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Carb Heat

NEWSLETTER

Hot Air and Flying Rumours

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JANUARY 1989

NEXT MEETING

National Research Council 100 Sussex Drive
7.30 PM 20 January 1989

TOPIC

Auto Conversions

Note

Are you still writing '88 on the top of letters, memos, cheques? Yes the new year is with us, and to help keep track of important dates (Chapter meetings, fly-ins seminars, and oh yes the Wife's birthday) why not use an official Chapter 245 EAA calendar. Doug still has some of these beauties.

See him at the next meeting.

President - Doug Richardson	592-5080	Hangars - Dave Murray	592-8102
Vice President - Lars Eif	837-6680	Aircraft Operations - John Van Tuij	332-2691
Secretary - Andy Douma	591-3801	Special Events - Gord Standing	224-2879
Treasurer - Deric Dods	692-6121	Membership - Rodney Stead	336-1410
Editor - Ted Chambers	749-0268	Publisher - Dick Moore	336-5554

EAA CHAPTER 245 MEETING

Date: Friday, 18 Nov 88
Location: NRC, 100 Sussex Drive
Attendance: 41
Time: 1900 hrs

Opening Remarks: Chapter President Doug Richardson introduced the guests and welcomed new members to the chapter.

Guests: Bruce Wally, Serge Poirier, A. Brooks, M. Lax, and Terry Harrison. Terry, incidently, has recently arrived from Australia.

New Members: Tom Stachowiak and Michel Tondreau both signed up and paid their money. Welcome to Chapter 245! (Do either of you take minutes of meetings?)

Announcements: The November Newsletter contained membership renewal forms. All membership and subscriber fees are now due. John Van Tuyl is also collecting tie-down and hangar fees, so don't be shy.

The Hangar Club has generously obtained and installed a full length tie-down cable for the use of the Chapter. John is re-arranging the tie-down layout to accommodate the aircraft for the winter according to who will be flying regularly and those who will be inactive. Also, there is enough room to accommodate those of you who are currently tied down elsewhere. Bring your bird in before it snows. The price is right; besides, we need the money.

Later in the meeting, we will have a presentation from Dave Stroud on the building of his 1/2 VW engine and James Oliff has brought in his tape of the recent inaugural flight of the Canadian Warplane Heritage Lancaster.

At our Annual General Meeting in October, new members of the executive were elected. We are still without a Secretary. We intend to elect one this evening. (A hush fell over the crowd.)

Business: Doug Richardson highlighted the discussions and decisions which took place at the Chapter Executive meeting held at Doug's on 9 Nov 88.

Before the good part of the evening was held, the President reopened the nominations for Chapter Secretary. In the face of stony silence and a room full of eyes examining the ceiling, Andy Douma generously offered to soldier on with the correspondence functions of the position if only someone would take over the recording of the minutes. When this tactic failed, Andy boldly nominated Roger Fowler as Assistant Secretary. Before Roger could think of a polite way to decline, Eric Taada seconded the nomination and in the same breath moved that nominations be closed. The words had barely crossed his lips before Ted Chambers seconded that and a room full of hands made the acclamation official.

Doug Richardson announced that there were still lots of EAA calendars for sale. His timing was flawless as members, grateful for not being elected Secretary, bought lots of calendars.

Deric Dods emerged from a pile of paperwork to give an impromptu Treasurer's report. Leafing through several impressive graphs and bar charts, he said that we've got just under \$4000 in the kitty, but the weather is getting worse. That drew a few blank stares, but he went on to say that when the weather gets better, we spend more money. Insurance on our building has gone up and we should cover our tools and generator... with insurance, that is. We also forked out \$41 US for two mega-bucks worth of liability insurance. The generator is being used a lot lately and will also require maintenance soon. He went on to add that since October 1984, we've spent only \$4200 on the hangar but a whopping \$1200 on postage.

Our Membership member, Rodney Stead talked about the categories of Full and Associate memberships. He also mentioned that the newsletter subscribers must be paid-up members of EAA if they wish to become Associate Members.

