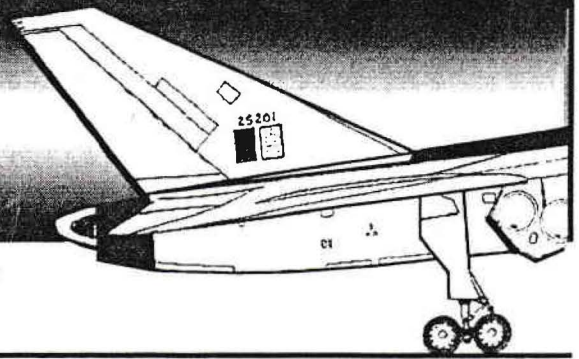


Victory Aircraft facilities became A.V. Roe Canada's

Pre-Flight

*A Publication of the Aerospace Heritage Foundation of Canada
P.O. Box 246, Etobicoke "D", Etobicoke ON M9A 4X2*

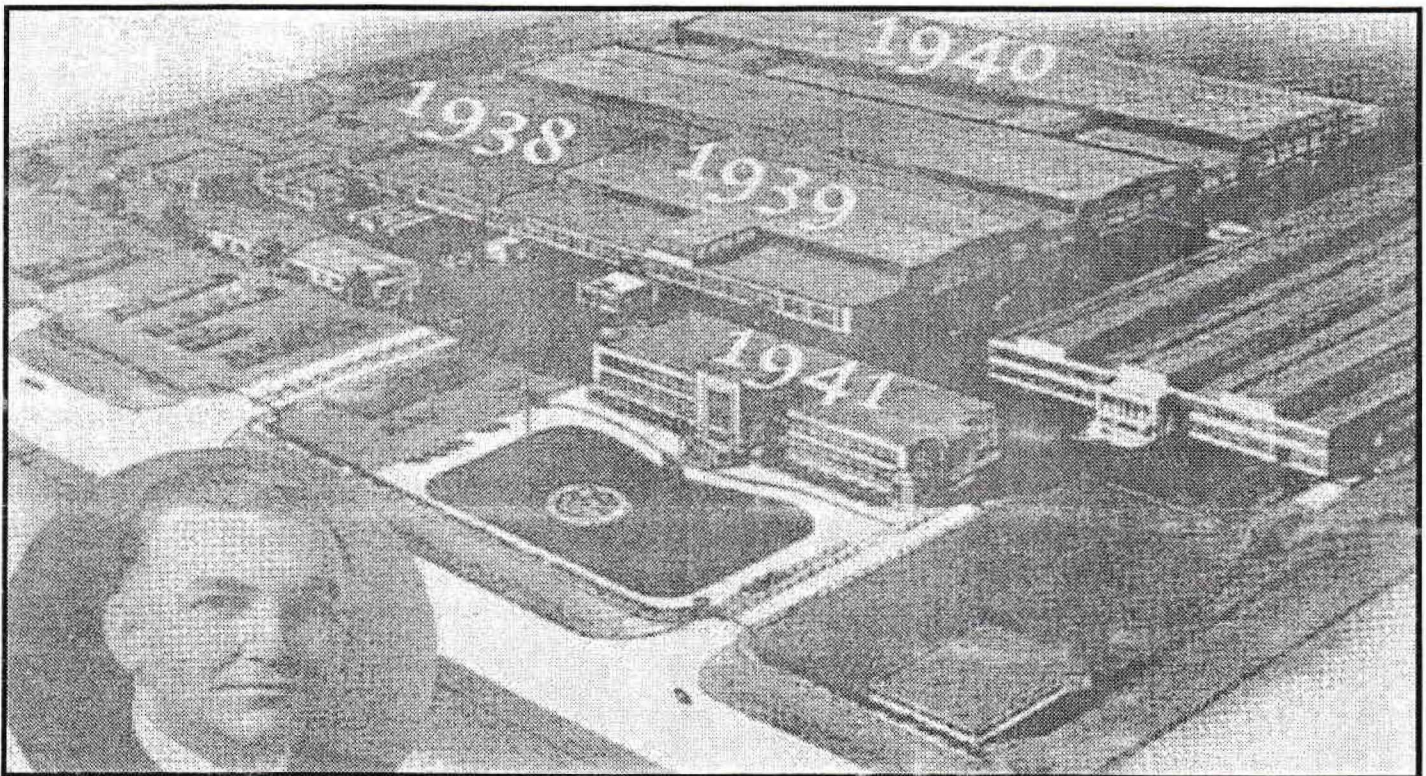


Vol. 15, No. 1

January - February 2004

From Lysander to Lancaster Victory Aircraft Limited: The Early Years

**A short historical overview and tribute
to the Malton plant for the years 1937 - 1943.**



It matters not the time nor circumstance; background gives light and form to what is but dimly seen. How true! A white-on-white design can neither be seen nor appreciated. Hence, a bit of historical background is always enlightening. Here is the story of Victory Aircraft, a world-class Canadian aircraft establishment, from the turbulent Thirties of pre-WWII to the mid-war hostilities, and its production of warplanes for domestic and overseas requisitions.



Founded 1989

AHFC

Aerospace Heritage Foundation of Canada



Patron William Coyle
Vice-President Frank Harvey
Secretary Keith McLaren
Treasurer Al Sablatnig
Membership Nicholas Doran
Director AMRP Bob Saunders
Director Web Michael Brigham
PR Director Dita Vadron
Directors Glen Beauchamp
Bill Daniels
James Harvey
John Hughes
Tim Patten



Legal Consultant Jerry Faivish
Editorial Consultant John Thompson
Air Force Liaison Don Pearsons

PRE-FLIGHT Ted Harasymchuk
Nicholas Doran

President's mailing address:

1951 Rathburn Rd., E.
Unit 199
Mississauga ON L4W 2N9
905-624-4909

The Aerospace Foundation of Canada (AHFC) is a federally chartered non-for-profit organization. The current emphasis of AHFC is on Avro and Orenda. The Foundation is actively trying to locate former employees of these companies. No part of this newsletter may be reproduced without prior written permission. Opinions expressed in *Pre-Flight* do not necessarily reflect those of AHFC. Cash donations over \$25.00 and "gifts-in-kind" will be acknowledged by a receipt for income tax purposes. For more information on AHFC and how to support its activities, please write to:

Aerospace Heritage
Foundation of Canada
P.O. Box 246, Etobicoke D
Etobicoke ON M9A4X2
(416) 410-3350 www.ahfc.org

