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VOLUME IX NO. 2

THE CANADIAN AEROPHILATELIST

THE CANADIAN AEROPHILATELIC SOCIETY

Canadian Chapter AAMS APS Affiliate No. 189 AFA Club Member

RPSC Chapter No. 187 FISA Club Member

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ITEM 93-30:

The last issue of The Canadian Aerophilatelist was Vol. IX No. 1 dated 15 February, 1993. There were two issues only of The Canadian Aerophilatelist in 1992. This is the second issue for 1993.

ITEM 93-31:

Ron Miyanishi's secretarial report dated 22 October 1993 is attached as Annex "A". He reports 162 members, including 32 complimentary members.

ITEM 93-32:

The CAS members also belong to the AAMS (61), RPSC (63) and the APS (73). Some members belong to all three philatelic organizations. It is interesting to note membership in the AAMS is less than the RPSC and APS.

ITEM 93-33:

Ron Miyanishi provided a breakdown of our membership in a report dated 6 April 1993. The report is attached as Annex "B".

ITEM 93-34:

Nelson Bentley, Treasurer of the CAS, has submitted two financial reports dated 20 April 1993 and 15 October 1993. (Annex "C") As of 15 October 1993 the total financial balance of the CAS is \$2,641.99 Canadian. There is also a stock of unsold flown envelopes that is evaluated at \$450.00 Canadian cost value.

ITEM 93-35:

The CAS welcomes four new members to the Society:

(A) #200: William H. Pope of Uxbridge, Ontario.

(B) #201: Ivan W. MacKenzie of Ottawa, Ontario.

(C) #202: Ross Harrington of Regina, Saskatchewan.

(D) #203: John Bloor of Englewood, Colorado, USA.

The CAS Executive hopes that each member gains much enjoyment from membership in the CAS.

ITEM 93-36:

It is with regret that the death of Maurice Connell Hewitt, CAS #18 is reported as per the attached obituary (Annex "D"). Maurice was a dear friend as I knew him since August 1954 when I was transferred to RCAF Station Aylmer, Ontario. Maurice assisted our RPSC Chapter, RCAF Station Aylmer Stamp Club, in its annual exhibitions during the annual RCAF Day. Maurice showed me his Canadian air mail flight covers and I was fascinated with these flown envelopes. I sold my "OHMS" and "G" overprinted plate blocks and Canadian and USA First Day Covers and then started earnestly in collecting all aspects of Canadian air mail materiel. I owe my 39 years of aerophilatelic enjoyment to Maurice Hewitt.

Maurice specialized in autographed Canadian first flight covers. He collected by careful selection an almost complete collection of these historic flown covers. On behalf of the CAS, I sent a letter of condolence to his wife, Roberta.

ITEM 93-37:

Congratulations are extended to Murray Heifetz (CAS #14) for completing the requirements to be appointed a FIP international aerophilatelic judge. Murray is also the RPSC appointed Canadian delegate to the FIP Aerophilatelic Commission and a Member of the Board of this Aerophilatelic Commission. As an active member of

the CAS Murray has for over a year contributed one page articles on "Canadian Flight Covers", scarce and rarely reported flown items that are an important part of Canadian aerophilately. Other CAS members are encouraged to contribute to aerophilately by writing for philatelic publications.

ITEM 93-38:

Greater participation by CAS members is requested as it is difficult to operate a Society with only 4 or 5 contributing - Vice President Mike Shand looking after the CAS inventory of covers, Nelson Bentley our Treasurer, Ray Miyanishi our Treasurer, Pat Sloan our past President, and myself. At present we need someone to look after our small library of aerophilatelic magazines and someone to be editor of The Canadian Aerophilatelist. My new assignment as Executive Director, Organization of Military Museums of Canada, Inc. (OMMC Inc.) has turned out to be a full-time, not part-time work. Thus I have not had time to put out an issue of The Canadian Aerophilatelist since 15 February 1993. I regret the delay as it is most important to keep our membership together through our publication. Is there a member willing to assume a CAS responsibility? If so please contact your President.

ITEM 93-39:

Items listed in our inventory of flight covers for sale, dated 30 April 1993, are still available. Anyone who wishes a copy of this list is invited to write the President.

ITEM 93-40:

Due to Canada Post's lack of interest in first flight covers, and the refusal of the major Canadian air lines to promote flown first flight and commemorative covers, only a few souvenir flown covers have been received this year. Items available from Mike Shand are as follows:

- (A) Battle of Britain Memorial Flight, 17 June 1993 by the Canadian Warplane Heritage Museum, Hamilton, Ontario. Pilot signed and flown in the C.W.H. Mynarski Memorial Lancaster. A .17 cent Lancaster stamp is used on the flown size 10 envelope. Value \$5.00 each.
- (B) Shearwater International Air Show, 75th Anniversary of Shearwater as an air base, 18 September 1993. The flown size 10 envelopes are autographed on the back by one or the other two pilots who flew the souvenir envelopes Kathy Gray in the "Freedom Jet" or Steve Oliver in the "Pepsi Skydancer". Value \$5.00 each with one .42 cent Parks stamp or \$10.00 each with three aviation stamps attached.