Ted Chambers, in a devilish scheme to see who reads his newsletters, had listed the meeting as convening at 7:00 pm. Everybody arrived at the announced time except two members of the executive who shall remain nameless. When asked if future meetings should start at 7:00 pm, the assembled multitude rumbled their assent, drowning out the protests of two members of the executive who moaned that the earlier time hardly leaves any time for panicking around making last minute preparations for the meeting. Their protests failed to elicit sympathy from those unburdened by executive responsibility and the time for the January meeting was summarily set at 7:00 pm.

Andy Douma displayed a magnificent glossy air photo of Oshkosh 88 which seemed like a bargain until he owned up that it comes rolled up in a tube and not all professionally mounted on foamboard the way his was. Doug immediately announced that the third white smudge in the end row of showplanes was JHR and challenged all comers to prove otherwise. Anyway, if you want an Oshkosh 88 picture of Doug's plane plus a few others, see Andy for details.

Guest Speakers: With the business finally behind us, Doug introduced Dave Stroud to tell us about the evolution of his 1/2 Volkswagon engine. As Dave put it, the project rose out of the sheer necessity to find a reliable substitute for the single lung Rotax on his Fisher 202 after two in-flight flame-outs in the first 15 hours. Knowing the reputation for reliability of VW engines, Dave sent away for the plans to convert one for the 202.

The plans distributor claims that the 1/2 VW can be converted for about fifty bucks, but Dave said he has \$1200 invested already, so don't believe everything you read. He had difficulty getting machining and welding done, but succeeded by perseverance. Reactions from industry ranged from helpful-but-expensive to go-away-and-don't-bother-me. A local machinist, Ron Koford, was of great help to him. Dave ordered his crankcase from the States, but cut his own crankshaft and camshaft. Though the VW will redline at only about 3200 rpm, the man who balanced the crankshaft took it up to 7000 rpm. The fact that the counterweights are only welded on apparently did not phase him.

The crowd responded enthusiastically throughout the question period bringing to light many more interesting facts about the engine. Thanks, Dave, for a very informative presentation and we wish you every success in getting the 202 back into the air under Volks-power.

Winter Flying Audio Visuals: Andy Douma presented two very informative sound/slide programs from DOT about the perils of winter flying. Somebody's pager must have been going off as Andy occasionally got the pictures one or two beeps ahead of what the man on the tape was saying. But he recovered nicely by running the slides backwards while the tape went forward, so some of them did match up.

CASARA Volunteers: Andy announced that CASARA is looking for volunteers in the Ottawa area. They need pilots with high wing aircraft, search navigators and spotters. If you can help, call John Kiss at 521-0762.

Inaugural Flight of the CWH Lancaster: James Oliff presented this very interesting video which he filmed himself at Mount Hope. Expecting about a thousand spectators, the organizers of the historic event were overwhelmed by the arrival of over 10,000 people. James must have gotten in early, as we could see from his filming that he was right up front at the airshow organized for the first-flight.

James almost got away without showing us the view from the back seat of a P-51 Mustang in formation flight, but the crowd got ugly so he had to show it. At one point in the flight, the pilot performed an unannounced barrel roll over the B-25 on the left wingtip causing James to drop his video camera. (Did you see all the loose change on the floor of that Mustang? That must be how they squeeze a few more dollars out of every passenger.) Anyway, thanks James, for sharing your video with us. Maybe you could show Andy how to take such clear steady shots...

Adjournment: At 10:00 pm we adjourned to Alex's usual feast of coffee, cocoa and donuts. There was no danger of running out of donuts as Andy had also brought some. Thanks, guys!

Submitted by Lars Eif, Vice President, EAA Chapter 243

The following is extracted from "THE CARP VALLEY PRESS" and is reprinted so that members will know what is, or is not going on regarding our home field.

Township looks at taking over Carp airport

West Carleton Mayor Eric Craig says a decision will not be made until next year about whether the Carp Airport could be turned over to the municipality.

The newly-acclaimed mayor told a gathering of local business people recently there is a possibility that control of the

airport facility on Regional Road 5 may be turned over to the municipality.

But as of yet, the township has not initiated any negotiations with the federal government regarding the transfer of ownership.

