

# THE "BOLY BANTER" NEWSLETTER

Bolingbroke Progress Report from the Canadian Aviation Heritage Centre



Design: Jean-François Mongeau

## SUMMER 2010 EDITION



**BOLINGBROKE 10121 PROGRESS REPORT**



**LIVING HISTORY  
"WALTER PACHOLKA"  
PART 2**



**CWHM BOLINGBROKE RESTORATION UPDATE**



**EXCLUSIVE!**



SUMMER 2010

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Vol.3

REPORTS BY JEAN-FRANÇOIS MONGEAU, BRUCE MCLEOD, CLAUDE PAYETTE AND ZBIG ZBIG JASIUKAJC

## PROGRESS REPORT FOCUSING ON THE FORWARD FUSELAGE

By Bruce McLeod

Although work is being performed on other components of the Boly, focus is being put on the forward fuselage (nose section) for several reasons. By completing this section, the nose is relatively easy to transport for marketing and fundraising purposes (To bring to shopping malls, airshows, fly-ins, expositions, etc). Also being the most recognizable part of the aircraft, the cockpit is arguably the most interesting. Let's face it, who could resist sitting in the pilot's seat complete with instruments and a control column, imagining what it would like to be flying over the Atlantic or Pacific Oceans hunting submarines!

As evidenced by the progress, much work has been done by the Boly crew. All the paint has been stripped and the aluminum cleaned and primed, the Navigator's panel is in place, the port side fuse and switch panel, the gun sight, the pilot's seat, the navigator's jump seat and stool, all the interior skin panels, the inside wooden panels, the main instrument panel, the engine instrument panel, the pilot's entry sliding hatch, the map case and the tear drop windows just to name some of the work.

The team is still working on some structural work at the rear end of the front fuselage. The front escape hatch is just about completed and requires some riveting. The blind flying panel and engine instrument panels will need to be installed and all the glazings done. This of course is just a sampling of what needs to be done.

If anybody is interested in joining the team you are more than welcome! As you can see this is a long term project so the more help we have the quicker it will be completed!



*The forward fuselage of Bolingbroke 10121*



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## PROGRESS REPORT FOCUSING ON THE FRONT FUSELAGE

By Jean-François Mongeau



The main instrument panel has been fitted in place. A new panel had to be fabricated, the original panel being too damaged. The other panels will be installed soon. The rudder pedals leather straps will be replaced also. Part of the throttle quadrant has been temporarily installed. The hydraulic hand pump will have to be fabricated using drawings, pictures and measurements taken from different museums. The wooden floors will be one of the last items to be installed in the front fuselage.



The navigator jump seat which sits on the starboard side of the pilot seat is ready to be installed. It's been cleaned, upholstered, primed and painted.



The wooden panels on each side of the front fuselage have been installed. They will need to be riveted and painted.



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## PROGRESS REPORT FOCUSING ON THE FRONT FUSELAGE



*New side panels are being installed*



*New window latches had to be fabricated.*



*Inside the forward fuselage as new skin panels have been installed.*



*Windows are being installed and missing parts machined.*



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## WORKING ON OTHER BITS AND PIECES

By Jean-François Mongeau

Picture 1. Nathan Jasiukajc working on removing rivets on the old and damaged wooden panels.

Picture 2. Zbig Jasiukajc and Stan Cunningham working on the rear end on the front fuselage.

Picture 3. The pilot entry hatch restored by Zbig Jasiukajc. Perspex courtesy of the Canadian Warplane Heritage Museum.

Picture 4. Navigator's "take-out" window restored by Eric Connor.

Picture 5. Crank handle to start the engines. Fabricated by David Conway.

5. Support for pilot gun sight alignment fabricated by Jim Bugdale.



Navigator's "take-out" window. Also in the picture: Map box and support for the Aldis Lamp.



A brand new crank handle to start the engines has been fabricated from an original drawing.



Support for the pilot's gun sight alignment



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## PROGRESS REPORT – GUN TURRET CUPOLA

By Jennifer Renwick

I have taken on the interesting task of restoring the Boly gun turret cupola, or dome, as some like to call it. Keep in mind that I have no mechanical background whatsoever, and while I am quite capable of putting up shelves, etc. at home, restoring an aircraft is another thing all together!