- (C) Flown, autographed envelopes by the Snowbirds on their last flight exhibition at CFB Moose Jaw on 16 October 1993 are hoped for from the Snowbirds. If available a set of a flown autographed covers will be \$35.00 and singles \$5.00 each.
- (D) The envelopes flown on the Stealth Fighter in July 1992 have not been returned. I am still trying to trace the pilot, now at a base in New Mexico.

ITEM 93-41:

CAS pewter membership pins are available for \$5.00 Canadian, post paid. Orders may be sent to the Treasurer or the President.

ITEM 93-42:

The CAS held its annual meeting during ORAPEX'93 on Saturday, 1 May 1993. The business and discussions held at the meeting are attached as Annex "E".

ITEM 93-43:

Ken Sanford (CAS #6) from Prangins, Switzerland has sent four book reviews on aerophilately for the benefit of CAS members. Ken is the proprietor of "AEROPHIL", a leading supplier of aerophilatelic publications. Knowledge of your subject means a better aerophilatelic collection. If you are seeking an aerophilatelic book I suggest that you give Ken a try. See Annex "F" for the book reviews.

ITEM 93-44:

In the interest of assisting aerophilatelic colleagues, I am enclosing a want list of Tony L. Crumbley, P.O. Box 219, Newell, North Carolina, 28126, USA, as Annex "G". If anyone can assist Tony please contact him. He is anxious to purchase the indicated items for his collection.

ITEM 93-45:

John Peebles, President of the "Canadiana Study Unit" and Editor of "The Canadian Connection" (ISSN-1195-0064) has written an excellent four page article on Canadair Limited (Part III of a Series - Canada's Aviation Industry). It was published in Volume 7, Number 2, Issue 26. John has granted permission to have the article reprinted in "The Canadian Aerophilatelist". Anyone interested in more data on the "Canadiana Study Unit" is invited to write to Mr. John G. Peebles, Box 3262, Station "A", London, Ontario, N6A 3K4. My personal thanks to you John for allowing members of the CAS to have access to your story.

ITEM 93-46:

Tragedy struck the Canadian Warplane Heritage Museum in Mount Hope, Ontario (near Hamilton) when fire destroyed on 15 February 1993 one of the wartime hangars containing five vintage aircraft, including a flying example of a Spitfire and a Hurricane. The CAS had 125 envelopes flown in this Hurricane fighter at the Ottawa National Air Show on 28 June 1992. (Mark II B, No. 1 (401) Sqn.) These flown covers are still available from Mike Shand at \$5.00 each. Fortunately the world famous Mynarski Lancaster Bomber was not damaged.

Attached as Annex "I" is a news release concerning the fire and an article by Frank Artes on The Canadian Warplane Heritage Museum published in the March 1993 issue of the Maritime Patrol Aviation magazine.

ITEM 93-47:

Enclosed with this issue of The Canadian Aerophilatelist will be a brochure on the Snowbirds for 1993, a booklet from a Moose Jaw Air Show in 1991, and if available a Canadian Air Lines International post card. A booklet on the CWM, if available, will also be enclosed for your retention and enjoyment.

ITEM 93-48:

There were no special AAMS Awards for 1993 for Canadian aerophilatelists. Perhaps in 1994 one or more Canadian aerophilatelists will be appointed to the AAMS Hall of Fame.

ITEM 93-49:

Re Item 93-16 in Volume IX No. 1, 15 February 1993, the special gliding covers prepared and flown for the 50th Anniversary of the Gatineau Gliding Club and Pendleton Airport on 6 September 1992 are still available at \$2.00 each from Nelson Bentley.

ITEM 93-50:

Members are requested to review Items 93-20 and 93-21 on the preparation of a Canadian Aerophilatelic Catalogue. I have not received yet the prepared discs from the Editor-In-Chief, Dan Barber to commence our project. Those who have volunteered to help prepare this catalogue are requested to send me their ideas for format and content. I would suggest that the format of the AAMS catalogue set, Edition No. 5 be followed.

ITEM 93-51:

I have not received any offers yet to help with CAPEX'96 to be held in Toronto, 8-16 June 1996. I will repeat Item 93-23 for the benefit of all. We must maintain our aerophilatelic image in Canada. The AAMS Board of Directors has approved holding their 1996 annual general meeting in Toronto at CAPEX'96. May I have your support?

CAPEX'96 will be held in Toronto, Ontario 8-16 June 1996. Start to plan your trip to this significant philatelic event. The CAS plans to cooperate with the AAMS, AFA, FISA and the RPSC to make aerophilately\astrophilately an important segment of CAPEX'96. Annual meetings of the various aerophilatelic\astrophilatelic groups will be held, seminars and lectures presented, a special dining-in-night will be held at the historic Royal Canadian Military Institute in Toronto, and a visit to the Canadian Aviation Heritage Museum at Mount Hope near Hamilton, Ontario will be arranged. A Committee to coordinate activities will be set up with CAS Toronto and environs members. Who wishes to chair this committee - perhaps Murray Heifetz, our RPSC Aerophilatelic Commissioner to the FIP Aerophilatelic Commission who lives in the Toronto area?