From the President

We look forward to many new and exciting events in 2004. You will be informed of these well in advance, because some of you may want to attend and participate, as in the past.

Here are just two events to illustrate. First, developments are happening in the Arrow Recovery Project (ARP) that give us hope that there will be positive movement in the late spring.

Secondly, we are in the serious planning stage of the Jetliner '55 Dinner which will be held in August 2004. It is being co-chaired by Jim Floyd.

This issue of *Pre-Flight* touches on the history of the Malton plant prior to AVRO, from 1937 - 1943. With a deep interest in history, I found this quite absorbing.

Frank

From Lysander to Lancaster, cont'd.

The present plant of the Victory Aircraft Company is part of an original plan conceived back in 1936, by the late President of the National Steel Car Corporation, Mr. R. J. Magor, who at that time envisioned the necessity of a large modern aircraft factory in this country, if Canada were to maintain its place in the development of world aviation. Mr. Magor was at this time negotiating with the Department of Defence at Ottawa to undertake the manufacture of the *Lysander* Army Co-operation Aircraft. These negotiations finally resulted in a contract to build twenty-one Lysanders for the Royal Canadian Air Force.

Work was started in April 1938, on the first section of the Plant. This section covered an area of 60,000 sq. ft. The section was completed and the first *Lysander* delivered 18 months later in the Fall of 1939. By this time the conditions in Europe had reached a critical stage and it was considered desirable to commence construction of larger aircraft in this country. An educational contract was therefore let by the British Air Ministry to the Canadian Associated Aircraft Company for the construction of 80 *Hampden* Bombers. As one of the six member companies comprising Canadian Associated Aircraft, National Steel Car Corporation was allotted a contract to manufacture Centre Sections and Outer Wings for these aircraft. Work was started in the Fall of 1939 on an additional 80,000 square feet extension to the Plant for this contract.

