg

Rien welcomes any comments from readers, and he can be reached at tcanothstar@shaw.ca.

Forestry “Green Tails”

By Bob Petite

Helicopters are an integral part of wildland firefighting operations today all across Canada, the USA and the world. The Department of Lands and Forests, Alberta Forest Service (AFS), Forest Protection Division, was first introduced to helicopters in forest fire fighting back in 1956. The commercial helicopter industry was only ten years old at the time.

Earlier in a January 1954 meeting of Forest Service officials in Edmonton, forestry staff asked about utilizing helicopters in firefighting. All agreed that helicopters could be very expensive. The Department of Lands and Forests planned to contact the Federal Government to see if Sikorsky S-51 search and rescue helicopters stationed in Edmonton might be used for firefighting purposes.

A year later in February 1955 field staff were inquiring about using the helicopter to help in locating suitable fire lookout sites. This was turned down due to the high costs, but there was continued pressure from the field to use helicopters in forest protection work.

The first recorded use of a helicopter on a forest fire in Alberta occurred on May 3, 1956 northeast of Slave Lake. The 10-acre wildfire had resulted from a burning rubbish pile on a campsite during the construction of a radar installation for the Royal Canadian Air Force. AFS ranger E. A. Johnson and eight fire fighters were transported via a military Sikorsky S-55/H-19 helicopter to the fire.

Between May and July helicopters were used with success on 13 forest fires throughout Alberta. The helicopters had been contracted from Okanagan Helicopters and Associated Helicopters to oil companies carrying out exploration programs. Ranger staff were able to utilize the contract helicopters in close cooperation with the oil companies. The helicopters were used for reconnaissance and assessment, moving in firefighters and equipment, and placing crews along the fire line. The value of this means of transportation to get to the fires when small and more easily controlled was becoming quite apparent to ranger staff. There were only a total of 69 helicopters on the Civil Aircraft Register across Canada in 1956.



*Figure 18 - The Alberta Forest Service's first helicopter, the Bell Model 47J CF-KEY in late 1958
(B. Simpson Collection)*

At the time the AFS became interested in the use of rotary wing aircraft, there were only a few helicopter companies in Alberta. Associated Helicopters already had seven years' experience in Western Canada and in November 1956, the AFS approached Associated to see if they would check out the new four-place Bell Model 47J helicopter for its suitability, reliability and performance in a variety of forest roles. The chief pilot was dispatched to the Bell factory in Texas, USA and completed a thorough evaluation on the basis of the Forest Service's fire suppression

needs. The conclusions were satisfactory and the AFS made a decision to contract a Bell 47J for a two-month period in 1957.

The Bell 47J helicopter was superior for forest protection work and cruised at 85 mph with a 750 pound payload. The Bell 47J carried three passengers, had internal loading for freight, and could be equipped with an electric hoist.

Forest Protection Superintendent Ted Hammer said, “For fire suppression work there is no doubt the helicopter is superior to other fixed wing aircraft. Again it is the combination of the two which is now considered the most effective method.”

Helicopters were used on 19 wildfires during the 1957 fire season. The Associated Bell 47J contract during May and June was very successful in enabling rangers to get to fires in a much shorter period of time. “For scouting fires the helicopter is again so advanced of anything in the Forest Service has ever done. Numerous lightning strikes were spotted with ease and close inspection and pinpointing was possible after travelling along storm paths. The advent of air travel in the Forest Service is by far the most important advance in its history,” said the Edson Division Forest Superintendent.



Figure 19 - Bell 47J on the Associated Helicopter pad in Edmonton

(Associated Helicopter Collection)

After careful review and studies, the AFS decided the best option was to purchase their own helicopter for fire suppression work. Chartering helicopters was very difficult in Alberta as most were under contract to the Federal Government and the oil and gas industry. The Alberta Department of Lands and Forests was only the second Provincial Government to purchase helicopters for forest protection work in Canada. The Ontario Department of Lands and Forests originally purchased a Bell 47D-1 helicopter back in 1953 for firefighting evaluation.

