

## October Meeting

Topic: "Canada's Air Force Museum, Past and Present"

Speaker: Chris Colton, Executive Director, The National Air Force Museum of Canada

Reporter: Gord McNulty

CAHS Toronto Chapter President Dr. George Topple welcomed members and guests to the start of the 2013/2014 season, then introduced another excellent guest speaker in Chris Colton. Born in St. Catharines, Chris obtained a private pilot's license at the age of 16 through an Air Cadet Scholarship. In 1965, he enrolled in the RCAF at Centralia, and underwent pilot training at RCAF Station Gimli, Manitoba. After graduation, he remained at Gimli as a jet flying instructor until 1970, when he was posted to Vance AFB Oklahoma as a flight instructor and flight examiner. Returning to Canada in 1973 to Canadian Forces Base Trenton, Chris completed a four-year tour at 436 Transport Squadron, a four-year posting to Air Transport Group Headquarters, and finally, a three-year assignment to 426 Transport Training Squadron as Chief Flying Instructor. The majority of more than 7,000 hours flown to date are on the C-130 Hercules. After attending the Canadian Forces Staff College, he was promoted to Lieutenant-Colonel and appointed to the Directorate of Foreign Liaison at National Defence Headquarters in Ottawa.



Speaker- Chris Colton  
*Photo Credit - Neil McGavock*

Moving to CFB Edmonton in 1987, Chris was appointed Commanding Officer of 440 Transport and Rescue Squadron. Two years later, he became Base Operations Officer. Moving to CFB Trenton in 1992, he served in various positions including international deployments to Djibouti in the Horn of Africa, Qatar, Kuwait and Australia. He retired from the air force as 8 Wing Operations Officer in December 2000 after a 35-year career. In August of 2002, Chris joined the staff of the National Air Force Museum of Canada (NAFMC) as Executive Director. He is also a past member of the Board of Directors for Trenval Business Development Corporation, and a member and Past President of the Rotary Club of Trenton. Chris is married to Major Micky Colton, a former C-130 Hercules pilot currently employed at 424 Squadron Trenton. They have one daughter, Erin.

Chris took the audience on a tour of the new-look NAMFC at CFB Trenton as he began what was his first, nicely illustrated presentation to the CAHS. The museum has enjoyed a great year in 2013, finally finishing the construction phase that started 10 years ago. All of the previously familiar "not quite finished appearance" --- bare floor, concrete, etc. --- has been replaced by an attractive, impressive new building. Chris's job is to turn the empty facility into a top-notch museum. Officials emphasize certain themes to highlight. Certainly, the 100-year history of Canada's air force is among the most important.

Chris briefly traced a chronology of events since 1914, when the first Canadian aviation organization was formed, the three-person Canadian Aviation Corps. When Britain asked Canada what it could do to help in the First World War, Canada quickly found a floatplane, the Burgess-Dunne. It was shipped to England, and shown to the army, which rejected and abandoned it as unsuited to warfare in France. The museum now has a superb full-size replica of the Burgess-Dunne on display. Canadian pilots, who wanted to fly, served in Britain's Royal Flying Corps and Royal Naval Air Service. By 1918, the British realized the importance of a professional air force and on 1 April, 1918, the RFC and the RNAS formed the Royal Air Force.

Canada was given a few aircraft and formed several organizations to do some flying. There wasn't a lot of either money or professional training until around 1923, when the government decided to organize professionally trained pilots, navigators and mechanics. Canada received royal assent to establish an air force and on 1 April, 1924, the Royal Canadian Air Force was born. Despite limited funds and limited aircraft, the RCAF did an excellent job of charting and mapping Canada. With the outbreak of the Second World War, the RCAF quickly became a strong force together with the Commonwealth forces in establishing many combat squadrons.

Canada made a formidable contribution to the Western alliance during the Cold War, but by the late 1960s the army, navy and air force were reduced and united as the Canadian Forces. There was an air element. But unification was so strong that Chris said air force personnel couldn't even use a capital A or F in any correspondence as there was officially no air force. To his credit, forward-thinking Lieutenant General William Carr persuaded the government of the day to establish a distinctive Air Command in 1975. That model continued until 15 Aug., 2011, when the current government announced the air force would be called the RCAF again (although, Chris noted, it was only in September, 2013, that the government decided any major change in the infrastructure, naming, size or look would have RCAF nomenclature).

