



# ROAR of the Harvard

Canada's grassroots organization devoted to keeping 'em flying!!!

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@CdnHarvards

December 2016

## President's Report

*By Pat Hanna*



It is difficult to believe that the year has slipped by so quickly and we are staring winter in the face already! Now only on rare occasions will you hear the sound of Hamilton Standard propeller blades

slapping at the air, or the mighty roar of nine thrashing Pratt and Whitney pistons as a blur of yellow streaks across the sky!

The autumn season for CHAA was really fun as unseasonably warm weather lingered over southern Ontario. Our Wings and Wheels event in early September was set back a day to accommodate a little bit of rain, but the Sunday rain date was a perfect day! Lots of cars and people joined with the Harvards to make for a memorable event. The Volunteer Appreciation BBQ two weeks later was on a spectacular day with warm temps and clear skies. Similar weather conditions prevailed for many other flights throughout the fall as the Harvards participated in flypasts especially leading up to Remembrance Day. All in all, I believe we can say that we had a good year in flight ops which started early in February and continued right up to November 11th.

Due to the enthusiasm and dedication of several pilots, formation demonstration flying is back in our portfolio. The team participated in the Great Lakes International Air Show and the Quinte International Air Show in June, appearing before large audiences. Their performances also affected Stores and we had two very successful weekends selling hats, tee-shirts and everything else. The CHAA "Yellow Peril" support truck "owned and flown" by the Clayton family even got into our air show routine, pairing up with the incomparable Kent Pietsch at Trenton and Brantford!

As most of you know, the backseat flight experience program had a setback in July when the exemption plan from Transport Canada went into effect that prevented us from offering flight experiences. We did resume the rides program for two weeks in September until we were asked to stop because we were not 100% in compliance with the provisions of the exemption. Unfortunately, it has had a significant impact on our revenues for the season. The two main issues

of the exemption were that the pilots who give rides must be licensed Commercial Pilots and secondly, that the aircraft must be maintained under an Approved Maintenance Organization (AMO). Several pilots upgraded to the Commercial licence at their own expense and we thank them for their commitment to the flight experience program. The AMO situation is really the only big issue we have and Shane Clayton and Kerry Wilkinson are working on that. We have made a commitment to Transport Canada and to ourselves to be fully compliant with the provisions of the exemption by April 1, 2017, before the flying season begins.

On November 15th, Transport Canada inspectors conducted an all-day "Process Inspection" where they reviewed flight ops, maintenance procedures and all records pertaining to both. As well, they did a facility tour. The day went well, with myself, Paul Hayes, Shane Clayton, Kerry Wilkinson, Shawn Wylie, Ken Mist and Scott McMaster representing CHAA. One very good portion of the meeting involved Inspector Duncan Chalmers reviewing all 48 provisions of the exemption with Shawn and I and how they apply or are not applicable to CHAA. Inspector John Blascik provided some very helpful insight into setting up an AMO. We left at the end of the day, thankful that it was a good meeting. A letter from Transport Canada last week confirmed that "The Process Inspection determined that all areas of the enterprise operation were in compliance with the regulatory requirements. Your cooperation during the surveillance activity was appreciated", signed by Henri DeBruyn. So, we have this winter to resolve the AMO situation, regroup and get ready for a busy flying season in 2017!

Sincere and grateful thanks to a very special group of volunteers who work tirelessly to make things happen throughout the year... from maintenance and service, restoration and stores, fund raising, social events, meetings, fly days, and to everything in between! The Harvard flies on because of our dedicated and loyal volunteers giving of themselves, overcoming all obstacles and working together as a "family". May the legacy of the Canadian airmen and the legend of the Harvard continue to write our history for the next generation!

There are positions available to serve as a Director on the Board of Directors of CHAA! Please talk to me about these exciting opportunities to serve CHAA. We are also seeking

administrative assistants to help in maintenance with the transition to AMO status. Please talk to Shane Clayton about these opportunities."

I hope you all enjoy the holiday season! Merry Christmas and Happy New Year from the Hanna family to yours!

### CHAA Board and Committee Chairs

Position	Incumbent	Phone	Email
Director - President , Chairman & Stores Chief	Pat Hanna	(519) 212-6021	p_hanna@harvards.com
Director - Vice-President	Paul Hayes	(416) 540-7630	aerocan@rogers.com
Director - Treasurer	Poul Hansen	(647) 932-3483	hansenp@hotmail.com
Director – Secretary	Ken Mist	(647) 965-3659	eyeno1@gmail.com
Director & C Ops O	Bjarni Tryggvason	(519) 851-7881	b_tryggvason@harvards.com
Director & C Tech O	Shane Clayton	(519) 462-2316	s_clayton@harvards.com
Director	Terry Scott	(905) 220-4012	t_scott@harvards.com
Director	Bill Shepard		b_shepard@harvards.com
Director	Mel Blundell	(519) 426-8046	mel-aviator@hotmail.com
Director	(Vacant)		
Publisher "The Roar"	Terry Scott/Pat Hanna		
Archives, Museum & Scrap Book Chairman	Shane Clayton	(519) 462-2316	s_clayton@harvards.com
Harvard Happenings	Sandra Sparkes	(519) 390-1000	sandspar@rogers.com
Crew Ride Coordinator & Gift Certificates	Melanie Burden	(416) 521-5330	crewflights@harvards.com
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Chief Pilot	Scott McMaster	(905) 865-0331	scott@mcmaster.ca
Dive Recovery Team	Walther Irie	(519) 425-4449	walt@chaa-recovery.ca
Finance Committee	Torben Haarbye	(519) 679-1733	torbenhaarbye@gmail.com
Service Crew Chief	Shawn Wylie	(519) 702-9055	s_wylie@harvards.com
Fundraising Group	Vacant		
Harvard Hawks	Vacant		
Membership	Tracy Reddy	(519) 404-4843	membership@harvards.com
Restorations	Ron Jay	(519) 582-2103	ronagnes@execulink.com

