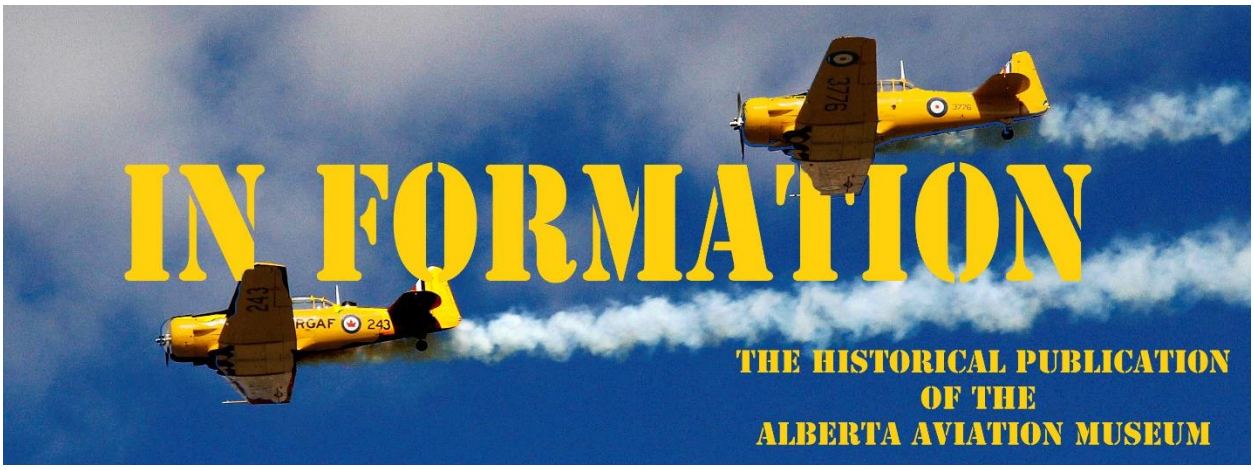

July - August 2017 Issue

The Underwoods: Alberta's Version of the Wright Brothers

By Neil Taylor

Prominently displayed on one end of a quonset in the tiny central Alberta farming community of Botha is a most unusual looking mural. It pictures a typical prairie landscape with rolling fields of grain and stands of evergreen trees, but it is the mechanical marvel soaring above those fields that draws the viewer's attention. It consists of an oval frame bisected by a vertical fin running the length of the disc. A flimsy four-bladed propeller protrudes from the front of the disc and two pairs of bicycle-like wheels extend beneath the structure. The strange apparition is, in fact, a rendering of a fanciful flying machine born in the fertile imaginations of three brothers enthralled by the prospect of manned flight.

Figure 1 - Mural of the Underwood Flying Machine in Botha (Neil Taylor Collection)

The brothers, Elmer, John and George Underwood, were part of a turn-of-the-century farming family homesteading three miles east of the current municipality of Botha, Alberta. Together they very nearly invented the first powered aircraft in Canada – an accomplishment that would have preempted the historic flight of Alexander Graham Bell's Silver Dart in 1909, if only they had been able to overcome a monetary challenge that saw them fall just short of their dream.

Elmer, John and George were three of the five offspring of John Kinney Underwood, an American-born farmer who moved his family from state to territory to state in constant search of

the best farmland. During the long winters he put his mind to other uses drawing up plans for labour saving devices. In 1872, John secured a patent for a disc plough, a significant improvement over the ploughshare then commonly in use. He introduced his invention in Minnesota and soon farmers across the prairies were shelling out hard earned dollars for his plough. Today the disc plough remains an important piece of machinery on western farms.

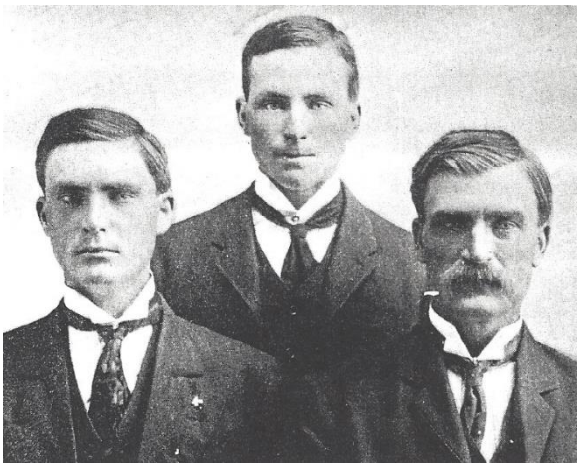

Figure 2 - L to R: John, George and Elmer Underwood (Stettler Town & Country Museum Collection)

It was perhaps inevitable that John K. Underwood's boys inherited their father's inquisitive and adventurous spirit. Elmer Adelbert Underwood, the oldest, was born in Sauk Centre, Minnesota in 1870. One of many enamoured by the 'gold bug', he spent seven years in the Yukon working the area streams with a hydraulic system designed to wash the gold out of river silt and mud. Upon finally abandoning his dream of striking it rich, he moved to Alberta, occupying a homestead in the Krugerville area (near Botha) in 1904.

In 1884, John Bennett Underwood was born in La Moure County, part of the then Dakota Territory that later became the State of North Dakota. Two years later his younger brother George Thaddeus Underwood was born. In 1892, the Underwood family moved to the Ozarks of southern Missouri to continue farming, but as young John grew into adulthood, he grew restless and decided to join the U.S. Navy.

The Ozarks proved unable to contain John Sr.'s wanderlust and in 1903 he uprooted his family once more, this time moving to a homestead in the Krugerville area of Alberta, near Botha. His youngest son George moved there with his parents but within a year the family was joined by Elmer, who had not found the financial success he had hoped for in the Yukon, and John Jr. who had left the navy. George and Elmer established their own homesteads near their father's and all set to work to fashion a living from the rich, black soil of central Alberta.

While farming was a demanding vocation, the three brothers still found time for other interests. They were fascinated by the recent success of the Wright brothers with their powered, heavier-than-air flying machine, and they began to read as much as they could about aerodynamics and the theory of flight. The more they read, the more they became convinced that they too could fly.

Unable to learn any specifics about the Wright brothers' airplane (a closely held secret at that point in time), the Underwood brothers could only seek information from newspapers and scholarly articles. After much reading, they decided they should first experiment with kites to gain a better understanding of the science of flight.

Their first kite, a rectangular, tailless creation measuring about eight feet across, flew for the first time on May 14, 1907. Encouraged by their success, they designed a bigger version about

twenty feet in diameter. As part of the kite's design, the brothers introduced a fin running the length of the kite – an innovation that gave it considerable stability.