The RCAF has a new emblem, a golden eagle with outstretched wings on a blue background. It was unveiled at the 73rd annual Britain of Britain ceremony at the Canada Aviation and Space Museum (CASM) on 15 Sept., 2013. This event was among the highlights of the recent CAHS 50th anniversary convention in Ottawa. (Check out the national CAHS website.) The Commander of the RCAF, Lt-Gen Yvan Blondin, has also said the RCAF will retain its original motto, *Sic Itur Ad Astra* ("such is the pathway to the stars.") This is, in fact, the air force's very first motto, adopted in 1920, and will continue for the future, as opposed to *Per Ardua Ad Astra* ("through adversity to the stars,") the motto of the Royal Air Force when the RCAF came into being in 1924.

A replica of the AEA Silver Dart is on display at the museum. The replica flew in 2009 to celebrate the 100th anniversary of the original Silver Dart's first powered, heavier-than-air flight in Canada. "It flew out of a little farm built by an Air Canada pilot," Chris said. "He flew it three times and 'scared the hell' out of himself." The pilot quickly decided to stop flying it, then took it to various air shows. Chris met the pilot at an air show at Kitchener and arranged for the replica to go to NAFMC. Both the Burgess-Dunne and Silver Dart replicas will be hung from the ceiling as their final resting place. The museum now has an impressive 360-degree mezzanine to allow views of some artifacts. Both replicas will be visible from the mezzanine floor.

Reviewing the museum's history, Chris recalled that on 1 April, 1984, it took over a small part of the gymnasium at CFB Trenton and called itself the RCAF Memorial Library and Museum...later to become the RCAF Memorial Museum. It quickly became accredited by the Canadian Forces Museum Association and displayed what was then called the RCAF Memorial Collection. (Around 1968, members of the RCAF had decided it was important to maintain the RCAF name, gather a collection, and contemplate building a memorial museum at Trenton.) Artifacts were gathered over the years, but funding for a museum was slow. All of the money was eventually sent to the National Aviation Museum in Ottawa. (In fact, those funds helped design and build the large round rotunda area, called the RCAF Memorial Rotunda, in the CASM at Rockcliffe Airport.) At Trenton, meanwhile, the collection needed more space and infrastructure. By 1991, the collection moved into the curling rink, which had been offered. The curling rink, still part of the museum's structure, will eventually become storage space and a gift shop when final construction is over.

Around 1991, the NAFMC acquired several aircraft that were being held at CFB Trenton. With its new area, the museum had an opportunity to move the new aircraft into what it called the Memorial Air Park. By 1993, the museum had a constitution, bylaws and a board of directors. Construction continued. By 1994-1995, it was decided that aircraft restoration would be done in the back of the museum. A large part of the east side was established for that purpose.

In 1995, along came the remarkable discovery of wartime Halifax Mark VII NA337, found in a fjord in Norway, 750 feet deep of fresh water. Incredibly, it was brought to the surface and returned to Canada to commemorate the Canadian aircrew who flew and maintained the Halifax with No. 6 Group, Bomber Command. The majority of 6 Group airmen flew in a Halifax. The display culminated the Halifax Aircraft Association's dedicated efforts to find and display a Halifax. This particular Halifax served with 644 Squadron RAF. While it did not have a Canadian crew, it would be superlative in representing Canadian aircrew serving in Halifax operations. When the pieces of the wreckage finally arrived in Trenton, the basic aircraft was there. The engines were complete. One propeller still remained, being the propeller that was feathered when NA337 was hit by enemy anti-aircraft fire. The wing caught fire and the NA337 ditched into Lake Mjosa in Norway, with the loss of five of the six crew members aboard. NA337 had been modified for special night operations, with removal of radar on the bottom and the top turret to lighten it, make it faster and increase its load.