"I wouldn't say we're not interested," said Mayor Craig. "The municipality will have to approach the federal government in the new year." He added, "The time has come to make some decisions."

The federal government announced in April 1987 its plans to discontinue ownership, control and financial involvement of its 77 airports across the country. The task force report, released by then Transport Minister John

Crosbie, stated the government was prepared to transfer ownership of airports to local authorities or lease the management and operation of airports to private interests.

A Public Affairs spokesperson for the Federal Airport Commission confirmed that no contact had been made by the municipality regarding the Carp Airport. But Janet Long

added, "If there is local interest to buy the airport by all means come and approach us."

The township is currently leasing the facility from the Department of Transport for \$1 per year. Bradley Air Services sub-leases the airport from the municipality and in turn sub-leases space to the

leases space to the Experimental Aircraft Association, Nippising Helicopters and WestAir.

Currently all maintenance costs, such as fencing, lighting and snow plowing, are covered by the township.

As a municipal facility, the Carp Airport would fall under provincial grant programs for upgrading and develop-

ment. Mayor Craig said a municipal airport would likely be eligible for 50 to 55 percent funding for projects such as new runway extensions.

A Bradley Air Services official agrees the transfer of the facility to the municipality would be a benefit to the airport operations.

"I have a feeling we would be better able to

obtain support from the federal and provincial governments to upgrade the airport if it was municipally owned," said Ian Kirconnell, Secretary-Treasurer.

The township also leases its municipal offices on Regional Road 5 from the Department of Transport. The mayor revealed that a decision about whether the town-

ship will purchase the building will be made "fairly soon."

Two separate costing estimates have been done but are being withheld as "confidential information".

The township's lease with the federal government expires in October 1989.

Future of local airport is up in the air

West Carleton Township's largest employer is hovering on the brink of change.

After being neglected for several years in terms of upgrading and improvement, the federally-owned Carp Airport is beginning to spawn a new image.

The recent addition of Nipissing Helicopters Inc. and the current construction of new office buildings at Bradley Air Services are indications that change is in the wind.

Situated on a sprawling 175-acre tract of land south of the village, the Carp airport consists of a scattering of private and commercial airplane hangers, a few company office buildings and a 3,000 foot landing strip.

Much of the airport hasn't been upgraded since it was originally developed as a pilot training base during World War II.

The original runway was slated for a 2,000 foot extension some years ago but the money never materialized, according to Ian Kirkonnell, Secretary-Treasurer of Bradley Air Services. Gravel overruns have been added to the existing landing strip, but it is still limited in the types of aircraft it can handle. Some corporate jets cannot land in Carp because the runway is not long enough, he says.

A master plan that calls for expansion of the runway and the development of an aviation-related industrial park at the Carp Airport, has been collecting dust on a shelf in Ottawa for several years. It is due to be released to the public by 1991. But no federal funds have ever been allocated toward the airport.

"They have done nothing to the airport since it was built," says Mr. Kirkonnell.

However, the site offers a wealth of potential for future growth. Nearly 1,000 acres of land owned by the federal Department of Transport is just sitting idle, waiting to be developed.

The airport is currently home to Bradley Air Services (FirstAir), an Arctic charter operation; WestAir, a pilot training school; the Experimental Aircraft Association and now Nipissing Helicopters Inc., a helicopter pilot training school. The company, which employs 18 full-time staff members, also provides emergency medical service, aerial surveillance, geophysical surveys, personal and cargo transportation and more.

The Carp Airport was first built as part of Canada's war effort to train pilots for World War II combat. After the war ended in 1945, the late Russell Bradley returned from overseas and founded Bradley Air Services at the Ottawa International Airport.

The company moved to Carp in 1950 and today is the princi-

pal lease-holder there. Bradley Air Services (operating under the trademark name of First Air) is also the largest employer in West Carleton with nearly 150 full-time employees.

Bradley Air Services has earned a national reputation for its Arctic carrier operations. Its services have been used by the Prime Minister of Canada and several members of the British Royal family.