I started by marking the five sections of the cupola, and numbering the glazing strips, and then photographing the entire piece. I cleaned off a data plate and found some part numbers – always a thrill. Then came the fun part – wrestling with screws that have been in place for over 60 years. 'Releaseall' has become my new best friend! Of course, nothing is ever easy. The guys on the team are very good about helping (after teasing me, of course! ☹). Stan Cunningham showed me how to gently turn the screws back and forth after their dousing in Releaseall in order to loosen them up and get them out. It was a neat feeling to hold a screw in my hand that had been put into place on the Fairchild production line in 1942! Ken Clark and Andy Edwards (from the Fleet Canuck team) put their heads together and tried to come up with a tool to hold the screw backing tight while I removed the screws. This worked in a couple of cases, but more work needs to be done in order to get the proper tool. That was about all that was done the first day, and it has whetted my appetite for more.

This will be an interesting journey for a non-aircraft background, non-mechanical background, woman!

*Stay tuned!*



*Turret Cupola being worked on.*



*Inside view of CWHM's Bolingbroke turret with the cupola well in view.*





# THE "BOLY BANTER" NEWSLETTER

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## LIVING HISTORY (Part 2)

### WALTER PACHOLKA- WWII SQUADRON LEADER "RAF 199 SQUADRON"

By Claude Payette

During the early 1940's, the RCAF put out recruiting posters trying to depict the adventurous aspect of RCAF service in wartime. By that time, while working in California and at Noorduyn, in Cartierville, Quebec, Walter had actually flown planes, accompanying some test pilots on their flights.

In 1942, while working at Boeing Co. in Vancouver, British Columbia, Walter decided to volunteer and joined the RCAF in early May. His RCAF Certificate of Service Card shows Walter serving from Friday May 1, 1942 to Friday June 19, 1945.

Training in Canada was under the British Commonwealth Air Training Plan (BCATP). Before any air training started, Walter had to go through Basic Training and Education which took place in Edmonton, Alberta. The going pay at that time was about \$10 a month.

Walter's training in Canada started on Monday Dec 7, 1942 and ended on Friday May 14, 1943. Training took place at No. 2 Bombing and Gunnery School in Mossbank, Saskatchewan where he took Air Bomber (Armament) and Air Bomber (Navigation), and at No. 7 Bombing and Gunnery School in Paulson, Manitoba where he took a Special High Level Bomb Course.

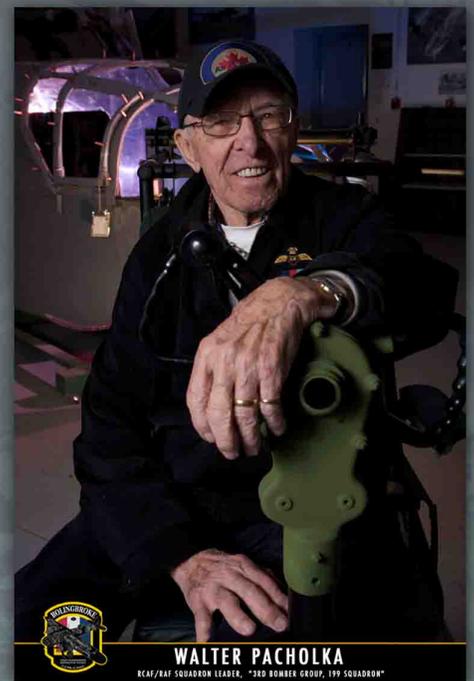
Here are some notable entries from Walter's Log Book:



Fall 1942 North of Moose Jaw, Sask. Canada - Gunnery Training



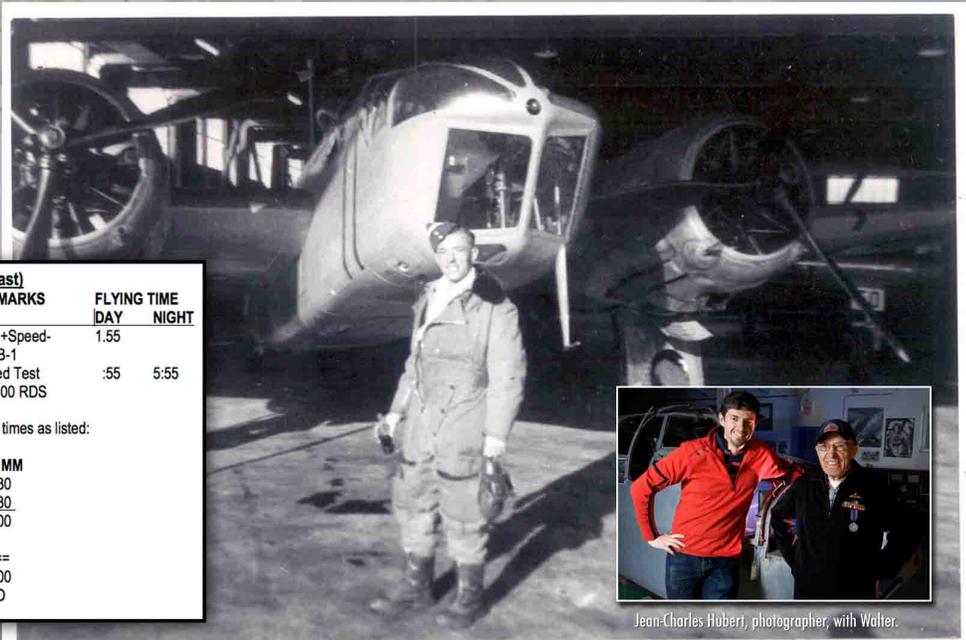
One of the Bolingbrokes Walter flew.



