



**NEWSLETTER**

# *Carb Heat*

Hot Air and Flying Rumours

Vol 34 No. 02

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Thursday, Feb. 19, 8:00 PM  
Canadian Aviation Museum

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**By**

**Adam Hunt**

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

With the arrival of an extended deep freeze, there has been much more hanger flying done recently, than the real thing. Nonetheless, some of our more daunting members have been enjoying the crisp clear days, even if their engines were at first a bit reluctant to join in the fun.

**Mo's Winter Ski fly on the Ottawa River 10:00 AM Saturday Feb 14th:**

For those members who enjoy the winter flying, and particularly those who are ski equipped, **Maurice Prudhomme** will be hosting his annual fly in starting at **10 a.m.**, on the Quebec side of the Ottawa River, 8 km north-west of Aylmer, near the VOR, across from Pinhey's Point. Co-ordinates: **N45 26 57; W75 55 48**. Landing on skis is recommended. Landing at own risk (on the river). Come down and enjoy yourself and most importantly meet the pilots. For more information contact **Maurice Prudhomme** at Tel.: **819-682-5273** or frequency **122.75**. Maurice is one of those stalwarts who puts in over 300 hrs per year on his Pelican, and now has over 3,000 hrs. Drive in's are welcome, just advised not to attempt to make the steep drive down to the river's edge, walk the last bit.

**2004 Membership Renewals**

John Montgomery has reminded me that almost 50% of our membership are already renewed for the 2004 year. That is a great start, and remaining renewing members may pay their 2004 chapter dues by cheque or cash. They can send their renewal forms and fees in by mail to the chapter mailbox, or renew in person at the monthly meetings.

In order to keep our records up to date, **full** and **associate** members must provide their **EAA national membership numbers** as well as their latest membership **expiry dates**. This is not required for subscriber members. It is also recommended that you carefully review your **email address** to ensure our database contains your current address.

**January 2004 meeting summary**

**Garth Wallace** gave another of his entertaining talks, based on his latest book "**If Clouds could talk**" that kept chapter members in stitches. Attendance was excellent, considering the record setting low temperatures and wind chill; even some of the old-timers like Ken MacKenzie, stayed up past their bedtime to catch Garth's show. Many of us treated ourselves to post Christmas presents in the form of one or more of Garth's wide collection of books. If you missed the meeting, you can visit Garth's web-site at <http://www.happylandings.com/>.

**Upcoming meetings/Events.**

<b>Feb 21</b> <b>10:30</b> <b>AM</b>	<b>Phil Johnston</b> will be hosting a display of his <b>Subaru SVX powered Cozy MK IV</b> which has reached the point where the engine systems installation is largely complete and has actually run. I have it on good authority, that his plane makes an excellent snow blower capable of clearing the driveway in seconds.  Phil is located at <b>2 Carlisle Circle</b> in the estates by the Canadian Golf Club on hwy #7, west of Ottawa, just prior to Dwyer Hill Road. Turn left from hwy 7 onto <b>Westleigh</b> , and at the end turn right onto <b>Carlisle Circle</b> . The first house on the right after this is #2. <b>Tel # 613- 253-2229</b> .
<b>Mar 18</b>	<b>Charlie Martel</b> will discuss his experimentation with tuned exhaust systems to gain power while keeping noise to acceptable levels.

**Thursday February 19<sup>th</sup> 8:00 PM: Adam Hunt - "Ultra-lights - Why bother?"**

**Adam Hunt** who owns, and has rebuilt a Lazair, will present an illustrated look at the **Canadian ultra-light scene**. This includes the **rules**, the different **categories** of aircraft that can be found flying as ultra-lights, and a whole bunch of **pictures** showing the wide **diversity of ultra-lights**. It is designed to give people who are new to ultra-lights, but not new to aviation a quick, 40 minute, look at what ultra-lights have to offer and to answer the question: **Ultra-lights - Why bother?** Those who caught Adam's November session on Insurance will remember Adam's infectious enthusiasm which guarantees this topic will be both informative and entertaining; see you there!

**Gary**

## ONE WINDY DARK APRIL NIGHT

Tom Smith owns C-FGYA a Piper Pacer based at Bearbrook International near Bearbrook Ontario.

Charles Martel owns C-GMTL a homebuilt Sportsmen 2+2 based at Indian Creek near Hammond Ontario.

Everyone has heard the phrase “those crazy young (maybe not so young) men in their flying machines”

The Thousand Island RAA chapter, hold their meeting every month, alternatively in Smith Falls or Brockville. It was just far enough for a good night flight, about 50 miles. Both Tom Smith and I looked forward to it every month. It is kind of nuts because we usually use two aircraft, when one would suffice. But this way we both get some night flying time in. Tonight the meeting was held in Brockville.

It was the month of April 1997 or was it 1998. Earlier in the week we decided to attend this month’s meeting, weather and runway conditions permitting. Usually in April our runways are closed because they are too soft. This year was different, for some reason they were still somewhat useable.

