



## NEWSLETTER

# Carb Heat

Hot Air and Flying Rumours

Vol 31 No. 2

Published by EAA Chapter 245 (Ottawa) P.O. Box 24149 Hazeldean R.P.O., Kanata, Ontario, Canada, K2M 2C3

## February 2001

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**Thursday February 15, 2001 8:00 PM**  
**Canadian Aviation Museum**

### Featuring:

feature our very own **Curtis Hillier**  
the development of a patented technique known as D-Sight

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**President's Page**  
**by Gary Palmer**

Winter continues to have a firm grip on us and many find too much energy devoted to battling the elements rather than tackling their favourite aviation project. Hopefully spring isn't too far away and we can look forward to enjoying our favourite past time soon.

### **Can you Insure it? Can you fly it?**

One of the topics that has surfaced in a couple of the Aviation newsgroups and mailing lists that I subscribe to is the issue of insurability of home built projects. This is of particular concern in Canada where liability insurance is not only fiscally desirable, but mandatory for all aircraft.

The problem is that the claims experience of major insurers such as Avemco, has been poor, particularly for certain aircraft and engine combinations. High performance, aircraft such as Lancair IVs, Glasair IIIs, Velocity, Seawind, etc. have been involved in too many accidents where pilot flying skills haven't kept up with construction skills. The solution in many cases has been to mandate appropriate training. Complex systems in many high performance aircraft has also been a key factor in making insurance hard to obtain, or prohibitively expensive.

Another area where insurance may be unavailable is in the case of auto conversion engines rather than standard LyContoSaurus engines. The bottom line is that if you are considering an auto conversion, you are advised to check out the insurability of your conversion. The worst case is a combination of a high performance aircraft with a high performance auto conversion.

Avemco, when questioned about the issue were very candid in their response to one of the mail list members; i.e. "our loss history with auto engines in aircraft has not been particularly good. There are some airframe and auto engine combinations that we do provide some insurance on, at this time the Velocity aircraft is not one of them." They also provided some good overall comments such as "Any time a new product/model or modification is introduced the insurance industry will tend towards the conservative when offering (if at all) insurance. As the new model builds a record, hopefully a good one towards reliability and safety, the insurance industry will adjust its underwriting of the item. Some aircraft after they were introduced ceased flying after a short traumatic history and the insurance industry never did, or would, offer insurance for it, or if there was initially insurance available it was soon withdrawn. Often times insurance for an item only becomes available after the product has been in operation for a number of years (successfully) and there are a sufficient number of the items operating to make it feasible for the insurance industry to measure the risk and set a premium to cover the anticipated losses."

### **January Meeting**

Our January 18<sup>th</sup> meeting featuring **Bob Bell** was a fascinating look into the reconstruction of the **Silver Dart** replica you see on display at the museum. We were treated to fascinating film footage of the reconstruction and early test flights, along with insight provided by Bob into many of the design deficiencies that had to be addressed to make the flight of the replica a reasonably safe undertaking. Bob also brought along a couple of wing components for our edification and regaled us with an insiders look into the whole test flight process. Of course the greatest risks were encountered to impress the high and mighty gathered to watch the 50<sup>th</sup> anniversary flight that are not to be deterred by poor weather. All in all this was a fascinating look into a part of Canada's aviation history!

### **February 15th meeting @ NAM: Panel Perfect by Curtis Hillier**

Our February 15<sup>th</sup> meeting will feature our very own **Curtis Hillier** who in a past life was heavily involved in development of a patented technique known as D-Sight. While knowing that Curtis works for a high tech electronics company may lead you to believe this is all about the perfect instrument panel, you would be mistaken. It is really about creating perfectly smooth surfaces, which are critical for laminar flow. While it all sounds very high tech, Curtis assures me the technique is easily adapted to use by homebuilders. I am sure you won't want to miss this one! Meeting time as always will be 8:00 PM start.

See you there. **Gary**

***Uncomplicated flying***  
***by Charlie Martel***

One sunny summer morning a small white plane bounced in at Indian Creek Aerodrome. A pilot dressed in an orange flight suit and orange flying hat complete with ear flaps, wearing Harley Davidson goggles emerged out of the plane and seemed to be glad to have found a good landing strip. He related to Jeff (my daughter's boyfriend) who happened to be there at the time, that he had left Quebec East Counties in the wee hours of the morning to fly to the Hammond area and visit with his brother for a while. He had no particular airport or landing strip in mind, just figured he would find the closest spot available. A survey of the area soon revealed a few likely landing areas and he finally settled in our inviting airstrip.

