

FLY NORTH

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NEWSLETTER OF THE NORTHWESTERN ONTARIO AVIATION HERITAGE CENTRE

Preserving and celebrating the diverse history of aviation in the northwest, through the collection and preservation of artifacts and stories of the persons and events that made this region unique in aviation history

NOAHC News -----

Annual General Meeting:

The Annual General Meeting of NOAHC for the receipt of reports and election of office-bearers was held at the Centre on May 31, 2018. David Bryan chaired the meeting. In addition to reports from the President and Treasurer, reports were presented on the activities of various sub-committees, including Finance, Events, Oral History, Newsletter and Acquisitions. Seven members were re-elected and Archie Gribben was nominated from the floor and elected to the board.



Almost a full house for the AGM

Presentations:

At St. Andrew's Church on April 19, NOAHC participated in a presentation entitled **Thunder Bay and its History as a Transport Hub**. Dave Kemp gave a talk on the aims and activities of NOAHC and Liz Wieben, Denise Lyzun and Jim Milne provided additional information and gave out brochures at our display.

Other participants included the Transportation Museum, the Model Railway Club and Canadian Lighthouses of Lake Superior.

On April 26, at the West Thunder Community Centre, NOAHC presented a talk and film on the history of the **Avro Arrow**, Canada's potential, but unfulfilled contribution to the air defence of North America during the Cold War era. Dave Kemp gave a Powerpoint presentation and George Holborn showed a movie on the development and demise of what might have been one of Canadian aviation's great success stories.

Arrow presentation continued ...

The event was a success with about 60 people in attendance; refreshments were served and a selection of NOAHC's merchandise was available for purchase.

For more information on the Arrow, see page 4 of this issue.

Visits:

20 Grade 8 students from La Verendrye High School visited the Centre on May 16 as part of their history studies. NOAHC volunteers guided them through the various aspects of the aviation history of the north-west. (pictures on page 3). As a result of the visit and at the request of the class teacher, George Holborn gave a presentation on the Avro Arrow at the school.

On May 21, 12 residents of Southridge Manor visited NOAHC.

Acquisitions:

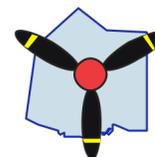
The Centre has received a donation of 10 RAF/RCAF uniforms courtesy of Captain George Romick of the Thunder Bay Military Museum. The uniforms include an Air Cadet officer's flight suit, a 1940s Flight Engineer Sergeant's tunic, a World War II RCAF battledress blouse and a Group Captain's No. 2 Mess Dress uniform. The uniforms have been catalogued and when research into their provenance has been completed a selection will be displayed along with appropriate signage. (pictures on page 3)

The Walleye:

The May edition of The Walleye contained a ten-page section on bush flying in northwestern Ontario. It included an account of the role of the Wieben family and Superior Airways in the development of the north, featuring the contribution of NOAHC president Liz Wieben. The history of NOAHC in text and pictures was also part of the issue, with details provided by our Executive Secretary, Denis Lyzun. Given the popularity and wide distribution of The Walleye this provided the Centre with significant publicity.

Inside this issue:

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3. Photo Gallery
4. Avro Arrow



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Pilot training in World War I

The Great War was the first conflict to involve aerial combat. Little more than a decade after the first flight by the Wright brothers, hundreds of men fought each other in the skies above the World War I battlefields. They flew in fragile machines, built of wood and canvas, powered by engines that were often unreliable, shooting at each other and being shot at by flak from the ground.



Maurice Farman MF11 Shorthorn

Flying at increasingly higher altitudes as the war went on, and exposed to the elements in open cockpits, pilots and observers suffered from frostbite or blacked out from lack of oxygen. As a result, the casualty rate was high and on the Western Front, the life expectancy for airmen in the Royal Flying Corps (RFC) was about three weeks. Many potential pilots did not reach the front, however, but died in accidents during training, especially in the early years of the war, when aircraft and engines were far from dependable and training methods were little more than rudimentary. There was little structure to the training and the process was very much a case of the survival of the fittest.

At the outbreak of war, most of the pilots in the Royal Flying Corps had learned to fly privately. Some went off to squadrons in France and others remained as instructors in England to train the increasing number of aircrew required as the war progressed. No provision was made for training the instructors; those who knew how to fly were expected to be able to show others how it was done and new pilots went on to be instructors as soon as they had earned their wings. Stanley Rutledge, of Fort William, did that.



