



Newsletter of CAHS Toronto Chapter  
A Division of The Canadian Aviation Historical Society

<http://www.cahs.ca/chapters/toronto>

**Canadian Aviation Historical Society  
Toronto Chapter Meeting October 16, 2010**

**Canadian Air & Space Museum**

**Time: 1:00 pm**

**65 Carl Hall Road, Toronto**

**Information: Bob Winson (416) 745-1462**

**E-mail: [rwinson@sympatico.ca](mailto:rwinson@sympatico.ca)**

This meeting is jointly sponsored by CAHS Toronto Chapter and the Canadian Air & Space Museum- All CAHS / CASM members, guests and the public (museum admission payable) are welcome to attend.

Refreshments will be served

"Landing Fee" of \$2.00 will be charged to cover meeting expenses

**Next Meeting Nov 20, 2010 1 pm at CASM**

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Topic: "Watch and Warn - Canada's Home Front Aircraft Detection Corps" *Photo - The War Amps*

## May Meeting

Topic: McDonnell Douglas in Canada  
Speaker: Frank Harvey, President of the  
Aerospace Heritage Foundation of Canada  
Reporter: Gord McNulty

Howard Malone, retiring as CAHS Toronto Chapter President after years of dedicated service to the Chapter and CAHS National, introduced Frank W. Harvey, who returned for a second presentation to the Chapter. In March of 2009, Frank discussed production of the Lancaster in Canada during World War II, as reported in *Flypast* Volume 43, Number 7. Frank, of Mississauga, is President of the Aerospace Heritage Foundation of Canada (AHFC) based in Toronto. The AHFC is a federally chartered non-profit organization with a special emphasis on the history of Avro Canada and Orenda Engines Ltd. at Malton. Before coming to Canada, Frank was an apprentice with de Havilland Aircraft at Hatfield, England. Gaining experience in all phases of aircraft manufacturing and testing, he worked on everything from pre-war biplanes to



Howard Malone Chairing his last meeting as President *Photo - Neil McGavock*

modern jet fighters and commercial aircraft including the de Havilland Comet, the first jet airliner to fly and enter service in the world.

At Avro Canada, Frank worked on the CF-100 Canuck and the CF-105 Arrow. He did repair and overhaul on the CF-100, and modifications on the CF-100 at various RCAF



Speaker Frank Harvey *Photo - Neil McGavock*

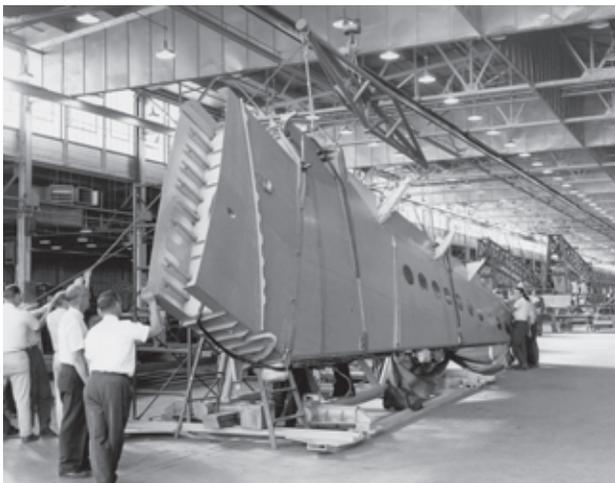
bases. He then worked in the Experimental Flight Test Department on the Arrow at Malton. When the Arrow was cancelled on Feb. 20, 1959, he was one of about 14,000 Avro and Orenda employees who lost their jobs. Along with his father, he attempted a business venture which did not proceed. Frank returned to the Malton plant, which had been acquired by de Havilland Canada in 1963. He worked on the Caribou, Buffalo and Turbo Beaver. Then he moved to the Douglas DC-9 when Douglas Aircraft of Canada, which later became McDonnell Douglas Canada (MD Can), began subcontracted production of wings and rear fuselage components for the DC-9 at Malton.