Through the process of trial and error, the Underwood brothers refined their design. Various models were flown and a propeller was added to the front of the craft. An ingenious mechanism was used to provide power to the propeller. A weight was tied to, and wound around, the axle to which the propeller was attached. The rope holding the weight was secured to the ground and the craft was initially flown as a kite. One of the brothers would then cut the rope, the weight would unwind due to gravity and the turning axle would rotate the propeller. Several successful flights were conducted in this manner.

It was now time to craft their final design – the likes of which had never been seen before.

Their craft – an elliptical frame constructed from laminated strips of fir – measured 42 feet across at its widest point and was connected to a centre post by a series of wire spokes. Along the centre line of the circle ran a 10 foot high fin. A moveable rudder and stabilizers were attached to the rear of the fin and the outer frame. Canvas was stretched across both the horizontal and vertical surfaces and held in place through the copious use of cord lashed to the frame. There were even moveable surfaces on the leading edge of the rim that provided longitudinal control.

Slung beneath the frame and anchored to a central hub post was an open metal cage built to hold a person. Two motorcycle wheels were fastened to the bottom of the cage and on each side of the centre line, close to the edge of the frame, was a free moving bicycle tire. The four wheels gave the craft good mobility and ground handling characteristics.

Figure 3 - Underwood Flying Machine at Stettler Exhibition, 1907 (Glenbow Archives Collection)

As the Underwood's craft neared completion, organizers of the Stettler Exhibition extended an invitation to the brothers to display their creation at the 1907 fair. The Underwoods accepted, and on July 1, 1907 their machine was paraded down the main street secured tightly to a stone boat pulled behind a team of horses.

The strange craft was an immediate hit, and articles appeared in newspapers as far away as Toronto. According to Frank H. Ellis in his book *Canada's Flying Heritage*, the local newspaper, the *Stettler Independent*, referred to it as "Stettler's Aeroplane" while Edmonton papers called it the "Alberta Airship". There was even talk of running special trains to Stettler so the public could witness upcoming flights.

Once the fair was over, the Underwoods towed their machine back to the homestead for further work. The craft first flew as a kite since it lacked an engine. A long seven hundred foot length

of heavy rope was attached to the nose of the flying machine, the other end tied securely to a fence post. On August 10, 1907 the craft first took to the air with the assist of a 20 mph wind. It handled superbly, lifting effortlessly into the sky.

Emboldened by their success, the Underwood brothers fastened five sacks of grain to the cage platform – a weight of approximately 350 pounds. Their craft handled the load with ease and again achieved flight.

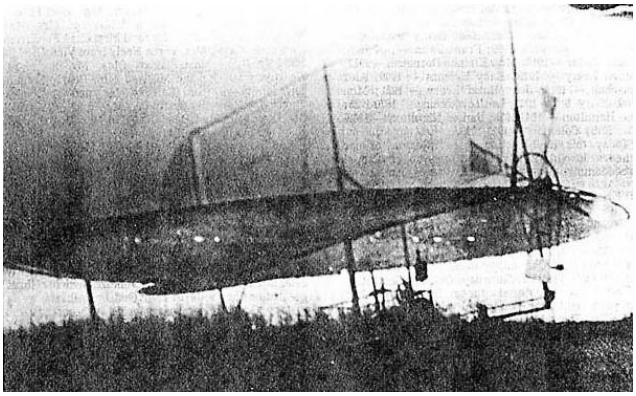

Figure 4 - The Underwood Flying Machine, circa 1908 (As shown in "From the Bigknife to the Battle: Gadsby and Area", Gadsby Pioneers Association)

At this time the 22 year old John proposed to fly in place of the sacks of grain. His brothers initially refused but John convinced them that by shortening the rope, thereby limiting the height that the craft could achieve, he would be safe. They relented, the rope was shortened to 100 feet, and John scampered into the cage. The wind again lifted the machine, this time with John aboard, and he stayed aloft about 10 feet above the ground for approximately 15 minutes. By doing so, John Underwood became the first documented case in Canada of a man flying aboard a kite.

The brothers' next step was to install an engine so a powered flight could be undertaken. But it was now time for harvest, so they had to put off further experiments while they brought in the crop and looked for an appropriate engine.

The brothers eventually acquired a 7 hp motorcycle engine but it was insufficient to power the 10 foot diameter bamboo-canvass propeller. The boys could maneuver their craft on the ground but it could not be coaxed into the air. A more powerful engine was needed but when they contacted the Curtiss Motor Cycle shop in New York, they were told a 40 hp engine would cost $1,300.

The amount caused the brothers to give pause, and even when a Member of Parliament proposed that the Underwoods be permitted to import an engine duty free, this was insufficient incentive for them to make the purchase.

Reluctantly, the brothers decided to continue flying their machine as a kite. They even sent it aloft at night with a lantern attached – a stunt that prompted alarm among some of the locals. Unfortunately, the brothers' efforts came to a discouraging conclusion one day when they failed to properly anchor their craft before flying it. The kite broke lose in a sudden wind gust and smashed into the ground. While the damage was repairable, the brothers had lost interest in their experiments. They piled the wreckage beside a barn where it deteriorated over the years. Today, only a fragment of the original craft remains – a portion of the outer frame that is housed in the Stettler Town and Country Museum.

The patriarch of the family, John K. Underwood, passed away in 1914, followed by his wife, Ellen, in 1937. Both are buried in the Woodland Cemetery in Botha, as is their son, Elmer, who

continued to farm in the area after his flight experiments ended. George died in 1957 and is buried in Chehalis, Washington. John taught school for many years before retiring in California and passing away in 1980.

Figure 5 - Current Day Replica of the Underwood Flying Machine in Botha
(Neil Taylor Collection)

This might have been the end of the story for the remarkable Underwood brothers except for the efforts of Bob Erickson, Botha resident and principal of the local school. He learned of the Underwood story and decided to properly commemorate their efforts. Initially he helped organize Botha's Aviation Days but as the 100th anniversary of the boys' historic flight drew near he wanted to do more. That was when he decided to construct a replica of the boys' craft.

Bob managed to raise $75,000 through grants, fundraising and his own contributions to build a laminated wood replica that is now on prominent display in Botha. This tribute to the remarkable efforts of Elmer, John and George Underwood continues to ensure that we never forget a remarkable part of Canada's and Alberta's aviation history.

Beacons of Liberty: Part I

By Tim Mallandaine

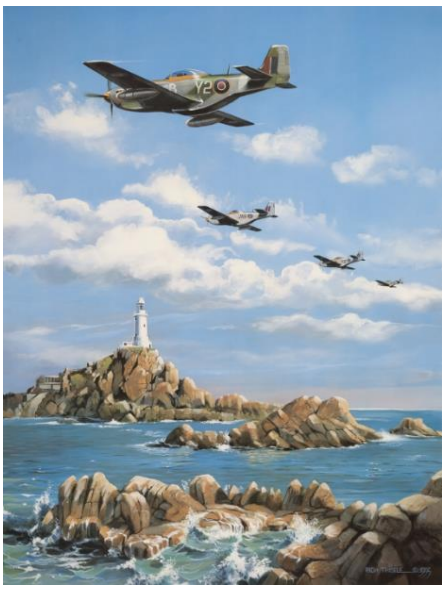

Figure 6 - Beacons of Liberty by Rich Thistle
(Tim Mallandaine Collection)

In the 150th year of our nation there is much to remember.

