

Turn Bank



OFFICIAL NEWSLETTER OF RAAC CHAPTER 85

December 2003



It is not often one comes in close contact with a Spitfire. This is Charlie Longstaff's 70% Spit. Beautiful airplane. It takes a special person to spend the many thousands of hours to complete a project like this. Especially one in which plans had to be made first. See page 6 for article by Charlie.

Please note: Anyone who uses email and would like this publication sent each month as an attachment a few days before the snail mail version or even better, instead of the snail mail version, please email me at brown_d@fc.sd36.bc.ca

The TURN AND BANK is the monthly publication of RAAC Chapter 85 and is intended to keep members informed as to the club's activities, and to promote safety and technical excellence in the field of sport aviation. No responsibility or liability is assumed, expressed or implied as to the content of articles contained in the Turn and Bank: the intention is to provide a forum for discussion and exchange of ideas.

Newsletter contributions should be mailed to Doug Brown, 9260 Pinewell Cr., Richmond, BC, V7A 2C6, no later than the 12th of each month. Or e-mailed to brown_d@fc.sd36.bc.ca

Enquiries to the Membership Chairman should be mailed to Rob Prior, 3032 Carina Place, Burnaby, B.C., V3J 1B5

Regular chapter meetings are held on the first Tues. of each month at 20:00 (8pm) in the clubhouse:

Delta Airpark, 4103-104th Street Delta, B.C.

Clubhouse phone: 596-3644

Mailing Address: Chapter 85, RAAC

c/o Delta Heritage Airpark, 4103-104th St., RR#3, Delta, B.C. V4K-3N3

Executive meetings are on the third Tues. of each month at 19:30 (7:30 pm) in the clubhouse.

Chapter aircraft pilots, mail cheques

(Payable to RAAC Chapter 85) to:

Tedd McHenry

RAAC National Homepage: <http://www.raa.ca>

RAA Chapter 85 Homepage: http://www.b4.ca/raa_85

Delta Heritage Air Park Homepage

<http://home.istar.ca/~bb4>

Source for CARS and Chapter 549 Airworthiness

Manual: <http://www.aerotraining.com>

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RECREATIONAL

AIRCRAFT
ASSOCIATION
CANADA

Delta Heritage Airpark
Vancouver, B.C.



President:	Tim Baker	588-0333
Past President:	Tim Nicholas	572-1845
Vice President:	Gerard Van Dijk	830-9592
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Treasurer:	Don Souter	930-6243
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Prgm Chairman:	Dan Lawler	536-1536
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	Dave Bell	
Newsletter:	Doug Brown	275-1405
Marketing:	Don Souter	572-6279
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	Terry Wilshire	273-4741
	946-4152 (bus) 293-0663 (pager)	
	Francois Leh	813-7742
Directors:	Rob Prior	422-8446
	Dan McGowan	324-3348
	Bruce Prior	437-4219
	Paul Trudel	532-8570
	Bob Cutting	275-1603
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Propellers and Wood:	Colin Walker	581-9602
Engines:	John Blake	820-9088
Steel:	Pat O'Donnell	533-1839
Aluminum:	George Worden	433-5564
Computers in Aviation:	Rob Prior	422-8446
General:	Paul Trudel	532-8570

Calendar of events

This spot is reserved for announcements of upcoming events. Please, if you know of things that are happening, let me know so others will know as well.

Dec 2 Wine & Cheese in lieu of regular meeting.

Dec 25 Wishing everyone a very enjoyable Christmas.



AIR Frame



Aircraft Portraits

Rob Prior
www.b4.ca/airframe
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Minutes of the General Meeting, 4 November, 2003

Call to order: 8:00 PM by President Tim Baker.

Hunter / Nicholas: that the minutes of the General Meeting of 7 October, 2003 be adopted as printed in "Turn & Bank".

Discussion: Carried.

Correspondence: None received.