#### CHAA contact information:

Phone (519) 842-9922

Email: [info@harvards.com](mailto:info@harvards.com)

or P.O. Box #175, Tillsonburg, ON N4G 4H5



**Join us for our annual Christmas gathering/Member's Briefing  
on Saturday, Dec. 17, 2016 at 10 a.m. in the CHAA Ops Building.  
Let's celebrate 2016 and make plans for 2017 !!**

## **CHAA MEMBERS' BRIEFING – October 15, 2016**

Meeting was called to order by Pat Hanna at 10:00 a.m.

Patty Smith and Steven introduced themselves as first timers. John Moffatt from Brampton returned after a long absence.

The reading of the last minutes (July) was waived.

Pat spoke about the status of the Transport Canada back-seat ride exemptions. After a short period where we had a verbal OK to resume flying, we have been specifically told that until we satisfy the 48 specific requirements we are not allowed to sell rides. The key factor is that we do not have an AMO (Authorized Maintenance Organization) officially signing off on our aircraft. The other major point, pilots must have commercial licenses, has been addressed and we are complying. All scheduled flyovers including Remembrance Day will still go ahead.

CTechO Shane provided update on the aircraft:

- 3 aircraft online
- WPK down for inspections
- Yale attach angles ready for installation when Kerry returns
- Tiger Moth is put back together with rigging left to complete and ready to fly in the Spring
- Still working on 304 electrical system

Shane discussed the possibility of starting our own AMO. Meeting to be held October 22 to set responsibilities.

Ray Whittemore spoke about the financial situation. The Transport Canada issue makes financial reporting difficult. 2016 will not be a good year for CHAA. Ray has been meeting with our bookkeeper to get a handle on the situation.

Pat showed some official Air Force flight jackets and hoodies that he has for sale. \$40 for flight jacket and \$45 hoodie.

Terry spoke about the success of the 2016 tours. Next newsletter will be published December 1<sup>st</sup>. Directors are encouraged to submit. He shared an email from Bob Willis who rode with us up in Trenton. He says that the flight helped alleviate pain he had from an old automobile injury.

The new website needs a little more work but should be online before the end of the year.

Air Show legend Gord Price and his wife Sandy visited and Gord presented a presentation of his life in aviation.

50-50 draw. Terry Scott won and returned the \$50 to CHAA.

Meeting adjourned at 11:40 a.m.

## **CHAA MEMBERS' BRIEFING – November 19, 2016**

Meeting was called to order by Pat Hanna at 10:04 a.m.

New visitor Francis Faucher from Woodstock who has been working on Saturdays with the team.

Ken Mist read the minutes from October 15 – Bill Long moved acceptance, Mike Lawrence seconded. Motion carried.

Pat Hanna recapped the meeting that was held at CHAA with representatives from Transport Canada precipitated by public complaints regarding our selling of rides and handling of a prop overspeed issue. The meeting went very well and TC provided good information regarding the exemption. We were verbally told that the complaints were investigated and no further action is planned. TC was very impressed with our operation.

The Remembrance Day flypast went very well. CTechO Shane Clayton shared GoPro footage of the flight.

Chief Pilot Scott McMaster updated the group on current pilot situation. Only 3 of our pilots are not formation qualified. We're in good shape for getting the TC exemption as the requirements regarding pilots are already met.

Walther Irie updated the status of the Dive Team. Very busy with the team receiving an archeological license to recover aircraft. Several artifacts have already been recovered from 2963 with help from the Dunnville museum. A sponsor is paying to help look for a jet in Lake Ontario. The boat is being worked on as time and donations period. There is also a P-51 search and recovery being investigated.

The December ROAR deadline is November 27.

A fundraising letter will be sent soon. You can donate to the general fund or a maintenance category for engine overhauls and other important work.

Terry Scott provided an update that the current website is down but the new website should be active within a week.

Diane Lawrence, Sgt. Of Arms for the Lambeth Legion, said that the legion will be donating to CHAA to thank us for the flyover on Remembrance Day.

CTechO Shane provided an update. Annuals to be done. Tiger Moth work continues. Hope to have Yale wing attach inspection complete before annuals start. Shane is trying to find time to work on his annual Harvard calendar.

Pat updated the Stores status. New golf shirt with pocket is available.

Martin Keenan presented information on the US Air Force and NASA X-15 test program.

50-50 draw. \$44.50 won by Linda Brimson who donated it back.

Next meeting December 17. Meeting adjourned at 11:35 a.m.

## Ken's Final Flight

On September 12<sup>th</sup>, following our Wings & Wheels Family Fun Day, we granted long time CHAA member **Ken Arnott** his final wish. His ashes were spread from a Harvard with pilot **Scott McMaster** at the controls. You may recall we lost Ken back in February at the age of 81.