Frank completed assignments in various areas of manufacturing over the next few years. He was S.B.U. (Strategic Business Unit) Leader on the MD-80/90 Leading Edge program, in control of fabrication of parts and assembly of components. Since retiring in

1992, Frank has been retained on numerous occasions as a manufacturing consultant on new projects by both McDonnell Douglas and Boeing. He also has experience on MD-80 assembly and fabrication for the Xi'an Aircraft Company of Xi'an, China. He is also a member of the de Havilland Aeronautical Technical School Association.

In a two-part presentation, Frank began with a promotional corporate video featuring production of wings and other components for airliners at Malton. The video started with work on original Douglas aircraft including the DC-8, DC-9, and DC-10. Contracts followed for the MD-80 --- lengthened and updated version of the DC-9, and the MD-11 --- a stretched-fuselage, wide body development of the DC-10. The upbeat video noted the reputation for comfort, dependability, quality and workmanship that MD products had established for more than two decades. They had expanded horizons, accelerated business and had "given the world the ability to fly on Canadian wings."

The video showed MD Can's expansion of its sprawling facility at Lester B. Pearson Airport, to a point where it reached nearly two million square feet in size in its initial 25 years. Production began in 1965 when Douglas Aircraft began manufacturing DC-9 wings. The DC-10 contract followed in 1968, and the MD-80 contract in 1977, as operations grew steadily. More than 20 per



DC-9 Wing Assembly Photo Credit - Canadian Air & Space Museum



DC-9 Tailcone Assembly Photo Credit - Canadian Air & Space Museum

cent of the total airframe of the MD-80 was built at Malton, and nearly 15 per cent of the MD-11 airframe was built at MD Can. Wing pylons for the F-18 Hornet were also built at Malton. Construction of such huge components as aircraft wings required integration of hundreds or thousands of individual parts, all to critical tolerances. The Malton complex was divided into two basic areas: parts fabrication, and production line assembly. The facilities were among the largest in the world. Production was demanding, and exacting. MD-11 wings, for example, were about 165 feet long but had components with tolerances as precise as five- or ten-thousands of an inch. Giant overhead cranes moved the mammoth assemblies from one stage of production to the next. For the MD-11, huge vertical jigs held the wing during initial assembly. Each stage required utmost skill and craftsmanship. Final mating of the wing with the fuselage was done at the MD facilities in Long Beach, California.

Up to 40,000 parts would be required for a set of aircraft wings, and many were described as "agonizingly complex in design." The fabrication of such parts to exact tolerances, on time, and at the lowest possible cost, was critical to continuing success --- especially given what the video described as the "fierce" competition in the aircraft industry. During the decade between 1980 and 1990, MD Canada invested more than \$100



First DC-10 Wing Photo Credit  
- Canadian Air & Space Museum

million to modernize the plant and equipment and its operations had a major impact on the Canadian economy. Each aircraft produced benefited almost 1,000 external businesses --- vendors, suppliers, and sub-contractors --- which provided specialized materials and services for MD. Whether it was an MD-11 or an MD-80 series aircraft, an average of more than \$1 million was paid to vendors and suppliers. Each MD-80 generated about 200,000 total job hours in Canada, more than \$1 million in tax revenue for the federal government, and an additional \$5 million for Canada's Gross National Product. Each MD-11, meanwhile, generated 100,000 man-hours. When multiplied throughout the economy, each produced more than 330,000 job hours in Canada. By 1990, MD Can had invested more than a quarter of a billion dollars and provided Canadian exports of more than \$5 billion. MD Can had delivered major components for around 4,000 civil and military aircraft. Military production included work on the KC-10 air-to-air tanker as well as the F-18.

Taking the microphone, Frank noted that impressive story did not end happily.

McDonnell Douglas merged with Boeing in 1997 and the plant became Boeing Toronto Ltd., Boeing 717 wings, along with parts for the Delta rocket, the C-17 Globemaster III and the 737 jetliner were manufactured until the summer of 2005, when Boeing discontinued operations. The famous buildings were closed for good and the land they sat on was sold to the Greater Toronto Airports Authority. Demolition took place in stages.