ITEM 93-52:

The CAS awarded prizes for aerophilatelic achievement at EUR-APEX'93, ROYAL 1993 ROYALE and POLSKA'93, as well as contribution to Aerophilately at EUR-APEX'93.

The two aerophilatelic achievement awards at ROYAL 1993 ROYALE were won by W\C Pat Sloan for his "South Atlantic Mails", and Mike Shand for his "The Airmails of New Zealand". Congratulations Pat and Mike.

ITEM 93-53:

The recipients of CAS awards at EUR-APEX'93 are as follows:

(A) For Achievement:

- (i) Jurg Dierauer of Bernech, Switzerland for his astrophilatelic exhibit "Der Vorstoss In Den Welttraum";
- (ii) Michael Goddard of Port Talbot, West Glam, UK for his aerophilatelic literature, "The Airports of Greece, 1912-1991; and

- (iii) James T. Wallace (deceased) of Ipswich, Suffolk, UK for his aerophilatelic exhibit, "Rates of Malta, 1928-1945.
- (B) For Contribution to Aerophilately\Astrophilately:
 - (i) John C.W. Field, President of the British Aerophilatelic Federation of Sutton Coldfield, West Midlands, U.K.
 - (ii) Brian L. Asquith, Vice-President, British Aerophilatelic Federation and Chairman, EUR-APEX'93 of Carshalton Beeches, Surrey, UK.
 - (iii) Roger G. Stanley Smith, Editor of the British Aerophilatelic Federation Journal and Secretary of EUR-APEX'93 of Hassocks, West Sussex, UK.

ITEM 93-54:

The recipients of the CAS award for contribution to aerophilately presented at ROYAL 1993 ROYALE are as follows:

- (A) Christopher J. Terry, Director, National Aviation Museum, Ottawa, Ontario.
- (B) Irene Landry, Postal Staff, National Postal Museum, Canadian Museum of Civilization, Hull, P.Q.; and
- (C) Major (Ret'd) E.R. "Ritch" Toop, CD, past secretary, CAS of Ottawa, Ontario.

ITEM 93-55:

If any CAS member has any aerophilatelic news for their colleagues please send it to the Editor for use in The Canadian Aerophilatelist.

The next issue of "The Canadian Aerophilatelist" will be released hopefully in February 1994 after my return from Comox, B.C.

(R. K. Malott)

Slick / Talots

FRPSC

President CAS

Editor, The Canadian Aerophilatelist.

RKM\dt.

BOOK REVIEW, by Kendall C. Sanford

1US\$4,00 FURFACE

"JUSQU'A AIRMAIL MARKINGS" (A Study), by Ian McQueen. Published by W.A. Page, Dartford, England, 1993. A4 size, 109 pp., soft cover. UK£10.00 (US\$15.00) plus postage. Available from AEROPHIL, 4 Ave. General Guiguer, CH-1197 Prangins (Vaud), Switzerland for US\$18.00 including surface postage.

This the first book I am aware of that shows all known air mail markings from various countries, to indicate that a letter was to be carried part way or to a particular point by air. The term "Jusqu'a" is French meaning 'up to' or 'until'. Thus, all such markings are known as "Jusqu'a" markings. In the forward, the author advises that it was not his intention to produce a complete or thorough study of the Jusqu'a markings, but to introduce the subject and give help to fellow collectors who in recent years have been showing interest in what has hitherto been a rather neglected subject. It is hoped that this study will stimulate interest and that readers will be kind enough to advise of any errors and omissions.

The book starts out by showing some examples of Jusqu'a airmail markings, and then explaining some countries' postal regulations regarding the carriage of letters by air. In order to keep the study within reasonable bounds, the author has concentrated on the true Jusqu'a and Jusqu'a type handstamps, together with the air mail cancel handstamps which were used to mark the end of the flown mail service. The book describes and shows examples of the following various items:

- · Mailbag Label Handstamps
- Air Mail Etiquettes showing certain city pairs or destinations
- Routing Handstamps
- AV2 & OAT Markings
- "Au Dela" Cachets
- · Insufficiently Paid for Airmail markings

The listings are by country and show each known type of marking from that country. Also covered are the bars which were normally stamped across an air mail etiquette to indicate that the letter was not to be carried further by air because of the rate paid.

The reproductions of the markings are not very good, but they are adequate for the purpose. There is a very short bibliography, and a list of periodicals presumably which have carried articles about Jusqu'a markings. Unfortunately, no date, volume or issue numbers are given, which would make it very difficult to find a particular article. And finally, there is a useful listing of the countries and towns from which markings are shown.

The book should stimulate interest in Jusqu'a Airmail markings, and I recommend it to all aerophilatelists.

MINI BOOK REVIEWS, by Kendall C. Sanford

"KATALOG DER DEUTSCHEN LUFTPOST, Teil 4: Erstfluge 1945-1960 - ohne Deutsche Lufthansa (West)" (Catalog of German Airmail, Vol. 4, First Flights 1945-1960 except West German Lufthansa), by Erich Haberer. Published 1992. 104 pp., soft cover. US\$15.00) plus \$3.00 surface postage.