Ken's widow, **Rosalind Holeton**, sent the following message and photos to CHAA:

*A big thank-you to you and all the other members of the CHAA team who made it possible for this flight to happen. It will be memorable to each one of us for our own special reasons not least of all for my daughter Claire for her active involvement and her first Harvard flight. I think Ken would feel it quite appropriate that his last flight could be her first and I think it fits well with his wishes that one of his final resting places will be close to the people and the planes of CHAA that were so special to him. I love Melanie's description of giving Ken "his wings to fly in those blue skies". Blue skies they were – finally rewarding our patience!*

*With much appreciation,*

*Rosalind*



*Scott McMaster* praises the weather gods for providing ideal conditions while **Diane Lawrence** assists Roz's daughter, **Claire**, to get positioned -- all under the watchful eye of **Shane Clayton**.

Thank you to Ken and Roz for donating dozens of aviation related books, VHS tapes and DVDs to CHAA. They will be put to good use in our library or as fundraising items.

Plus, Ken would be delighted to know that his flight suit was worn at the London Air Show on Sept. 17 and 18 by pilot **Andrej Bagar** who hadn't had an opportunity to acquire one yet (*he has since purchased Ken's suit and is honoured to be wearing it*). It was Andrej's first CHAA "performance" at an air show (a flyover on arrival Friday afternoon, as seen below). Ken was clearly with us! Thanks to Eric Dumigan for the photo!



Eric Dumigan Photography ©

[www.airic.ca](http://www.airic.ca)



## Volunteer Appreciation BBQ

Thank you to Jeannette Rooke for spearheading the organization of CHAA's Annual Volunteer Appreciation BBQ on September 24. We couldn't have asked for better weather, as it was ideal for flying, great for firing up the BBQ and fantastic for some evening shots of the Yale and a Harvard spewing flames.



At left, pilots **Poul Hansen, Andrej Bagar** and **Scott McMaster** – CHAA's Master Chef BBQ Team – proved they are men of many talents! We can only think that **Joe Auger** and **Bob Hollister** were acting as the quality control team in the background.

It was a beautiful fall day, ideal for flying, and made for some fantastic photos that evening as the Yale and Harvard 20436 were fired up. Here are a few photos by **Gus and Clara Corujo**. You can check out many more at --

<http://gusair.com/htdocs/html/chaa-sept24.html> .



December 2016

Greetings to all CHAA members,

In 1985, way back in CHAA's early days, I don't think we ever imagined the Harvards still flying in thirty years (except for Bob Hewitt!). For thirty-one years now, we have faithfully kept to our commitment to acquire, restore, preserve, maintain, display and demonstrate our aircraft in honour of the brave aircrews of the Royal Canadian Air Force. In that regard, it is fitting our November 11<sup>th</sup> Remembrance Day flights typically close out the flying season for us.

To continue flying into 2017 and beyond, it will require a tremendous amount of funding. The Mark IV Harvards are approaching sixty-five years in service and the Mark II Harvards are now over seventy-five years old, so they require copious amounts of "TLC" to keep flying them safely. Time has caught up to two of the Harvards and they require engine overhauls, at a cost of nearly \$75,000 CDN each. Based on historical values, a freshly overhauled engine would give us over twenty-five more years of service! In essence, you are making an investment in the future by donating today!

At the same time, our day-to-day operating expenses continue to rise. On behalf of your Board of Directors, may I please appeal to you for your support in meeting the needs of our mandate.

For your convenience, there are three methods of donating:

- 1) Cheque, VISA or MasterCard info mailed to "CHAA Fundraising Committee", Box 175, Tillsonburg, ON N4G 4H5. Please use the form below.
- 2) Please go to the CHAA website [www.harvards.com](http://www.harvards.com) and donate through the ROAR Store.
- 3) Cash, cheque or credit card at the CHAA Member's Briefing on Saturday, December 17<sup>th</sup>.

I urge you to make an investment in CHAA's future by giving generously today! THANK YOU!  
Together we MUST keep the Harvards FLYING so that future generations will hear that marvellous ROAR and understand the heritage it represents!

Sincerely,

Pat Hanna  
CHAA President

Here is my gift to support CHAA

Name: \_\_\_\_\_

Address: \_\_\_\_\_

My donation: \_\_\_\$50 \_\_\_\$100 \_\_\_\$500 \_\_\_\$1000 \_\_\_\$2000 \_\_\_\_\_ Other

\_\_\_ Enclosed is my cheque made payable to CHAA

\_\_\_ I authorize CHAA to charge my \_\_\_ VISA \_\_\_ MasterCard

Card #: \_\_\_\_\_ Expiry Date: \_\_\_\_/\_\_\_\_

Security Code: \_\_\_\_\_ (three digit code on back)

Signature: \_\_\_\_\_

CHAA is a registered Canadian Charity. Registration # BN12944 5961 RR0001

Thank You! A 2016 tax receipt will be issued for donations received by December 31<sup>st</sup>, 2016. Donations received past this date will be receipted in 2017



## Gord Price returns to 422

After an informative and entertaining presentation to the October Member's Briefing at CHAA, **Gord Price** returned to the cockpit of Harvard 422. Below is a picture of him beside the aircraft in Penhold, Alberta on May 29, 1961 following a solo flight. 55 years later, on October 15, 2016, he recreated that pose and then took to the skies with pilot **Poul Hansen**. Thanks to Gord and **Ken Mist** for the pics!