That afternoon had been very busy for me right into the early evening. The day had been overcast, windy and a dreary one. Usually, I check the weather but time got the best of me. Chatting with my neighbour J.P. Taillefer, I heard a plane overhead. “That’s Tom Smith, I wonder what he’s doing up at this time” J.P. said. Looking up, I spotted the Pacer overhead to the East “Ah we’re going to the RAA meeting in Brockville” I answered. Dusk was upon us; I could barely make the Pacer out, as it disappeared in the failing light. “You guys are nuts” J.P. cautioned. “Got to go J.P., see you to-morrow” I answered. J.P. owns a 140 Cessna in the next hangar.

I radioed Tom, to let him know I was almost ready “Good evening Tom, I’ll be up in a few minutes”. The radio blared “Good evening Charlie, take your time”. Indian Creek aerodrome has a grass (09-27) runway 2000 feet long, it was very soft and some areas were to be avoided entirely. The North side was riddled with frost bumps and sinkholes but the South side was nice and flat, well...almost. To make matters worse the runway centre drain was still frozen and the runoff from the melting snow was flowing over the runway in a 30 feet wide swath, effectively cutting the runway in half. That left me with a runway area 35 feet wide by 800 feet long with hydro lines at the end of the runway. Luckily the wind was blowing hard from the north-east. Golf Mike Tango Lima was lightly loaded, so I was comfortable with the situation.

“Indian Creek traffic, Golf Mike Tango Lima ... rolling 09” I announced as I shoved the throttle in. GMTL jumped to life and lifted in short order as I dropped the flaps. At 50 knots I retracted the flaps, she settled into an immediate solid climb clearing the wires with a comfortable margin.

Climbing in a circle to the West, I programmed Brockville into my Lorán. “We’ll be there in short order, that wind is right down our back” Tom announced. “Yeah, coming back will be a different story” I answered “Tom did you get the weather”. “Wind supposed to pick up...but no rain, Golf Yankee Alfa switching to 127.7” Tom answered. We settled in with Ottawa Terminal and listened to the occasional traffic. There was very little activity. Although bumpy and fast I was glad to be in the air. Work had been monopolising my time lately and going out for a flight was exactly what the doctor ordered.

In no time we cleared Ottawa Terminal and Brockville was in sight. Tom landed first as I followed. “Charlie take care, the wind gusts are strong, ...there’s a lot of turbulence” Tom called. The wings were buffeted up and down and the tail seemed to have a mind of its own.... All the way to touch down... and the next one ...and the... well you get the picture. Not the prettiest of landings, but a safe one, it was not a good night for tail draggers. We lined up the planes into wind and chocked them in front of the hangar, parking brakes on. No problem getting parking space tonight. The wind was a concern, but not enough for us to miss the meeting.

While walking towards the clubhouse, I asked “Eh Tom, how’s your runway?” “Pretty wet, but not bad otherwise, the cross wind was bad though” Tom answered. Bearbrook International is a small grass North/South strip (17-35, 2300 feet) with wires at the North end and a beaver pond at the South. There is a fairly large knoll in the middle

and the South end rises sharply. Luckily there is a bush on the West Side and a line of trees on the East Side. This usually helps when you get down in the slot depending where the winds are coming from.

The RAA meeting was held in a large trailer, South of the runway just beyond the first hangar. Occasionally the trailer would shudder with the wind gusts. As the evening wore on it became very obvious that the wind speed was increasing and the gusts intensifying. The meeting over, we all gathered around the traditional donuts and coffee. Must be a male thing, but every time the trailer would shudder, we both acted as if nothing was going on. At one point, I could feel the trailer moving almost rocking in the wind. My little voice finally advised me "Charlie, it's time to leave...NOW". I approached Tom "I think we should be taking off soon, before the planes are blown over... it's getting pretty rough out there". "Yeah, I guess it is about that time" Tom answered nonchalantly. If he was concerned with the weather, he sure was not showing it. Eager to get to the plane, I felt the only safe place for her was up and out of here. A few pilots followed us to look at the action.

It was mean out there, I had never experienced winds of this magnitude and the gusting was wild. I hurriedly got into the plane and started the engine waiting for Tom. There was an unfamiliar vibration running right through the airframe. Every time the wind speed increased the vibration changed in intensity. The wind and gusting was responsible for the vibration. As soon as Tom was ready, I taxied to the intersection of runway 04 with difficulty. The plane seemed to have a mind of it's own, turning was a challenge because of the wind intensity. The gusts were making the surfaces extremely heavy, at times I had to hold the stick with both hands. The large wings were amplifying the problem; the airplane was effectively as close to flying as it gets. Idling on 04, I faced the winds head on, the airspeed needle was moving up and down, peaking over 35 knots. GMTL flies at 40 knots. Tom took position behind me. Later Tom described the feeling he had at that exact moment "I felt like I was moving backwards and that the Pacer was actually airborne, yet I was on the ground".