WALTER PACHOLKA

RCAF/RAF SQUADRON LEADER, "2ND BOMBER GROUP, 199 SQUADRON"

Walter posing with pride in front of our Bolingbroke.



Jean-Charles Hubert, photographer, with Walter.

**Log Book Entries (1st and Last)**

DATE	HOUR	AIRCRAFT TYPE & NO.	PILOT	DUTY	REMARKS	FLYING TIME	
						DAY	NIGHT
03-Jan./43	0905	Anson 8240	W.O. Williams	Bomb Aimer	H.L. Direction+Speed-B-1	1:55	
20-Feb-43	1220	Boly 9894	F.S. Kasubeck	Air Gunner	Relative Speed Test 400 RDS	:55	5:55

At the end of his Air Bomber (Armament) course Walter had tabulated air times as listed:

AIR OBSERVER CERTIFICATE	HH	MM
TOTAL BOMBING	35	30
TOTAL GUNNERY	9	30
TOTAL NO. 2 B. & G. SCHOOL	45	00
TOTAL BROUGHT FORWARD		
=====		
GRAND TOTAL	45	00
SIGNATURE	A L	Currie F/O





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## LIVING HISTORY (Part 2)

### WALTER PACHOLKA- WWII SQUADRON LEADER "RAF 199 SQUADRON" RAF BOMBER COMMAND GROUP 3

The numerous training flights occurred in Ansons, Bolingbrokes and Fairey Battles. At the end of his Navigation course Walter was recommended at the A level as being suitable for special high altitude duties and as having exceptional night vision capacity.

Gunnery training started with static targets in front of a sand bank, then progressed to moving targets towed by boats on Old Wives Lake, Saskatchewan and finally followed with air gunnery attacking drones towed by some Fairey Battles.

Training in Canada concluded with high level bombing runs in Bolingbrokes and Ansons at No 7. Bombing and Gunnery School in Paulson, Manitoba. This involved dropping over 200 bombs. Walter then got his Pilot Officer Commission. His Qualification Certificate was issued on Friday May 14 1943, and notes the following:

*"Final test results for : Altitude Tolerance Tests - Showed (No) Symptoms  
Recommendation: A - Suitable for special high altitude duties  
Night Visual Capacity - Exceptional"*

Around June 1943, Walter, as part of a group of about 40 Specialist Air Crews, moved from Rivers, Manitoba to Halifax, Nova Scotia en route to England. These air crews were in significant demand overseas. With about 20 air crews, Walter boarded one of two Fast Transport Boats (FTB) [they could do about 20 knots at maximum speed], for the five-day Atlantic crossing.

Luck was with Walter throughout that trip as the other FTB, carrying another 20 air crews, was sunk by a German U-Boat near the south of Ireland, with all aboard being lost. The FTB Walter was on was fired upon by German submarines, but without being hit. Walter, and the FTB, finally reached Liverpool, all in one piece.

After surviving the Atlantic crossing and arriving safely in Liverpool, England, Walter became a tourist for five days. Following this leave, Walter took additional Pre-Operational Training in combat areas in the North Atlantic.

A Ship Recognition Course for Air Bombers was held at No. 5. A.O.S. (Ship Recognition Section) Jersey, Isle of Man, lasting from Sunday July 18 to Thursday August 12 1943. Walter passed that course with flying colors (he scored 98.2%).