## CHAA at Brantford Airshow



CHAA was on the ground and "on the air" so to speak at the Brantford Rotary Charity Airshow on August 31. We had a Harvard on static display positioned right beside our Stores Tent. Even though we didn't fly in the show, we were "on the air" thanks to a video team that the show hired. Check out this Youtube video of CHAA pilot **Percy Contractor** (and others that we know and love) being interviewed at the show: <https://www.youtube.com/watch?v=QyEzmuurmEA>

## Harvards promote good health!

Call it a miracle, call it coincidence, call it what you may. But CHAA member **Bob Willis** (pictured at left) is convinced that his Harvard ride during the Quinte International Airshow in Trenton this past June is just what the doctor ordered to cure the effects of a nasty injury he suffered more than 30 years ago.

Here's the email he sent to **Terry Scott** just before Thanksgiving --

*I did enjoy the short visit with you at QIAS 2016. If you think back I said I had enquired about a ride and had no reply and you said you can go up tomorrow. I hesitated and said I would phone by 8 pm that night and I did.*



*What you and no one else knew was I had a bad whiplash injury from being rear-ended by a drunk causing me to think the flight option over for a while. You can't live in a bubble so I took the chance and I got sick from pinched nerves, etc. as I thought I may. I knew there was a bad time coming about 5 seconds after the "Break" just before we touched down. I threw up a few times and slept under a tree for 3 hours near the Tim Horton's then made my way to watch what I could of Sundays show. The next day was rough with a sore neck, left shoulder and ribs that were very sensitive to the touch. The following day something happened and I felt great and have since.*

*I took 2 to 10 pills a day to keep my life going and now I haven't had any since 2 days after the ride. It shook the wrinkles out of me that Doctors and Chiropractors have been chasing since Aug 31st of 1985.*

*If you are talking to the Pilot and Air Crew (**Bob Healy**) of Harvard 436, thank them for me. Bob was patient and helpful after we got back. I think some people thought I was air sick but as you now know that wasn't the case.*

*If only I would have had one of these flights 30 years ago I wouldn't have had to put up with a shoulder that felt like it was bruised, migraine headaches, tender ribs, etc., etc.*

*It is my intention to keep my membership up to-date, and if you are in our area help out if needed. My new slogan is "Harvard's Promote Good Health"!*

*To you and your family as well and the members, have a great Thanksgiving.  
Bob Willis*

## Surprise, surprise...the CHAA way!



Why is this man smiling?

Well, not only was it his 50<sup>th</sup> birthday, to make it an extra special occasion he was treated to a surprise flight in a Harvard AND a surprise birthday bash with family, friends and CHAA colleagues!

November the 5<sup>th</sup> began as a regular Saturday at CHAA for **Mike Lawrence** as part of the Service Crew. But soon he lost his car keys (actually, someone conveniently "borrowed" them without his permission) which meant he couldn't leave. That gave

C.Ops.O. **Bjarni Tryggvason** the opportunity to invite Mike for a celebratory Harvard ride. When they landed, Mike was greeted by a couple of dozen familiar faces including his wife, Jen, not to mention a good number of the CHAA family.

*Happy 50<sup>th</sup>, Mike! Just remember – you have now entered your second half-century!*





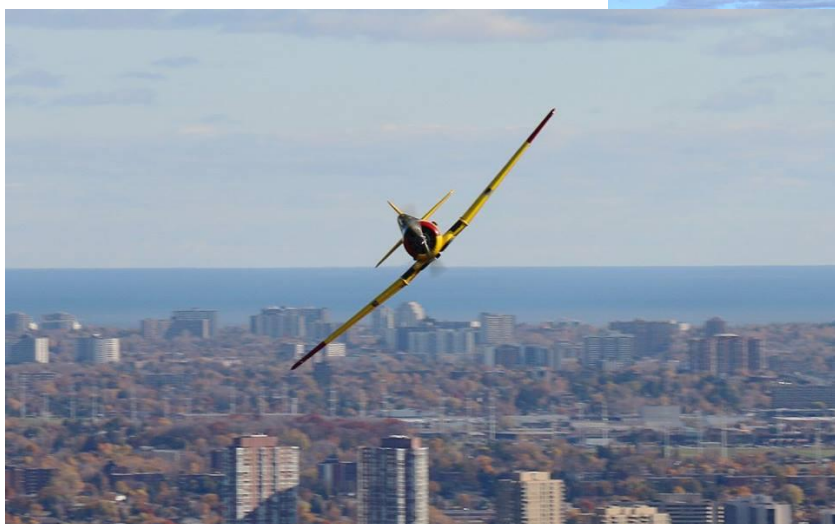
## CHAA flies to Toronto on Remembrance Day *(Most photos courtesy of Shane Clayton)*



Above, Harvards flying over the Old City Hall Cenotaph in downtown Toronto.



At right, the “Missing Man” manoeuvre over the Veterans Wing at Toronto’s Sunnybrook Hospital.