Announcement: Saddened to hear of the passing of good member, great friend Lothar Juraski. A gathering of Lothar's friends and family Saturday next at Command Aviation, Pitt Meadows, 1:00 PM.

Committee Reports:

Treasury: Don Souter: Verbal presentation by Don. Exec. still working on year's final financial situation.

Membership: Rob Prior: Some members even re-upping for 2004.

Buildings: Dan Weinkam: OK but a very prominent member late on tie down payment and about to be cruelly evicted.

Vice President: Gerrard Van Dijk: \$ 44 to be won in this evening's 50 / 50 draw. Annual Bash will be Saturday, April 17 and tickets will be available next month. It is going to cost you \$ 30 this time and is still a good deal. Location TBA.

Newsletter: Doug Brown: Annual Wine & Cheese do in December instead of a General Meeting. Watch "Turn & Bank" for details including what to bring. Next month also a tribute to Lothar and his terrific Cavalier.

Program: John Macready: Special Remembrance Day ceremony at the Lodestar on November 11 following the Fly By activities.

November 12: Vern Little's project to visit in White Rock - see "T & B" for details.

Francois Leh the new Program Chaiman and a great round of applause for John and the great job he has done.

Aircraft: Tedd McHenry: 8.4 hours put upon the Turbi in October. We have a man taking over the J-5 re-build project but his name seems to be secret for just now (???)

RAAC: Rob Prior: Members having ideas for Rob to take to the one day RAAC Convention in London, Ontario, see him.

Air Park Comm. (Formerly DHAPCOM): Terry Wilshire: Breakfast this Sunday. Terry says DHAP doing fine with no appreciable problems.

Old Business:

November 11 Fly By: Tedd says he has 7 airplanes with their pilots trained and ready. Now just needs good WX.

New Business:

Wine & Cheese begins about 6:00 PM First Tuesday in December. Watch "T & B". Volunteers wanted to help for this.

Hoffman / Wright: that we adjourn and it being moved, thus we did it.
Jim Hunter, Secretary

Bulletin Board

New Rate for Turbi

Tedd McHenry, Aircraft Chairman

The Chapter Executive has decided to raise the hourly rate for the Turbi, and to change the rate structure. The Turbi isn't raising enough revenue to cover its costs. We hope to raise a bit more money with the new rate, and we also hope to discourage extremely short flights with the new rate structure. The new rate will be 60 dollars per hour, wet. There will be a 30 dollar minimum charge, per use. "Per use" means that you can do a short out-and-back with each leg less than 0.5 hours and only pay the minimum charge once, not on each leg. But if you make a single flight of less than 0.5 hours you pay 30 dollars. The new rate will take effect after the July general meeting.

While we encourage people to pay in advance, it's not strictly required by the rules. Please pay me Tedd McHenry, by cash, cheque, or Visa. Most people come to a meeting and pay, but you can just send him a cheque by mail. There's a web site that shows everyone's account balance, and lists my postal address for people who want to send a cheque.

To fly the Turbi you must have a valid pilot license and medical, some previous taildragger time, be a paid-up member in good standing of Chapter 85, and pass a check ride with one of Chapter 85's check pilots. The check ride is good for 90 days. Check pilots are Terry Wilshire, Francois Leh, and me. Contact information for the check pilots is on the library chalkboard in the clubhouse.

The rate is \$60 per hour wet, with a \$30 minimum per trip. There is a set of Chapter rules for flying the airplane, which I won't detail here, but they are in a binder in the hanger near the Turbi if you wish to read them. When you do a check ride you'll be asked to sign a form saying you've read them. But here are some highlights.

The Turbi has \$300,000 liability insurance per seat, plus third-party liability of \$1,000,000, and \$25,000 not-in-motion hull coverage (with a \$500 deductible). Note that there is no in-motion coverage. Chapter 85's policy is that any damage that happens to the airplane when you have signed it out is your responsibility. You must pay for the repairs or make the repairs yourself. (Except, of course, for routine maintenance.)