Bell Helicopter sold a new Model 47J Ranger helicopter CF-KEY, serial number 1745 to the Lands and Forests Department on March 19, 1958. The 47J was designed for transportation of personnel, equipment and supplies, and for general utility missions. The cost was \$72,720.00 US. It came with a hoist kit and rotor brake. Associated Helicopters supplied pilots and maintenance.

The Bell 47J featured a Lycoming VO-435 250 hp engine allowing it to perform at higher altitude on hotter days. Hydraulic boost control eased pilot handling and reduced fatigue. The main rotors were made of wood while the tail rotor was metal. A synchronized tail elevator provided increased center of gravity latitude. A baggage compartment in the tail handled up to 200 pounds. There was seating for three passengers on a bench seat behind the pilot. The new helicopter was painted white and Glasspar Green.

Cruise speed was 87 to 94 mph with a maximum range of about 190 miles. Fuel capacity was 29 imperial gallons using 80/87 gas. Service ceiling at gross weight of 2565 pounds was 13,050 feet. The useful load was 1027 pounds.

The first season CF-KEY was flown by Associated Helicopter pilots Tellef Vassjo and Lloyd Anderson. The first job was opening fire towers in the Whitecourt Division. The forestry helicopter actioned four fires in May while a second leased Associated Bell 47J worked on two fires. In late July both Bell 47J helicopters were used on a Peace River Division 150,000 acre fire in western Alberta. The fire continued into the late fall.

By October the forestry helicopter had over 500 hours on the airframe. The AFS Bell 47J CF-KEY was well received by rangers in the field. Training in the safety of helicopter operations was stressed throughout the 1958 fire season, and helicopters played a big part in helping to suppress wildfires during one of the worst fire seasons up to this time.

Helicopters were used on 42 wildfires during 1959 with the forestry Bell 47J working on 12 fires. Two Bell 47J helicopters were leased from Associated. The greater use of aircraft in fire suppression resulted in lightning fires being suppressed while still small in size. The AFS decided to add a second Bell 47J to its helicopter fleet in 1960. The Bell 47J was deemed most suitable for fire suppression duties.



Figure 20 - Bell Model 47J-2, CF-AFK, was the second helicopter in the AFS fleet (Larry Huberdeau Collection)

A new Bell 47J-2 Ranger CF-AFK was ready for pickup in April, 1960. Improvements over the first Bell 47J included a 305 hp Lycoming VO-540 engine, new metal main rotor blades, hydraulic boost control, larger capacity fuel tanks, fixed horizontal stabilizer plus an electric 400 pound hoist kit. Cost was \$76,480.00 in US dollars.

The first major job for CF-AFK was assisting in the construction of Cline Lookout near Abraham Lake southwest of Nordegg. During 1960 helicopters took action on 43 fires. The forestry Bell 47J helicopters were used on 25

fires. Two additional Bell 47J helicopters were leased from Associated Helicopters. During 1960 the Timber Management Branch began to use the helicopters for timber work along with Fish and Wildlife in carrying out game surveys.

By 1961, the Forest Protection Branch had expanded from one leased helicopter in 1957 to five Bell 47J helicopters available for firefighting in only five years of air operations. Helicopters were making a major impact in the field on how fires were fought.

Associated Helicopters sold the AFS a Bell 47J-2 registered as CF-AFJ on February 19, 1963. The Forest Service now had three Bell 47J-2 Ranger helicopters in its fleet, and there were 13 commercial helicopter companies operating in Alberta.

Helicopters had found their place in fighting forest fires, and in the years ahead their use expanded further despite some unfortunate accidents.

CF-AFJ was involved in an accident near Edson on June 26, 1964 when the helicopter hit a power line, badly damaging the bubble and breaking off the left tail rotor control pedal. The pilot was able to land safely with some difficulty. The Bell 47J-2 bounced and skidded to a stop. Fortunately no one was hurt. Repairs cost \$8,000.

The forestry Bell 47J-2 CF-KEY was severely damaged in an accident north of Fort McMurray near Johnson Lake while working a wildfire on June 21, 1966. Disaster struck during landing onto a hastily built landing pad. Part of the pad gave way resulting in the helicopter moving forward and the main rotor contacting the ground. The tail section became fractured by the impact and broke loose. Fire broke out with the front of the helicopter erupting in flames. The pilot Ralph Huff was able to get out of the helicopter without any injury. CF-KEY was a write off.