Beacons of Liberty is the name the artist, internationally-respected Canadian Rich Thistle, chose for his painting of four P-51D Mustang fighter planes flying over a lighthouse. For the pilots that were present on that day, the moment captured in the painting would have passed without remarkable significance. It was an uneventful flight, except for a few aircraft with mechanical problems returning to base.

Speaking about his work, Rich Thistle writes poetically of Canada's aviation contributions to the war years and of the Canadians who served:

Spitfire, Hurricane, Mustang, Typhoon. Machines of beauty and danger. These were some of the legendary fighter aircraft flown by Canadian fighter pilots in World War II. Well over one quarter of a million young Canadians took part in every major air theatre of operations overseas and were also involved in defense of Canada on two long coastlines. They flew and maintained every

kind of aircraft under questionable and sometimes downright impossible conditions. They were ordinary men and women asked to do the extraordinary.

For each air accomplishment of heroic proportions, there were thousands of "ordinary" pilots who flew, outside the glare of publicity, day after day, with quiet, resolute determination. Most of their stories will never be written or celebrated. Although my World War II paintings sometimes focus on heroic deeds done by famous fliers, I also want my work to successfully depict the stalwart flying service of those "ordinary" airmen.

This is the story of one such ordinary man, his "Band of Brothers" and the P-51D Mustang he nicknamed *Edmonton Special*.

This story is not the stuff of Hollywood but it's remarkable because it demonstrates the role that one mission, the pilots and one aircraft can play in helping us to remember those not-so-ordinary "ordinary" Canadians and the contributions they made on our behalf. I'll tell this story with the understanding of how one of them, John Mallandaine, saw himself.

John wrote a life-long journal for a family history that was compiled by his niece. It shows us how simply he viewed his life and what he believed were its important events.

His log begins:

- Born at a very early age (was quite young) on August 4th, 1921.
- Building aircraft. Age 5, 5-cent reward from dad.
- Soap Box Derby Races age fifteen. Won first.
- Joined 101st Battalion MG Edmonton Fusiliers. Army Reserve. My dad served with this outfit. Got to be a Lance Corporal.
- Graduation from High School. Technical school.

To John Mallandaine, that was a fair representation of the first eighteen years of his life. Six short lines of text. Winning Edmonton's first-ever soapbox derby was significantly more eventful than he indicated as we can see from a quote in the *Edmonton Journal* on Monday, July 20, 1936. "John Mallandaine crowned king of soapbox racers. Six thousand spectators watch as the Forest Heights youth streaks to victory on Strathcona Hill."

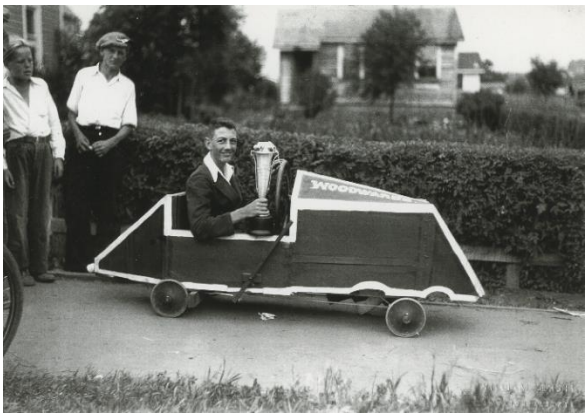

Figure 7 - John Mallandaine, Edmonton's First Soapbox Derby Winner, 1936
(Tim Mallandaine Collection)

John and his father had built that soapbox together, and it was a great thrill for both when John won. Far from wealthy, they demonstrated that poverty was no excuse by building the soapbox derby car for a whopping 20 cents. First place included a solid sterling-silver trophy that's been gifted to the City of Edmonton Archives in John's name. It's shown to schoolchildren on tours.

On April 23, 1938 John's father passed away. This was surely hard for young John who was just graduating from Victoria School. On May 9, 1939 he enlisted in his father's unit, the Edmonton Fusiliers. After training he found himself doing the all-too-arduous task of guarding a railway bridge in the north of Canada and, out of boredom, retired from the ground forces on October 21, 1940.

War Years

Figure 8 - John Mallandaine with his new wings
(Tim Mallandaine Collection)

In a few lines of his life log, John details his first solo in a Gypsy Moth (September 14, 1939), first and last date with Barbara Becket (1940), RCAF enlistment date (September 5, 1941), receiving his wings (August 14, 1942) and the war years "flying Spitfires and Mustangs."

So began his journey, moving toward the "Beacons of Liberty" moment and the better part of a life spent in aviation.

For the allies, one of the most famous and best loved machines of the war, the Spitfire, was the fastest and most maneuverable fighter of the Second World War. By the end of the Spitfire's service life 22,890 Spitfires of 19 different marks (or variants) were built.

John spent the early part of his time overseas flying Spitfires, over the white cliffs of Dover, with 127 Squadron. He was then reassigned to 442 Squadron and eventually wound up flying Mustangs.

Great Britain's industrial capabilities were taxed building Hurricanes and Spitfires. In 1940 North American Aviation in the US was contracted to build the P-51 Mustang, which was initially conceived as a ground attack fighter-bomber. Combat experience ultimately resulted in the fourth variant, the "D" model which came into use in 1944 with modifications suitable for air-to-air combat. The P-51's final range was over 3,200 kilometres and the service ceiling was 12,500 metres. The P-51 was the ruler of the skies in the last year in Europe and Asia. By the end of the war over 15,500 had been build and nearly 8,000 were "D" models like the *Edmonton Special*.

March 4, 1944, in a letter to his mom, John wrote: "Don't worry about me mom. I'm safer than you are." He signed it "Johnny."

The Squadron Log

442 Squadron pilots likely found the end of the war somewhat anti-climactic. The squadron log reads "Nil operations" on April 12, 14, 17, 21, and 24, 1945. April 9 to 11, 13, 15, 18, 20, 22 & 24 the squadron flew escort for Lancasters and Halifaxes bombing oil refineries, railway lines, and marshalling yards at Hamburg, Leipzig, Bremen, Nuremberg, Regensburg, and Flensburg.

They also swept airfields in northern Germany and Denmark while Lancasters were bombing Heligoland, a small German archipelago in the North Sea.