It was a massive job to bring the bomber all the way back to display status, fully complete inside and out --- all of the wing ribs, spars, electrical wiring, hydraulic lines. But it was done, thanks to association volunteers who devoted 248,000 man-hours over 10 years to the project. Apart from \$100,000 from the government, the \$1.5 million cost was raised through fundraising. This magnificent aircraft was officially unveiled on 5 November, 2005. It now looks like it has just emerged from the assembly line and is the pride and joy of the museum. The sight of the Halifax is especially moving to Halifax veterans, many of whom had not seen one in 65 years. "It is a very emotional event for everybody," Chris said.

With completion of an extension required to provide a fitting home for the Halifax, the NAFMC is now a new facility with the air park adjacent to the south. As Chris noted, it's nice to visit a museum at a base where the air force is flying much of the time. The museum has grown from 19,000 square feet to its current size --- 45,000 square feet on the floor with a mezzanine of 15,000 square feet. The board replaced the original name, RCAF Memorial Museum, to the current National Air Force Museum of Canada to better reflect the various names of the air force and the true mandate of the museum over the air force's 100 years.

Chris said the museum's curatorial staff has an immense task. Over the years, the NAFMC has been lucky to receive many artifacts, but they present challenges as to how to preserve and best display them to the public. Today's generation likes to touch things, so touch-screens are important. "It's a big challenge and guess what, it requires big bucks," Chris noted. He said a top-notch museum, such as the Smithsonian, expects to pay \$500 per square foot for a new display. In comparison, Trenton is fortunate if it can afford only \$100 per square foot, and it has to be found through fundraising.

Chris highlighted various aspects, including the Memorial Book containing the names of every RCAF member lost in the Second World War, with a description of the event, the operation involved, and location of the burial site. He also mentioned a display about the period before the RCAF. One of the three people involved in the Canadian Aviation Corps was Lieutenant William Sharpe. After the Burgess-Dunne was rejected, Sharpe remained in England, where he became one of the first Royal Flying Corps pilots to train. Unfortunately, he was killed in a training accident in 1915, becoming the first air force pilot fatality in any war. A Memorial Cross presented to his mother in 1924, is on display. The back of his Cross states, "Flight Lieutenant Sharpe." In fact, he was a Lieutenant. Speculation is that "Flight Lieutenant" was used because the Royal Air Force had been formed in 1918 and someone assumed the accident must have happened during the RAF years.

In future, displays will be upgraded with LED lighting. LED has no effect on the capability of artifacts to withstand light, so they won't fade. The museum is also permanent home to the Camp Mirage Memorial Cairn, with the names of the 157 Canadian men and women who died in the Afghanistan conflict. The cairn came to Trenton after Canada left its forward operating base at Camp Mirage in the United Arab Emirates in 2010 and eventually moved to Kuwait. The government decided to move the memorial back to Canada and keep it as a living monument. Trenton was the ideal location for the cairn, unveiled on 6 July, 2011, as the place of repatriation of the soldiers and next to the Highway of Heroes.

Four aircraft have been put on the mezzanine, including a fully restored Harvard in 411 City of North York Squadron colours when it flew out of Downsview; a Chipmunk; an Auster A.O.P.; and a Cessna 150, used to teach young people what flight is all about in the museum's education corner. Flight has been added to the Grade 6 curriculum, so all of the students within about 100 miles of Trenton come to the museum as part of meeting that requirement. The atrium area, with its windows, has become a popular area for about three or four catered events such as changes of command and wedding receptions every month. It's a valuable area for fundraising. The museum can comfortably accommodate and cater 450 people. It's the largest catering facility in the Quinte region.

Lesser-known additions include a Sikorsky S-51 Dragonfly, RCAF 9601, actually the first helicopter purchased by the RCAF in 1947. It belongs to the CASM and was loaned to the Canadian Warplane Heritage Museum at Hamilton Airport some years ago. The CWHM removed it from display about two years ago and put it in storage. They decided to return the S-51 to the CASM, which in turn offered it to Trenton for proud display. No. 9601 was originally delivered to the Central Flying School at Trenton, which in turn gave it to qualified helicopter people whose mandate was to determine its capability for the RCAF. After a year of evaluation, the versatility of the chopper was clear. Four S-51s were moved to Edmonton, where a unit was formed to determine the value of the chopper for search and rescue. The results were soon evident!



