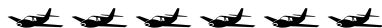




Fly North

Volume 3, Number 1:
January—March, 2011



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 Activities: During the last week of January, 2011 a group of volunteers spent two days refurbishing the Centre's facilities on Waterloo Street. Under the coordination of Dave Bryan, the work party included Don McCrae, Liz Wieben, Aldo Mascarin, Gerry Bell, Ian Dew, Helen Kyle, Nellie Murphy, Ted Murphy, Dave Kemp, Mary Pettit, Wayne Pettit, Jim Milne and John Pentick. Walls were painted, windows washed, ceiling tiles and heating vents were cleaned and new blinds were installed. Thanks to all who helped. The next step is to hang a group of local aviation prints donated by Ray Buffington and install display cabinets donated by Ken Whent. The display cabinets are illuminated, with glass on top and on the front providing an appropriate setting for our artefacts. NOAHC has also received the loan of a quantity of chairs from the Thunder Bay Yacht Club, which we can use until the Yacht Club moves into its new premises sometime in the future. Some additional work is required, but our rate of progress is such that plans are being made for an Open House, tentatively set for early June, to introduce members to the Centre. The Centre's telephone has been installed and its computer system, which includes an internet connection, is also up and running. Our telephone number is (807) 623-3522 and e-mail address noahc@tbaytel.net.

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*Helen Kyle
cleans windows*



*Cooperative
multi-tasking*



*Aldo Mascarin
chief handyman*



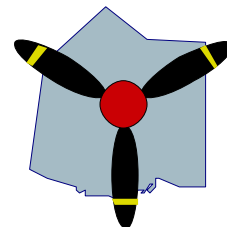
*Gerry Bell
paint roller expert*



A small selection of the models—clockwise from the top— Hawker Tempest, Curtiss Helldiver, Westland Lysander, Hawker Fury, DeHavilland Tiger Moth, Avro Anson, Hawker Hurricane.

Donation of Aircraft Models

In addition to donating the display cabinets, Ken Whent also presented the Centre with a collection of aircraft models built by his father-in-law, Jim Haigh. The models are mainly military aircraft from the 1930s and '40s at various scales. They include bombers such as the B-17 and the Lancaster, fighters such as the Fury and Spitfire and trainers such as the Tiger Moth, as well as models of the locally produced Hurricane and Helldiver.



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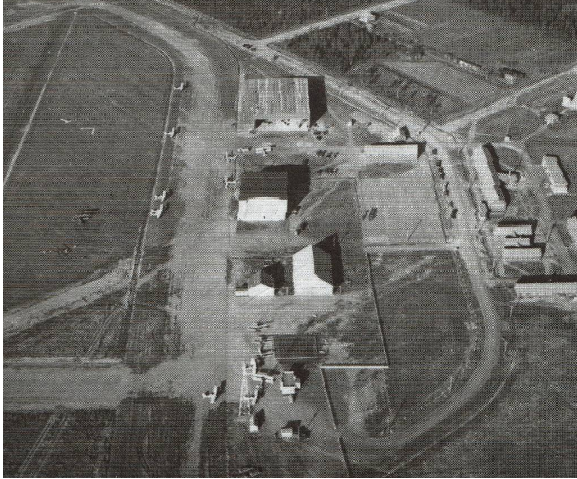
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Fort William Municipal Airport



The airport about 1940. From top to bottom the buildings are: the EFTS hangar, the first permanent Can-Car hangar, the first temporary hangars and the buildings from which Superior Airways operated. The RCAF barracks are across the road to the right.
(J. Lyzun)

While Bishopsfield served the Lakehead well as a recreational and training airfield after it opened in 1929 (see *Fly North* vol 2, no. 4), the expansion of the aviation industry in the decade that followed was such that there was a growing interest in developing a municipal airport to serve both Port Arthur and Fort William. However, the economic depression of the early '30s meant that little was done to follow up until 1936, when Canadian Car and Foundry announced the re-opening of its Fort William plant to manufacture aircraft and the federal government introduced plans to create and encourage transcontinental air service. Both of these required facilities that could not easily be provided at Bishopsfield, so the search began for a new site. Initially the city fathers in both Fort William and Port Arthur cooperated in the process and a site was chosen in the Intercity area. As well as an airfield it was to incorporate a sea plane base. It had the advantage of being equidistant from the two cities, but little else to recommend it. It was poorly drained and covered by several feet of muskeg. In addition, it would have required Can-Car to haul its completed aircraft several miles through city streets for testing. When it became apparent that a more suitable site was to be found in the Arthur St/Neebing Avenue area west of Fort William, the council of Port Arthur withdrew its backing for the project. After much discussion and investigation, however, the Civil Aviation Board, the Ontario Municipal Board and the Federal government, all agreed that the Neebing site was the most suitable and construction began in August 1938.