Pilot training and small aircraft charter work dominated Bradley Air's business until the mid-1950s. During the next ten years the company expanded into charter and aerial survey in the Northwest Territories.

In 1971, Bradley Air Services bought its first DeHavilland Twin Otter aircraft and now operates a fleet of eight, one of which is used for a corporate client.

That same year, the company opened the world's most northerly-based commercial air service on Ellesmere Island which is 600 nautical miles from the North Pole. Three

additional charter operations opened for business over the next seven years at Resolute Bay, at Iqaluit in Frobisher Bay and at Hall Beach in the Northwest Territories.

The Carp facility encompasses a 20,000 square-foot hanger as well as 7,000 square feet of shops. Services provided locally include engine overhaul and repair, avionics, instrument overhaul, repair and testing.

Local flight service at the Carp Airport, however, has been reduced since Bradley Air Services leased a hanger at the Ottawa International Airport.

The bulk of the incoming and outgoing flights at the Carp Airport are from WestAir, a training school for small, private aircraft. Aircraft movement peaks on the weekends with about 150 take-offs and

landings. During the week air traffic is considerably reduced to only about 20 to 25 take-offs and landings. Approximately 10 people are employed full-time at the pilot training school.

The airport is also the site of the Experimental Aircraft Association, an international aviation club which designs and builds custom aircraft.

Flight Lines

by Olav Peterson, January, 1989.
EAA 33135

It's a strange world: the leaded automotive fuels will be discontinued; some refineries apparently have already stopped making leaded car gas. But look at the aviation fuel outlook! Only the higher-lead fuels, the 100LL and 100 octane, will remain and the lower-lead 80/87 octane is expected to disappear in the very near future. Already scarce and often unavailable in many parts south of the border, the 80/87 is also in the throes of its vanishing act here in Canada. Nova Scotia has no more 80/87; neither can you get it in North Bay, Toronto Island, Buttonville, many parts of the Province of Quebec like Quebec City, Mont Joli, just to mention a few.

So you might say: "Big deal, the red stains didn't match the paint decor of my plane anyway and the blue would blend in much better", and even if you didn't mind paying a few more cents extra for the high octane stuff, there are a few complications.

Just to put you into perspective, the table below, which you, no doubt, have seen many a time before, shows you what your engine is up against when it has to start gulping down the new diet:

OCTANE RATING	COLOUR	LEAN KNOCK RATING	RICH KNOCK RATING	TET.ETH.LEAD IN ml/US GLS.
80	red	80	87	0.5
100LL	blue	100	130	2.0
100	green	100	130	4.0

Four times the lead content of our familiar 80/87, the 100LL, which will be its replacement, indubitably will present some important changes to the way we have become accustomed to treating our engines.

Unattended, it can cause engine roughness, scoring of cylinder walls, lead deposits in the combustion chamber and engine oil, fouling of spark plugs, erosion of valve stems, and sticking of valves.

After your next flight to the States you'll be amazed to find the large globules of lead surrounding the center electrode of the spark plugs. If it's not cleaned off, the lead ash will eventually accumulate and form a leakage path sufficient for the plug to spark no more.

Start learning how to lean your engine so that it would run at its peak allowable combustion temperature and thus help the lead salts to be blown out with the exhaust. Of course, you'll need to install an EGT gauge.

Prepare to inspect the exhaust valve stems for erosion due to lead contaminants in engine oil baking out to the hot valve guides and causing abrasion.

Get used to changing the engine oil more frequently to remove the accumulation of the lead contaminants in suspension.

Also be prepared for a reaction from environmentalists for they surely will be alerted to the increased lead emissions from this small group of private pilots who already suffer from a rather low image in the eyes of the non-aviating public.

So much for our lot.

Deprived from lead, many auto-, boat-, farm-machinery gas engines which depend on lead for longer life, will start adding canned lead to their fuel, in order to avoid expensive damage.

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Have you been wondering what these streaks of discolorations are that appear on your airplane?

Perhaps you already have noticed that its no coincidence that they form and are most pronounced after a drizzle of rain or as condensation on a cool morning drips off the wings and fuselage.