Upon the outbreak of war with Germany in September 1939, it was felt that it would be necessary to increase considerably the number of Lysander Aircraft in active service and contracts were obtained from the British Air Ministry for an additional number of Mk III Lysanders for service in Europe. Requests were made to prepare for a substantial production of these ships and an additional 210,000 square feet of Plant extensions were immediately started to take care of this increased production. However, due to the fall of France and with the evacuation of the British Army from Dunkirk, the Lysander Aircraft was no longer required in large quantities as a service aircraft and the original production requirements were reduced to 150 Mk III Lysanders for England and a total of 92 MK II Lysanders for the Royal Canadian Air Force.

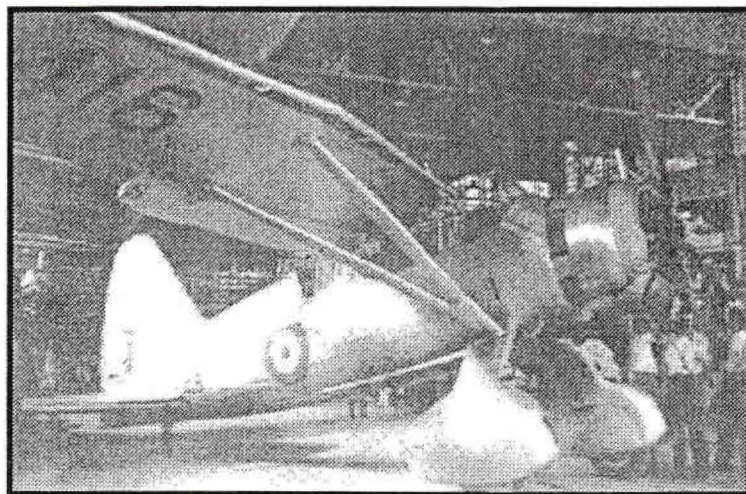
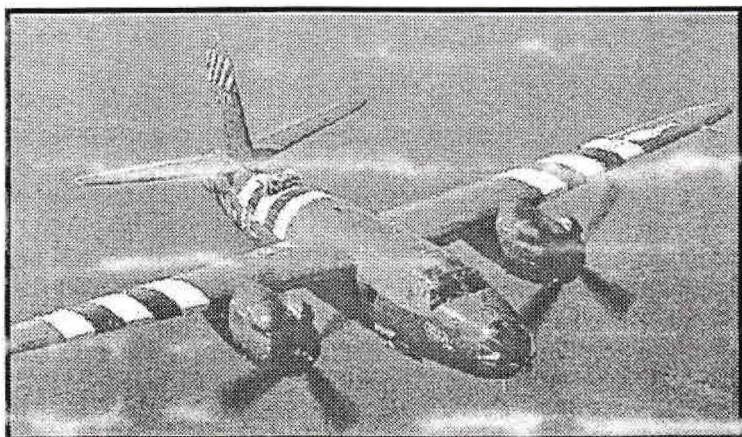


Victory, cont'd

This resulted in the additional 210,000 square feet of Plant extensions provided for the manufacture of Lysanders being made available for other production. Advantage was taken of this additional Plant in the Spring of 1940 to produce Anson fuselages and to assemble the complete Anson aircraft for the Empire Air Training scheme. Contracts were placed and work started on an order of 375 Ansons and 100 Anson fuselages.

It was rapidly becoming evident however, that the full production capacity of this Plant was not being efficiently utilized. Despite various miscellaneous orders for aircraft parts and an order for 200 sets of Hurricane wings, the Malton Plant was taking on the appearance of an overgrown jobbing shop, which to the miscellaneous nature of its production had very little visible output. In the words of its President, Mr. Magor, "...it had now reached the stage where its personnel and equipment were capable of performing a complete production job on a large aircraft." Negotiations were therefore entered into with the Canadian government to produce the Martin B-26 Bomber, which resulted in a contract to produce 300 of these aircraft, being arranged in December 1940. Work was immediately started on the tooling and necessary plant extensions for this work, to take care of the proposed production of 300 Martin B-26 bombers. A large two-story building of 300,000 square feet for the production of detail parts was started in the Spring of 1941 together with a new engineering and administration building, having a floor area of 63,700 square feet.