Sunnybrook’s **Sally Fur** sent the following note to our **Melanie Burden**:

*Hi Melanie! We’ve had a wonderful day here at Sunnybrook! The rain held off and the sun came out beautifully. The fly past was certainly a highlight for all.*

*Thank you for your ongoing commitment to our veterans. Please pass along our thanks to the pilots who perform the fly over. It is so meaningful to all of our 475 veterans and their family members. Many thanks, Sally.*

## CHAA MEMBERSHIP RENEWAL FORM

It's Renewal Season once again! Renew your 2017 membership before December 31st to remain current! In order to best serve you, our regular three options to renew are:

1. Fill out the membership renewal form below, input your credit card information or include a cheque (made out to Canadian Harvard Aircraft Association) and mail to: **CHAA Membership, P.O. Box 175, Tillsonburg, ON N4G 4H5**
2. Visit our website at <http://www.harvards.com/product-category/memberships/> select the one year membership and make a payment online using PayPal.
3. Should you not feel comfortable with paying online through PayPal the final option is by phone, providing your credit card information and we will manually process the payment to your credit card. Should this option best suit you please let me know the best time to call you and we can proceed.

Until then, if you have any question please feel free to email [membership@harvards.com](mailto:membership@harvards.com) or call me, Tracy Reddy, at [519-404-4843](tel:519-404-4843). Thank you for your support!

MEMBERSHIP NUMBER \_\_\_\_\_  
NAME \_\_\_\_\_ BIRTHDATE \_\_\_\_\_ (HARVARD HAWKS ONLY)  
STREET OR R. R. \_\_\_\_\_ APT. NUMBER \_\_\_\_\_  
CITY \_\_\_\_\_ PROV \_\_\_\_\_ POSTAL/ZIP CODE \_\_\_\_\_ COUNTRY \_\_\_\_\_  
TELEPHONE (Res.) (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ E-MAIL ADDRESS \_\_\_\_\_  
TELEPHONE (Bus) (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ FAX (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

1. ANNUAL MEMBERSHIP \$50.00
2. FAMILY MEMBERSHIP \$75.00 (NAME OF PRIMARY MEMBER \_\_\_\_\_)
3. LIFE MEMBERSHIP \$500.00
4. SPONSOR MEMBERSHIP \$1000.00
5. HARVARD HAWKS (to last day of 18th year) \$15.00

CHEQUE / CASH / VISA/ MASTERCARD/ AMEX (PLEASE CIRCLE)  
CREDIT CARD # \_\_\_\_\_ EXPIRY DATE \_\_\_\_/\_\_\_\_  
PRINT NAME AS ON CREDIT CARD \_\_\_\_\_  
DONATION \_\_\_\_\_ TOTAL AMOUNT \_\_\_\_\_

SIGNATURE \_\_\_\_\_ (ALL RECEIPTS ARE ISSUED AFTER December 31)

Once payment has been received your renewal will be processed and a renewal sticker will be sent by mail.

Until then, if you have any question please feel free to email or give me call Tracy Reddy 519-404-4843.

It will be great to have you back!

All the best,

Tracy Reddy  
Membership Chair



## Early CHAA Memories

The ROAR heard recently from CHAA enthusiast Bill Cumming -- *I was cleaning out my old files from many years ago and came across the attached article that I wrote and was subsequently published in the Canadian General Aviation News in October 1985. I had the pleasure of being invited to attend the CHAA inaugural dinner. After reading the article, I remember the dinner and [the late] Jeff Ethell's talk. In those days I attended many aviation events in the area flying the CWH Cornell and developed a close relationship with -- as we called them before CHAA -- the Woodstock Boys. In case you were not aware of this early article and did not have a copy in your archives, I thought it best to at least forward this digital copy to CHAA for their records, etc.*

Regards.

Bill

(Eds note: Thank you, Bill. Below is another article Bill had published 30 years ago in the Canadian General Aviation News following the birth of CHAA.)

# CHAA chartered to preserve Harvard

by Bill Cumming

On Saturday evening, July 6, 1986, I had the pleasure of attending the inauguration dinner of the Canadian Harvard Aircraft Association. After the dinner, the 21 charter members and those who contributed toward a sponsorship and a life membership in the organization were recognized.

The guest speaker for the occasion was Jeffrey Ethell, the renowned aviation author and pilot. He gave a very interesting talk supported with slides entitled "Aircraft I Loved to Hate", which encompassed his flying career. Not only was it interesting to hear him discuss the various aircraft he has flown, his log book has over 100 different types registered in it, ranging from the Piper E2 to the McDonnell Douglas F-15 Eagle.

The way he approached each aircraft I found particularly enlightening. The one point he stressed was that no matter what aircraft he flew, the only way to do it was to thoroughly read and understand the pilot's manual for that particular aircraft before climbing in the cockpit.

The one aircraft Ethell particularly enjoyed flying (and training in), was the North American Harvard-Texan-SNJ. He felt that it was the best all round training aircraft. Furthermore, he felt that no other aircraft since the Harvard has gained as much admiration and fondness.

The Canadian Harvard Aircraft Association was formed in the spring of 1985 at Woodstock, ON. The CHAA now owns a single Mark II Harvard aircraft and has purchased a heated hangar at Tillsonburg Airport, although the headquarters will remain at Woodstock. Five other privately owned Harvards are operated on behalf of the organization. The Canadian Harvard Aircraft Association is a registered Canadian Corporation with charitable status.

