



Carb Heat

NEWSLETTER

Hot Air and Flying Rumours

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AUGUST 1988

FRIDAY 19th 1930hrs sharp!

TOPIC: A hands-on demonstration
of surface filling using
epoxy and micro balloons.

By Dick Moore and Andy Douma

President - Doug Richardson	592-5080	Hangars - Dave Murray	592-8102
Vice President - Roger Fowler	225-6070	Aircraft Operations - Garry Fancy	836-2829
Secretary - Andy Douma	591-3801	Special Events - Gord Standing	224-2879
Treasurer - Deric Dods	692-6121	Membership - Rodney Stead	836-1410
Editor - Ted Chambers	749-0268	Publisher - Dick Moore	836-5554

DATE: Friday 15th July, 1988.
LOCATION: EAA 245 Hangar, Carp.
ATTENDING: 20 members, 6 guests.
TIME: 2000hrs.

OPENING REMARKS: Chapter President Doug Richardson opened the meeting by welcoming members and guests to the July meeting. He noted that despite any formal organization we had a good display at the Air Show last weekend. The sweltering heat kept the crowds down and the members at our display made good use of the shade provided by airplane wings and Andy Douma's parachute canopy.

GUESTS: Bob Schmidt a Mitchell Wing builder and Tom Van Tuyl builder of a Quicky II. The other guests were the representatives from Canadian Airmotive our guest speakers this evening.

NEW MEMBERS: We welcome two new members. Avery Frail originally from Down East and Francois Poulin from the Sarsfield area.

ANNOUNCEMENTS: - We have received approval from Toronto to build a row of hangars pending some bureaucratic details to be dealt with. We still need Township approval and a building permit. A hangars group meeting will be called soon.

- EAAC Chapter 4979 is hosting the EAAC fly-in Convention at Smith Falls in early October. All homebuilt aircraft are invited to attend and participate by flying in to Smith Falls Airport on Sunday October 2nd. For more information phone Barry Miller (613) 342-3651.

- The "Rusty Blakey" Heritage Airshow will be held at Sudbury on Aug 27-28. This consists of a show of heritage water aircraft.
- Thanks to the Petersens for the recently planted shrubbery.
- Thanks to Al Joy and the missus for the donated furniture.

- Jim Bradley has invited us to join him and the Flying Farmers at a Corn Roast at his farm on August 14th. The strip is 1800 ft. long.

- thanks to Laurent once again for his efforts. This time he has installed a remote starting switch on the generator and he has installed a J-pole antenna for the use of anyone with a small handheld air radio. Both work very well.
- Doug informed us that AOPA was very helpfull when he inquired about information for his upcoming trip to Oshkosh.
- Henri Beaudoin has had the Cuby inspected, he has dealt with the few minor snags, and the Cuby has been moved outside. Next comes the flight testing - after the paperwork of course.

BUSINESS: Drywall has been acquired at an excellent sale price and the walls have been covered. A work party was asked for to help put up the ceiling on the next weekend. (NOTE: A large and industrious group turned up over the July 16-17 weekend and the ceiling is now in place - many thanks to all those who took the time and made the effort to come out and help.)

Roger Fowler presented builder awards to Jim Bradley and Barry Riley for the Mach .007 ultralight. A builder award was also presented to Tom Van Tuyl for the completion and first flight of the Quicky II which first flew last November 2nd.

858-5554	Publisher - Dick Moore	748-0288	Editor - Ted Chambers
838-1410	Membership - Rodney Stead	682-8181	Treasurer - Dore Doba
524-2878	Social Events - Gord Standing	591-3501	Secretary - Andy Douma

GUEST SPEAKER: Our guest speakers this evening were Dana Ladoucer and Eric Maule from Canadian Airmotive of Almonte.

Canadian Airmotive was founded by Mr. Eric Maule about 15 years ago and was initially based in Bells Corners. The firm is now located on RR#4 Almonte about 7 miles from Carp. The Company sells a number of products including ELT's and the Chadwick Helmuth vibration analysis and balancing equipment - parts of which were designed by Mr. Maule.

Dana Ladoucer has been with the company for three years involved in marketing and instructing purchasers on the use of the vibration analysis system. Dana gave us an excellent indication of why vibration analysis is so important in aircraft.

The benefits of reduced vibration are:

- increased comfort.
- extended component life.
- reduced airframe fatigue and damage.
- reduced avionics problems.
- generally increased operating safety.

In most cases, the propeller will be the main reason for an out of balance condition. Static propeller balancing is done at the factory and is usually adequate. However, the engine's reciprocating parts also enter into the balance equation and the only sure way to achieve proper balance of the whole system is by "dynamic" balancing.