That's right; its just acid etching away the paint or aluminium surface of your precious airplane.

We at Carp must be thankful for the relatively clean air that sweeps down from the NW; not so fortunate if you are at Rockcliffe where the man-made pollution from the chimneys across the river rains down as sulphuric and nitric acid.

And even worse off if your home-base happened to be within a 100 mile radius of the super-polluter in Sudbury.

We all know what road salt and exhaust fumes are doing to our cars.

Similarly, with airplanes, those ugly scars not only detract from the appearance but may also become a source of structural weakness.

So what to do?

If you have a hangar and you are willing to keep your pride and joy locked up inside, then your problem is solved.

However, most of us are relegated to remain more vigilant for any signs of corrosion due to the electrochemical process: shiny paint is converted into a porous layer which no longer has any sealing qualities, allowing the aluminium underneath to transform into soft aluminium sulphate.

Before too many rivets fall out or the skins become excessively perforated rejuvenate the paint; this is the only other way to stop deterioration.

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Visual stimula is probably the most important sense with which man has been endowed. Isn't this why television has become so widespread - convincing, memorable realism can be imparted.

When I took my ground school at Margaret Carson's at Uplands in 1966, she proudly featured the Sanderson Audio/Visual presentation as the teaching tool. Primitive as it was, compared to today's standards, it nevertheless, achieved the objective - to clarify a difficult or an unfamiliar point via visual aids. Truly, a picture is worth a thousand words.

In present-day, high-tech world, the teaching field relies heavily on video techniques and a video tape library is a veritable treasure chest of knowledge that can be drawn upon by an expert or a greenhorn, alike.

The Nov/88 issue of the EAA Sport Aviation reviews a recent addition to their rapidly increasing repertoire of "how to.." library. It's about "Basic Aircraft Painting" and covers the procedures for metal, fabric, as well as the composite aircraft.

The 60 minute tape sells for \$39.95US and looks like a useful addition to any EAA chapter video library.

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This year the COPA's 35th annual Governor General's Cup Air Rally took place at Lindsay Airpark. Twenty-two planes participated and awards were distributed to no less than 17!

The winners this year, Pat and Loretta Mousseau, a husband and wife team, received tickets on Air Canada to anywhere plus \$500 from COPA.

A Cuby and a Zenith CH200 took home the third and the fourth place prize, respectively.

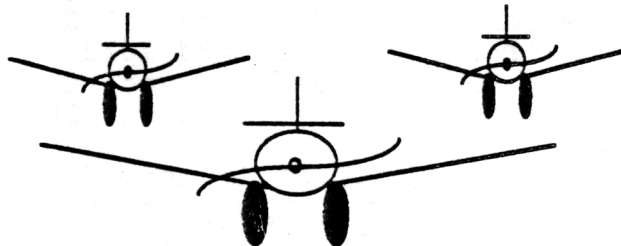
The two-hour route consisted of 5 photo locations, two check points to overfly and one full stop landing at Oshawa. Contestants were rated on radio procedures, on estimating time en-route for each leg and fuel consumption and spot landing skills.