Figure 9 - Mustang Y2-B "Edmonton Special" (Tim Mallandaine Collection)

The month of April was not completely without danger. As the log shows, pilots were still facing weather, the enemy … and mechanical problems:

- On April 13th F/L (Flight Lieutenant) Dick was lost, in bad weather, in the Enschede-Munster area of Germany and ultimately recorded as missing.
- On April 15th Wing Leader, Lt. Col. Christie with 611 Squadron, which was involved in a joint operation with 442, had engine trouble and was forced to bail out 15 miles south-west of Handorf. He was seen to land safely, but presumably in German territory.
- One lone Messerschmitt Me 163 Komet was encountered with no report as to its fate. The only rocket-powered aircraft to see service during the war years, it proved an ineffective fighter in spite of its 1130 km/hour speed. Of the 300 which were built, they realized only 16 victories with 10 losses.
- April 16th a sweep of N. E. Berlin bounced up some FW (Focke-Wulf) 190s. The FW 190 was the German single rotary engine multi-purpose fighter/bomber which held significant fighter superiority until the Spitfire Mark IX hit the skies. In the ensuing combat one FW was confirmed destroyed shared by a F/O (Flying Officer) Wilson and F/O Robillard. One FW was probably destroyed by F/L Shenk.
- April 19th F/O Robillard crashed on takeoff - the aircraft Category "E", the pilot uninjured. Category "A" through "E" refers to the level of severity of aircraft crashes. Category E refers to aircraft that cannot be repaired and serve no useful instructional purposes. The log entry means that the airplane was a write-off as a result of the crash – it was a miracle that the pilot walked away.
- On the same day F/O Jeffrey was forced to belly land his aircraft at Chiloham near Canterbury owing to engine trouble. He was also uninjured.

From April 26th to May 8th inclusive the log again shows: "Nil Operations"

The Last Run

May 9, 1945 - Fourteen Mustangs, Y2-B included, took part in a patrol operation. Time up 13:40. The squadron log reads: "Patrol over Channel Islands while army and naval task force landed to liberate the islands. Mission entirely uneventful. Three early returns due to mechanical trouble. Long range tanks used."

When France fell to the Germans the British decided that the Channel Islands, which are in sight of the Normandy coast, were of no strategic value. Hitler, however, created a heavily-armed fortress there but it was passed over by the allies to avoid civilian casualties. Germany's effort was therefore wasted; however 132 civilians did die during the occupation. The Nazi commander-in-chief, Vice-Admiral Huffmeier, had the distinguished honour of surrendering to

British forces on May 9, 1945. He forced his men out on parade as troops, from *HMS Bulldog*, landed to the Nazi salute.

The four men in the planes depicted in the "Beacons of Liberty" painting (see page 5) were none other than (left to right/foreground to background) F/O A. J. (John) Mallandaine, W/C J. A. Storrar, F/O L. H. (Len) Wilson, and F/O R. K. (Rusty) MacRae.

From May 10th to May 31st inclusive the squadron log reads: "Nil operations."

After the War

Continuing in his one-liner log, John tells of attending the University of Alberta to study electrical engineering. He met Margot Young at the Anglican Young People's Association at All Saint's Cathedral and on October 20, 1951 they were married. They bought a small house in West Edmonton and John settled down to working with Sunley Electric and flying B-25s with the reserves. In the words of Terry Champion: "In those days there were a lot of the fellows who knew John could out-fly Mustang pilots in a B-25 bomber."

After 10 years of electrical work, John fell off a building, broke his back and decided he didn't like electrical work after all. He went back to flying full time and became a bush pilot.

Figure 10 - John Mallandaine's Helio Courier (CF-CFL) (Tim Mallandaine Collection)

Two aircraft figured prominently in John's bush pilot years. For many years he flew a Helio Courier (CF-CFL) for Don Hamilton under the Courier Flights Ltd. banner. The Courier was eventually replaced by a Do 28 Dornier (CF-SIP). Flying these aircraft, John made many mercy flights into the north, braving extreme weather conditions, to bring injured or sick people to Edmonton medical facilities. To many people, his daily flights were the lifeline of their northern community.

Returning from a northern charter, John would often fly by Sturgeon Lake, 20 kilometers west of Valleyview, Alberta. He would flap his wings to say hello or drop in on floats to lend a hand helping his father-in-law build a new cabin. Had he not helped, Young's Point Provincial Park would not have become a reality on August 3, 1971. Several decades later, John's son Tim worked with the locals and Alberta Parks staff, and the park was granted both wilderness and heritage status.

Animals also played a huge part in John's flights north. He didn't think it the least bit strange flying for hours with a baby moose breathing down his neck. Over the years guests at the Mallandaine home included that moose, five wolf cubs, a red fox and a baby lynx.

While not outspoken about his feelings, John was fundamentally a kind and moral man who faced a dilemma when asked to bring children down from the north to attend residential schools.

It became serious for his family when it was made obvious that he either had to fly the charters or give up his job. Ultimately, because he knew he would be replaced the moment he quit, he and his wife decided that he should stay on. Right or wrong, they reasoned that because John knew the families it would not be as traumatic an experience for them. It was the most difficult decision of John's flying career.

The bush flying days wound up about the same time as the official opening of the Fort Chipewyan Airport, June 18, 1966. The event program tells that the first airstrip was actually completed in 1962 and that, on April 19th of that year, John Mallandaine made the first landing. It didn't say that John, with RCMP help, cut that first airstrip by hand. They made it just long enough to bounce his short takeoff and landing Helio Courier in and out. A few passengers recall whacking a tree top, or two, on takeoff. John was also the last pilot to fly out of that airstrip, now obscured by a subdivision of single family homes.

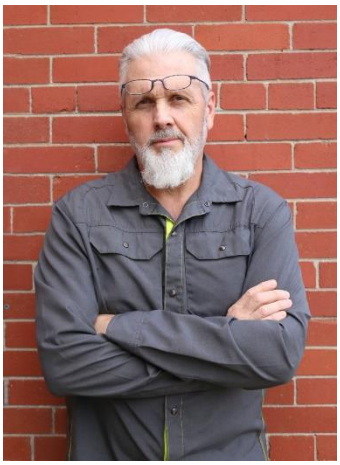

Figure 11 - Tim Mallandaine

John whacked more than a few trees in his time. He retired a few propellers landing in fields and whacked a few aircraft into full retirement, too. Fortunately, there were no drastic results. For his family, there were occasional anxious days and nights waiting, but always with a happy ending.

EDITOR'S NOTE: Tim Mallandaine isn't a pilot but he did love to fly with his father, John Mallandaine. Tim has taught voice and performance excellence for almost forty years and has worked creatively, in media and events production, for longer. Tim DOES take his work with remembrance and aviation history quite seriously and tries very hard not to let that get in the way of his enjoyment of the people and the stories. Tim can be reached at tim@songkraft.com

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RCAF No. 111 (F) Squadron's Role in the Aleutians Campaign

By William H. Eull, Ph.D.