Frank presented numerous slides showing operations at Malton, going back to as far as 1938 when there was just one building. Production facilities were greatly expanded through the years, and more buildings were added by MD Can. Wings for a total of 2,487 production DC-9s were built, along with a set of wings for a fatigue testing and two or three spare sets. The DC-10 family involved production of 650 sets of wings. Vertical stabilizers and galleys for the DC-9 were built until 1989, until the work was transferred to Macon, Georgia. Work was also done on DC-9 floors, until they were transferred elsewhere, as well as flaps. The flaps were built at Fleet Aircraft in Fort Erie, then shipped to Malton for finishing. Side panels for the F-18 were also produced at Malton for a time. Other projects included four or five years of work on DC-8 wing barrels. Production peaked with contracts for as many as five aircraft per week, with three shifts.

Frank had difficulty finding photos from the MD Can years. There are many more photos of Victory Aircraft, predecessor of Avro Canada, and Avro. When the plant was closed, all of the negatives and other files were shipped to the U.S. and their whereabouts are unknown. Frank said that Boeing Canada hasn't been able to provide information. The photos he showed included employees at work on DC-9 and DC-10 jigs, wing panels and leading edges, floor sections, F-18 pylons, and presentation of continuous improvement awards. What was to be the MD-95, a third-generation derivative of the DC-9, became the Boeing 717 when Boeing

acquired McDonnell Douglas. Boeing ended production of the 717 in 2005 on account of slow orders, after 156 were built, and that finished the Malton operation. The gradual closure of the facilities was sad in many respects. Prior to the demolition, the once-proud Avro hangars were reduced to being used to store contaminated soil from the parking lots. It was heart-rending to see photos of the demolition of the building where the Arrow was built. As fate had it, all of the Arrows were cut up and eventually the buildings themselves were levelled.

Frank was delighted to see two of his co-workers at McDonnell Douglas in attendance. They worked on the quality assurance side, while Frank was on the production side. Our speaker answered a number of questions. Boeing's acquisition of McDonnell Douglas was problematic from the start. Boeing cancelled the MD-80/90 series because it competed with their own 737, and then they shut down the MD-11. Howard Malone expressed his thanks to Frank for an interesting and nostalgic presentation. The history of aircraft production at Malton from start to finish is one of the most important aspects of aviation history not only for Toronto, but for all of Canada. Chapter Secretary – Treasurer, Bob Winson, presented Frank with a gift on behalf of the Chapter in appreciation. Frank's presentation was especially noteworthy for Howard, who noted that he spent about 19 years flying McDonnell Douglas jetliners including various models of the DC-8 and DC-9 for Air Canada. Howard described them as incredibly strong workhorses. The DC-8 freighter was able to carry what he called "phenomenal loads", and some examples remain in service around the world today.

One final event marked the end of the day's formal activities. Outgoing Chapter President Howard Malone was presented with a gift from the Chapter members of a T-33 Jet Trainer to note Howard's time in the airforce flying the advanced trainer. At the end of the

meeting Howard was given a "retirement cake", which he happily shared with all of the members. Many members personally thanked Howard for a job "well done" during his time as Chapter President.

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Chapter President Howard Malone enjoying his gift of a model T-33 Photo - Neil McGavock

### **Aviation History News**

There is interesting news regarding the AHFC. The annual general meeting of the AHFC on June 19 at CASM featured a presentation by John Dutkoski of Toronto, a retired policeman, now a modeller. He brought the mould of an unfinished, one-ninth scale model of a CF-100 Mark 4, made of thick fibreglass. The mould was built by a man who intended to fly it, with a ducted fan powerplant, but he died of cancer. John plans

to finish the model, static, as part of a planned AHFC memorial tribute (cairn and plaque) honouring the crew of F/L Bruce Warren, pilot, and Robert Ostrander, observer, killed in the crash of the second CF-100 Mark 1, 18102, on April 5, 1951. The crash site is near Mount Brydges, west of London. John is going to modify the model as a Mark 1. He also hopes to use the mould to build a CF-100 Mark 4 model as part of an AHFC memorial tribute to observer John Hiebert who died in the crash of a CF-100 Mark 4, 18112, at Ajax on August 23, 1954. We extend best wishes to the AHFC for successful completion of these worthy projects.