"KATALOG DER DEUTSCHEN LUFTPOST, Teil 5: Erstfluge 1961-1970 - ohne Deutsche Lufthansa (West)" (Catalog of German Airmail, Vol. 5, First Flights 1961-1970 except West German Lufthansa), by Erich Haberer. Published 1993. 118 pp., soft cover. US\$17.00) plus \$3.00 surface postage.

"KATALOG UBER DIE KATAPULTPOST, Teil 1: Nordatlantik" (Catalog of the Catapult Mail, Vol. 1), by Erich Haberer. Published 1992. 124 pp., soft cover. US\$17.00) plus \$3.00 surface postage.

Available from AEROPHIL, 4 Ave. General Guiguer, CH-1197 Prangins (Vaud), Switzerland for US\$18.00 including surface postage.

All three are from the series of aerophilatelic books published by the EAPC Club in Stuttgart, Germany. The first two books continued the listings of first flights to and from Germany, except for Lufthansa, which would make a book in itself. The listings are chronological by date. They show the cachets and special postmarks used on the first flight covers, and the covers are priced in German marks. Each book has an alphabetical index listing the first flight segments by city. This is useful for the collector of covers from specific cities. The books are a must for the collector of German first flights.

The third book, listing all the North Atlantic catapult flights and covers, is a complete update of the 1985 Edition. It lists all the catapult flights from the German ships "Bremen" & "Europa". It gives a brief explanation of these flights and then lists all the flights and covers chronologically. Each cover is priced in German marks. At the end is a one page recap of all the flights by date. The book is a must for anyone interested in catapult covers.

Whilst all three of these books are in the German language, they are quite easy to use, and with the aid of a German dictionary, no collector should have any problem in using them.

CANADA'S AVIATION INDUSTRY

by John Peebles

PART III: CANADAIR LIMITED

Canadian Vickers Limited, originally a shipbuilding subsidiary of a British firm, was established in Montreal in 1923 as a Canadian aircraft manufacturer.

By 1944, Canadian Vickers had become so involved in wartime shipbuilding and repair that it could not efficiently run both ship and aircraft operations. The Canadian Government had Canadian Vickers divest itself of its management responsibility for the Cartierville plant and then entered into a new contract with a management group named Canadair Limited.

On November 11, 1944, the new crown corporation, Canadair Limited, officially took over operation of the Cartierville plant and Canadian Vickers gave up aircraft manufacture.

After World War II the demand for civil aircraft was high. The Canadian Government decided to proceed with a plan to build a large four-engined transport for the RCAF as well as for use by Trans-Canada Airlines (TCA). The contract for manufacture of the new craft was awarded to Canadair.

As the Douglas DC-4 was regarded as the best large transport aircraft available at that time, Canadair's factory manager was sent to the Douglas Aircraft Company in Santa Monica, California in August 1945 to study DC-4 production. The visit proved to be timely as the U.S. Government and Douglas were just about to dispose of many tons of tooling and parts from various Douglas plants. This was a bargain not to be missed and hence Canadair obtained over 600 carloads of materials from Douglas, including more than 60 fuselages for the C-54, the military version of the DC-4. The price paid was a paltry \$40 a ton for tools and \$200 a ton for parts.

With these parts Canadair established the Canadair Conversion Plant in Cartierville. Between 1945 and 1947 hundreds of aircraft were converted, modified and overhauled with sales going to Canada, the U.S., France, Belgium, Norway, Portugal, Sweden, Argentina, and the Netherlands East Indies.

In early 1946 the Canadian Government decided to put Canadair up for sale. On September 14, 1946 the Electric Boat Company of Connecticut acquired virtually all of the stock of Canadair Limited and entered into a lease option agreement with the Canadian Government for the use of the Cartierville plant facilities.

While Canadair's labour force was busy with the conversion program, the plant was gearing up for production of the new four-engined aircraft. The new aircraft was basically a Douglas DC-4 with some components from the

newer Douglas DC-6.

The new plane made its maiden flight on July 5, 1946. Trans-Canada Airlines (TCA) christened it the NORTH STAR. Canadair manufactured the NORTH STAR in three versions. Produced were twenty-four C-54GM's, an unpressurized transport for the RCAF; plus 47 airliner versions including the DC-4M-1, an unpressurized transport for TCA, as well as the DC-4M-2, a pressurized passenger transport also for TCA.

The RCAF NORTH STAR served as a supply aircraft for Canadian military operations in Europe. It was also the mainstay of the Canadian effort in the Korean airlift.



(figure 1)

Prior to taking delivery of its own NORTH STAR's from Canadair, Trans-Canada Airways (which is now known as Air Canada), operated six unpressurized versions of the NORTH STAR borrowed form the RCAF. The Airline eventually purchased 23 of the NORTH STAR's, the first in 1947. The aircraft were used on the transcontinental, transatlantic and Caribbean routes from 1947 to 1961. One of these, NORTH STAR DC-472, is seen on a stamp of Barbados (figure 1). The stamp is one of two issued in 1986 in honour of EXPO '86, the World Exposition of Transportation and Communications held in Vancouver. In all, TCA's NORTH STAR's flew more than 5 billion passenger miles.