In the Fall of 1941, when comparisons were made with the latest developments in large bombers then being built in England, questions arose regarding the desirability of this aircraft for the purpose intended and the decision was made to discontinue work on the B-26 and change over to a British Aircraft. After careful consideration and investigation by competent authorities, it was finally decided in December 1941 that the new Lancaster four-engined Bomber was unquestionably the most desirable heavy bomber for a long range production program in Canada and that the full capacity of the Malton Plant should be utilized in the production of this aircraft. All personnel engaged on the Martin B-26 tooling program were therefore transferred to the tooling and preparation of the Plant for the production of this much needed heavy bomber.



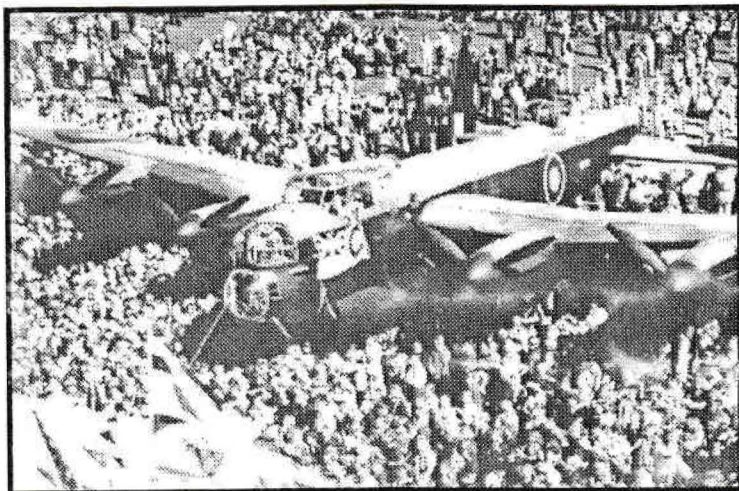
The vision of its founder, Mr. R. J. Magor, of a modern Canadian Aircraft Plant in full production was about to be realized. Nineteen months after the original instruction to proceed, the *first* Lancaster produced in Canada was ready to fly and the production line was starting to roll on the biggest aircraft production program yet to be undertaken in Canada. The following is a chronological outline of this Plant's history to date.

1937: Negotiations started with the Department of National Defence for the production of Lysander Aircraft by National Steel Car Corporation Limited.

1938: Contract undertaken to build 21 Mk II Lysander Army Co-operation Aircraft. Construction started on April 11, 1938, by National Steel Car Corp. Ltd., of a plant having a floor area of 60,000 square feet; Tooling program underway in June 1938 for Lysander Mk II Aircraft; Plant equipped, tooling and detail production under way by September.

1939: First Lysander Mk II produced in September; Contract undertaken to produce 80 Hampden Bomber wings in November; 15 Lysander Mk II aircraft produced; Construction of additional 80,000 square feet of Plant for production of Hampden Bomber wings started in December.

1940: Extensions for Hampden production finished and equipped with machine tools in May; Hampden tooling underway and detail production started by December; Arrangements made for the production of Lysander Aircraft in large quantities and an additional 210,000 square feet of Plant started in January and completed in July; Increased program of Lysander production cancelled and arrangements made to build 28 additional Mk II Lysanders for the Royal Canadian Air Force and 150 Mk III Lysanders for Great Britain; arrangements made to utilize 210,000 square feet of excess Plant extension for the production of Canadian Ansons for Empire Training Scheme; tooling commenced on Anson program in May; 30 Lysander Mk II delivered during year; 112 North American Yales assembled during year; 26 North American Harvards assembled during year; 17 English Ansons assembled during year; 14 Hampden wings delivered during year; Lysander Mk III Program held up by changes in design brought about by war requirements; contract undertaken in December to build 200 sets of Hurricane wings for Canada Car and Foundry; contract undertaken



Victory, cont'd

in December to build 300 Martin B-26 bombers and purchase of necessary equipment started.