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Congratulations are in order to the Canadian Harvard Aircraft Association (CHAA) for the inaugural flight of their NA-64 Yale, ex-RCAF 3399, on June 26 at Tillsonburg, culminating a 23-year restoration project by the CHAA. The Yale was once among 36 Yales that were collected by Ernie Simmons after the Second World War and sold in an estate auction in 1970. The CHAA began the restoration in 1987. Dave Hewitt, son of Bob Hewitt, chairman of the Jet Aircraft Museum, topic of a presentation to the Chapter in March (Flypast Vol. 44, No. 7), flew the beautifully restored Yale after it was dedicated in a colourful drumhead ceremony (see photo).

The event didn't go entirely smoothly, however, as Dave was forced to make an emergency landing when the engine failed during a flypast at 500 feet. Fortunately he was able to land the Yale in a field at the west end of the airport and was unhurt. In fact, Dave was seemingly unfazed by the incident and he took to the skies later in the afternoon as a member of the CHAA Harvard aerobatic team. The Yale sustained relatively little damage but extensive engine work will be necessary. We're pleased that the story had a happy ending and we extend best wishes to the CHAA.

*Compiled by Gord McNulty*

Toronto Chapter of the  
Canadian Aviation Historical Society  
President's Report for the Year 2009

I am pleased to present a report on the activities of the Toronto Chapter for the year 2009. Before reporting I want to thank all of the Officers and Directors for their support and participation in the Chapter activities. Robert Winson truly is an indispensable right-hand man and has fulfilled the Secretary-Treasurer's duties in a professional manner and at the same time has once again handled the programming duties for our regular Chapter meetings ably assisted by Murray Jolliffe with the physical requirements for the meetings.

Matt Clark, our Flypast Editor produced a high quality newsletter that reports the events of our meetings supported by the accurate and tireless reporting of Gord McNulty and the fine photographic work of Neil McGavock, who also works as our archivist / historian for the Chapter. George Toppie, who has served the CAHS for many years, and inspired by the Buffalo Aero Club, deserves special thanks this year for his efforts in organizing the Toronto Chapter Dinner Meeting in September. Particular thanks this year have to go to Bill Wheeler, former editor of the Journal, for his work in producing the Special Anniversary Edition of Flypast, celebrating the 100<sup>th</sup>. Anniversary of Powered Flight in Canada. This publication received critical acclaim from the Canadian Aviation community and had one of the broadest distributions of any document produced by the Canadian Aviation Historical Society in its long history. Fourteen Aviation Museums across Canada received numerous copies of this Special Edition Flypast and were able to use it to bolster their respective fund raising programs. Sheldon Benner, our former National Membership Secretary and Treasurer continued to participate with the Board of Directors providing much appreciated advice

and guidance based on his many years of experience with the CAHS. Finally Ken Churm has once again assisted at our Chapter meetings as well as providing the access to the Armour Heights Officer's Mess at the Canadian Forces College.

I would like to sincerely thank all of these people for their tireless efforts which are necessary if a volunteer organization such as ours is to succeed. I have completed my 5<sup>th</sup> year as President of the Toronto Chapter and am stepping down from the Board of Directors as of May 2010. However, I am quite certain that I would never have been able to serve for that period of time without the support and assistance of such CAHS members whom I consider to be good friends.

Before providing a very brief summary of the meetings that the Toronto Chapter scheduled in 2009, it is very important to note that 2009 was a very special year for aviation in Canada and the Toronto Chapter of CAHS in particular. We made a special effort to recognize and celebrate the 100<sup>th</sup> Anniversary of Powered Flight in Canada by looking back to February 23, 1909 in Baddeck, Nova Scotia, where the Silver Dart had its flight. We started by supporting author and historian Carl Mills in his research project on the Silver Dart in an attempt in an attempt to have a presentation that could be used across Canada to educate Canadians about their aviation history. Mr. Mills, using computer and projection equipment made available by the Chapter, subsequently did eight presentations in Ontario, Quebec and also in Baddeck, Nova Scotia on February 23, 2009. We also decided to produce a Special Edition of Flypast, edited by Bill Wheeler and featuring George A. Fuller's article titled "J.A.D. McCurdy - Exhibition Flyer". This was a huge undertaking for an individual Chapter of CAHS but was well worth the effort and finished as an overwhelming success. As has been mentioned it received Canada wide distribution and raised the profile of CAHS in our aviation community.