The NORTH STAR marked a milestone in Canadian aviation in 1949 by taking the Great Circle route as it made the first non-stop trans-Canada flight from Vancouver to Halifax. The 2,785 miles were covered in 8 hours, 32 minutes for an average speed of 329 m.p.h.

Canadian Pacific Airlines as well as British Overseas Airways Corporation (BOAC) both operated NORTH STAR's. BOAC (now known as British Airways) named the aircraft the ARGONAUT. A total of 22-ARGONAUT's were operated by BOAC on its African and Far East routes

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for over eleven years. A Canadair-made ARGONAUT, used by BOAC, is shown on a stamp (figure 2) of Singapore. The stamp was issued in 1955.



(figure 2)

By the time production of the NORTH STAR ended in 1950 a total of 71 of the aircraft had been made.

In the decades of the 1950's and 1960's eleven new production programs were started at Canadair.

A year before the Korean War Canadair began work on its largest production run ever. Between 1949 and 1958 the Canadair F-86 SABRE jet fighter program resulted in 1,815 SABRE's being produced. The SABRE program was a record-breaker in that more aircraft were produced in this program than in any program before or since.

SABRE's were delivered to the RCAF, Britain's Royal Air Force, the German Luftwaffe, and the governments of Colombia and South Africa.





(figure 3)

(figure 4)

A 60¢ stamp (figure 3) issued by the Caribbean island of Antigua in 1989 marked "The 50th Anniversary of the First Jet Flight." Portrayed on the stamp is a Canadair F-86 SABRE. This stamp also appears, as shown in figure 4, overprinted "BARBUDA MAIL."

In April 1952 Canadair was awarded a contract to produce the T-33 SILVER STAR (CL-30) jet trainer, a 2-seat derivative of the Lockheed F-80C SHOOTING STAR. By the time this program ended in 1958 Canadair had produced 656 of the aircraft. The aircraft was delivered to the RCAF, as well as the governments of France, Greece, Portugal, Turkey and Bolivia.

A series of aircraft resulted from Canadair's acquisition of the rights to the Bristol BRITANNIA airliner.

The ARGUS (CL-28) aircraft was a maritime patrol, anti-submarine warfare airplane which was a modifi-

cation of the Bristol BRITANNIA turboprop airliner. By the time this program concluded in 1960 a total of 33 aircraft had been manufactured.

A second derivative of the BRITANNIA was the CL-44-6 YUKON military troop and cargo transport. Twelve were produced for the RCAF.

The third BRITANNIA derivative was the CL-44D4, a commercial cargo transport. After this came the CL-44J, a stretched version. Four of these were supplied to Loftleidir Icelandic Airlines for operation on the New York to Luxembourg route. The CL-44J made its first flight on November 8, 1965 as the largest airplane ever made in Canada. It also held the record at one time for the largest number of passengers carried across the Atlantic, at 189.



(figure 5)

Iceland pictured one of the craft in 1969 on a stamp (figure 5), part of a set of two stamps issued for the 50th anniversary of Icelandic aviation.

Canadair CL-44 type aircraft are still operating around the world.

The 1960's began with the appearance of the first airplane designed and developed entirely at Canadair. It was the TUTOR CL-41 jet trainer. It flew for the first time on January 13, 1960.

The TUTOR is familiar to millions of North Americans as it is the aircraft currently being used by the Canadian "Snowbirds" aerobatics flying team. The Snowbirds were formed in 1971 by flying instructors at the Canadian Forces Base, Moose Jaw, Saskatchewan. In the fall of 1977 the team became a permanent unit of 21 officers and men (11 pilots and 10 technicians) of No. 431 Air Demonstration Squadron, CF, Moose Jaw.

Each year the Snowbirds perform across North America with an average of 70 shows between May and September. The unit operates ten TUTOR's, seven usually flown in the formation displays and two in solo performances, with one in reserve.

Two U.S. cancels have noted the participation of the Snowbirds and their TUTOR craft in American airshows. In 1986 (figure 6) the Canadian Snowbirds, or the 431 Air Demonstration Squadron as they are officially known, were honoured at the Salinas, California International Airshow.

On the occasion of the 20th anniversary of the



(figure 6)

Snowbirds in 1990, a pictorial cancel was used in Stockton, California (figure 7). The cancel features stylized drawings of the TUTOR aircraft.



(figure 7)

In the 1960's two models of supersonic aircraft were built under licence by Canadair. The two were the CF-104, a modified Lockheed F-104 fighter and the CF-5, based on the Northrup F-5 FREEDOM FIGHTER. A total of 240 CF-5's were produced.



(figure 8)

In 1967, as agent of the Canadian Government under a licence agreement from Northrup, Canadair began production of the CF-5, a version of the F-5 developed by Northrup to meet Canadian requirements. The CF-5, a jet fighter supersonic aircraft, first flew on August 28, 1968.