Airco DH4

After three and a half months of training he was considered capable of becoming an instructor and in 1917 was transferred to 44 Training Squadron at Harlaxton in Lincolnshire. By then equipment and methods had improved, but as many as 30-40 machines were still being lost in crashes every month and one fifth of the airmen in training were killed in accidents while they were learning to fly. Some trainees were sent on their first solo flight after only 90 minutes dual instruction. It was not uncommon for new pilots to be sent to active squadrons after only 15-20 hours flying time, with as little as 5 hours on the planes they were expected to fly in combat. In Germany, it was considered that new pilots needed a minimum of six months training before they were ready to be sent to the front, although that was reduced as the war progressed. The Germans also had specialized fighter schools as

had the French, but in Britain, after teaching the basics of flight little or no attempt was made to progress into the complexities of combat flying until about 1917.

If the training methods were rudimentary, they were achieved in aircraft that were not much more advanced technically than the original Wright Flyer. Most trainees began on the Maurice Farman MF11 Shorthorn, a two-seat pusher biplane. With its network of spars and bracing wires, one trainee described sitting in the cockpit as akin to being in a birdcage. Being relatively fragile, anything more than basic aerial manoeuvres might cause a wing to break off or part of the structure to collapse with disastrous consequences for the trainee and instructor. James Dickie, who transferred into the RFC from the Canadian Expeditionary Force in 1917, learned to fly on the Shorthorn and after earning his wings he went to be an instructor on a training squadron in 1918 and returned to Canada the following year. He became an instructor at the Fort William Aero Club, but after surviving the hazards of RFC training, he died in a training accident at the Club in 1930. Stanley Rutledge did not even make it home. During a training flight in November 1917, his plane, an Airco DH4, hit a tree; the fuel tank broke loose on impact, slid forward and fatally injured him. His pupil survived. Stanley Rutledge was buried in the churchyard at Harlaxton, one of more than 1,000 pilots who died during training in 1917.



Stanley Rutledge's gravestone



James Arnold Dickie
 1893 – 1930
 Canadian Expeditionary
 Force 1916
 Royal Flying Corps
 1917



Stanley Arthur Rutledge
 1889 - 1917
 Canadian Expeditionary
 Force 1915
 Royal Flying Corps
 1917

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Picture Gallery



Helen Kyle enthralls a group of La Verendrye students with the story of the Paterson Spitfire



Robin Webster explains the role of bush pilots in opening up the north-west



Board member, Gerry Bell, models the Air Cadet officer's flight suit; from the George Romick donation

1940s RCAF Flight Lieutenant's Battle Dress blouse with medal ribbons; from the George Romick donation.



RCAF Officer's peaked cap: 1940s; from the George Romick donation



RCAF Flight Engineer's Brevet: with Canadian Volunteer Service Medal Ribbon



The Avro CF-105 Arrow – Canada’s Cold War Fighter/Interceptor

On April 26, at the West Thunder Centre, NOAHC presented the story of the Avro Arrow, Canada’s potential, but unfulfilled, contribution to the air defence of North America during the Cold War era. If you were unable to be there, here are some excerpts from the presentation.



The Arrow in flight - 1958

The Avro Arrow was a delta winged fighter/interceptor designed to combat high speed, high altitude incursions of Soviet bombers across the Arctic into North America. It was designed and built by Avro Canada. Development of the design began in 1955, with the first flight taking place in 1958. Despite promising results from numerous test flights, a combination of financial, technical and political issues caused the development of the aircraft to be cancelled less than a year after the first flight.

The Arrow compared to modern fighter/interceptors – still competitive after six decades?



The Tupolev Tu-95 ‘Bear’. One of the Soviet bombers the Arrow was designed to intercept



Roll-out of first Arrow – October 4, 1957



*Avro Arrow
Canada
Scrapped 1959
Top speed Mach 1.98
1,315 mph (2,104 kph)*



*Eurofighter Typhoon
Euro-Multinational
In service 2003
Top speed Mach 2
1,528 mph (2495)*



*Lockheed Martin F-35
U.S.A.
In service 2015
Top speed Mach 1.6
1,210 mph (1,930)*



Four of the five completed Arrows being destroyed. Does the fifth one survive somewhere?

TIMELINE:

1. Design studies in 1953 led to program development in 1955
2. Roll out of Mk I Arrow, October 4, 1957
3. First flight, March 25, 1958
4. Three additional Mk Is completed, 1958
5. Mk II with new Iroquois engine completed, early 1959
6. Project cancelled and production halted, February 20, 1959
7. 14,528 Avro employees and nearly 15,000 in the Avro supply chain made redundant
8. All completed aircraft, engines, production tooling and technical data ordered destroyed, April 1959
9. Replaced by US-built Bomarc missiles, 1961, plus 66 F-101 Voodoo fighters acquired from US, 1961