For more information on the CHAA, write to P.O. Box 774, Woodstock, ON, N4S 8A2.

During the Second World War, Canadian skies were filled with

the sound of thousands of Harvard aircraft. As part of the British Commonwealth Air Training Plan, the Harvard was used as the advanced training aircraft for pilots going on to single engine fighter aircraft. The Canadian Harvard Aircraft Association was formed to preserve the memory of the Harvard aircraft and its significance in the history of Canadian aviation.

### THE HARVARD'S DEVELOPMENT

The Second World War began with Hitler's invasion of Poland on Sept. 1, 1939. Within three weeks, the nucleus of a plan which was to provide more than 130,000 trained aircrew for the Allied Forces was placed before a meeting of Commonwealth High Commissioners at London. This led to the formation of the British Commonwealth Air Training Plan which would eventually turn Canada into the world's largest flying school.

In August 1938, Noordduyn Aviation bought the manufacturing rights for the North American AT-6 Texan advanced trainer aircraft. The Texan design goes back to 1935, when North American Aviation entered a design competition for a Basic Trainer aircraft for the United States Army Air Corps. The NA-16 was developed, a design which featured a low-wing full-cantilever all metal wing, steel tube fuselage with removable fabric-covered side panels for easy access, and single-leg fixed landing gear. This design won the competition and follow up contracts were awarded for additional aircraft. The airplane received the Air Corps designation of BT-9 and a version of this eventually served in the Royal Canadian Air Force as the Yale.

A design competition was authorized by the Air Corps in 1937 to develop a basic combat trainer. The design was to incorporate the equipment and char-

acteristics of an operational combat trainer -- in effect, a combat-effective aircraft to be used as a trainer.

A 600 h.p. Pratt & Whitney R-1340 engine, retractable landing gear, provisions for armament, two-way radio and a full instrument panel were added to the BT-9-Yale aircraft design by North American Aviation's engineers. Under the model designation NA-26, the design won the basic combat trainer competition, and became the BC-1.

With the reality of war looming on the horizon, Britain saw a need to expand its pilot training program. In 1938, the British government placed orders for a version of the NA-16-3, known as the Harvard. This model had the rounded wing tips and squared off rudder of the NA-26, as well as fabric covered fuselage sides. A total of 400 aircraft were shipped to Britain as the "Harvard I". Thirty also were delivered to the RCAF in 1939.

Meanwhile, the design engineers at North American Aviation were developing a new basic combat trainer, featuring light alloy all metal construction, squared wing tips, triangular vertical tail and many other improvements. These design changes were incorporated into the BC-1A airplane. An order was placed for 92 of the BC-1A trainers by the United States, some being assigned as advanced trainers and given the designation AT-6 Texan.

In 1939, 400 of the improved Harvard aircraft were ordered by Britain as the "Harvard II". These were flown directly to Royal Air Force training schools set up in Canada as part of the BCATP. By May 1940, orders had been placed by the British with NAA for another 843 of these trainers.

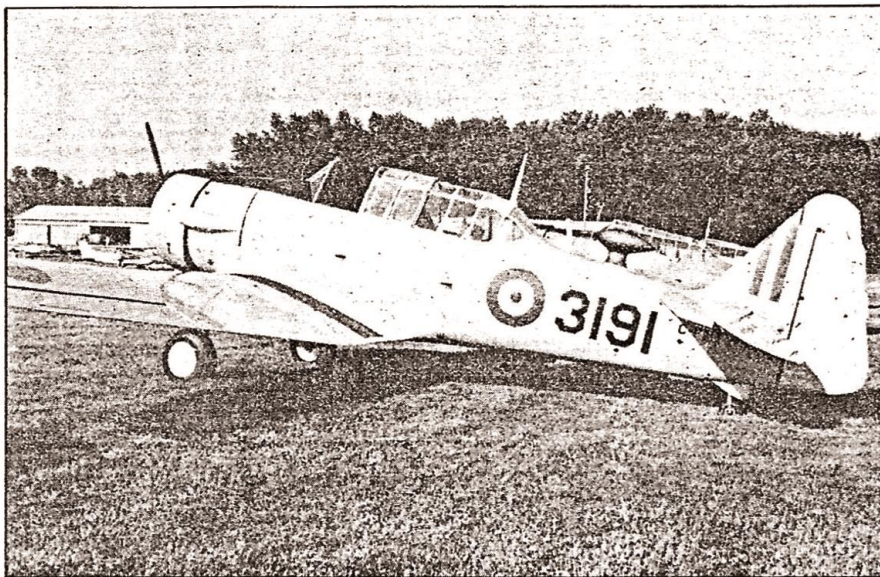
### CANADIAN-BUILT HARVARDS

Although Noordduyn bought the manufacturing rights in 1938 to produce the Harvard aircraft, it was not until January 1940 that the company received its first order from the RCAF for 100 aircraft. This was shortly followed by another order for 110 Harvards and the first order of Harvards for the Royal Air Force.

The Harvards manufactured by Noordduyn were identical to the North American-built Harvard II, except for the long exhaust with intensifier tube which extended over the wing to provide better winter heating and the RAF-style control stick. Also, the undercarriage fairings were removed. These were known as the Harvard IIB and carried the USAAC designation AT-16.

