



# Carb Heat

NEWSLETTER

Hot Air and Flying Rumours

Published by EAA Chapter 245 (Ottawa) P.O. Box 8412 Main Terminal, Ottawa, Ontario, Canada, K1G 3H8

## NOVEMBER 1989

NEXT MEETING- Friday November 17th  
at NRC 100 Sussex Dr. 1930HRS

### MEETING HIGHLIGHTS:

Discussion of Chapter Hangar electrical installation.

Guest Speaker — George Comino

TOPIC... Control surface flutter

The symposium was held in Pickering with Dave Brain acting as host and moderator. The chief speaker was Ken Sperry, familiar to COPA members as regular contributor to COAN. Peter Pingell also spoke on possible licence changes and an update on automotive engine conversion. The lunch included programs with detailed and informative presentation of weight and balance and an update on possible licence changes. He also noted that the FAA and an update on possible licence changes. He also noted that the FAA and an update on possible licence changes.

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ROW HANGERS:

## MINUTES OF OCT. 20 MEETING HELD AT 100 SUSSEX DRIVE

In a momentous pre-meeting moment, Doug Richardson presented the club seal to Andy Douma who now becomes its custodian.

The meeting proper was called to order at 8:08. After welcoming guests to our AGM, Doug called on Jim Robinson for an update on his Zenith. The test flight was uneventful--except for a stalled engine over Rockliffe airport. The test pilot did an immediate restart, and the ground crew did the same to Jim's heart. A slight wing-low condition has been nearly completely solved by flap adjustment. Without speed fairings, the Zenith climbs at 2,000 f.p.m. and cruises around 160. The only problem to date arose from a very light tail loading (24 lbs.). While taxiing, Jim felt the wind lift the tail and the expensive sound of his prop kissing terra firma. Damage was minor and Jim is now considering ways to increase tail weight without disturbing aerodynamic balance, which seems close to optimum.

### FLY-IN BREAKFAST REPORT--GORD STANDING

Despite poor weather, we still served 96 adults 4 children 2 gophers and a stray dog, sold our surplus food, and made a modest \$137 profit. (Although Gord wasn't present this year--he was turning back the clock at a military reunion--his superb organization was again in evidence and everything went off without a hitch.) The hangar canteen service produced \$97.50 as of Oct 4 and the Carp Air Show "Operation Softdrink" netted \$125.

### OSHA WA TECHNICAL SYMPOSIUM--LARS EIF

Before launching into his report, Lars noted the change in date for visiting John Richards' Zenith 300--Nov. 2, 7:30 sharp. Gary Palmer's Lancair visit is scheduled for Feb 2, and Lars' own Skybolt for sometime in April. His Skybolt will also be on display at the **Rockliffe Aeronautical Association 23 Dec.-7 Jan.**, and he is looking for volunteers to be present to answer questions. Two Thursday evening and several daytime shifts are available. Call Lars if interested. John Perrins' pictures will also be featured at the same time.

The **symposium** was held in Pickering with Dave Drain acting as host and moderator. The chief speaker was Ken Spratley, familiar to COPA members as a regular contributor to CGAN. Peter Pingelli discussed the 25-hour engine check and Tom Kinga spoke on automotive engine conversions. Ted Slack concluded the programme with a detailed and informative presentation on weight and balance and an update on possible licence changes, etc. He also noted that the FAA provides a flight test manual for homebuilts.

As well as talking about basic aerodynamics, Ken Spratley showed diagrams of welded fittings and warned against welding across the lines of force in fittings. He also discussed the kinds and relative merits of plexiglass.

Peter Pingelli's talk provided useful tips such as: shutting off the fuel before starting the 25-hour engine inspection; counting tools before and after the inspection; not leaving a job half-finished; retorquing exhaust nuts 10 hours after they have been installed; routing the exhaust away from engine mounts; and using new silicone valve cover gaskets.

Tom Kinga, a recently retired highschool automechanics teacher, has heavily researched the subject of auto-conversions and is willing to let those interested consult his extensive library on the topic. He strongly advised sticking to standard configurations (e.g., avoid turbos) and using fuel injection (multi-port if possible). Beltdrives are preferable since they don't carry harmonics to the prop. Recommended engines include the Escort, Subaru, Ford V-6, GM Cavalier, the latter developing 90 h.p. with good torque and low r.p.m on 2 litres. The aluminum V-8 Olds/Buick is still available in the British Rover. Tom also demonstrated the alumi-weld process. He can be contacted through Dave Drain. (Our thanks to Lars for bringing those of us who could not attend up to date).

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Just prior to the break, Andy Douma noted that the 99's were sponsoring a Flying Companion Seminar at Rockcliffe Flying Club 29 Oct. 10 a.m.-4 p.m. The \$20 registration fee includes lunch.