*View from gun turret (picture by Walter Pacholka)*

In August 1943 Walter embarked on No. 1476 Advanced Ship Recognition Flights. Walter had a total of 90 hours in Ansons during these recognition flights, which included Reconnaissance, Bombing, and High Level Bombing runs. Afterwards, Walter spent the next two days and nights in the North Sea aboard two ships on sea maneuvers in combat areas and at Scapa Flow (Orkneys Islands, Northern Scotland). One ship was the American Aircraft Carrier U.S.N. Ranger; the other the Battleship the H.M.S. Duke of York. The purpose of this weekend was to get some airmen (in this case Walter and a buddy) to see and feel what it was like to be down on the ships as compared to being up in planes.

Both of these ships were in combat areas in the North Atlantic right up to Denmark. Military exercises included being attacked and dived-bombed by a squadron of 2-engine bombers, flown by a bunch of no-nonsense Polish pilots. Walter remembers vividly having to dive and lay flat on the flight deck of the U.S.N. Ranger as the Polish pilots came in really low in mock attacks.

After spending the day on the U.S.N. Ranger, both Walter and his buddy were to be transferred back to the mainland around Scapa Flow. They boarded a small boat manned by a WREN (a member of the Women's Royal Naval Service). Heavy seas prohibited the shore landing, forcing the small boat back to sea. Eventually Walter and his buddy were taken aboard the battleship H.M.S. Duke of York where they spent a day, before finally being landed ashore.



*Bolingbroke flown by Walter (picture by Walter Pacholka)*

*.....To come, ..., Flying & Fighting*





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## LIVING HISTORY

### WALTER PACHOLKA- WWII SQUADRON LEADER "RAF 199 SQUADRON"

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D Pacholka W.C. R.C.A.F. R. 96A  
1004 - 8-41 (2400)  
H.Q. 883-R-90A

### NAVIGATION COURSES FOR AIR OBSERVERS, AIR NAVIGATORS AND AIR BOMBERS

Held at No. 1 C.N.S. Rivers Manitoba  
From 22/Feb/43 To 2/Apr/43

GROUND WORK			AIR WORK		
Subject	Marks Allotted	Marks Obtained	Subject	Marks Allotted	Marks Obtained
Navigation	50	35	Navigation	100	84
Maps and Charts, Magnetism and Compasses			Bombing	100	75
Instruments			Photography	100	78
Reconnaissance	50	43			
Aircraft Recognition	75	85	TOTAL	500	237
Meteorology					% 79%
Photography	50	33	FLYING TIMES ON COURSE		
Signals-Written			Type	Day	Night
Signals-Practical	75	68	Bolingbroke	39:05	5:58
Armament			Anson	22:30	14:15
TOTAL	500	244	TOTAL	61:35	20:10
		% 81.3%			

REMARKS Passed  
~~Failed~~  
*A.F. McKelvey S/L*  
 Chief Instructor

TOTAL TIME....

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TIME CARRIED FORWARD--

REMARKS (Including results of bombing, gunnery, exercises, etc.)

ALTITUDE TOLERANCE TEST. DATE 1/6/43

Stimulants

No. of 2 hrs. 1. nil on 2. runs  
 tests at 35,000 feet 2. mild on  
 3. moderate on  
 severe on

RECOMMENDATIONS:-  
 A. Suitable for special high altitude duties.  
 B. Suitable for limited special high altitude duties.  
 C. Not suitable for high altitude duties.

NIGHT VISUAL CAPACITY

Exceptional  Below Average  
 Above Average Poor 28  
 Average Score  
 Date 7/6/43 I.T.S.

WP LogBook - Air Nav & High Alt test results



Royal Canadian Air Force recruiting poster. (Book TB - RCAF Pub)



The Avro Anson was not only the classroom for pilot trainees, but also provided enough room behind the cockpit for air observer students. This photograph was taken in December 1943. (Book TB - Air Navigators & Anson)



### SHIP RECOGNITION COURSE FOR AIR BOMBERS

Held at No. 5. A.O.S. (Ship Recognition Section)  
 JURBY, ISLE OF MAN.

From 18.7.43. to 12.8.43.

Subject	Marks allotted	Marks obtained	Average %
Naval Vessels Written	100	81.5	
Merchant and Naval Vessels Written	100	71.5	87.3
Practical	200	196.3	

Remarks. ~~Failed~~  Passed  
*...Super. Markings E.S.L.*  
 for Chief Instructor.

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WP LogBook - Advc Ship Recg & Ships





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## CANADIAN WARPLANE HERITAGE MUSEUM BOLINGBROKE JULY 2010 UPDATE



By Wayne Ready  
Coordinator  
Bolingbroke Restoration Project  
Canadian Warplane Heritage Museum  
Hamilton, Ontario.