Dynamic vibration analysis allows us to get a picture of the "system" imbalances that may be present. The equipment from Canadian Airmotive can give us a paper copy of an aircraft's "vibration signature". This is important in that once a base level of vibration has been documented by the "vibration signature", it becomes easy to detect a "non-standard" vibration spike on the graph when doing periodic follow-up vibration analyses. This will indicate that somewhere in the system something is slowly going awry. By using several "velometers" at different areas of the engine, the source of the imbalance may be isolated. Potential areas may be - fuel pump drives, generator drives, or in piston engines - magneto drives. By identifying a potential problem area, corrective action may be taken before severe damage occurs.

Dana showed us how she uses the Dynamic balance training equipment to instruct the military and air fleet operators on the use of the equipment sold by the company.

A number of questions were asked on how the equipment works and a great deal of interest was shown by all of the aircraft owners present. Dana and Mr. Maule were able to answer all question we could think of including "how come so expensive?" It is unfortunate that the Company is not in the business of custom checking private aircraft - a market surely exists. There are several companies in the Toronto area that are able to perform this service. LATE NOTE:(Dick Moore is currently tracking down the parts needed to build a simplified version of the vibration measuring equipment.)

After Dana's very interesting presentation, the Company's President Mr. Eric Maule dealt with the very touchy problem of ELT's.

His first reaction to our Chapter invitation to speak about ELT's was "No Way" this was due to an earlier episode where the ails and ills of the early ELTs were unfairly dumped on him as a dealer. However he decided to come out and try to throw some light on the current state of affairs from a dealer's point of view. He went over the early problems of the ELT and explained some of the reasons behind them - it seems that the early units were brought into being as the result of the deliberations of a 16 man committee. (Remember how a camel was invented?). The early problems with batteries and particularly sensitive G-switches have been solved and the new generation of ELT's give good service. The main problem seems to be the ELT's owners who fail to periodically check 121.5 or those who ship the units without switching them off. Problems with units failing to work can often be traced to improper installation, failure to remove the shipping screw or simply having the arming switch turned off.

The next generation of encoding ELT's is on the way but don't throw out the old units yet. Mr. Maule sees another 10 years before that may happen. The new system will operate on a different frequency and will send encoded digital location and unit "signature" information to a series of satellites. So - if you set it off by accident - the SAR people will be able to quickly know where and who you are.

The question everyone was most interested in was "how come the batteries cost so much and - why can't I use commonly available department store batteries?". The answer was that - batteries are manufactured with an initial 4 year shelf life but it often can take considerable time before they reach dealer's shelves at which time the shelf life is labelled at 2 years. If these batteries are not sold and installed within 6 months, they are thrown out. Canadian Airmotive often throws out half of it's stock due to expired shelf life -they therefore don't stock too many. That is but one part of the cost of the batteries. Other cost are the equipment and personell required to perform the suggested annual maintenance checks and the cost of doing business on a low volume item.

Mr. Maule pointed out the use of other than the recommended batteries could lead to improper unit operation. A unit switched on may be heard in the immediate vicinity but will the satellite hear it or how long will it continue to operate.

Mr. Maule pointed out that the annual check-up of the units in which they have put batteries is free and that they fully guarantee any unit they sell. The annual ELT check could be the best life insurance you can take out.

At this time the representatives from Canadian Airmotive were thanked and we ajourned for coffee and donuts.

SUBMITTED BY: A.G. DOUMA, SECRETARY, CHAPTER 245

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Flight Lines

by Nina and Olav Peterson. August, 1988.

Recent newsletters from other chapters:

Stanley Airport, located some 30 miles north-east from Halifax, put on a new face this spring. With the aid of a backhoe, gravel and sand, the enthusiastic and dedicated members of Chapter 305 installed two drainage ditches, filled an existing ditch and laid down piping for sewer and drain lines. A bucket truck was used to install new wiring for the P.A. system and also to erect a newly repaired windsock. Many members were busy shovelling sand and gravel, punching holes in concrete and laying pipe, in a determined effort to improve their airport facilities. The Stanley Airport sounds like a place we would like to visit!

Among the many aviation events planned in the Maritimes for the summer of 1988 is the Yarmouth International Airshow, August 27-28, which will feature displays by a Harvard, a Buffalo, a Tornado as well as by our national aerobatics team, the Snow Birds.

The Barrie-Orillia newsletter, May 1988, mentions that a recent chapter meeting featured an informative talk by Bill Tee on fuel systems of amateur built aircraft.

According to Propwash, May 1988, from Brandon, Man., the creation of a chapter airstrip, outside the Brandon control zone, is a distinct possibility. During a recent meeting a discussion was held on the plans and location of such a strip.

The Prairie pilots and amateur builders were also making plans for a picnic, a Fly-in Breakfast and the Manitoba Airshow.