Figure 21 - The disastrous accident to the Forest Service's first helicopter, CF-KEY, on June 21, 1966 north of Ft. McMurray (Associated Helicopter Collection)

The Alberta Forest Service's first helicopter CF-KEY thus came to an unceremonious end. The Bell 47J-2 had 4,030 hours on the airframe at the time of the accident.

By the end of July, Associated Helicopters located a used Bell 47J-2 for sale for \$38,000 US in the USA. The helicopter was registered as CF-AFI, and the Forest Service was back to owning three helicopters. A monsoon bucket was tried for the first time with some success – the potential for putting out hot spots was quite evident.

1967 was a disastrous year for forest fires in Alberta - over 832 fires were reported. The cost of fighting these fires also escalated. Aircraft flew 9,614 hours at a cost of over \$1.1 million while the Forestry owned Bell 47J-2 helicopters flew 1607 hours at a cost of nearly \$160,000.

Helicopters were finding a niche in their ability to transport water to forest fires using helibuckets slung under the rotary wing aircraft. They were becoming an effective way for pinpointing the bombing of small fires with water and even retardant in the late 1960s.

1970 set a new record for lightning caused fires (80% of all Alberta forest fires were sparked by lightning), and over 124,905 acres were burned. Fire suppression costs totaled over \$1.8 million as greater use was made of aircraft on wildfires. The three forestry Bell 47J-2 helicopters were also heavily engaged, logging in excess of 2100 hours

By 1972 the aircraft costs of fighting Alberta forest fires had grown to \$2.86 million as 741 fires ravaged 121,799 acres. The Bell 47J-2 helicopters operated as the mainstay of the forestry fleet's



Figure 22 - CF-AFI replaced the Forest Service's first helicopter. In the background is the Douglas DC-3 and Dornier Do-28 forestry aircraft, circa early 1970s (Doug Hartnell Collection)

fire suppression duties amassing 2123 hours in the air during 1972. CF-AFI flew 589 hours, CF-AFJ 860 hours and CF-AFK 674 hours.

By the end of the 1972 fire season, the AFS started looking at replacing the Bell 47J-2 fleet. While the Bell 47J-2 helicopter was still doing an excellent job for the Alberta Forest Service, it was time to move to larger and faster light turbine helicopters. The Bell 206 Jet Ranger was the helicopter of choice. Bell 47J-2 CF-AFI was sold to Rocky Mountain Helicopters on March 31, 1973, and the Forest Service replaced it with a new Bell 206B CF-AFH in April.

In 1974 the Forest Service purchased three additional Bell 206 Jet Rangers to bring its turbine fleet up to four helicopters. The four Jet Rangers and the two Bell 47J-2 helicopters flew nearly 4400 hours fighting the 599 fires across Alberta's forests.

In June 1975 all government owned AFS aircraft were brought together for administration purposes under the newly formed Alberta Government Services, while the AFS retained control and dispatch of the DC-3, 2 Dornier DO-28 aircraft, and 6 helicopters during the fire season.

The Alberta Forest Service had started with one helicopter back in 1958, at a time when helicopter operators and rotary-wing aircraft were scarce in Alberta. Seventeen years later, by the start of 1975, the Forest Service fleet had grown to 6 helicopters. It was the end of an era however when the Forestry fleet of aircraft and helicopters were turned over to Alberta Government Services. The AFS had seen many changes during that time especially in regard to timber resources, land management, and forest protection practices, and it had evolved into a fire control organization recognized across Canada.

Alberta Government Services operated the two Bell 47J-2 helicopters CF-AFJ and CF-AFK up to 1978. They were used mainly for timber management duties and some fire work during that period. CF-AFJ and CF-AFK flew 942 hours in 1977 and 883 hours in 1978 before being sold in 1979. Today CF-AFK is in storage at the Reynolds-Alberta Museum in Wetaskiwin waiting for restoration back to Forest Service colors.

The Alberta Forest Service Bell 47J-2 Ranger helicopters flew for 20 years in Government service. The Bell 47J-2 Rangers, affectionately called the "Green Tails", were good, effective and efficient forestry helicopters carrying out sterling work and giving many rangers their first introduction to rotary-wing flight.