We financially supported a number of aviation

causes with generous donations in honour of the 100<sup>th</sup> Anniversary of Powered Flight in Canada. Recipients included the Canadian Air and Space Museum at Downsview (the host for our monthly meetings), the Canadian Warplane Heritage Museum in Hamilton, the Great War Flying Museum at Brampton Airport, the AEA 2005 Group from the Niagara Region that built the Silver Dart replica for the anniversary flight at Baddeck in February 2009, The Secrets of Radar Museum in London, and of course the aviation scholarship program that we support at Centennial College with the Doug MacRitchie Scholarship.

Finally, we hosted the first Dinner Meeting of the Toronto Chapter of the Canadian Aviation Historical Society at the Armour Heights Officer's Mess at the historic Canadian Forces College. This meeting, specifically celebrating the 100<sup>th</sup> Anniversary of Powered Flight in Canada, and enjoyed by a sold out crowd featured Gerald Haddon, grandson of J.A.D. McCurdy and Bjarni Tryggvason, Astronaut and pilot of the Silver Dart replica. In my opinion it was the single, most successful, meeting our Chapter has ever had and I was very honoured to chair it. The camaraderie was wonderful, the setting was superb, the food was enjoyable and the presentations were excellent. Special guests included the President of the Buffalo Aero Club and three club members. The Dinner Meeting seemed to be a fitting and excellent way of bringing together our celebrations of 2009 for aviation in Canada.

We did have meetings other than that just mentioned and they were all held on Saturday afternoons in the Canadian Air and Space Museum at Downsview. Following is a brief summary of these meetings, all of which were well received:

February 21, 2009 - Speaker Carl Mills with the Silver Dart presentation;  
March 14, 2009 - Speaker Frank Harvey, President of the Aerospace Heritage Foundation of Canada on Canadian Lancaster Production in World War II, approximately

430 were built here. At the peak of construction Victory Aircraft was producing one aircraft per day;

April 18, 2009 - Speaker Michiel van der Mey on the history of the Dornier Wal - A light coming over the Sea;

May 9, 2009 - Speaker Larry Milberry, probably the premier aviation author in Canada, on Aviation in Canada ? The Pioneer Decades. This meeting had a special feature when five individuals were recognized by the Toronto Chapter of CAHS for their longtime contributions to the CAHS, to the Toronto Chapter and to aviation in general in Canada. The five recipients of the special plaques were Larry Milberry, Bill Wheeler, Fred Hotson, Sheldon Benner and George Topple;

September 27, 2009 - Speakers Gerald Haddon and Bjarni Tryggvason on the Silver Dart in 1909 and 100 Years later. (see above for comments on this very successful dinner meeting);

October 17, 2009 - Speaker Patrick Keenan on Trans-Atlantic Aviation, 1936 - 1939 Airships, Aircraft and Airmail;

November 21, 2009 - Speaker Ms. Nicole Drake, Manager / Curator on the Secrets of Radar Museum, London, Ontario;

December 19, 2009 - Speaker Jim Trautman, Author and Historian on the 40<sup>th</sup> Anniversary of the First Pan Am B747 Trans-Atlantic Flight, this topic was a favourite with your President after hundreds of Trans-Atlantic on flights on B747s during ten years of B747 flying as pilot / crew member, which was a substantial portion of my 34 years of commercial aviation

It has been a pleasure to serve my fifth and final year as the President of the Toronto Chapter. The 100<sup>th</sup> Anniversary of Powered Flight in Canada was a wonderful opportunity to display the strong support that the Toronto Chapter of CAHS provides to the aviation community in Toronto and all of Canada.