1941: Hurricane Wing tooling completed and first wing delivered in June; Tooling for Hampden Wings completed and first wing delivered in April; Anson tooling completed and first Anson delivered in September. Contract for Martin B-26 bomber cancelled in November; arrangements made to build Lancaster Bomber in December; 30 Lysander Mk II aircraft delivered during year; 56 Hurricane wings delivered during year; 50 Hampden wings delivered during year; 7 North American Yale Aircraft assembled during year; 11 Canadian Anson delivered during year; 26 Canadian Anson fuselages delivered during year; Additional building of 300,000 square feet for details; production on Martin B-26 started in July; new Engineering and Administration Office of 63,700 sq. ft. started in November.

1942: New Details Building occupied in April by group on Lancaster Engineering, and machinery and equipment installed; 150 Lysander Mk III aircraft delivered during year; 460 Canadian Ansons delivered during year; 74 Anson Fuselages delivered during year; 16 Hampden wings delivered during year; 144 Hurricane wings delivered during year; 4500 Lancaster tools completed during year; National Steel Car Corporation Limited turns Plant over to the Government on November 5, 1942. New company formed under the name of Victory Aircraft Limited.

1943: 265 Canadian Ansons delivered by June 30th; 7800 additional Lancaster tools and jigs completed; 14 Lancaster Bombers completed; 2 Lancaster mail planes completed.

The total floor area increased to a total of 1,049,465 square feet. This new area was made up as follows:

Details Manufacturing Building (300,000 sq. ft.);
Drop Hammer Building (14,000 sq.ft.);
Assembly Building (375,950 sq.ft.);
Flight test (115,280 sq.ft.);
Various Auxiliary Buildings (69,885 sq.ft.);
Main Administration Building (63,700 sq.ft.);
Warehouse (52,250 sq.ft.);
Steel and Scrap Storage Building (18,300 sq.ft.);
Maintenance Building (20,000 sq.ft.);

Stock Component Store (20,000 sq.ft.).

TOTAL = 1,045,465 sq.ft.

* Employees: 7,397 (2,165 female and 5,232 male workers).

* Approximately 800 items of machine tools and special equipment were installed and placed in operation. Total estimated value of machine tools, special equipment and buildings in the Malton Plant increased to six and one half million dollars.

1944 - November 1st: 148 Lancaster Bombers completed; 2 Lancaster Mail planes completed; 1 York Transport completed; 365,605 lbs. of Lancaster spare parts completed and shipped; 2,900 additional Lancaster tools and jigs completed; 9,373 employees (136 females and 6,237 males). Engineering and tooling started for production on the Lincoln Bomber. Ample property is available for any future expansion programs that may be necessary. The Plant's location on the Malton Airport assures adequate airport facilities for flying and testing all types of aircraft with ample provision for expansion in the way of runways for the largest type of military and transport aircraft.

The above facilities and possibilities make the capacity and potential value of this Plant, second to none, in the Canadian aircraft industry. It was planned and designed from the start to take its place as one of the best equipped and most modern plants for the production of the largest type of land-based aircraft, and should play a major role in providing the necessary facilities to keep this country in the front ranks of aircraft development. □

Members Matter

A New Year Again

On behalf of the Foundation, I wish to express my best wishes for a healthy, prosperous and fulfilling year to all our members and those near and dear to them.

Yes, it's that time again - membership renewal time. Please note the new format, especially the changes, gifts. Make your cheque payable to the *Aerospace Heritage Foundation of Canada* or *A.H.F.C.*

Our Foundation has an interesting series of articles this year. One will be the requested reprint the speech Janusz Zurakowski gave at the first Anniversary Dinner. It is an incisive, thoughtful classic about the murky history of the demise of the Avro Arrow. Watch for it!

Thank you!

I feel privileged to address you in this short column, and to express my thanks to all of you, who year after year so faithfully support AHFC and the good work it does to keep alive the factual story of Canadian aerospace. As our Mission Statement says, we strive to make known and honour those dedicated, talented men and women who made those wondrous flying machines. Contact me with any and all of your concerns. I am always glad to hear from you. When you receive this, I will be in sunny Florida, and will process renewals on my return.

Nicholas

NICHOLAS DORAN, Membership