EDITOR'S NOTE: Bob Petite is a contributing editor for Vertical magazine, and recently he and Jeffrey Evans completed a book – "The Bell 47 Helicopter Story" - on the history of the famous helicopter. Bob is also an associate member of the Twirly Birds and a Gold Member of the American Helicopter Society International. He is a current member of the Canadian Aviation Historical Society, the American Aviation Historical Society and the Bell 47 Helicopter Association Inc.

Serving Royalty at 25,000 Feet

By Lorne Knutson

It was an honour to be part of 412(T) Squadron during my younger years in the Canadian Forces while working as a flight steward.

When I joined the military it was tri-service, but I was classified in the air element which I chose because my parents had served in the RCAF during the Second World War. My career choice was cook and, after a couple of years, I was able to apply to become a flight steward. Being chosen to join a VIP squadron like 412 while still a Private was an additional honour since Len Dion (another Private) and I were the very first of that rank to serve with 412 in that capacity.

Working on-board an aircraft that offered the opportunity to serve members of the Royal Family, Governors General, Prime Ministers and other high ranking dignitaries was an incredible experience. There are so many stories about my eight years aloft that will always stay with me. Some of these stories can be told but, of course, there are others that can't. Here are some that I would like to share with you.

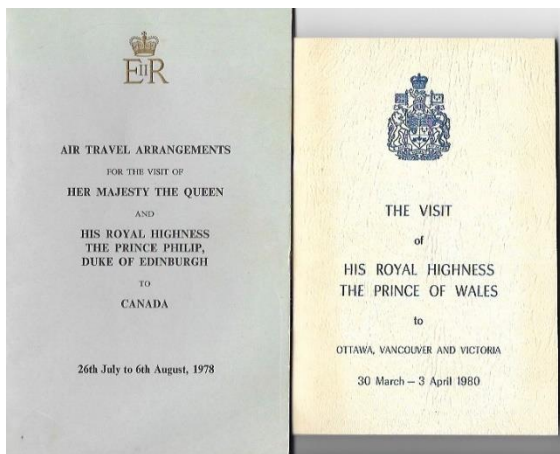


Figure 23 - Cover of Air Arrangements of the Royal Family
(Lorne Knutson Collection)

Having to always keep up appearances as VIPs, it was incredible how down to earth these people were when out of the public eye. Flying with the Royal Family was always special for me. Before any trip, there was a lot of ground work to be done that involved much liaison between the Squadron and the Royal Household. Any time that meals were to be served, the menus first had to be sent to Buckingham Palace for approval. When it came time for the pre-flight preparation, it could take up to two days or longer to ensure that everything was in order and ready. Then came flight time. Any of the crew who had not previously flown with a member of the Royal Family had to be formally “presented” to them prior to departure.

The first of what were probably my most memorable flights was with Her Majesty Queen Elizabeth, the Duke of Edinburgh Prince Philip, and the Duke of York Prince Andrew. Shortly after taking off from St. John, New Brunswick for a short afternoon flight, I went to their private cabin area to ask if they would like a beverage and snack. After taking their request for tea and light sandwiches, I headed back to the galley to prepare their food. When I returned and opened the compartment door to set up for tea, Prince Philip and Prince Andrew were wrestling on one of the sofas. If memory serves me right, Philip had young Andrew in a head lock. I got quite a chuckle when Her Majesty looked up, saw me there and piped up, “Now you boys settle down.”

Another memorable moment involving the Royal Family, this time the Prince of Wales, Charles, occurred when he was considered to be the most eligible bachelor in the world. It was on one of his first cross-country visits to Canada and my first time flying with him.

While Prince Charles was making his farewells to the dignitaries in Ottawa, his aide and valet came on board with some hand luggage. Once Charles was on-board and I had been “presented” to him, his aide left and his valet removed some items of clothing from the carry-on pieces of luggage. He then turned to assist Prince Charles in removing his suit jacket, which he passed to me to hang in the wardrobe. This was immediately followed by Charles’ vest and tie. To my surprise, His Highness then proceeded to remove his shoes and his trousers; to a young airman who had not been briefed that this was part of the routine, it was a bit of a shock! Charles then slipped into the rather well-worn corduroy pants and moccasins that his valet had pulled from the luggage before settling in for his first leg of the flight. This routine repeated itself on every one of the longer legs as we travelled across Canada and, by the end of Prince Charles’ tour, it was old hat to me.