The first Noordduyn-built Harvard, RCAF 3034, was completed exactly one year from the date of the contract, Jan. 18, 1941. Its first flight was completed at Cartierville with E.L. Capreol at the controls. It was accepted by the Royal Canadian Air Force on Jan. 31, 1941 at Rockcliffe, ON.

• continued on page 24



Harvard Mk II, one of the aircraft that is associated with the Canadian Harvard Aircraft Association. This aircraft, as with most of the privately owned Harvards that I have come across, has been restored into its former RCAF markings.  
Photo: Bill Cumming



# Harvard

• continued from page 23

Between 1941 and 1945, Noorduyn built a total of 2798 Harvards. Two hundred and ten were produced for the RCAF and the rest were manufactured for the Royal Air Force. Fifteen hundred of these aircraft were paid for by the United States under the Lend-Lease Act. The RAF supplied 639 Noorduyn-built Harvards for use by the Royal Canadian Air Force during World War II. These aircraft, along with some U.S. manufactured Harvards and the Harvards ordered directly by the RCAF, were used for all single-engine advanced training in Canada. Some continued service with the RCAF until 1960.

Many of the Harvard IIBs supplied to the Royal Air Force were transferred to Australia, New Zealand and India air forces. Some Harvard Is were passed to South Rhodesia for use with the Empire Air Training School.

The Harvards were assigned to 14 service flying training schools as well as No. 6 Bombing and Gunnery School, Central Flying School and the Flying Instructor Schools as part of the British Commonwealth Air Training Plan. At the end of elementary training, students were divided into two groups.

Those recommended as potential fighter pilots were posted to one of the service schools equipped with the Harvard, while the others oriented toward bomber, coastal or transport operations would move on to a twin-engine school and learn to fly Ansons, Oxfords or Cranes.

Although the Harvard was the perfect advanced trainer for fighter pilots, every hop ended "with a grand chance to smash wingtips, bend the prop or even wipe off the gear."

Two special versions of the Harvard were developed by Noorduyn. A bombing and gunnery trainer was developed to cater to the possible shortage in the BCATP. Only the prototype was completed to this standard.

The second version of the Harvard was a target-towing model, the Harvard T.T.IIB. The rear cockpit had an aft-facing seat and a hydraulically operated winch, a fairing over the tailwheel, a cable guide under the fuselage and special radio equipment. Ninety-nine T.T.IIBs were manufactured for the Royal Air Force, but most were converted to trainers. Some, however, did serve in Egypt and India as target tugs.

The National Research Council designed and built a wooden rear fuselage for the Harvard, successfully testing it in a U.S.-built Harvard, RCAF 2785. Wooden wings were designed and built by deHavilland of Canada and installed on Harvard RAF FE435. Both these programs were initiated in case there was a shortage of aluminum. Fortunately, this did not occur and neither the wooden fuselage nor wing went into production.

## THE HARVARD IV

The production of the Harvard terminated at Noorduyn in 1945.

At the end of the war, many of the Harvard aircraft were released from service with the Royal Canadian Air Force, and a number of Harvard IIBs were sent under Mutual Aid programs to France, Italy and Turkey.

Some were converted to air to ground rocket trainers for use with the post war fighter squadrons and auxiliary squadrons. A few were transferred to the fledgling Royal Canadian Naval Air Service.

With the post-war regeneration of the RCAF and the formation of the North Atlantic Treaty Organization (NATO), aircrew training was accelerated. In 1951, the Harvard was again put into production, this time at Canadian Car & Foundry's plant at Fort William, ON.

The "new" Harvard was an update of the old wartime built Harvard. It was a radio-trainer version with no armament, standardization of controls for both cockpits, modified undercarriage with a steerable tailwheel, updated radio, square-tipped propeller, increased fuel capacity and an improved canopy. These became known as the Harvard IV.

The first Harvard IV was flown at Fort William in November 1951. A total of 270 Harvard IVs served with the Royal Canadian Air Force; the balance of the 555 manufactured went on to the West German Air Force and the USAF. The Harvard IVs built for the United States were designated T-6J-CCs and were consigned to other countries under the Mutual Assistance program.

By the time production ended, a total of 15,495 Harvard-Texan-SNJ aircraft were built, making it the most widely used advanced military trainer in the world. The Harvard was also the most numerous type ever built in Canada.

As a matter of interest, while the Royal Canadian Air Force was waiting for the new Harvard IVs to be delivered, in order to meet their training commitments, 100 Texan aircraft were on loan by the USAF. From 1939 until 1965, the Canadian military had a total of 2256 Harvards on strength. Only the total number of Ansons used exceeded this number for a single aircraft type to be used by the RCAF.

On May 21, 1965 the Harvard made its last Royal Canadian Air Force training flight, taking place at RCAF Station, Penhold, AB. It was replaced by the Canadair CT-114 Tutor jet trainer.

Today, the Harvard continues to shatter the stillness of airfields with its distinctive roar. Hundreds are still operating as privately-owned aircraft, appearing at the many air shows that are staged each summer, both in North America and Europe. I believe a few nations in the Third World may still be operating these aircraft within their small air forces. Like the DC-3 Dakota, the Harvard-Texan-SNJ was probably one of the most universally used airplanes in the world.