When I got home that night I immediately recognised a 7AC Champ on the front lawn with its tail tied to the well. The unusual angle it was sitting at was soon explained by a closer inspection revealing a front landing gear sporting a set off 8.50 X 6.00 tundra tires (for the uninitiated these are unusually large tires for such a little plane). It had no door or left window and the inside was as bare as you could imagine. On scanning the dash I was amazed to see a oil pressure and temperature gauge only, a compass and a stopwatch....that's it, nothing else. The back seat cushions were out and four, yes four 5 gallon plastic gas containers were stacked in there. One of these gas containers was connected to the main tank (gas cap hole where the usual gas indicator wire sticks out) via a rubber tube with an in line hand pump to transfer the fuel while in flight. I guess he moves the tube from one tank to the other in flight as required. I had read once about a guy who had done the same with a Cub to ferry it some long distance, but that is something you read about, this is for real. At that moment I tried to visualise the kind of individual that pilot might be. Obviously somebody who knows what he is doing and was bent on having fun flying and to heck with all the details.....GPS, airspeed, altitude metre, flight plans and whatever else....who needs them. Time would probably be of no consequence to an individual like that. I felt suddenly very envious. I had often dreamt of taken off impulsively, map in hand in such a fashion for a destination unknown with a devil may care attitude.

When I finally met this pilot I forgot to get his name, so I will call him Earl for the purpose of this article. Now don't take my word for everything I write here since I constructed this story from dribs and drabs from everybody that talked to Earl and Earl himself. It seems Earl had an idea to attend a fly-in event in the Quebec East Counties from his town somewhere in the Sudbury area with a Champ. On a rainy day he had taken off from an uncut hay field down there and collected a fair amount of hay in the Champ's landing gear and tail rigging. He headed for the Ottawa area and after dodging some rain showers along the way he finally made his way to a small grass strip in the Renfrew area, before the skies opened up. The locals expressed a few oop lahs about the hay dragging under the Champ and wondered at this unlikely traveller. After sitting out the rainstorm, the skies relented and cleared a way so he could proceed to his destination. Apparently Earl got quite a reception at his destination and had to agree to come back next year before they would let him go. This is how flying was done in the old days, low and slow, and you got to meet a lot of people along of the way.