Respectfully submitted,  
Howard M. Malone, P. Eng.,

President of the Toronto Chapter,  
The Canadian Aviation Historical Society  
May 2010

Footnote: On behalf of the CAHS Toronto Chapter Executive Committee, I wish to thank Howard for the kind words presented above. For us it was a great pleasure to have Howard as our President over the past five years. Howard was a natural leader and his thoughtful guidance was appreciated by all...  
Robert (Bob) Winson, Secretary-Treasurer

Toronto Chapter of the  
Canadian Aviation Historical Society  
Financial Statement Summary for the Year  
2009

As mentioned by President Malone, the year 2009 saw the Chapter support a wide range of aviation museums and heritage groups and organizations from coast to coast. This was made possible through the Chapter's receipt of an inheritance from the estate of James Foster Byers in late 2008. At year's end a total of \$19,200 in donations and gifts-in-kind had been distributed across Canada... a record for the Chapter. A file of all of the donations and gifts was forwarded to the CAHS National Treasurer in compliance with the regulations of the Canada Revenue agency (CRA).

All of this extraordinary activity produced a rather unusual financial statement for the Chapter for the 2009 reporting year as follows below.

Revenue for 2009 (including Memberships, Sales, Donations)	\$9,566.17
Expenses for 2009 (including Newsletters, Office, Disbursements)	\$38,577.87
Operating Surplus / Deficit for 2009	-\$29,011.70
Bank / Cash assets as of December 31, 2009	\$3865.53

A detailed financial statement has been forwarded to the CAHS National Treasurer for 2009.

Respectfully submitted,

Robert (Bob) Winson,  
Chapter Secretary-Treasurer



CHAA Yale Drumhead Dedication Ceremony June 26, 2010 *Photo - Gord McNulty*



Howard Cutting his Retirement Cake *Photo - Neil McGavock*

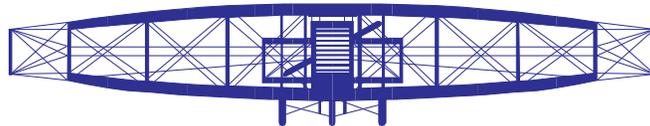
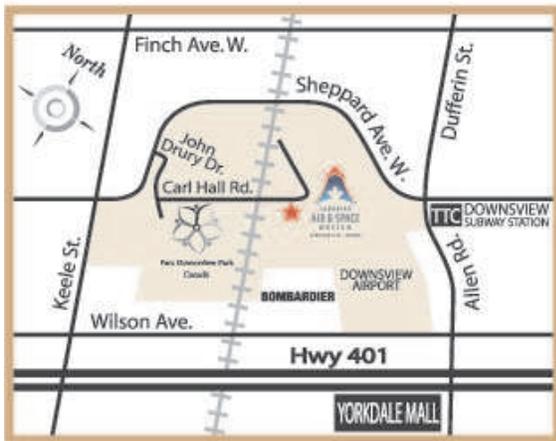


Directions to the Canadian Air & Space Museum

By TTC: From the Downsview Subway Station take Bus 101 (Parc Downsview Park) which enters Parc Downsview Park and stops right at the museum's front door. Time enroute is 10 minutes. Alternately, you may take Bus 108 (Downsview) or Bus 84 (Sheppard West) both of which travel west on Sheppard Avenue along the northern edge of the Park. Ask the driver to let you off at the Downsview Park Entrance (it is well past the DRDC and Idomo buildings). Walk into the Park and follow John Drury Drive until you reach Carl Hall Road. Turn left at Carl Hall Road and continue east over the railway tracks to the Museum at 65 Carl Hall Road, which is on your right hand side. Approximate walking distance is 0.7 km.

By Taxi: Take the TTC Subway to the Downsview Subway Station and take a taxi from there. It will cost around \$9.00 one way, but it is a good option for tourists as the taxi will take you directly to the museum.

By Car: From the 401 Hwy East or West, exit at Keele Street North. Turn right on Sheppard Avenue, and follow Sheppard to the entrance of Downsview Park (first traffic lights). Turn right into the park (onto John Drury Drive) until you reach Carl Hall Road. Turn left at Carl Hall and continue east over the railway tracks to the Museum, which is on your right hand side. Parking is available at the front of the Museum. If you continue past the museum and turn right there is a large parking lot at the rear of the museum.



CAHS Toronto Chapter Executive 2010 -2011

President:	Dr. George Topple
1st. Vice President:	Dr. George Topple
2nd. Vice President & Archivist / Historian:	Neil McGavock
Secretary-Treasurer / Memberships:	Bob Winson
Directors:	Murray Jolliffe     Gord McNulty Donald Lawrence     Sheldon Benner

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