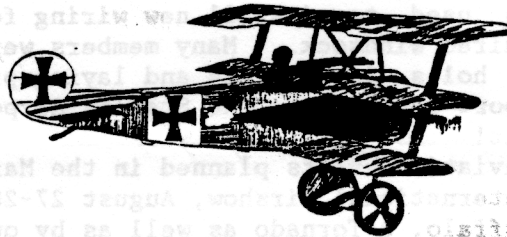
"What's in a name?" A controversy over the name EAA versus EAAC has been raging across the country for the past year and is in some cases being resolved by a change of name. Ground Effect, May 1988, informs us that the Victoria, B.C. chapter voted during an Extraordinary Meeting on April 29 to change the name Experimental Aircraft Association, Chapter 142, Victoria, B.C. to Victoria Aircraft Builders Club. The name of their monthly publication, Ground Effect, however, appears to remain unchanged. In spite of such legal entanglements and crises of identity the aircraft builders of Victoria were planning a picnic at the Butler-Howroyd Field and were hoping to attend the Oak Bay Tea Party Fly-By.

Summer Airshows:

The Quinte International Airshow, held at Trenton, Ont., on June 25 and 26, went ahead as scheduled even though there was some light shower activity on both days. Several member of Chapter 245 were in attendance. We arrived in C-FQDK on Sunday, accompanied by Laurent Ruel, and ran into Irving Sloane and Jim Bradley in one of the large display hangars. The exhibits of survival material for the Canadian North were especially noteworthy. A useful pamphlet called "Mayday, Mayday, Mayday", by the Department of National Defence, which we picked up from one of the displays, now forms part of our First Aid Kit. The excellent and inclusive airshow began with the Skyhawks, the Canadian Forces Parachute Team, followed by the Canadian National Anthem and an impressive full technical demon-

stration by the CF-18. Of special interest to amateur builders was a lyrical performance by a Long EZ whose white curved structure was moving in a series of gentle aerobatic maneuvers against a dark cloud-covered sky. The French Connection, in the CAP-10 planes, put on one of the most exciting performances of the day, culminating in a spectacular Fleur-de-Lys.

The National Capital Airshow, held at Carp, Ont., on July 9 and 10, had much to offer aviation enthusiasts. The World War I trio from Brampton, Ont., consisting of the S.E. 5a, the Fokker DR1 and the Fokker D VII, performed nostalgic battle routines to the tune of the "...Red Baron of Germany... is in a fix..."

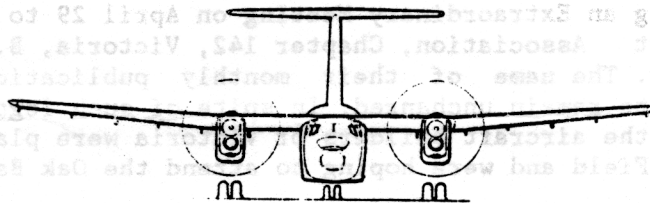


der Dreidekker

artist - Richard King

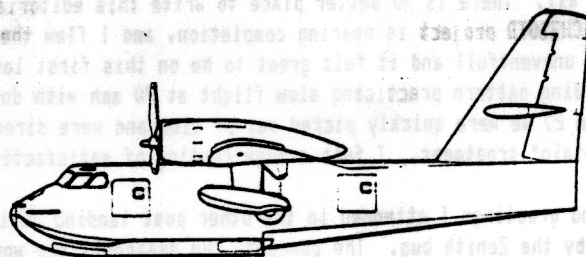
The World War II era was represented by two duos: a Hurricane and a Mustang, and a Corsair and a B-25. The gullwing Chance Vought Corsair, a navy fighter whose huge propeller necessitated the novel wing design, and a B-25 bomber demonstrated low and high speed passes to the tune of Glen Miller style music. As it taxied in, the Corsair folded its wings, revealing its versatile nature and suitability for transport aboard an aircraft carrier.

Our own era was represented by commuter and transport aircraft like the Dash 8, the HS 748 and the Buffalo. The latter was especially remarkable in its STOL features as well as an aerial display of a really steep approach without any increase in speed! Upon touch-down, reverse thrust caused the roll-out to be amazingly short.



de Havilland Buffalo

The CL-215 waterbomber, after scooping a load of water from the Ottawa River, returned to the Carp airshow to display its high maneuverability with demonstrations of slow flight, a near-vertical banked turn and a dumping operation of half a load of water.



Canadair CL-215

The tremendous prowess of the present-day electronic warfare craft was shown by the fast, whisper-light passes of the T33 Silver Star and by the agile, supersonic aerobatics of the CF-18, which brought the airshow to an astounding conclusion.