**LET THERE BE LIGHT!**

Ed Atraghji (our manpowered ornithopter specialist) then presented an electrifying account of the possibilities of power at our hangar facilities. After several "we'll approve it if they'll approve it" circular responses, Ed finally got clearance to feed power lines through a drainage culvert north of Bradley's. We would need to erect a short pole on Bradley's side of the taxiway for a transformer and to provide some sort of circuit breaker and junction box, if we elect to power two hangars from this common point. It is also possible to feed just the main hangar and run an auxiliary supply line to the hangar row. Approved cable runs at about \$4 per foot, and since we need three lines for about 650 feet, we'd be looking at roughly \$8000. A cheaper alternative would be to unearth some of the miles of buried cable at the airport. Frustrated Dracula types with left over Halloween urges should apply to Ed, shovels in hand. (Costumes are optional). Ed will supply moonlight and appropriately ghoulish directions.

**ANNUAL GENERAL MEETING--ELECTIONS**

The AGM was exceptional this year in that hardly anyone stayed away for fear of being elected if he/she attended!! Although one or two positions came close to resurrecting the forgotten habit of voting, in the end, no one had to give a campaign speech and the time-honoured tradition of acclamation prevailed. Congratulations to the following: Lars Eif--President; Gary Palmer--Vice President; Deric Dodds--Treasurer; James Oliff--Editor; and Gord Standing--the newly

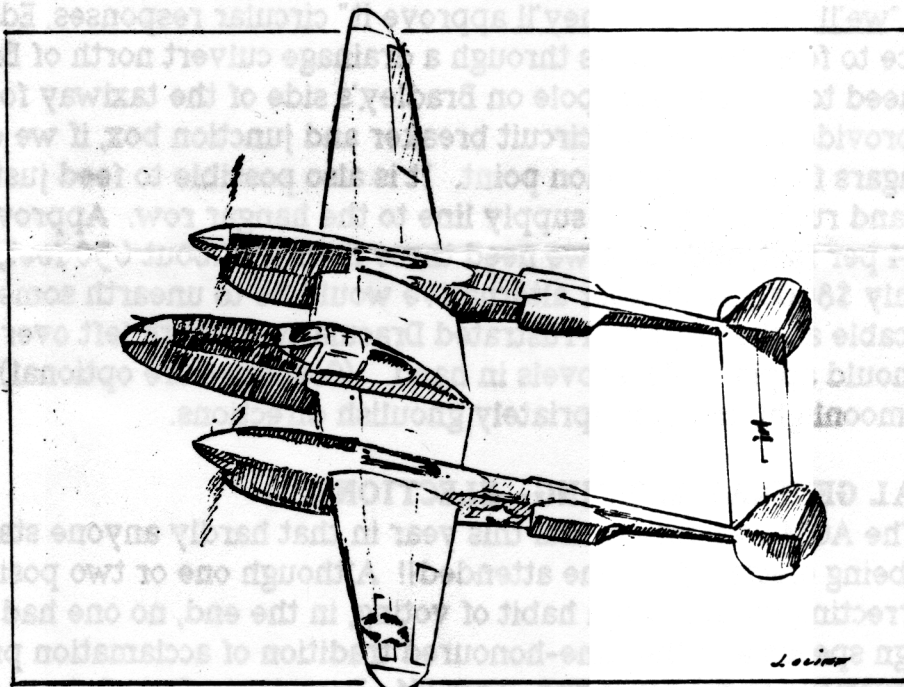
instituted official position of Der Überseher von den Kaffeetrinkenders und den Donutdunkenders (Capt. Caffeine, for short). Lars immediately conveyed the chapter's thanks to the outgoing President, Doug Richardson, and editor, Ted Chambers, for jobs well done.

Continuing in the vein of **gratitude**, Gary Palmer, on behalf of the hangar builders, presented **Doug Richardson** with a small aircraft box that was suspiciously heavy. The contents turned out to be heavy metal indeed!--lots and lots of loonies in appreciation for Doug's leadership and time investment in the hangar construction.

After a brief break, And Douma delivered a snazzy computer-generated **financial report** (compliments of our treasurer, Deric, who was unable to attend).

To cap the evening, Lars showed a **video** of the maiden flight of Gord Standing's Flybaby. In passing, he upgraded the horsepower of Gord's plane to 80 and properly identified Gord's wife in the picture, thus putting to rest short-lived rumours of wife-swapping between Gord and his buddy Ken. The film also contained less controversial footage of Henri Beaudouin's Cuby, Garry Fancy's Skybolt, and the group-owned Pietenpol.

Respectfully submitted,  
Roger Fowler, Recording Secretary.