Before we consider what high level considerations caused the RCAF to be operating on American soil in 1942 to 1944, let's get a feel for what serving there meant to the individuals who had to carry out the orders. Here is Pilot Officer (P/O) Oden John Eskil reporting to the Board of Inquiry investigating 111 Squadron's most tragic event, a relocation flight, July 16, 1942, involving seven P-40 Kittyhawks on their way to Umnak Island in the Aleutians:

Figure 12 - RCAF 111 Squadron Kittyhawks over Alaska, autumn 1942 (DND Photo)

*After rounding Makushin Cape (*Unalaska Island*) and altering course to roughly follow the shoreline – weather became progressively worse. Fog banks and showers continually appeared to the north. We flew through several areas about 50 feet above the water. I could hear F/L Kerwin talking to Captain Fillmore (*in an American C-53 support aircraft*) intermittently but they seemed to be making very poor radio contact. I could not tune either one in clearly …. The air seemed clear near the water but visibility was very poor – much impeded by large areas of dense fog and showers. We were forced very near the water… We were forced right along the shore by a dense fogbank about 200 yards offshore. We were forced to about 20 feet from the water and I estimate the ceiling at about 50 feet.*

*We were flying with the Wing Commander leading a "VIC" consisting of F/L Kerwin's section (*with Maxmen*) and P/O Whiteside's section (*with Lennon*) on the starboard of the Wing Commander, and my section (*with Baird*) off the port. Sections were about three to four spans apart and ships in the sections slightly closer. F/Sgt Baird had overtaken me and slid over abruptly, forcing me to pass through his slipstream. We were very low and I dropped back slightly while righting my ship. As I was moving up to form on F/Sgt Baird's port wing, the Wing Commander ordered a turn to port. I was trailing the Wing Commander and Baird by 100 yards when the turn began. I was too low to drop into proper position for a turn and thus lost sight of all the other ships when I began my turn. I turned as tight and as low as I dared but sighted an aircraft well ahead of me cutting me off. Afraid that I would fly into the green beneath me, I continued my turn and increased the throttle to about 37 Hg. My gyro horizon was out so I had trouble in maintaining steep climb and turn. At about 500 feet freezing mist appeared on my windscreen so I undid my harness and removed my oxygen and radio connections – intending to bail out if I stopped gaining height because of icing. At 4800 ft. I broke through between cloud layers, continued to turn and plugged in my radio.* (He reported being momentarily disoriented by cloud and fog and making a couple of course adjustments) *In a few minutes I ended up in what turned out to be the only hole in the area and sighted the Umnak air base… I phoned Captain Fillmore to clear me so I would not be fired on and proceeded to land.*

Seven P-40 Kittyhawks had been ordered on a relocation mission so they could take up patrolling duties in defence of Umnak Island in the Aleutians. They were making their way from Elmendorf Air Force Base, Anchorage, Alaska through the predictably unpredictable weather that tears through this region almost incessantly. They were to become an integral part of the defence against Japanese interference with the North American west coast. Specifically, their job would be to protect the base from which American counter-attacks would be launched.
Of this seven-man mission, only two survived. Four slammed into Unalaska Island's mountain, the fifth flew off, disoriented, into the clouds never to be seen again. Wing Commander McGregor found his way back to where the mission had begun. P/O Eskil, as noted in his report at the Board of Inquiry, luckily spotted the Umnak airfield and landed safely on Umnak Island. The dead were S/L John William Kerwin, P/O Dean Edward "Whitey" Whiteside, F/Sgt Gordon Douglas Russel Baird, F/Sgt Frank "Pop" Lennon and Sergeant Stanley Ray Maxmen. It was Baird who flew off.

Why were seven Canadian pilots putting their lives at hazard in such abysmal conditions? Ah, there is an interesting story. The answer lies in understanding that that was the nature of war in the Aleutians.

But first, let's take a look at the story of their squadron. No. 111 (F) Squadron had formed at RCAF Rockcliffe (Ottawa) in the previous November. The plan was for them to become operational in their P-40E Kittyhawks and then join the war in Europe. In fact, Canada was vigorously building a fighting capability because the Commonwealth was seen to be in danger. Every aspect of our nation's energy was being focused to bring relief to the war in Europe.

Then, on December 7, 1941, the Japanese attacked Pearl Harbor, Hawaii.

Figure 13 - Pilots of 111 and 14 Squadrons at Patricia Bay. 111 is showing off its Thunderbird Totem, June 12, 1942 (DND Photo PL 13139)

Both Canada and the United States suddenly became aware of vulnerability on their western borders. The United States wanted to hurl everything they had into dealing with the Japanese in the South Pacific. Canada was asked to assume some of the load of patrolling the Alaskan coastal waters and shipping lanes. Canada agreed, redirecting four squadrons, two fighter (No. 111 and No. 118, Curtiss Kittyhawks) and two bomber (No. 8 and No. 115, Bristol Bolingbrokes) to this task. Two Wings were created. X Wing (111 and 8) guarded Anchorage; Y Wing, based on Annette Island, Alaska, guarded the approaches to Prince Rupert. Though Prince Rupert is in Canada, the sea lanes entering Prince Rupert harbour were vital to American supply lines, for transporting to Alaska but also for carrying people and materiel to the Alaska Highway project, creating the only non-marine link between continental USA and Alaska.

When, six months after Pearl Harbor, the Japanese sent a major strike force into the north Pacific, attacking Dutch Harbor on Unalaska Island, the United States switched all of the units they had retained in the north Pacific from defensive duties to the offensive. RCAF No. 111 Squadron was re-deployed from their task of guarding the shipping lanes approaching Anchorage to guarding Umnak Island in the Aleutians. They filled in for the re-tasked USAAF fighters. Other Canadian squadrons covered the coastal patrols.

Eventually, the tide of battle shifted, allowing the RCAF to take on offensive duties. 111 Squadron was the first RCAF unit to move forward along the Aleutian Islands string, at first, playing defensive roles but, later, joining in on the attack against the Japanese who were well dug in on Kiska Island. Squadron Leader Boomer shot down a float-rigged Zero. He later went to the European war, where he had several victories before he was killed in action. He had the honour of being the only member of the RCAF to shoot down an enemy aircraft in a North American theatre.

Figure 14 - 111 Squadron coming out of briefing, Amchitka Island (DND Photo)

No. 111 Squadron was delighted to be in the thick of it, finally. They were warriors who wanted to face a tangible enemy. War in the Aleutians, however, had to be fought, not just against the enemy but against the unrelentingly chaotic weather. Fogs, winds, driving rains caused many hardships. A Canadian Press reporter named Lorne Bruce, was sent out to Umnak Island to experience conditions first hand. His story appeared in The *Winnipeg Tribune*, June 21, 1943. He had much to say.