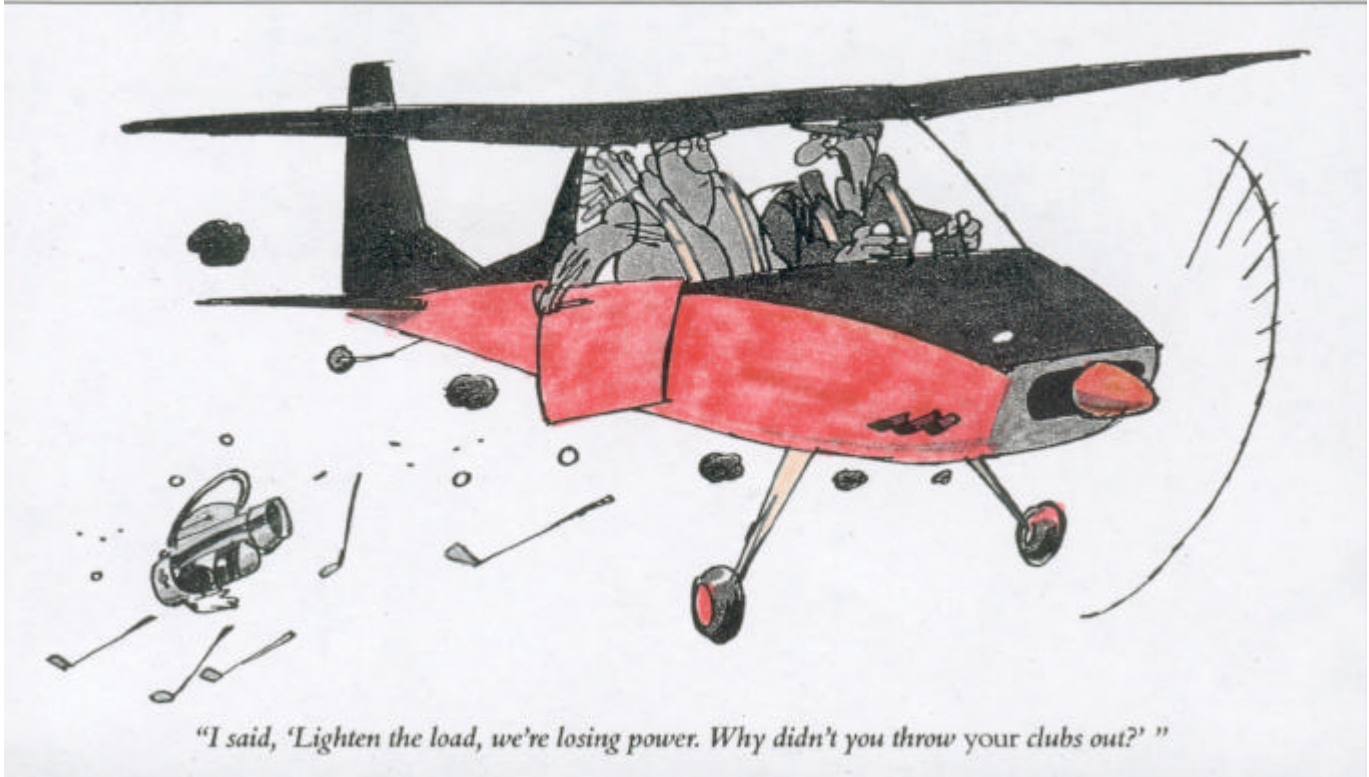
This Champ has 40 Imperial gallons of available fuel on board and 600 feet of reasonable terrain is good enough to set her down, all and all providing a pilot a lot of options in case of an emergency. A landing strip is nice but not particularly required for this bird in the hands of a competent pilot. A 65 HP Champ burns approximately 3.5 gallons per hour, I guess with an endurance like that you have to bring your lunch and have the use of one of those portable in flight bathroom facilities. His only complaint about this arrangement was the difficulty associated with managing the maps en route, the wind in the cockpit plays havoc with everything. At one point in flight he unfolded the map and it wrapped itself around his head and in the ensuing scuffle lost a lens out of his glasses. Unfrazzled by this event his only comment was "I hope my wife does not kill me, I just bought these glasses two weeks ago". He scoffed at my suggestion of using a GPS receiver to lower the workload. "You know Charlie, one day that box will fail for some reason or other, I hope you will have a map handy, as far as I am concerned I have all the time in the world and I want to do it the way the old timers did it". By now I am sure you have guessed that Earl is retired.

It seems that Earl likes to stop anywhere he sees aircraft on the ground and inquires if they are for sale. After inspecting the aircraft himself (he does not trust AMEs!!) and the price is right, he buys it and sells it to somebody who really wants it. Earl seems to be very well versed on the subject of aircraft maintenance, buys only real aircraft (Champs, Cessnas, Pipers and the like) as he put it. When he is not cavorting around the countryside with the mighty Champ he plays around with a 150HP Citabria on floats which he also owns. What a hard life!! He learned flying in a radioless environment so the lack of a VHF radio does not exactly bother him and he does not plan on getting one. He matter of factly mentioned to me he had to ferry a 65HP Champ to Alaska before the Fall for a friend, all expenses paid. I offered to do it for him, but he declined by saying "Yeah right".

Next morning at 5:30 AM I heard the roar of the little Continental. I got up and watched as the little Champ took off and disappeared over the horizon. Reflecting on this incident I can't help but hope that the time will come when I can do some of the same. Some would call him crazy, I envy him

Comic

## Golf's different points of view



***EAA 245 Winter Sunday Breakfast at Chelsea's  
picture submitted by Dick Moore***



A typical group of EAA'ers enjoying a Sunday Morning breakfast. All EAA member are welcome to join us, we meet at Chelsea's 1250 Main St. Stittsville, Crossing Bridge Plaza Sunday Morning 9:00am til .....The guy with the hat on backwards is Ken MacKenzie and he's saying "and I'm buying" .

***Maintenance Corner  
Check your oil sir  
by Irving Slone***

I suppose a lot of guys analyse their oil between changes by carefully observing the oil which pours out of the sump into a container, then they feel around for nuts, washers etc. and if none are found then the engine can safely be considered in good condition. I have some reservations about this tried and true method so I thought it's about time I splurged on a real diagnosis by a Lab that specialises in such things.