## President's Corner:

Well, another fiscal year in Chapter 245 has ended and the new one has begun. First, let me thoroughly thank our Past President Doug Richardson and the members of his executive for their dedication and tireless efforts on our behalf. The past few years have seen many improvements in our facilities at Carp Airport. The recent ones were accomplished under Doug's capable leadership. The hangar has a new bi-fold door, the interior is now insulated, dry-walled and painted. We even have fluorescent lights and sockets wired to the generator.

The Hangar Group showed the rest of us what can be done when a small group of dedicated members put their hearts, minds and backs into a worthwhile project. The new hangar row is certainly a fitting testimonial to their efforts.

At this time, Chapter 245 is in a very healthy state of affairs. We have a solid membership of about seventy, of whom thirty to forty consistently come out to the monthly meetings. We are averaging about three amateur-built aircraft "first flights" per year. Judging by the number of member projects in progress, this completion rate is likely to continue for some years to come.

A healthy number of member-owned factory-built aircraft now call Chapter 245 home. Together with the owners of completed homebuilts, these valuable members are instrumental in keeping our flight activities alive. They also help to motivate others in the pursuit of aviation with the occasional ride into the blue yonder and, of course, lots of hangar flying.

Our facility at Carp is an essential part of the Chapter activity. Because of this, we must continue to maintain, improve and to enhance it as much as possible. One notable initiative in this direction is the study done by Laurent Ruel and Ed Atrachii to look at running an electrical powerline out to the clubhouse and hangars. Laurent is off to Australia shortly, but I hope that you will join me in offering your support and ideas to help see the project through. Sooner or later, we have to install the system, but the timing will depend on the availability of funds and how much effort we are willing to put into it.

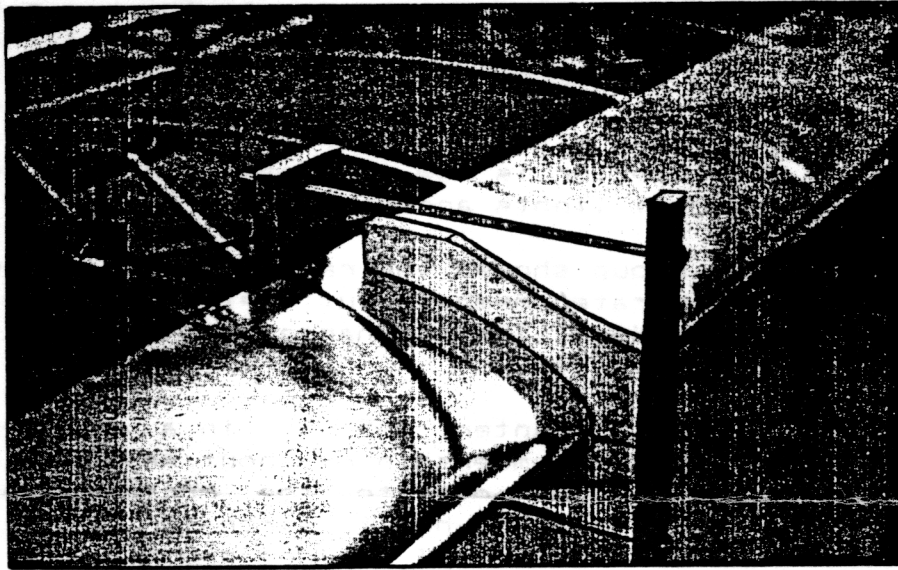
Don't pass up the chance to come out to the meetings this year. You can't help but enjoy and benefit from the comradeship of other members with interests similar to your own. As usual, we are trying to line up some interesting and educational presentations for the meetings.

That's pretty much it for now. In closing, I would like to remind those who are building aircraft and those who are thinking about it to take advantage of the Project Open Houses. By the time you read this, John Richards will have shown his all-aluminum Zenith CH300. The next is 02 Feb 90 at Gary Palmer's house to see his composite Lancair 235. My tube and rag Skyvolt will still be in the bare bones state (sigh!) for close scrutiny on 06 Apr 90 for those who are interested.

Until next month, keep flying and building...but SAFELY!

Lars Eif

# SHORTCUTS!



## LEADING EDGE SKIN INSTALLATION

The following is the method I used to bend and install the leading edge skins on my Acro II.

I took a 2" x 10" x 8' long piece of wood and attached one edge of the skin to it lengthwise with screws and clamped the other edge to a long table to prevent slippage. I measured around

the nose rib to locate the apex of the radius and marked the skin accordingly. With my weight, I bent the radius using a nose rib to check the progress of the bend. If you overbend, it is no problem as you can open it up by hand.

This procedure only bends the apex. To get the skin to fit tight against the

nose ribs while nailing it, I made fixtures as shown. I used four of them on an 8' skin. Space them evenly next to a rib and tighten. I found this is much more effective than using straps to hold the skin tight.