> *Chief danger in the North Pacific theatre is the weather – the worst for flying in the world. Snow, rain and sleet storms come and go in minutes. Fogs roll down from the snow-covered volcanic mountains to blot out a landing strip in less than a quarter of an hour. Williwaws – strong winds that come straight down or in a verticle (sic) circle – make flying more dangerous… PO Keeling Barrie, of Edmonton, reported seeing a fog following a plane so rapidly down a landing strip that visibility was zero in a matter of seconds after the plane was in the air. The field had been clear when the plane began its run to take off. Another time a pilot got out of his machine and walked a few yards to talk to the ground crew. When he turned around a few minutes later, the machine was upside down. The wind had picked up the plane, turned it over, and set it down almost noiselessly.*

Piloting under those conditions tested skill and courage. And the pilots deserved the recognition they got. It is, however, too easy to underestimate the ordeals of the ground crews who had to be out in that weather as it raged at them from all directions at once. A plane, going out on patrol, needs servicing and arming. Coming back from patrol, it will certainly need to be checked very carefully for damage. There were no hangers or closed spaces to work in. The ground crew had to learn to keep their hands from freezing as they turned the wrenches, loaded the weapons and replenished the liquids that keep machinery functioning. They were genuine heroes, in my book. Sadly, there was little record of their sacrifices and remarkable feats. There were entries in 111's Daily Diary that recognized the ground crew's extraordinary effort in particularly dicey circumstances but seldom were individuals named or saluted.

By the fall of 1942, the pressures of the south Pacific theatre pulled three more USAAF squadrons away from the north. RCAF No. 111 Squadron was re-deployed to Kodiak Island from which, for ten months, they defended the Prince Rupert shipping lanes. RCAF No. 14 Squadron replaced them at Umnak Island.

The atmospheric conditions, terrible for the Allies, must have been even more so for the enemy. The Japanese forces had established strongholds on Attu and Kiska Islands, more than 1000 miles from Alaska, but still part of the US-owned Aleutian Islands. They were under heavy bombardment from allied aircraft on any day the weather permitted flight. They held out as long

as they could, but they were isolated from resupply and relief. The U.S. Marines with support from the Canadian Army and Navy invaded Attu Island, destroying the Japanese position. By August, 1943, the Japanese forces on Kiska Island, taking advantage of particularly terrible weather, managed to re-board their ships and depart. The threat had been contained.

RCAF 111 (F) Squadron had managed to fly 598 sorties (more than 1,200 operational hours in filthy flying conditions) in the 24 months they flew in defence of the North American coast. Five pilots were lost and six Kittyhawks destroyed to accomplish this record.

Figure 15 - US Navy refueling RCAF P-40E Kittyhawk, probably on Umnak Island (DND Photo)

The outcome of the collaboration between the United States Army Air Force and the RCAF (a first) was highly successful. In a little more than a year (between June 8, 1942 and August 19, 1943), No. 111 (F) Squadron had played a vital role in defending the American coast and driving away the invader. Their collaboration drew great praise from the USAAF 11th Fighter Squadron Commanding Officer, Major Jack Chennault, who wrote: "It is with great regret that we see the departure of 111 Fighter Squadron, Royal Canadian Air Force… We are proud to be brothers-in-arms with them."

In mid-August, 1943, 111 Squadron returned to Canada, to RCAF Patricia Bay, where they began preparations to go to Europe. They were told they would be flying a different airplane, the Hawker Typhoon, in a different role: ground support dive bombing.

On January 20, 1944, they left Patricia Bay, making the long trek across Canada. Airmen took pre-departure leave and then re-joined the squadron at Halifax. They landed in Scotland, and on February 8, 1944, at Ayr, they were re-designated 440 Fighter Bomber Squadron. Their experience in Alaska stood them in good stead because they were declared operational, with a new airplane against a new enemy in a different kind of war, in just over a month.

They flew their first mission out of Hurn, Scotland, deploying 10 Typhoons on an anti-shipping sortie over the Channel Islands. They became part of No. 143 (RCAF) Wing, a formidable force providing ground support to allied troops and interfering with enemy troops on the ground. They were ready in time for the big push, "the second front", on D-Day, June 6, 1944. They became fierce predators of German tanks, trucks and infrastructure, commanding fearful respect.

They flew 4,213 sorties in their Typhoons in 12 months. 3 weeks. They wreaked a lot of damage, yes, but at enormous cost: 23 pilots killed, 5 more missing, never found, and 38 Typhoons destroyed. Three pilots spent some time as POWs.

Dive bombing was very dangerous work but 111 Squadron, renamed as 440 Squadron, showed that they could find their way through clouds of flack to get the job done – skills learned, perhaps, in the swirling mists and tricky winds of the Aleutians.

From the perspective of 75 years later, one might wonder if the sacrifice in the Aleutians was needed. But in the fevered atmosphere of the world in 1939-1940, powerful nations had begun to jockey for a realignment of influence. No one nation could afford to be complacent in such an atmosphere. Major threat, however implicit, had to be addressed as if real. Probably everyone over-reacted. But, they did, indeed, act. Canadian nationhood, firmly asserted at Vimy nearly thirty years before, was indelibly imprinted in the minds of all nations. Canada can and will respond and fight well above her weight in defence of noble principles and sovereign integrity. In that cause, over-reaction served a purpose.

Figure 16 - William H. Eull

EDITOR'S NOTE: William H. Eull is a retired Clinical Psychologist who returned to a childhood fascination with all things aero. After retirement from a clinical practice, while poking through an antique shop, he found a 1942 Squadron portrait. Curious, he researched and discovered the fascinating and little known story of the RCAF in the Aleutian Campaign. He has been hooked ever since. See his tribute to the men of 111 Squadron at www.RCAF111fSquadron.com

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No. 1 Squadron Royal Canadian Air Force at RAF Northolt, Part Two

By Sergeant Mark Bristow, BA (Hons), MA – No.1 AIDU and Station Historian

From September 16 to 26, 1940, No. 1 RCAF Squadron was constantly on the alert and was scrambled many times, yet interceptions were few, and only three successful combats were fought. F/O E Beardmore received slight injuries in a parachute descent from his damaged aircraft on September 18. The *Luftwaffe* had once again changed its tactical disposition, sending a larger proportion of fighters to escort the bombers, flying at much higher altitudes than previously. In the past most of the fighting had occurred at 15,000 to 18,000 feet; throughout the remainder of the battle enemy formations generally flew at 10,000 feet or more above that level, which was well above the height at which the Canadian Hurricanes normally operated. On September 18 for example, when the Germans began their new tactics, F/O Peterson had to climb to 27,000 feet in order to engage three Me 109s over Gravesend: one was driven down damaged; a second dived steeply with smoke streaming behind and was probably destroyed.