Figure 24 - Flying with Prince Charles on 412(T) Squadron's CC-109 Cosmopolitan, 1980 (Lorne Knutson Collection)

The third moment I will always remember was a trip across northern Canada with ambassadors representing about 30 foreign countries. This flight began in Ottawa and visited places such as Frobisher Bay, Resolute Bay, Inuvik, Old Crow, Dawson City, as well as many more.



Figure 25 - Ambassadors Tour across Northern Canada – 1979
[Lorne is in the Gold Jacket]
(Lorne Knutson Collection)

It was an incredible experience, and the flight crew were invited to participate in many of the social events hosted for these wonderful dignitaries. In addition to playing baseball with them in Inuvik under the midnight sun, I had the pleasure of serving the “Ice Worm Cocktail.” This consisted of a piece of spaghetti that I had cooked in the galley, drew eyes on with a marker and served in a glass of champagne to each of the ambassadors as we passed over the Arctic Circle. All the while the Captain was taking the aircraft up from 50 to 100 feet as if the Arctic Circle was a speed bump – a memorable moment for sure and not a drop was spilled!

Flying with the Prime Minister was always another great experience. My most enjoyable trip was when I was stationed in Lahr, Germany and we were flying Prime Minister Pierre Trudeau and his three young boys – Justin, Michel and Sasha – to several places in Norway.

I was required to serve lunch on-board during one leg and, having young children of my own at the time, I decided to give them an option. As the galleys on the aircraft were fully equipped, I

gave them the choice of a full meal or hot dogs and fries. When Pierre asked his boys what they would like, they all chose hot dogs. When I asked him what he would like, his words to me were, “If these guys want hot dogs, I will be doing the same.” The drink of choice for everyone, including Pierre, was chocolate milk. Little did I know at the time that, all these years later, I can honestly say that I have flown with both Prime Ministers’ Trudeau.

Seeing the real side of the Royals, the Prime Ministers and many other dignitaries was an unforgettable experience that I will always cherish. Then, there were the debriefs, but that’s a whole other story.



Figure 26 - Flying with PM Pierre Trudeau and now PM Justin Trudeau (aged 8 or 9) 1980
(Lorne Knutson Collection)

I also have to mention that all of the crew with whom I flew were dedicated and professional to the utmost. They were a very special part of my flying career and many of them have become lifelong friends. The loadmasters, or “loadies” as they were known, were always a huge help while on-board. They never hesitated to step into the galley to help with anything that needed doing from making coffee, to shucking oysters, to plating the meals.

My flying time in Europe with 412(T) Squadron Detachment in Lahr, Germany was unforgettable. As it was a small detachment, we were like a family. The four loadies with whom I served during that time – ‘Fritz’ Von Kaitz, ‘Mic’ Book, Jim Abbott and Charlie Cheater – were the best. I would like to thank them for their much appreciated help on-board, not to mention for leading me astray during the layovers!

Putting this article together brought back so many great memories, as did reading through my log books. Having not looked at them for several years, my flying days and the crew with whom I served became fresh again. One person in particular was Lloyd Melanson who was Flight Steward Leader during the time that I was stationed in Ottawa and for part of the time that I was in Lahr. In so generously sharing his skills and knowledge, he became my mentor and it was a great opportunity to fly with him.

I would have loved to continue flying, but the career manager decided differently and I was posted to Kingston, Ontario where I took over the management of the Staff College kitchens. Shortly after that I took my release and left the military. My experiences while I was flying helped to groom me for all the other experiences of my life. It was a time I will not forget.

EDITOR’S NOTE: After leaving the military, Lorne Knutson took a position as purser/Cruise director with St. Lawrence Cruise Lines sailing out of Kingston, Ontario. With retirement fast approaching, Lorne and his wife fulfilled a life-long dream by opening and operating a bed and breakfast in Kimberley, B.C. He is as gracious and effective in this role as he was serving royalty and dignitaries in the air.

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504 Blatchford Field Royal Canadian Air Cadets
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