Work progressed rapidly. Three 500 foot grass strip runways were prepared and ancillary facilities including hangars for the Lakehead Flying Club and Can-Car plus fuel storage facilities were built on the south-eastern side of the field. By the spring of 1939 the Fort William Municipal Airport was open for business.

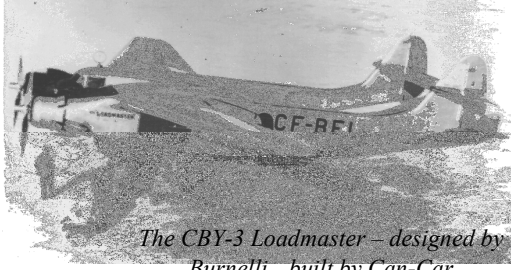
The timing was propitious. When war broke out later that year, the airport was ready to provide facilities for the training of pilots and the testing of aircraft, both of which were sorely needed. Shortly after it moved into its new quarters, the Lakehead Flying Club began training pilots under the Provisional Pilot Officer Plan intended to increase the flow of pilots into the RCAF. While the process was efficient, when war broke out it could not provide the increasing number of new pilots required and it was superseded by the establishment of Elementary Flying Training School #2 as part of the British Commonwealth Air Training Plan. A new hangar was built to accommodate the School's Tiger Moths and by the time #2 EFTS ceased operations in May 1944, hundreds of young pilots had gone on to make their contributions to the war effort.

In the meantime, Can-Car had begun production of Hurricane fighters. It produced more than 1400 machines, all of which were tested at the airport. A contract for the Curtiss Helldiver followed and over 800 were built before the end of the war brought production to a close. One by-product of the Helldiver contract was the conversion of the original grass runways to concrete, which was necessary for the operation of the heavy dive-bombers. Subsidized by the US government, the new runways were completed in 1943. Post-war, Can-Car's presence at the airport was much reduced, but into the 1950s the company built the North American Harvard 4, for the RCAF and the USAF. Following that it produced the Beech T34-A Mentor, the military version of the Beech Bonanza, as a basic trainer for the USAF. That was the last complete aircraft built by the company and the last to be tested at the airport.

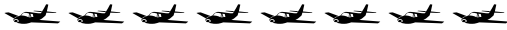
In the immediate post-war years the future looked bright for Fort William Municipal Airport. The Thunder Bay Flying Club moved into the one of the EFTS hangars and by the late 1940s was operating as many as 10 aircraft. In the fall of 1946, Trans Canada Airlines established a route between the Lakehead and Duluth and the following year the company introduced flights east to Toronto and west to Winnipeg from Fort William. To keep pace with these developments a new terminal was constructed in 1952 and in 1954 the runways were extended and a new control tower built. That same year the Department of Transport took over the operation of the airport. All of this progress towards the creation of a modern airport with up-to-date facilities suffered a set back in November 1957 when a disastrous fire swept through the old wartime EFTS hangar. Superior Airways and the Thunder Bay Flying Club had moved in to the building at the end of the war and both organizations lost aircraft in the fire. The building was completely destroyed along with ten Superior Airways planes and the entire flying club fleet. Both organizations survived, however, and moved into the Can-Car hangar which had been largely unused after the company ceased aircraft construction in the mid-1950s. The Thunder Bay Flying Club was back in operation within a couple of weeks and in less than a year had built a new hangar. Superior Airways also rose from the ashes and in the decade that followed its aircraft were a common sight at the airport.