A week later Peterson, flying on patrol with F/O Russel, caught a solitary Do 215 north of Tangmere. They attacked together, silenced the enemy gunners and fired all their ammunition into the bomber. The Dornier spiraled into the clouds with one engine out of action.

Fighter Command had also modified its tactics, placing greater emphasis upon wing formation attacks as a more effective method of breaking up the large German formations. No. 242 (Canadian) Squadron for example operated in conjunction with a new Czech fighter squadron

Figure 17 - Winnipeg-born Group Captain John Alexander "Johnny" Kent, AFC, DFC and Bar (RAF Photo)

and several other RAF units. No. 1 RCAF Squadron was linked in a wing with the famous No. 303 (*Kosciuszko*) Polish Squadron and No. 229 Squadron – all fellow residents at RAF Northolt. No. 303 it should be remembered was also led by a famous Canadian pilot: F/L JA Kent AFC, who served in the RAF and had a most distinguished career.

September 15th had proven to be the high-water mark of the Battle of Britain, although there were in fact three further assaults made in great strength, on September 27th and 30th and on October 5th, before the *Luftwaffe* finally gave up the daylight struggle. On all three of these occasions No. 1 RCAF Squadron was in action, adding ten more confirmed victories to its impressive total, plus a number of probables and damaged.

September 27th was the most active and successful day in the history of the RCAF squadrons engaged in the battle, a day not surpassed until the Dieppe raid of August 19, 1942. About 0900 on September 27th several waves of raiders crossed the Kentish coast near Dungeness, but only one group succeeded in penetrating inland beyond a line from Maidstone to Tonbridge. To counter this threat the RCAF and Polish squadrons were scrambled from Northolt. Crossing London they soon sighted the enemy over the Kenley-Biggin area, counting thirty or more Ju 88s, escorted by over twenty Me 109s and Me 110s. S/L McNab led his two squadrons of Hurricanes in a rear attack upon the bombers, whilst some of the Messerschmitt fighters came down in a vain attempt to protect the Ju 88s.

After harrying the bomber formation the Canadian and Polish pilots climbed to engage the Me 110s which had formed their customary defensive circle 2,000 feet above. In the high-speed action of the ensuing dogfights it was difficult to assess the results with accuracy as one enemy aircraft was sometimes attacked by several pilots in succession. The total result however appeared to be at least six Nazi aircraft destroyed: a Ju 88, one Me 109, four Me110s, two of which were shared with Polish pilots, plus one Ju 88 probably destroyed and a Me 110 damaged. F/O Russel was particularly successful, shooting down one Me 109 whose pilot quickly baled out, and crashing two Me 110s, one of which was shared with the Poles. Two other victories were credited to S/L McNab, F/Os E de P Brown and BE Christmas, who jointly brought down a Ju 88; to McNab who subsequently crashed an Me 110 in flames; and to F/O Lochnan who shared in the destruction of another Me 110. F/L McGregor probably destroyed a Ju 88 which went into a steep spiral dive, streaming smoke. Forced into taking evasive action McGregor was unable to see if his opponent crashed. Finally, F/O Norris shot chunks off a Me 110 which he then left to the attention of other British fighters.

F/O Lochnan's combat was particularly noteworthy. When the action began he was attacked by a Me 109 whose cannon and machine-gun fire did considerable damage to the Hurricane, shooting off half the right aileron. Lochnan headed for home, but en-route he saw a Ju 88 being attacked. He joined in, fired one burst and then held off while three other Hurricanes set the bomber on

fire. After watching the Ju 88 crash Lochnan again turned his battered Hurricane towards Northolt. Then he saw another dog-fight between a Hurricane and a Me 110. Once more the Canadian pilot joined in, firing three good bursts. The machines were now down to a mere 500 feet and after Lochnan's last burst, delivered head-on, the enemy pilot swerved and crashed on Gatwick aerodrome. Lochnan decided that he would have to land there, left his Hurricane to be repaired, and completed his journey home in a training aircraft. In the engagement F/O W Sprenger's aircraft was also shot up, forcing the pilot to land at RAF Kenley.

F/O Peterson, from Halifax, Nova Scotia, who had frequently distinguished himself throughout the battle, sadly did not return from this hard-fought action. His death was the third suffered by the Canadian squadron.

Figure 18 - Hawker Hurricane MkI: No. 1 RCAF Squadron, RAF Northolt (Sgt. Mark Bristow Collection)

An hour after being scrambled the pilots returned to Northolt where the ground crews swarmed over the Hurricanes, refueling, reloading, and checking – getting the aircraft ready for the next call into action. It soon came: at noon another raid approached across the Channel, again the order to 'scramble' came. This time the squadron, as a result of battle casualties, could muster only eight aircraft. F/L McGregor, leading the formation of Nos. 1 RCAF and 229 Squadrons located about twenty Me 109s over Gatwick, some 2,000 feet above the Hurricanes. Presently some Me 109s dived to attack and McGregor was able to fire damaging bursts into one. Again the squadron returned to Northolt, and once again the mechanics worked flat-out to get the machines refueled and rearmed.

At 1500 the two squadrons were ordered to patrol the Biggin Hill-Kenley area to the south-east of London. The Canadian squadron was now reduced to six serviceable aircraft. Soon after take-off, whilst still climbing for height, the Hurricanes were vectored on to an enemy raid which had crossed the coast between Dover and Dungeness. The German formations, numbering 160 aircraft divided into several groups, penetrated inland as a far as Maidstone; there they veered towards the London docks but were forced to sheer off westwards towards Biggin Hill where F/L McGregor's group of fighters intercepted the withdrawing bomber force. Attacking one formation of fifteen to twenty Do 215s the Hurricanes scattered the enemy and destroyed at least five. Five of the six Canadian pilots brought their guns to bear with success. F/O Brown shot down one Dornier, F/L McGregor damaged two, and F/Os Pitcher, Yuile and Russel one each. Of the five damaged Dorniers four were subsequently finished off by the pilots of No. 229 Squadron. Many Me 109 fighters were overhead during this action, but made no concerted effort to intervene.