## Mark your calendar for 2017 Banquet !!!

The 2017 edition of CHAA's Annual Fundraising & Awards Banquet will be on Saturday, April 22, 2017 at the Tillsonburg Legion. The guest speaker will be renowned aviation photographer **Eric Dumigan**.

For the past twenty six years Eric has freelanced for Canadian, American, French, German, Australian and British Aviation magazines. He has published over 300 articles and 2,900 photos as well as having images displayed in several aviation museums and businesses. Eric enjoys photographing everything from weddings to wildlife.



Eric fulfilled a lifelong dream in 2011 when he flew with the Snowbirds 431 Air Demonstration Squadron at the Atlantic Canada International Airshow.

More information on tickets and auction donations will be available early in the new year. Stay tuned!

## X-15 Experience

CHAA was delighted to have Martin Keenan speak about the X-15 program at the November 19<sup>th</sup> Member's Briefing. Thank you, Martin, for an enlightening presentation!





## Bill Shepard flies Old Red Nose *by Gord McNulty*

It was a busy August on the southern Ontario air show circuit in 2016 for Bill Shepard, CHAA Past president/Vice president and Commemorative Air Force Red Tail Squadron Leader. Bill flew the impressive CAF P-51D



Mustang "Red Nose," NL10601/USAF 473843, to the Canadian Warplane Heritage Museum as part of the CAF "Rise Above" Red Tails Travelling Exhibit ([www.redtail.org](http://www.redtail.org)), displayed at the museum Aug. 24-28. The popular exhibit educates audiences across North America about the history and legacy of the Tuskegee Airmen, the first black military pilots in World War II, and how they triumphed through the adversity of prejudice and segregation. Bill flew a number of passenger rides during the visit to the CWHM.

The P-51 "Red Nose," based at the CAF Dixie Wing in Peachtree City, Georgia, has a long and colourful history dating back to the closing days of the war. In fact, in

1951, the fighter entered service with the RCAF after it was dropped from the USAF inventory. After initial service with No. 416 "Lynx" Squadron (regular) in Uplands, ON, it was assigned to No. 420 "Snowy Owl" Squadron (auxiliary) in London, ON, where it served until 1956. Returning to the US, the aircraft was purchased in 1957 by Lloyd P. Nolen of "Mustang and Company" with three friends for \$2,500. This signified the unofficial start of the CAF; indeed, later that year, someone painted "Confederate Air Force" on its tail and the name stuck. "Old Red Nose" was officially donated to the CAF in 1977, then became part of the American Airpower Heritage Flying Museum in 1991. The aircraft was restored in 1993 and is in excellent shape. It was assigned to the Dixie Wing in November 2002 and took to the air for the first time in four years in September, 2003.

Following the exhibit at the CWHM, Bill took "Old Red Nose" and the travelling exhibit to the Brantford Rotary Air Show on Aug. 31, another highly successful event. The lineup included the 2016 RCAF Demonstration Hornet in a paint scheme honouring the 75th anniversary of the British Commonwealth Air Training Plan, as illustrated in the June, 2016 issue of the ROAR.



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The Canadian Aviation Historical Society will hold its 54th National Convention and AGM June 8-11 at London, at the Best Western Plus Stoneridge Inn and Conference Centre, conveniently located on Highway 401 at Highway 4. This is the first time the CAHS has chosen London. Join authors, historians, pilots, engineers and enthusiasts for four days of speakers, films, tours of local aviation attractions and a banquet. For more information, go to [www.caahs.ca](http://www.caahs.ca), or call [204 293-5402](tel:2042935402).

Thanks,

Gord McNulty  
CHAA #1609

## **Canadian Harvard Aircraft Association**

### **Notice of 2017 Annual Business Meeting**

Take notice, the Annual Business Meeting of the members of the Canadian Harvard Aircraft Association will be held at Tillsonburg, Ontario on the 18th day of March, 2017 at the hour of 10:00 a.m. local time to:

Confirm acts of the Directors and Officers  
Receive the Annual Report of the Association including the financial statements  
Receive reports of committee chairs  
Appoint auditors for the upcoming fiscal year  
Elect Directors

If you are unable to attend the meeting, but wish to send a proxy, please use the form below.

Issued this 1st day of December, 2016  
By Order of the Board of Directors

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**Canadian Harvard Aircraft Association**

#### **Proxy: Annual Business Meeting of Members**

The undersigned, a member in good standing of the Canadian Harvard Aircraft Association (CHAA), hereby revokes any previous proxies and appoints \_\_\_\_\_ or failing him/her \_\_\_\_\_ or failing him/her the President or Secretary of CHAA as his/her proxy to attend the annual meeting of the members of CHAA to be held on the 18th day of March, 2017 at Tillsonburg, Ontario at 10:00 a.m. local time to vote, execute, consent and otherwise act for the undersigned in the same manner and with the same effect as if the undersigned was personally present at the meeting. The undersigned hereby undertakes to ratify and confirm all that the said proxy holder may do by virtue hereof. This proxy includes the power and authority to vote on all matters that may come before the said meeting.

Dated: The \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ (year)

\_\_\_\_\_  
Print Name and add Signature of Member

**TO BE VALID, ALL PROXIES MUST BE MAILED BY MARCH 1, 2017 to:**

**CHAA Annual Business Meeting  
c/o Ken Mist  
Box 175  
Tillsonburg, ON  
N4G 4H5**