(Part two in a series about the Lakehead airports)

Can-Car and Burnelli



The CBY-3 Loadmaster – designed by Burnelli—built by Can-Car



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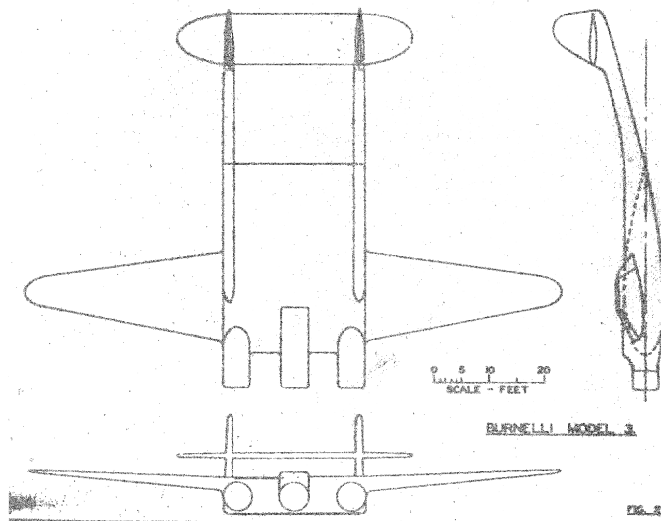
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In an attempt to continue its aircraft building activities into the post-war era, Canadian Car and Foundry obtained the rights to build a high wing, twin-engined transport with an aerofoil section main fuselage, designed by V.J. Burnelli, an advocate of the lifting fuselage. The prototype was completed in July 1945 and designated the CBY-3 Loadmaster. Although the CBY-3 had some advantages in terms of capacity and speed over its contemporaries, it could not compete in terms of price with the hundreds of cheap, war-surplus DC-3s on the market and did not go into production.

Today Burnelli's work is practically unknown, but between the wars his lifting fuselage designs for military and commercial aircraft challenged the conventional designs produced by companies such as Boeing and Douglas. (see *Fly North* vol 2, no. 2). Can-Car was certainly interested in his work and as early as 1938 it submitted a 1/24 scale model of one of Burnelli's designs to the National Research Laboratories in Ot-



Line drawing of the wind tunnel model tested in 1938

tawa for a series of wind tunnel tests. The model was built to represent a tri-motor bomber — Burnelli's CB-34—designed with a wing span of 94 feet and powered by three Wright Cyclone engines. The results indicated that the full size aircraft would have a cruising speed of 210.5 mph at 10,000 feet, a rate of climb of 680 feet per minute and an absolute ceiling of 25,000 feet. With additional design work and modification, particularly to the engines, these figures would undoubtedly have improved, but at the time Can-Car must have found them sufficiently encouraging that they planned to build the aircraft in Fort William. To that end they constructed a full-scale wooden mock-up of the aircraft in Montreal and transported it to the Fort William plant in July 15, 1938. Its arrival was reported in the *Fort William Times-Journal* and it apparently sat at the back of one of the company's workshops during the war years, but its ultimate fate is unknown. By the end of that year the company was preparing for the Hurricane contract, which probably explains why no further work was done on that Burnelli design.

Despite its wartime commitments, however, Can-Car had obviously not given up on Burnelli, for in 1942 it again contracted with the National Research Council to perform wind tunnel tests on a 1/24 scale model of the twin-engined "Burnelli Military Transport Aircraft". Tests were carried out with variations in the length of the tail booms, as well as different tail planes, the addition of flaps and variations in the contour of the fuselage sections. One test involved the addition of a third engine, perhaps to allow comparison with the 1938 tests. It is not possible to link the 1942 wind tunnel experiments to a specific aircraft, but it seems more than likely that they provided information that was incorporated into the CBY-3, when construction of the prototype began in late 1943.

Fort William Municipal Airport—1940s and '50s



Fort William Municipal Airport shortly after completion in 1939. The EFTS hangar is on the right, Can-Car hangar in the middle. The aircraft lined up along the apron are Grumman Goblins



The EFTS hangar under construction



Military Norseman at O.J. Wieben's fuel depot



B flight: #2 EFTS early 1940s (B. Brown)



Curtiss Helldivers ready for ferry flights to the U.S. (B. Brown)



TCA first mainline flight, into Fort William Airport July 1, 1947



The airport in 1955. New terminal on the left—old EFTS hangar on right. At that time the latter was being used by the Thunder Bay Flying Club and Superior Airways.

(R. Buffington via J. Lyzun)