A Boeing 720, C-FETB, formerly flown by Pratt and Whitney Canada for engine test purposes as shown in the registration ETB for “engine test bed,” is another special aircraft. The 720 was retired by P&W last year after having been flown for 25 years out of St Hubert, Quebec. P & W now flies two Boeing 747SP flying test beds out of Mirabel as replacements. Chris, noting P & W wanted to have a tax receipt for the donation, estimated the value at \$1 million.

However, government bureaucrats in Ottawa advised Chris that Trenton couldn't accept anything from P & W nor issue any tax receipt on account of supposed conflict of interest since the engine for the F-35 fighter being considered by the government is made by P & W. The CASM would have loved to get the 720, but the runway at Rockcliffe was too short, so Trenton accepted the aircraft on long-term loan from the CASM. It landed at Trenton on 9 May 2012 and went on permanent display at the air park.

Other aircraft at the air park include a Labrador, a CF-18, a CF-5, a Hercules, a “Canucks Unlimited” Dakota, which served with the wartime Burma campaign, a CF-100 Mark V, an F-86 Sabre in Golden Hawks colours, and a Silver Star in Red Knight colours, to name only some of 25 aircraft on display.

Chris mentioned three aircraft coming to the NAFMC, starting with a CH-147 Chinook, RCAF 201, one of the D models bought by Canada from the U.S. Army during the Afghanistan conflict. Currently sitting with its sister ship in Arizona, it's expected to arrive in Trenton before March. It will be especially valued as a warbird with a service history. The museum will also receive the prototype Tutor, CF-LTW-X, an aircraft that was flown only by Canadair during its tour of Canada when it was shown to the RCAF before the Tutor was ordered in 1961. CF-LTW-X, finished in a Golden Centennaires colours, is currently in Portage la Prairie and Trenton hopes to get it as soon as possible. Also coming from Portage la Prairie is a newly arrived C-45 Expeditor, RCAF 1560, now set for restoration and display.

Chris underlined the importance of various themes, especially the education component, vital to securing government funding. NAFMC volunteers have helped to teach programs for Grade 11 history students as well as the Grade 6 students, and to pass on the story of the RCAF to future generations. The next restoration project is a Lockheed Hudson, FK466, that had been in storage at the Atlantic Canada Aviation Museum in Halifax. The NAFMC plans to restore this aircraft, which uses parts from the CASM and a Lodestar in the Reynolds Museum at Wetaskiwin, into a Hudson Mark VI as flown in search and rescue where it dropped a lifeboat in 1945-46. It will be the only Hudson Mark VI in the world. Chris believes it's probably the very first fixed-wing search and rescue aircraft in Canada. A second aircraft now in restoration is an Anson Mark II, also from Wetaskiwin, which will be the museum's wooden restoration project.

Memorial Ad Astra Stones have also been a tremendous fundraising success for the NAFMC. Some 10,500 people have donated to the cause, placing stones throughout the air park. More than 125 volunteers assist at the museum, serving as everything from floor tour guides and ceremonial tour guides to gift shop helpers. The NAFMC couldn't operate without them. With 60,000 square feet of space to fill now, Chris said the NAFMC will face a challenge, but given the wonderful history of the RCAF, he welcomes the challenge.

Chris answered numerous questions. Current projects include the story of the Great Escape, which is about 60 per cent done, and then a large medal display. A complete art gallery, with about 100 pieces of art, will be established on the upper mezzanine. The museum's operating budget is about \$750,000 a year, including the heat, light, water and taxes on the building. Those four items, totalling about \$250,000, are paid by the government. The other \$500,000 must be raised through various private donations and fundraising efforts, including the NAFMC Foundation. Using these sources, the NAFMC has been able to break even. However, nothing is left for future displays. The NAFMC is now reaching out for corporate fundraising and sponsorship.

Chris acknowledged his concern about the condition of aircraft displayed at the park. Some have been outside for a long time and are really showing their age. A year ago, a study examined the feasibility of a sprung shelter type hangar, of a size large enough to put all of the aircraft inside. It cost Ottawa \$28 million to complete the second building at CASM, which now houses the majority of the collection at Rockcliffe. In comparison, a sprung shelter facility --- heated and lit, with no displays but enough to park aircraft and get them out of the elements --- would cost \$2 million. “We are actively fundraising for that, as well as a naming opportunity,” Chris said.