The original contract called for Canadair to produce 89 single seat CF-5A's and 26 dual CF-5D's. Shortly after production started, the Royal Netherlands Air Force ordered 105 aircraft. The Canadian Government later sold 16 CF-5A's and 2 CF-5D's to Venezuela. One of these (figure 8) is shown on one of a four stamp set issued by Venezuela in 1979. The stamps were issued to mark the 59th anniversary of the Venezuelan Air Force and to honour EXFILVE '79, a National Philatelic Exhibition.

The second wholly-designed Canadair aircraft was the CL-215 Waterbomber.

Since the beginning of aviation in Canada, aircraft have played an important role in the protection of the country's vast forests. In December 1963 the National Research Council of Canada established criteria for the ideal forest firefighting airplane. In response, Canadair then designed the CL-215, the first aircraft designed specifically to fight forest fires.

The CL-215, an amphibious flying boat, is able to scoop 6-ton loads of water in only 10 seconds from any suitable body of water--that's 1,176 Imperial gallons or 5.347 litres!

The idea of using aircraft to fight forest fires was not a new idea. Previously airplanes had been old flying boats fitted with water tanks or light utility planes equipped with floats especially designed to carry water.

The CL-215, after bombing its target, was designed to reload without stopping. As the pilot skims the craft across a lake surface, scoops from the hull-shaped fuselage are lowered to refill the tanks.

The CL-215 has established performance records far superior to any other firefighting aircraft. One CL-215 operating in Yugoslavia in 1982 made 225 attacks on fires in a single day; another in Quebec made 31 drops in a single hour!



(figure 9)

The aircraft have been used not only for firefighting but also for aerial spraying, transportation, search and rescue, and maritime patrol.

The first CL-215 flew on October 23, 1967. Deliveries have since been made around the world including those to France, the United States, Greece, Germany, Spain, Italy, Thailand, Venezuela and Yugoslavia.

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As part of a set of three stamps released in 1984 on the theme of "Civil Protection against Fire" a Canadair CL-215 appears on a 100F stamp of Djibouti (figure 9).



(figure 10)

Yugoslavia pictured a Canadair CL-215 spraying a forest fire on a stamp (figure 10) issued in 1987.

Since 1946 Electric Boat of Connecticut, later called General Dynamics Corporation beginning in 1952, had retained Canadair as a subsidiary. In January 1976, however, Canadair was purchased by the Canadian Government.

After three decades oriented primarily to military activities Canadair undertook a change in direction in the 1970's. In 1976 Canadair launched the CHALLENGER business jet. The new aircraft was the first Canadian civil

jet to enter production. Certification of the CHALLENGER was in 1980.

The 1980's saw the arrival of harsh economic conditions. Canadair was restructured by the Canadian Government and was prepared for sale to the private sector. In 1986 it was purchased by Bombardier Incorporated of Montreal, a Canadian corporation with annual sales in excess of \$3 billion. Bombardier is also the owner, in corporate partnership with the Government of Ontario, of de Havilland Aircraft of Canada, which it purchased in March 1992.

Canadair continues to establish its presence in the business jet market with its CHALLENGER models. Canadair has launched a 50-passenger regional jet geared to the regional airline market plus a widebody business jet.

What do the 1990's and beyond hold for Canadair? In 1991 Canadair launched the CL-415, a turboprop version of the highly successful CL-215 fire fighter. In the works is the development of a new long-range aircraft, the GLO-BAL EXPRESS, designed to meet the transportation needs of the global economy.

Canadair was incorporated in 1944. Since that time the company has manufactured close to 5,000 aircraft. As it prepares to celebrate its golden anniversary in 1994, Canadair appears more than ready to meet the challenges of its next half-century in the global aerospace industry.

CHECKLIST

1180	1989 May 29	Canadair F-86 SABRE
680	1986 May 02	Canadair DC-4M-2 NORTH STAR, Van-
		couver's Expo '86
1040	1989 May 29	Canadair F-86 SABRE, o/p Antigua #1180
583	1984 Sep 09	Canadair CL-215 Waterbomber
411	1969 Sep 03	Canadair CL-44J, Loftleidir Icelandic Air-
		lines
37	1955 Sep 04	Canadair DC-4M ARGONAUT C-4
1221	1979 Dec 15	Canadair CF-5 Jet Fighter
1857	1987 Jul 20	Canadair CL-215 Waterbomber
	680 1040 583 411 37 1221	680 1986 May 02 1040 1989 May 29 583 1984 Sep 09 411 1969 Sep 03 37 1955 Sep 04 1221 1979 Dec 15

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THE CANADIAN WARPLANE HERITAGE MUSEUM

By Frank Artés

Flying just below the cloud base, and over flat farmland that stretches to the water's edge, the two Harvards hug the shoreline. Their yellow shapes are almost lost in the haze of the late afternoon sun. A mile or so behind, the co-pilot of a B-25 tunes his radio to the frequency of his home base. His eyes strain, looking for the airfield which he knows he is there but still cannot see, because it is amongst the pale fields and gravel roads that crisscross below him. Strung out behind the Mitchell, three other aircraft in loose formation are also looking for home.