The CWHM Bolingbroke Restoration has been ongoing since 1986 after eight airframes were brought back from Western Canada between 1980 and 1986.

The desire to restore a flying Bolingbroke became a project for a couple of members of the Museum. After an extensive examination of the parts from the eight airframes was completed, it was felt this goal could be accomplished. As the project began in one corner of Hangar Three, it became quite apparent that this was not going to be a quick restoration. After many years of the airframes being vandalized, areas being open to the changing weather conditions,

and rodents making their homes in them, it was found that there was considerable damage from corrosion in vital areas. The main problem areas were the steel spars in the centre section and the wings where corrosion was extensive. This was the same in all the airframes we looked at. All we needed to do now was find the proper steel. It took five years to have the steel analyzed, find a replacement type, locate the supplier, have a



Photo by Mike Charters

Some of the CWHM Bolingbroke Crew.  
Starting from left to right—long row: Al Botting, Wayne Ready, Ron Wylie, Chris Holden (CWHM) engineering, Leon Ames, Russ McKay, Vic Lytle, Bob Rudy, Bruce Muj, Chuck Anderson, Walter Wintermute, Victor (Manny) Ramirez. 3 crew members Back row—Tyler Hoestetter, Andrew Stewart, Greg Wright. Center of picture in front all alone—Ray Biggrr.



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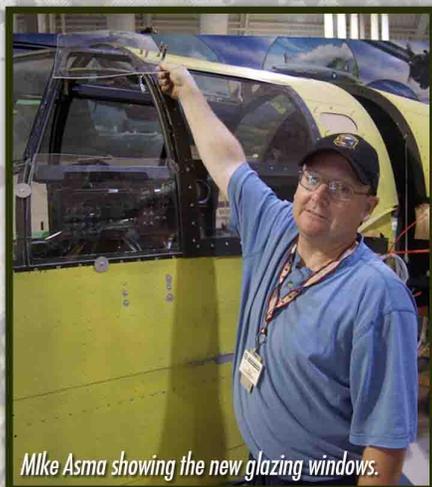
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## CANADIAN WARPLANE HERITAGE MUSEUM BOLINGBROKE JULY 2010 UPDATE



small sample delivered to us, and then have it tested for strength to satisfy the Department of Transport. Many hours of testing and simulated structures in a computer program following the original requirements for the breaking point of the original steel and then comparison of the new steel were undertaken. This was finally accepted by the DOT and a letter of approval came forth. The steel arrived at the Museum and the task of matching up all the different angles and radiuses required took many hours.