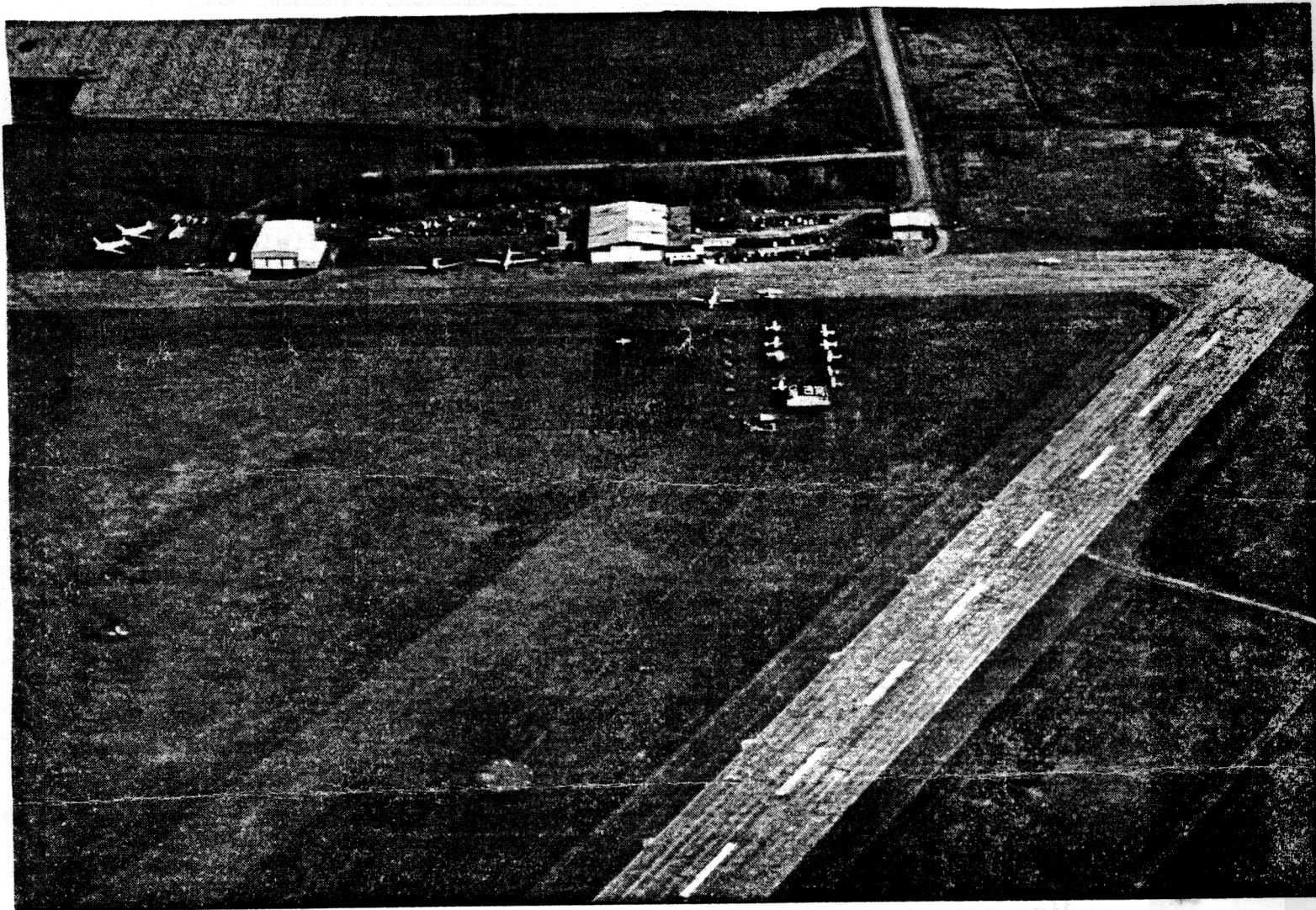
So sharpen up your navigation and airmanship and plan to take part next year.

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Ontario AME Association Newsletter warns that the catalyst added to the resin during fiberglass work will cause blindness if inadvertently splashed onto the eye. Apparently, medical science has no remedy once the chemical has contacted the eye surface.

FULL EYE SHIELDS ARE IMPERATIVE or you could be IFR for the rest of your life.





This aerial view of the Carp Airport shows the top portion of the 3,000 foot landing strip that was built originally during World War II. In the middle of the field is the Experimental Aircraft Association and the two larger buildings at the top of the picture are the office and shop structures for Bradley Air Services.

WANTED

The Chapter is looking for enterprising persons to form a small Public Relations and Marketing Committee. The need is for someone to feed information and news to the local press, radio, and TV, to publicize Chapter activities.

The committee might also investigate Having Chapter Decals, Tail Flashes, and up to date "Special C of A" decals for amateur built aircraft printed and sold through the Chapter. Lars, our VP also has some good ideas for marketing drinks coasters printed to look like aircraft instruments etc.

Experience is not required...What is needed is enthusiasm and an open mind. The results for both the volunteers and the chapter could be very rewarding.

Dont be shy. Speak to any member of the executive at the next meeting.