On the ground, coveralled figures making a last check of an engine, before cowlings are closed, turn to watch as the aircraft enter the circuit. Pilots lugging parachutes, or strapped and harness-buckled in the cockpit, look up as the Harvards zig-zag to the ramp.

This is Mount Hope airport on most weekends during the summer, but it could also be Mount Hope as it once was, some fifty years ago, when the airfield was part of the British Commonwealth Air Training Plan. Located just outside Hamilton, Ontario, Mount Hope is now home to the Canadian Warplane Heritage Museum, a museum of living aviation history where one can see, hear and feel something of an era long since past, but certainly not forgotten.

I decided to take a closer look at this interesting and rather unusual organization. With over 1000 regular members, 4500 support club personnel and an affiliated organization in Niagra Falls, N.Y., the CWH Museum has become one of North America's finest collections of flying exhibits. One reason for its longevity and success is the fact that it is a volunteer-based organization and, since 1972, it has grown steadily, both in size and reputation.

Today's CWH owes its existence to two far-sighted individuals, museum president Dennis Bradley and the late Allen Ness, who was killed in a tragic accident in 1977 while flying the museum's Fairey Firefly at the Canadian National Exhibition in Toronto. Their charter was to create a museum that would represent Canadian military-aviation history from the Second World War until the integration of the Canadian Armed Forces in 1968, a period covering approximately thirty years.

From a quiet beginning in 1972, the museum's collection of aircraft, artifacts and exhibits has grown into a truly significant memorial that keeps the exploits of Canadian airmen alive. Housed in two 1940s vintage hangers, the aircraft look very much at home. The museum's motto, "preserve and maintain", is well chosen when one considers the high standard of workmanship necessary to keep these aircraft flying. In one hanger, the completed, airworthy types are arranged so that the visitor can walk around them at close quarters. The other hanger accommodates the restoration projects and maintenance facilities, allowing the public a glimpse of the "behind the scenes" environment, and the work involved in getting a vintage aircraft back into the air. Here also are displayed the mightly Lancaster bomber and the Hawker Hur-

At present, the collection totals some thirty aircraft obtained over the years as donations from individuals and organizations or, in some cases, as outright purchases. They arrive in an assortment of guises and in a variety of ways. Most fly into the airport under their own power, but some arrive on the back of a truck, as a securely-tied collection of unrecognisable objects gathered together after spending years languishing in a farmer's field. One aircraft made a very gentle touch-down,dangling from cables slung beneath a Canadian Forces Chinook helicopter.

Aircraft used by the BCATP are much in evidence. These training aircraft, which gained thousands of Canadian and Allied airmen their wings, provoke many memories, I'm sure, for those visitors who have first-hand experience of them. The frail looking D.H.82C Tiger Moth or Fleet Fawn would undoubtedly have given them their first taste of flying. There are three examples of the ubiquitous Harvard, an AT-6 Texan, and a PT-26 Fairchild Cornell built by Fleet Aircraft of Canada in 1942. A somewhat Unusual sight is an immaculate NA-64 Yale, often looked upon as the Harvard's poorer cousin. Although it had a rather chequered career as a pilot trainer, a result of its vicious stall characteristics, it eventually found its niche training wireless operators. The student was strapped into the rear seat behind an enormous radio of the type more commonly found aboard the operational heavy bombers of the day. Two



The Canadian Warplane Heritage Museum's "Mynarski Memorial Lancaster" returns to base after one of its many public appearances throughout North America. (C. Dunbar)



The CWH's DC-3 Dakota has over 82,000 hours on the airframe. It is painted to represent one of the RCAF "Burma Star" squadrons that was operational in the Far East during 1944/45.

CWH)

twin-engined trainers: a T-50 Cessna Crane and a remarkable Anson Mk.V, Avro's all-wooden version, are also on display. Although built in 1944 for long-range photographic sorties, the interior of the Anson has been returned to the original, training-role layout. There are two navigation tables, a wireless operator's station and a bomb-aimer's position, located in the nose, with an authentic Westinghouse Mk.19 bomb-sight.

It becomes apparent when walking through the hangers that a remarkable number and variety of aircraft are on display. Less common types, such as the diminutive Stinson HW-75, are no less significant than the massive Avro Lancaster, both having had a part to play in Canada's aviation history. The acquisition and restoration of the Lancaster was a monumental task which at times seemed almost too daunting to contemplate. The project took ten years and thousands of man-hours to complete, the aircraft finally becoming airborne on September 11,1988. One of only two currently flying, world-wide, the Lancaster is painted with the markings of 419 (Moose) Squadron.

An interesting feature of some CWH aircraft is that they are not only dedicated to all Canadian airmen who served their country in time of war but, as in the case of the Lancaster, an individual's heroic deeds are honoured as well. P/O Andrew

Mynarski was posthumously awarded the Victoria Cross whilst serving with 419 squadron, RCAF. The "Mynarski Memorial Lancaster" is indeed a fitting tribune.