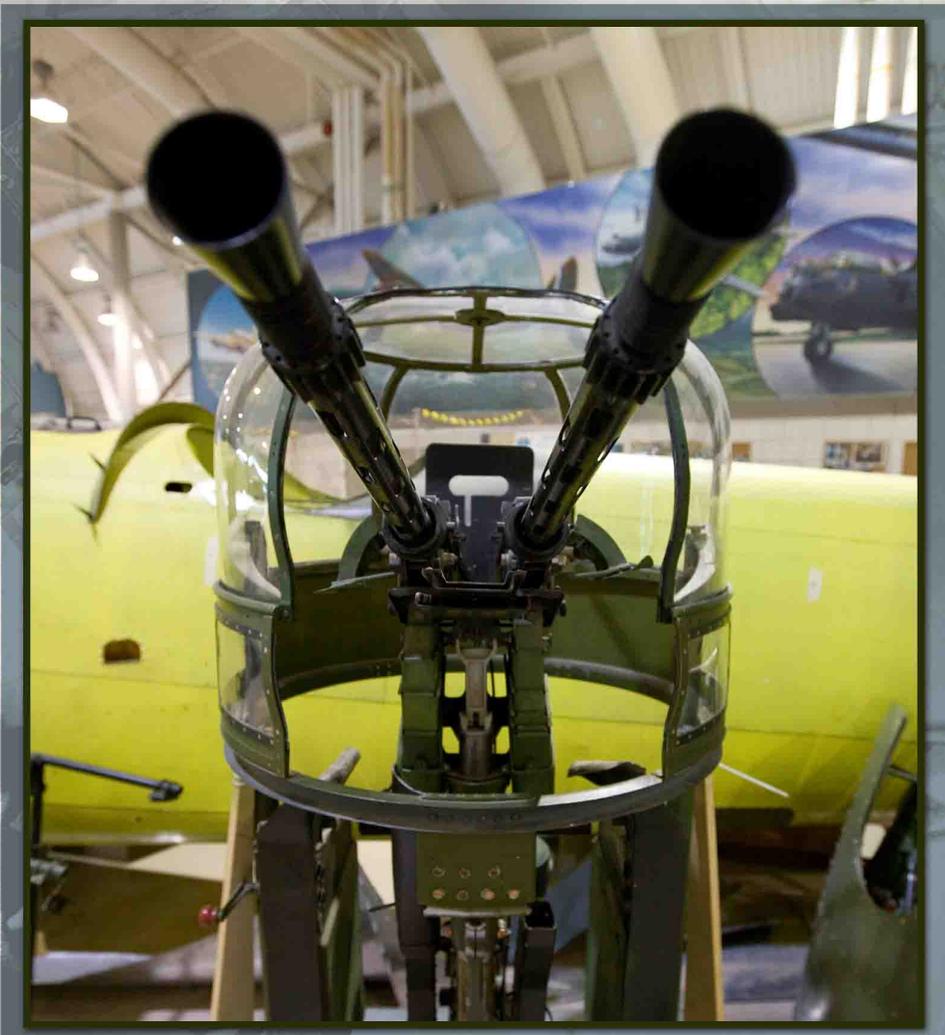


*Mike Asma showing the new glazing windows.*

We then realized we had to build our own rolling machine for the first stage of the forming (none were available for such a task). The next step was to find a company with a twenty-four foot long press and all the different dies required for each individual piece. After forming the steel, the holes for the rivets needed to be done on each piece, using the old steel for patterns. This took a lot of time and patience by the very dedicated crew to be sure all the steel shapes would fit together. This also had to be done on the remaining aluminum portion of the spars.

While this was ongoing, many of the other parts of the aircraft were being restored. The rear fuselage, cockpit, tail assembly, elevators, rudder, landing gear structure, wiring, control panels, new instrument panel, seat structure, gun turret, keel, and flaps were all worked on and are now complete. Another challenge was forming all the Perspex required for the cockpit. We had to build ALL the molds as well as a large heater to bring the Perspex up to temperature so it could go on the molds to form each piece.

It is now twenty-four years since we started the project. The centre section will be completed within the next month and this will enable us to take it out of the special jig and then allow us to mate up the rear fuselage and cockpit. In turn we will install the landing gear assembly and mate up the keel. While the ongoing work will be undertaken on the airframe we will put one of the wings in the same jig the centre section was in and start to restore it.





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## CANADIAN WARPLANE HERITAGE MUSEUM BOLINGBROKE JULY 2010 UPDATE



One of the next big steps is to get the two engines ready to be rebuilt. This will take at least two years to finish. As well, the propellers and hubs will need to be rebuilt. We are still short some parts to finish some cosmetic areas of the aircraft but we will be working this out as we go.

When we discovered that the Canadian Aviation Heritage Centre was restoring a Bolingbroke, it was great news to us. We had assisted Aerovision, where the CAHC Bolingbroke is from, by rebuilding the elevators and rudder. These are now at the CAHC awaiting the time when they can be mounted on the airframe. We have decided to assist the CAHC with whatever we could spare from our inventory of parts. This effort is a two-way street and it has worked out so far for both projects - ours to fly and yours for static display. We will continue to assist the very dedicated group working on the Bolingbroke at the CAHC as much as we can in the future.

When they first came to see us they asked me, "What does it take to do this Restoration?" The answer was very easy :

- *Patience, Patience, Patience.*



*Inside view of the forward fuselage.*



*Inside view of the rear fuselage.*



*Detail of the glazings fabricated by Mike Asma*

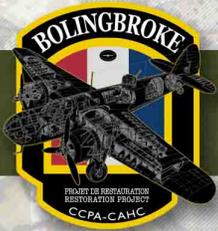


© Jean Bruneau, 2010

*Illustration by Jean Bruneau 2010*

*Final configuration for the CWHM Bolingbroke with the IODE logo.*





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## DIFFERENT BOLINGBROKE CONFIGURATIONS

Here are 5 different aircraft representing all the major schemes seen on Bolingbrokes during the war.

### 1. BOLINGBROKE MK IV -

The bomber / reconnaissance version with the Coastal Command scheme of extra dark sea grey / slate grey camouflage on upper surfaces with white undersides. This scheme was used by No.147 (BR) squadron while based at RCAF Tofino in 1943. This particular aircraft, 9066, was credited sinking a U-boat in 1941 while serving with No. 119 (BR) squadron in Nova Scotia.