The airplane is maintained by Gerrard van Dijk and anyone whose arm he can twist to help him. The very low rental rate of the Turbi is due in no small part to the free maintenance Gerrard provides. If you fly the airplane, I strongly encourage you to offer some of your time to help him maintain it. You don't need any expertise, Gerrard provides all of that. But an extra pair of hands, or even just someone to bring back a hot coffee from the pilot's room on a cold day, is a big help.

Booking the Turbi is a very informal process. Just write down the date and time on the big chalkboard in the clubhouse. The main purpose of the Turbi is to help pilots maintain proficiency while they build, it is mostly flown on local circuit-and-bump flights. But cross-country flights are perfectly okay.

If you plan to take the airplane overnight, or for more than two hours on a weekend or holiday, you need the approval of the Aircraft Chairman or a Chapter officer. Remember, though, that the airplane has no transponder, so there are some limits on where you can go.

The Turbi is a delightful airplane to fly. It gives all the joy of a classic, tandem seat taildragger, but it is very easy to handle on the ground and in the air. I sometimes call it the "very poor man's RV-4."

What's in store for next meeting.

We are having our annual Christmas wine & cheese/pot luck do. Come one, come all. Significant others as well. Please bring the following based on the first letter in your last name.

-- A to H bringing fruit platter for four.

-- I to P bring squares and sweets platter for four.

-- Q to Z bring veggies, dip and other finger food for four.

Since there will be no minutes taken at this meeting, the next Turn & Bank will be the Jan/Feb issue mailed out in January.

No Homebuilders Meeting this month BUT...

Quite a good turn out of approximately 15 to visit Vern Little and see his half built RV-9A. He is doing an awesome job on this aircraft. See pics on page 7 of this issue. Thanks Vern for the nice evening.

John Edwards speaks at Chapter 85

On Tuesday November 4/03 at the general meeting of Chapter 85, Mr John Edwards, Chief Instructor, Aviation Technology Program at BCIT spoke about maintenance which an owner is entitled to perform to a certified airplane.

Initially John focused on a review of the CARS, standards which define terms like "elementary work". He indicated publication AC-43-13 which outlines the standards for work for an aircraft. This publication is available from the internet free of charge.

John briefly described bulletins to be aware of.

AD; Something is affecting the airworthiness of your airplane

SB; Something may affect the airworthiness of your airplane.

SL; General information which does not affect the airworthiness of your airplane.

John identified specific aircraft systems which require maintenance and described the industry accepted procedures for carrying out this maintenance. Some specific sections included:

1. Tires and Rims.

2. Seats, harnesses, upholstery.

3. Repair of non structural fairings, and the use of correct hardware.

4. Spark plug removal, cleaning, and installation. (Always Use a torque wrench)

5. Topics on engine preservation, oil changes and type of oil. Change it frequently

6. Removal of batteries, fuses, lightbulbs.

John's presentation was professional, entertaining and informative. A good evening was had by all.

The RAA wishes to express its sincere thanks to John Edwards for taking the time to share this valuable information with us.

President's Message

November is the month of the first world war armistice and once again chapter 85 flew a formation over the Vancouver cenotaphs. Many thanks to Tedd McHenry for a great job and a lot of hard work organizing the practice and final formation. Thanks also to the pilots and all those who attended the ground ceremony headed up by John Mcready at Lodestar Park.