Another aircraft, similarly dedicated, earned its battle honours half a world away from the Lancaster, in the Pacific theatre of operations. The FG-1D Corsair in the museum's collection is painted in the markings of the aircraft flown by Lt. R.H. Gray, VC, DSC, RCNVR. Lieutenant Gray, operating from HMS Formidable, was leading an attack on a convoy of Japanese warships off the coast of Honshu Island when his aircraft was hit by enemy fire. Despite his injuries, and damage to the Corsair, he pressed home his attack, sinking a Destroyer. Lieutenant Gray, whose VC was awarded posthumously, was the only member of the Royal Canadian Navy to receive the Victoria Cross during World War II. Another aircraft with a naval connection is a Grumman Avenger which carries the markings of an 880 Squadron aircraft that flew from HMCS Magnificent circa 1948. Affectionately known as "Big Ugly", Avengers remained in service with the RCN until the early 1960s.

Some of the larger aircraft on display are a B-25 Mitchell, an A-26 Invader and a high-time DC-3 with over 82,000 hours on the airframe. Carrying the slogan "Canucks Unlimited", the Dak is painted to represent one of the RCAF Burma Star

squadrons that were operational in the Far East during 1944-45, and is dedicated to the memory of all those Canadians who served in South East Asia Command.

A prized addition came in 1984 when a Hawker Hurricane MkIIB was acquired from the Strathallen collection in Scotland. Ironically, this aircraft was built by Canadian Car and Foundry at Fort William, Ontario, in 1942, so when word was received of its imminent sale every effort was made to secure the aircraft. Many donations were received from museum members, individuals and corporations who wanted to see an important part of our history back in Canada. With the help of a grant from the Federal Government, the Hurricane joined the CWH collection, arriving at Mount Hope after a transatlantic flight aboard a Canadian Forces C-130. It proudly wears the markings of No 1 (401) Sqn, the only RCAF Squadron to have taken part in the Battle of Britain, and is a fine tribute to the Canadian airmen who served as part of Fighter Command. Every year the CWH aircraft are much in demand during the flying season to appear at airshows across Canada and the United States, something of which the museum organization is most proud. It gives today's generation a chance to see an important part of our heritage, and pays tribute to the many thousands of Canadians Who served their country in time of need.

An enormous amount of research and hard work goes into each restoration project the museum acquires. Establishing the Authenticity of individual aircraft colours and markings, a task undertaken by the museum's library and archives personnel, is as important as the restoration work itself. A vast amount of technical documentation pertaining to specific aircraft types has been amassed over the years. Historical books and reference materials are constantly in use. Requests are often received from other organizations involved with Canadian military history, or from individuals embarked on projects for which details are required on specific aircraft, or incidents in which Canadian airmen were involved.

The archives hold a fascinating number of artifacts, mostly dating from World

War II. Radio equipment and cockpit instrumentation, antiquated by today's standards but state-of-the-art in the 1940s, are neatly arranged on shelves, tagged and identified. Running along one wall is a rack of uniforms and various pieces of flying kit, helmets and oxygen masks. Hanging heavily, thick sheepskin jackets, brown and wrinkled, with the odd tear in a sleeve that might have seen one too many sorties, are now kept in a temperature-controlled environment, far from the frigid milieu of 20,000 feet. The curator, Rob Scheyer, recently took delivery of a Royal New Zealand Air Force tunic which had belonged to an airman who had trained under the BCATP in Canada. The archives' collection of uniforms of the four major partners in the BCATP, namely Britain, Australia, Canada and New Zealand, is now complete.

The museum's accomplishments have been many, but there is always much to do to keep Canadian aviation history alive and flying. New members are always welcome and need offer only enthusiasm, spare time and a willingness to learn. To join "Canada's Flying Museum", contact Canadian Warplane Heritage Museum, P.O. Box 35, Mount Hope, Ontario, LOR 1WO. +

About the Author

Frank Artés is a professional cartographer who writes aviation historical articles on a free-lance basis. He holds a private pilot's license and has been a member of the Canadian Warplane Heritage Museum for over ten years. Frank has had numerous articles published in COPA magazine and in various British aeronautical publications. He is currently serving on the museum's public relations team and is responsible for the 1993 Hamilton Airshow program.

estrovs vintade plane

which was used in the 1969 movie Battle of Britain — and the Spitfire, the casualties included an Avenger naval torpedo plane, another Second World War veteran.

craft converted to military use, A single-engined Auster, emillery, and a Stinson, a civilian airployed during the war to direct arwere also wrecked.

egendary Spitfire and Hurricane

- went up in flames at

ighters

Fire engulfed one of the aging hangars used by the Canadian Warplane Heritage Museum in familton, destroying five of the his

wooden

southern Ontario museum.

cluding rare flying examples of the

A private plane not part of the museum collection was also destroyed.

toric aircraft before firefighters

well as the Hurricane

could bring the stubborn blaze

um's director, estimated the loss at more than \$3 million. None of the Jack Evans, the Hamilton muse planes was insured because premiums would have been, "inordi nately" expensive.

But staff at the museum, tried to forward to flying the remaining 20 be positive. They're already looking The blaze started about 7 a.m aircraft at air shows across North America this summer, he said.

> The only good news was that the museum's prize piece, one of the world's two airworthy Lancaster

said a spokesman for the rural

Glanbrook fire department

and took several hours to control