### 2. BOLINGBROKE MK IV -

The bomber / reconnaissance version in the widely used night bomber scheme of Dark Earth / Dark Green camouflage on upper surfaces with black undersides. 9118 was used by No.115 (F) Squadron at RCAF Station Patricia Bay BC and later at Annette Island, Alaska, where it was tasked with patrolling the ocean.

### 3. BOLINGBROKE MK IV -

Finished in the day bomber scheme of Dark Earth / Dark Green camouflage on upper surfaces with Sky undersides. DM@K served in the Eastern air command with No. 119 (BR) squadron based in Yarmouth and Sydney N.S. (The serial number of 10121 is incorrect for this scheme).

### 4. BOLINGBROKE MK.IVTT -

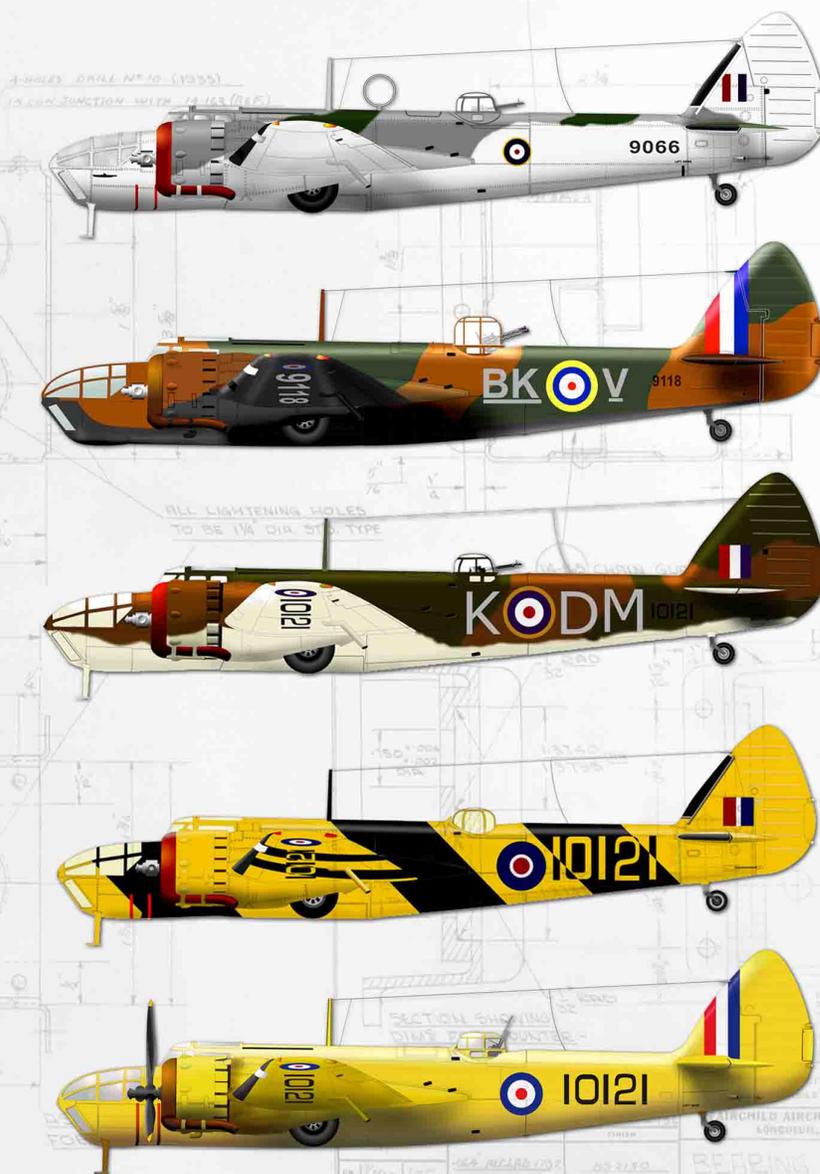
Painted in the standard RAF scheme for target towing aircraft of black diagonal wrap around stripes on yellow, for high visibility. 89 Bolingbrokes were used as target tugs, serving with both the BCATP and various OTU's across Canada. 10210 was based at RCAF Bagotville, Quebec, providing target towing for the Fighter pilots of No.1 Operational Training Unit. (The serial number of 10121 is incorrect for this scheme).

