

CANADA'S WARTIME AIRCRAFT MANUFACTURING

"A production of forty aircraft a year. That was Canada's aircraft industry when the war began. Nobody had ever taken it seriously, excepting a few determined men with faith in the future of aviation in a young country. Then war came ... and the miracles began to happen." -Leslie Roberts 1943

Although still recovering from the Depression, a massive effort developed to build aircraft to support the Royal Canadian Air Force. This was the foundation for an aircraft manufacturing industry that has thrived in Canada ever since.

During the Second World War, the Canadian aircraft industry grew to employ 116,000 workers, 30,000 of whom were women. By 1945, aircraft manufacturing was the fourth largest industry in Canada.

It delivered 16,418 aircraft including front-line fighters and bombers as well as trainers for use by the RCAF under the British Commonwealth Air Training Plan.

Canadian factory space for the production of aircraft increased from 500,000 square feet before the war to a high of 14,000,000 square feet at its peak.

Canadian industry cooperated to produce all sorts of vitally-needed war materials including aircraft. For example, the contract to produce 1100 Mosquitos was awarded to De Havilland but their main facility in Downsview only did the final assembly. De Havilland themselves set up an auxiliary plant to build fuselages but General Motors, Cockshutt Plow, the Otis Fensom Elevator Company, and the Canadian Powerboat Company were all involved with manufacturing the fuselages as well. Massey-Harris made the wings, Boeing made the tailplanes, the flaps were made by the Canadian Power Boat Company, and the undercarriages were built by Otaco, a company that prior to the war produced plows and harrows. A total of 57 companies were involved in producing components for De Havilland.

The aircraft manufacturing companies included:

CANADIAN ASSOCIATED AIRCRAFT LTD.

-This consortium of Quebec and Ontario companies was formed in 1938 to build Hampden Bombers in Toronto. Most were shipped to Britain but 80 were based at Sidney, BC.

CANADIAN CAR AND FOUNDRY

-Hawker Hurricanes and Curtis Helldivers were built in Fort William, Ontario. Avro Anson Mk I's were imported from the U.K. and assembled in Amherst, N.B.

CANADIAN VICKERS LTD.

-Canso amphibian maritime patrol aircraft were built in Ville St. Laurent, Quebec. They were used extensively by the RCAF in an anti-submarine role off of Canada's east coast.

DE HAVILLAND AIRCRAFT LTD.

-Mosquito fighter-bombers and Tiger Moth trainers were built in Downsview, Ontario.

FAIRCHILD CANADA AIRCRAFT LTD.

-Bolingbroke bombers and Curtis Helldivers were built in Longueuil, Quebec. Four RCAF Squadrons flew Bolingbrokes on patrols off Canada's east and west coasts.

FEDERAL AIRCRAFT LTD.

-Fleet Fawn and Finch trainers were built prior to WW II. Fairchild Cornell trainers were built at Fort Erie, Ontario under license by Fleet.

NATIONAL STEEL CAR LTD.

-Lysanders were built in Malton, Ontario. Many were used to tow targets at BCATP Bombing and Gunnery Schools.

NOORDUYN AVIATION LTD.

-Harvard advanced trainers and Norseman Aircraft were built in Montreal, Quebec. The Norseman was the only completely Canadian-designed aircraft built in Canada during WW II.

VICTORY AIRCRAFT LTD.

-Lancaster bombers were built in Malton, Ontario. They were then flown to Britain to serve with Bomber Command.

ELSIE MacGILL –QUEEN OF THE HURRICANES

When Elsie MacGill graduated from the University of Toronto in 1927, she became the first woman to receive an electrical engineering degree in Canada. She went on to become the world's first woman aeronautical engineer and professional aircraft designer.

During WW II she supervised 4500 workers, directing the design and production of 1450 Hawker Hurricane fighters in Fort William, Ontario. This effort earned her the nickname "Queen of the Hurricanes."

Following the war, Elsie MacGill became a technical advisor to the United Nations, writing the International Air Worthiness regulations for the design and production of commercial aircraft. Active in womens' rights issues, she was appointed to the Royal Commission on the Status of Women in 1967.