The executive has reviewed the budget and the clubs financial situation seems to be under control , however much more planning and savings will be required for the future. And finally - COLIN WALKER has created an aviation miracle!!! As most of you know I recently purchased Jim's Zenith 200 it has a strong pull to the left with one person on board . I questioned Jim about this and he said "it flew perfect" -(the not one- but - TWO - trim tabs on the tail didn't even raise an eyebrow)-Jim said" the only change was the new prop - talk to Colin" So I asked Colin why his prop makes the plane pull left and Colin said "well you fool just unbolt the prop - flip it over and bolt it right back on then it will pull straight!" Gee what a lucky guy I am to have such wonderful pals!! . Anyone wanting more info on this fixed pitch directional thrust miracle prop feel free to contact Colin directly. That's it for now - fly safe - TIM

Charlie's Spitfire

A DREAM COME TRUE

By Charlie Lonstaff

It all began sometime back in ancient history; I believe about 1970 or 71. I had completed my 'Emeraude' in early 1968 and having flown off the mandatory first 50 hours at our local airpark. I had Flown it up to fort Nelson, B.C. some 1,000 miles north of Vancouver, where I had gone to work on a construction project. My friend, Ross Clarke, whom I had met a few years earlier at Fort Nelson was at that time nearing completion of his 'Miranda', and I often dropped in on him to visit and to help. On one of those warm northern autumn afternoons we were lazing about at coffee break, fondling and admiring his Miranda. Out of the blue I said "wouldn't it be great to build a replica Spitfire? Ross, who had spent most of the war years working on 'spits', began drooling and agreed that it surely would, and so the dream was born.

About a year later I saw an ad in a flying magazine for 'superscale' drawings of various fighter aircraft including spitfire so I immediately sent for a set. These were not construction drawings - just drawings at a scale of 3/4" per foot. From these I was able to determine the original dimensions of the airplane and I then scaled down to 7/10 size. At this scale my wing span came to 25' 9" and the fuselage just wide enough with a little bit of cheating on the scale to accommodate the 1962, 215cu. In. Buick V8 engine I wanted to use for power and to make room for my 6'3" body! It is a snug fit! I also increased the height of the wind screen and the seat bulkhead by 1" to give a little extra head room.

So I began making the full size drawings, which was a whole new challenge for me; and rather a daunting one at that! I began by making full size plan drawings of the wing and fuselage and also a side plan of the fuselage. On to these I located all the bulkheads, wing ribs, ailerons, flaps, wheel wells, etc., and the attaching points between stabilizer and fuselage and between the fuselage and wing and so on. I was then able to locate rudder pedals, control stick and other working parts; routing cables and push-rods, etc., so that they didn't interfere with one another in their duties. It was all an 'eyeball engineering' job, but I did refer to my Emeraude drawings for construction detail such as wing spars, ribs, etc., and like the Emeraude, the wing is all one piece. I made wood patterns of the wheels (to look like the originals) which I took to a foundry and had aluminum ones poured. The wheels are in two halves and take regular 8" trailer tires (which are very close to the correct scale!) And shoe brakes that I made up.

As already mentioned, the engine is a v8 Buick with stock carburetor, "high energy" ignition system and improved water pump impeller to ensure a good flow through the extra plumbing to the radiator under the wing. The propeller is a home made, three blade, wood with an aluminum hub. It is 7 ' 0" diameter and the pitch is



ground adjustable. It is driven through a 4 3/4" wide cog-belt in a 1 to 1 reduction unit also home made. This propeller is a bit too big for the engine so I had to set it in fine pitch to obtain the engine rev's I wanted. I intend to modify the blades a bit to try to improve the performance. However, at 4,000 rev's I was indicating 160 m.p.h.

I had the airplane completed in my basement by early summer of 1993. I then dismantled it for transport to Abbotsford airport and had it re-assembled sufficiently for static display at the airshow that summer. Thereafter, all the little nitty gritty assembly and adjustments had to be done and the engine given a 10hr. break-in run. This could only be done about 15 minutes at a time since the radiator could not keep the engine cool very long when not at flying speed.