Several weeks ago I was in the Shell Oil shop on Hunt Club Rd. to pick up a gallon of Fluid 2F Inhibiting Oil and John Degrief provided me with what he considers a reputable Lab. The address is:

Diagnostic Oil Analysts Inc.  
P.O. Box 245  
Acton Ont.  
L7J 2M4  
phone: 519-853-1021 Wayne Burtney, owner

John did not know what they charge and said that they analyse oil from all classes of engines. Apparently they do a lot of work for truck fleets as well as aircraft engines. I mailed 2 samples in small glass medicine bottles at a postage cost of \$4.39 which would have been less if the bottles had been smaller. One sample was from oil removed Oct 98 at 423 hours and the other was July 2000 at 478 hours.

I felt kind of vulnerable having something done without knowing the price, in any case I knew the cost would not likely exceed \$30.00 per sample. Well I received the 2 reports and the invoice a couple of weeks ago. I attached one of the reports with this submission (see below). When I saw the Invoice, I nearly fell off my chair. Imagine \$7.50 plus \$1.05 G.S.T. I phoned them in Acton Ont. to determine if they had made a mistake. They confirmed that it was their normal charge per sample. They pay the return postage which is just the normal letter rate. Frankly when I first noted the charge I speculated that someone there must have had a twinge of conscience and decided to take some pity on me. You see, along with my samples I included a photo of the Pietenpol and how could they charge me the full price of a real aeroplane.

I took the opportunity to talk to Wayne Burtney, the owner. He told me that he has a current pilot's licence and is modifying a Corvair engine to fit in a Kit Fox he recently ordered. He also said that he would supply glass sample bottles which are about the size of your thumb. Perhaps if you're interested I could have him send me a carton of 12 bottles. As part of my submission to this Newsletter I included one of the reports (see below). I have penned in the colour columns. Wayne suggested that the numbers alone don't mean too much as long as they are in the green column. The diagnosis or the summary portion is the one to watch.

### ***From the desk of Rem Walker***

A reminder that you may obtain safety information on Ultralights, General Aviation and Amateur-built on this EAA sponsored and FAA Assisted web site. Membership is not required. This site is available to receive Service Difficulty Reports and Accident/Incident Reports. You may also report service problems on site. Specific requests for information can be submitted on-line, by telephone, Email and regular postal mail. All you need to do is provide the make and model of aircraft in which you are interested.

On-line URL: [www.safetydata.com](http://www.safetydata.com)

Email: [bmorrow@kc.rr.com](mailto:bmorrow@kc.rr.com)