Members of Chapter 245 had thoughtfully erected a parasol tent which provided some solace against the record-breaking temperatures and the scorching sunshine.

Readings and Reviews:

The Pond Racer, a new, original design from Burt Rutan, has been introduced by Bob Pond, president of Advance Machine Company. The Pond Racer, a twin-engine, piston-powered aircraft is supposed to be capable of record-breaking speeds approaching 600 mph. The aircraft whose construction makes extensive use of graphite, a material noted for its strength, is powered by two Nissan VG-30 six cylinder, turbocharged racing engines prepared by Electramotive, Inc. of El Segundo, California. (Canadian Homebuilt Aircraft News, July 1988, p.1; Sport Aviation, June 1988, p.6-8)

A new, portable Loran, called the Locator Loran, claimed to cost less than half of a regularly mounted receiver, has been launched by Azure Technology. It weighs four pounds and is powered by an internal rechargeable battery pack which is claimed to operate for 100 hours on a single charge.

The fact that it is portable has the added advantage that it can be pre-programmed for a flight at home. (Canadian Aircraft Operator, June no.1, 1988, p.4).

The Toronto Island Airport is extending its domain 1000 feet east and west of its main runway. The runway which is bounded by water at either end necessitates approaches and take-offs over water where boats with tall masts are not uncommon. We know, for we came uncomfortably close to one last year when we visited the Canadian International Air Show. The Toronto Harbor Commission and Transport Canada are concerned about the possibility of accidents. Boats will be prohibited in the designated waters, or "sanitized areas" 1000 feet from either end of the runway. (Canadian Aircraft Operator, June no.1, 1988, p.1)



WHAT'S UP

OSHKOSH. One word says it all. There is no better place to write this editorial but it would be too easy to run off at the pencil. Tim Robinson, whose CH250TD project is nearing completion, and I flew the distance in 6 hours at altitudes from 8500 to 10500 feet. The flight was uneventful and it felt great to be on this first long distance cross-country flight. Nearing Fisk we got into a 45 minute holding pattern practicing slow flight at 70 mph with dozens of other small planes of all types and descriptions. After landing on 27 we were quickly picked out of line and were directed to the homebuilt's show area row 9 where we got the "King of the Mountain" treatment. I felt a huge feeling of satisfaction that another goal set in 1985 had been met.

After the official handshakes and greetings I attended to the other post landing duties while thinking about all that had transpired since I was first bitten by the Zenith bug. The concept, the designer, the work, the help, hints and skills acquired from the many patient people as I built the Zenith. That is what this is all about - the people - from Zenair, from the Chapter and from EAA around the world. I only hope that I will be able to help others with their projects as I have been helped by all those whose contributions and efforts have helped me fly here today.

The trip home on Wednesday the 3rd was a bit more challenging. The haze was thick so we flew from 2000 to 3500 feet ASL. We arrived at Ottawa on the tail of the severe weather that had just gone through.

Total flight distance and time were about 1500 miles in 13 hours for a ground speed of 115 mph. Fuel at Port Huron cost \$1.75US/USGal for 80/87. A group of ladies at the airport were providing hot dogs, hamburgers and ice cold drinks on a donation basis. If you plan to use the water route next year - stop in. It was well worth it.

Day

CHAPTER NOTES:

The drywall is up and around. More taping and sanding are still required to finish. It should look good for the FLY-IN Breakfast next month.

Many thanks go to the drywall, taping and sanding apprentices who put forth the time and effort to help. These were - Laurent Ruel, Dick Moore, Henri Beaudoin, Roger Fowler, Eric Taada, Andy Douma, Doug Richardson, Gord Standing, Garry Palmer, Dave Murray, John Perrins, Irving Slone, John Van Tuyl and Alex Fulton.

Thanks are also due to Edward ?. He dropped in on "drywall Sunday", asked about the Chapter, told us about the "Ornithopter" he is building then joined the work crew and signed up as a member at the end of the day.

WE STILL NEED!!! Paint that your are thinking of discarding, preferably white. Some rollers and extension poles. Oh yes - some more help in getting the paint onto the drywall.

FLY-IN BREAKFAST

Gord Standing is organizing the annual breakfast for Sunday 18th September come rain or shine. He has been doing a "bang-up" job these past several years and once again for this year HE NEEDS YOUR HELP!!! Please phone him at 224-2879 and offer your services for the half day it takes.

SURVEY SAYS

At the last Board of directors meeting we discussed fall and winter meeting topics. We feel that Chapter input would greatly help us in coming up with a program that will be of interest to most members and will help us find out in which direction the Chapter might want to head in the coming months and years. Please take this opportunity to fill out the following questionnaire and bring it to the next meeting or mail it to our post office box on the letterhead.

WRITE SMALL