### 5. Bolingbroke Mk.IVT -

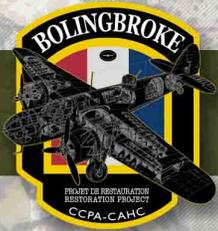
The standard trainer version of the Bolingbroke painted in overall trainer yellow. Used by every one of the 11 Bombing and Gunnery schools in the BCATP, this particular aircraft was used by No. 4 training command in Western Canada.



## DIFFERENT BOLINGBROKE CONFIGURATIONS



Illustrations by Jean Bruneau



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## HISTORIC BITS FROM THE ARCHIVES



*Red Lyburner, test pilot at Fairchild Aircraft Ltd in Longueuil, Quebec.*



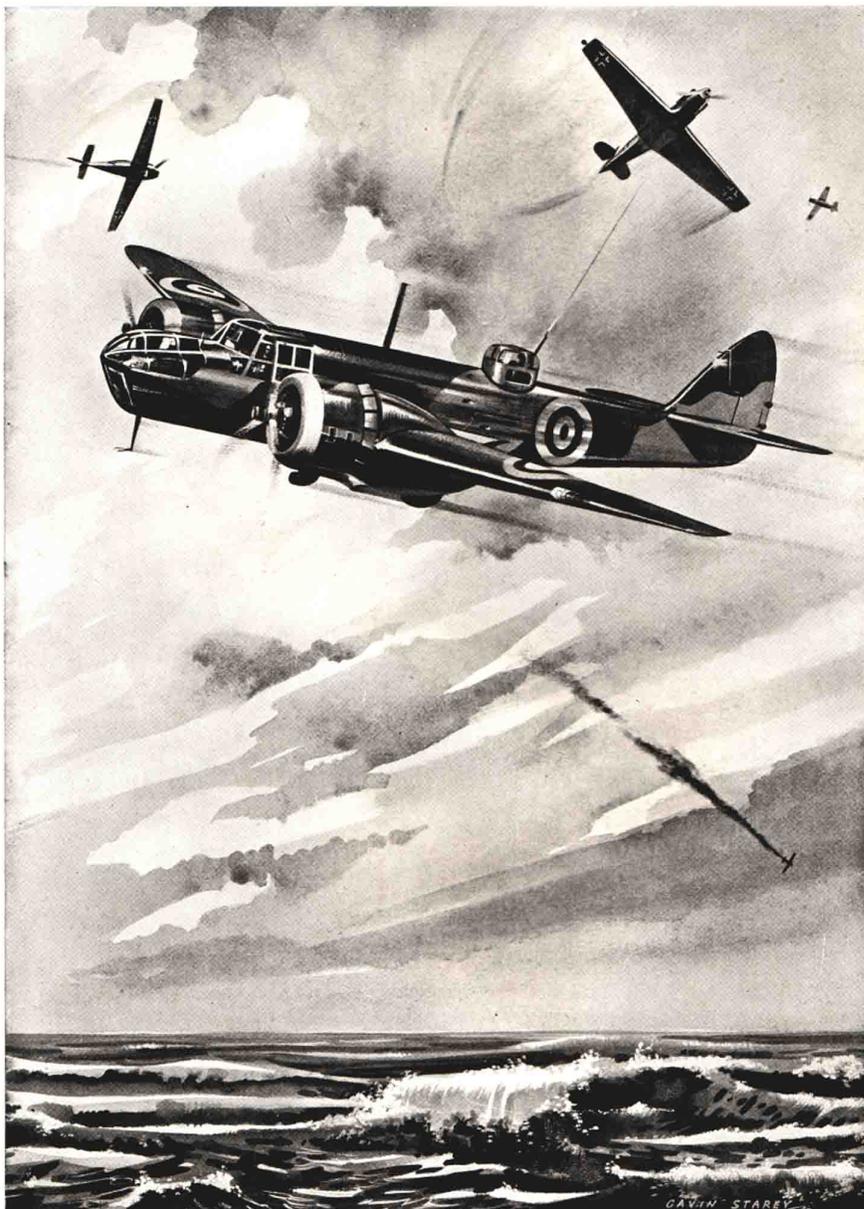
22 - June -43



27 - June -43

*June 22 1943, Bagotville, Bolingbroke MkIV TT (target towing).*

4 CANADIAN AVIATION



"Bristol" Blenheim fitted with "Bristol" Mercury Engines repels attacks from enemy fighters.  
**BRITISH AEROPLANE ENGINES, LIMITED, MONTREAL — 248, McCord Street**  
Representatives in Canada for The Bristol Aeroplane Company, Limited, England.

*A period ad from British Aeroplane Engines. Note the address; 248, McCord Street, Montreal...*