Telephone: 816-781-7159

Mail: 325 So. Jewell St.  
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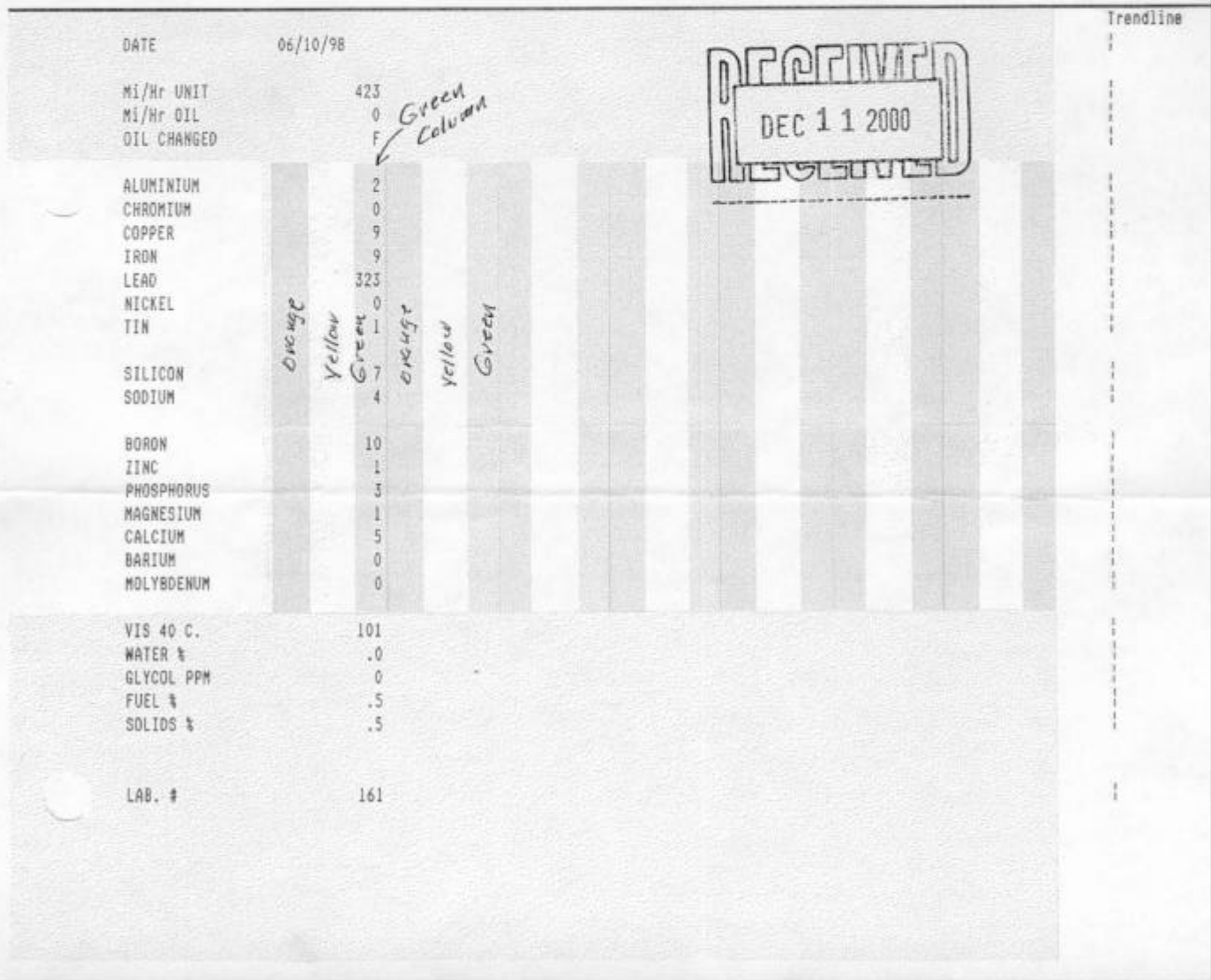
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METAL ENGINE COMPONENT WEAR PART  
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COPPER BEARINGS, BUSHINGS, OIL COOLER, OIL ADDITIVE  
IRON CYLINDERS, CRANKSHAFT, CAMSHAFT, ENGINE BLOCK, OIL PUMP  
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SILICON DIRT, SEALANTS, CYLINDER BORES  
SODIUM & BORON ANTIFREEZE ADDITIVE, OIL ADDITIVE  
ZINC, PHOSPHOROUS, MAGNESIUM, CALCIUM, BARIUM, MOLY OIL ADDITIVE  
NORMAL = N *Green* ABNORMAL = A *Yellow* SERIOUS = S *Orange*

DIAGNOSIS: WEAR METAL LEVELS APPEAR IN THE NORMAL RANGE. NO CONTAMINATES PRESENT, SUCH AS WATER, OR DIRT. VISCOSITY IS IN THE NORMAL RANGE FOR THIS TYPE OF OIL. OIL APPEARS TO BE SUITABLE FOR CONTINUED SERVICE.

SAMPLED OCT/98, RECEIVED DEC/00



**Classifieds**

Place your ads by phone with Charles Gregoire @ 828-7493 or e-mail to cbgregoire@sympatico.ca  
Deadline is first of the month. Ads will run for three months with a renewal option of two more months.

Looking for a Drum Buffer to Buff aluminum. Looking to buy, rent or borrow. Anyone with information contact:  
Irving Slone 613-722-0359 11/2000

**Articles Wanted**

I am always interested in receiving submissions for this, your, Newsletter. You may bring articles to the monthly meetings or mail information to the post office box or send me an e-mail attachment at:

**cbgregoire@sympatico.ca**



**EAA Chapter 245 Membership Application**

NEW:\_\_\_ RENEWAL:\_\_\_ DATE:\_\_\_/\_\_\_/\_\_\_  
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Newsletter subscriber \_\_\_: \$30.00 Newsletter  
Note Associate and full members must also be members of EAA's parent body in Oshkosh WI, USA

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