At 1600 the Canadian squadron had landed again. Since 0900 the squadron, with thirteen pilots available, had made 26 sorties on three patrols; it had engaged seventy enemy aircraft in combats that had resulted in the destruction of seven, the probable destruction of another, and damage to seven more. Six pilots, F/L McGregor and F/Os Brown, Christmas, Pitcher, Russel and Yuile,

had taken part in all three patrols: between them they had accounted for twelve of the fifteen successes attributed to the squadron. F/L McGregor and F/O Russel each had submitted four claims. Total losses for the *Luftwaffe* on September 27th assessed at 133 destroyed, a toll that was surpassed only by the tolls for September 15th and August 15th, when the RAF and Anti-Aircraft Command had claimed 185 and 159 of the enemy destroyed. Post-war the actual German losses were established as 76 on August 15th, 56 on September 15th, and 55 for September 27th, which represented significant losses in themselves. Nonetheless September 27th was to be the *Luftwaffe's* last appearance *en masse* during daylight operations.

Figure 19 - Pilots and liaison staff from No. 1 RCAF Squadron, Sept. 1940 (RAF Photo)

On September 30th No. 1 RCAF Squadron was again scrambled three times to intercept raids, but only once succeeded in engaging the enemy. In combats with Me 109 fighters south of London F/L McGregor destroyed one and F/O Brown damaged another after his own aircraft had been badly shot-up in combat.

Other patrols during the latter part of September and early October found little action, for the Messerschmitts now flew high above the RAFs defensive formations, refusing to come down and engage in action. Once again the *Luftwaffe* had revised its tactics, abandoning raids by large bomber formations in favour of small numbers of fast bombers (chiefly Me 110s), escorted by large screens of fighters in the proportion of about four or five fighters to one bomber. Some Me 109s were also equipped to carry bombs – a tacit admission of the unsuitability of the regular *Luftwaffe* bomber types for daylight operations. These fighter sweeps flew at great altitudes, 20,000 to 30,000 feet being the norm. The Hurricanes optimal operating height was 18,000 feet or below; above that height they became sluggish. But the Messerschmitt pilots, despite the advantage which height conferred upon them for making attacks, declined to use it. This phase, the battle of attrition, lasted from September 28th until October 31st.

The Canadian squadron's last air battle was fought on October 5th. Shortly before noon No. 1 RCAF and No. 303 Polish squadrons, led by F/L McGregor, joined combat with over thirty Me 109s and 110s south-west of Maidstone. A dogfight ensued with aircraft milling about over the coastal area from 22,000 feet down to 15,000 feet. F/O Pitcher picked on four Me 109s flying in line astern and destroyed one with three good bursts. Some other enemy fighters then dived on the Hurricane, but the Canadian pilot managed to get a damaging burst into a Me 110 as he broke away. F/L McGregor accounted for another Me 109, from which the pilot baled out, and a third was crashed by F/O Christmas. In addition, two Me 109s were damaged by F/Os E Beardmore and PW Lochnan. During the action F/O Molson was wounded and baled out from his Hurricane.

With the conclusion of this dogfight No. 1 RCAF Squadron's share in the Battle of Britain was all but over. The *Luftwaffe* paid adieux with a bombing raid upon RAF Northolt on October 6th which caused considerable excitement and some damage. Sadly during this lone raid by a

Junkers 88A-5 AC2 piloted by Hauptman Storp of 4/KG30, Henry Stennett was killed. He was part of a two-man lookout on top of No. 5 Hangar. A bomb blast lifted him off his feet and he fell to his death, the other lookout was unscathed. Sergeant Antoni Siudak, a pilot with No. 303 Squadron was also killed. Stennett was to be the only Royal Air Force casualty caused by enemy action at the airfield and was buried, like Sgt Siudak, at Northwood Cemetery. The Junkers 88 was later shot down by P/O VBS Verity of No. 229 Squadron, with all its crew posted as missing. No. 1 RCAF Squadron was to have the final word: the next day, whilst on a scramble over the North Downs, F/O Lochnan isolated a Me 109, attacking it repeatedly until it went down in flames. October 10th No. 1 RCAF Squadron was relieved, flying north to Prestwick, Scotland for a most-deserved period of recuperation. On May 21, 1941 F/O Lochnan died of injuries he suffered in a flying accident.

Since August 17th, for a period of 53 days, No. 1 RCAF Squadron had been in the front line of the battle. Its pilots had submitted combat reports for the destruction of 30 enemy aircraft, the probable destruction of 8 more, and damage to a further 35. Sixteen Hurricanes had been lost in action; three pilots had been killed: F/Os Edwards, Smither, and Peterson. Ten pilots had also been wounded or injured: F/L Corbett, F/Os Hyde, Desloges, Kerwin, Millar, Little, Nesbitt, Yuile, Beardmore and Molson. Just before the Squadron departed from Northolt for Scotland, His Majesty King George VI awarded the Distinguished Flying Cross to S/L EA McNab, F/L GR McGregor and F/O BD Russel, the three most successful pilots of No. 1 Squadron, each of whom had destroyed at least four enemy aircraft with several probables and damaged for good measure. These were the first battle decorations won by members of the Royal Canadian Air Force in World War Two.

It must be stressed that the Battle of Britain was not fought solely in the air. The ground crews were engaged in itnas well as the pilots. Their indispensable services deserve the very highest of praise. After each sortie the aircraft had to be immediately re-armed and re-fuelled, equipment checked and tested, readied for take-off again as soon as the Tannoy blared-out a ‘scramble’. Damage to engines, airframes, or equipment had to be repaired as soon as possible to keep the maximum number of Hurricanes serviceable. Through teamwork the efficient, quick servicing of aircraft developed into a fine art. The pilot too was a member of this team, sharing with the ground crew the credit for the victories that he scored. The finest tribute to the efficient work of the mechanics is found in the daily reports of aircraft serviceability; only once – on September 27th – was the squadron’s full operating strength of twelve aircraft seriously diminished because of unserviceable machines. After two months of intensive work under constant pressure the ground crews too were due for a breather, to check and recondition thoroughly the Hurricanes in their charge. The strength of the squadron, depleted by casualties in action and through illness had to be replenished, and new pilots trained for operational duties.

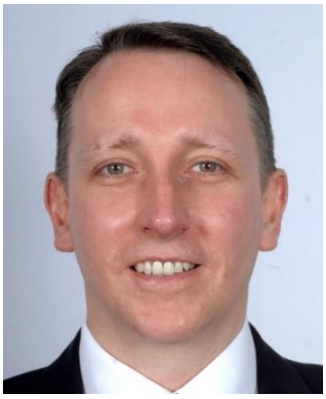

Figure 20 - Sgt. Mark Bristow

EDITOR’S NOTE: Sgt Bristow currently serves as a Senior Editor in the Aeronautical Information Systems Section at No1 AIDU, RAF Northolt. He is also Station Historian for RAF Northolt, providing professional historical research, and community ‘Outreach’ presentations. He has written two editions of the RAF Northolt Station History.

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Address: **11410 Kingsway NW**
Edmonton AB T5G 0X4
Phone: **780-451-1175**
e-mail: **info@albertaaviationmuseum.com**

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