Then came taxi trials and handling familiarization. That long, high nose blanked out all forward view of the runway and was pretty scary compared to the full forward view I have in the Emeraude. However, I gradually honed my peripheral vision as I made many, many taxi runs up and down an unused runway at ever-increasing speeds until finally I got the tail up and the whole world ahead came into view and what a thrill! I then asked for permission to use the 8,000 foot runway 07-25 for a few lift-off trials and practice bringing the beast down again in a respectable manner. Then, for several more times I flew half a mile or so at a time just above the pavement and was pleased with the aileron, elevator and rudder response. Finally, on one calm, cool morning bright and early (about 6: 00 a.m.) having mustered up all my courage and suppressed the inherent trepidation in such a venture, I did my second lift-off for the day and went right on up to 1 ,000 feet circled the field watching the gauges carefully; all systems normal! I then set up my final approach with flaps half down and rounded out to quite a respectable touch down! I taxied back to the hanger where my friend Jim was waiting for me with a big grin on his face, and I have to admit I had one myself! I climbed out and stroked the wings and stood back looking at it with no small amount of satisfaction at the sight of my very own ' spitfire', a real flying machine, at last a dream come true!

It had been about 24 years since I bought those first drawings. This is by no means to say that it took 24 years to build. I had many other priority projects to complete along the way (such as building a new house in which to build the airplane). But the patience and perseverance involved was certainly amply rewarded. I have since made over 50 flights for a total of 25 hours and I am happy to state that it flies beautifully, is very responsive and is a pleasure beyond all my expectations to fly! It takes very little effort to imagine that I am in a "real" spit, shooting up trains and things; a fine occupation for a 71 year old kid!

I keep the "spit" at Delta Air Park where my Emeraude is stationed. Last summer I flew back to Abbotsford air show and also to shows at Boundary Bay and Chilliwack where in all cases it generated a great deal of interest and was the subject of many photos and much video footage.



Photos from the visit to Vern's Little workshop



Looking at the fuselage details.

Left: Vern showing how its done. This will be one sweet airplane when its finished!

November 11th at DHAP

A Remembrance Day ceremony was held at Delta Heritage Airpark near the Loadstar. Approximately 50 people were in attendance to observe a moment of silence and to pay their respect to our fallen comrades of many global conflicts. At 11:00 AM the flag was lowered and two minutes of silence was observed. Dave Danylyshyn played a lament on the bagpipes. Pam Livingstone read "In Flanders Fields". George Spence and Larry Thompson placed a wreath at the flagpole on behalf of DHAPCOM. Don Watson then invited Mary and Tony Swain to plant a Golden Globe Cedar tree that is intended to remind us all of the wartime sacrifices made by so many people (see photo below). Singing Oh Canada concluded the ceremony. Other participants attending included Gerrard Van Dijk, Vice President of Chapter 85 RAA and John Macready, DHAPCOM volunteer and Custodian, RAA Chapter 85.

The event was conceived and planned by Don Watson, Caretaker of DHAP. He intends to make this ceremony an annual event. Loadstar Park is located at the entrance to Delta Heritage Air Park and is dedicated to the memory of the pioneers of Canadian Aviation. The Lockheed Loadstar is our gate guardian that belongs to the Canadian Museum of Flight. The RAA Chapter 85 wishes to express its appreciation to Don Watson for organizing this special event for us.



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Ads that have been in for more than 6 months are subject to removal if space is required for other stuff. Please contact Doug the editor if you want it kept in.

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Jim Hunter 576 - 2678 cel. 720 - 2114

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Roger Gauthier (Kelowna)(250)-763-1529 (250)212-0832 (cel)

WANTED: PA 18 or PA 20/22 Wings.
Some damage OK 946-5881

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Paul Trudel 532-8570

WANTED: Person to help finish Paradyne advanced concept aircraft. Should be good with electrical, etc. Contact Norm Helmer at (604) 527-8970 Room 1136, George Derby Centre.

Our late member Grant Neal's blueprints for the T18 he had been working on have been made available. If anyone wishes to make an offer, please contact Dirk Post, 604 536 6129 or email dndpost@shaw.ca