Before I shoved the throttle in, I tightened my seat belt. "Brockville traffic, Golf Mike Tango Lima ...rolling 04". I don't remember the plane rolling; it seemed like the plane was immediately airborne. Seconds later I heard "Brockville traffic Foxtrot Golf Yankee Alfa ...rolling 04". The world outside was transformed into a black hole, the lights inside the plane seemed too bright, and the instruments were moving so much I had a hard time making them out. My little voice was coaching me "airspeed 60 knots, horizontal attitude, heading.... OK manoeuvring speed". I kept the same heading as the runway because that's the way home anyway. After a while I looked down through the passenger glass door and to my surprise, I could see the Pacer climbing below me and Brockville airport below Tom. The altimeter was showing 3,000 feet and I had barely moved forward. "Hey Tom, do you think we'll get home tonight" I radioed. "Well look at the bright side, at least were not going backwards" retorted Tom. I tell you nothing fizzes that man.

Unknown to us Fred who had watched our takeoff, walked to his truck, drove off and headed east towards the end of the runway. When he got to the crossroad beyond the runway 04, he stopped and watched us go by. He got there before we did.

OK, I should program my Loran, yeah in my haste I had forgotten. The plane was pitching so much it took several attempts before I succeeded. We kept climbing until the Loran finally showed some forward progress. Thank God, the winds were not as strong at altitude, otherwise we'd still be up there. My little voice "Wow, we are gonna get home after all..." At that altitude the bumps flattened out a bit.

"Well looks like we'll make it home tonight" I said. "Yeah good thing, for a while there I was sorry I didn't bring a box lunch and I have no intention of landing back in Brockville...dunno if the winds will be as wild near home...we may have to divert to Ottawa" Tom answered. "Roger that" as I contemplated landing at Indian Creek in that wind, at night on that little soggy stretch of runway. The silence on the frequency emphasised the fact we were alone in the sky. The controller's perplexed response to our call echoed the same sentiments. "What are we doing up here tonight" I transmitted. "Ha, ha ha "

What are we doing  
up here !!!!!

was the only response I got.

"Bearbrook traffic, Golf Yankee Alfa... long final... 35...full stop...Charlie call me when you're on the ground" radioed Tom. Bearbrook is about 2 miles West of Indian Creek. A couple of minutes later "Indian Creek traffic, Mike Tango Lima... Final...09... full stop" I called. My little voice piped up "no use calling out to traffic, nobody is foolish enough to be out here tonight".

“OK, this is it” talking to MTL out loud “were going to do this”. The wind was blowing from 050 degrees and I was landing on 09. I had a fleeting thought Tom was landing on runway 35 with a 50-degree crosswind from the right. Hopefully once down below the tree line, the crosswind would be manageable. The winds were so strong I had to crab with power, side slipping was not enough to keep the plane in line with 09. But mercy of mercy the winds were fairly solid, the turbulence was nowhere near the intensity I had experienced in Brockville.

I had to get to the East End of 09, right after the midpoint where the water was flowing over the runway to get to the hangar (believe me this baby wanted to get in the hangar). Flaring over the West section of the runway, I planted the main wheels down keeping my speed up. I gunned the engine just before the flooded midsection of the runway; MTL skipped gracefully over the water and settled in nicely on the other side with lots of room to spare. “Charlie, I’m down and taxiing to the hangar, goodnight” Tom radioed. “Mike Tango Lima down and safe. Good night Tom” I answered.

## GOT A METER? CHECK YOUR ALTERNATOR

By George Wilhelmsen

Published: 1/8/2004

It's cold, it's dark, and it's winter. The alternator is the electrical lifeline for your aircraft. While the battery on board most planes, if you lose the alternator, the life of the battery is typically less than an hour at full load, ***and even shorter with all the lights on!*** But many pilots pay little attention to the alternator in their airplane, since it is such a dependable piece of equipment. The problem with alternator problems is that they usually come when the alternator is under heavy load. ***Translation:*** The alternator usually fails when you need it most.

***A WORST-CASE EXAMPLE:*** You are flying between the mainland and Martha's Vineyard, along roughly the same path that JFK Jr. managed to make so well-known with his accident. The skies are clear but as usual, when you are flying over water, there is a bit of a haze in the air, and the horizon is hard to see.

As you reach the halfway point, you notice your battery charge meter is pointing toward the discharge end of the scale -- instead of registering the slow charge you are expecting. After working through the checklist and cycling the field breaker for the alternator, the charge meter shows no change. You correctly declare an emergency, and getting rid of all your non-essential loads by turning off everything you don't need. At this point, with a little luck and some help from ATC, ***you might just make it to your destination with some of the lights (and instruments) on ... if you are lucky!***

### THE ALTERNATOR: BEHIND THE SCENES

While the inner workings of an alternator are unknown to many pilots, any pilot or mechanic can check the parts that turn the AC of the alternator in DC -- and it's surprisingly easy. Parts, known as diodes, are used to make this change, and apart from brushes and bearings, they are the most failure-prone component in your average alternator.

### CHECKING THE ALTERNATOR

***"TOOLS":*** A decent digital voltmeter, the airplane, and a minute of your time.

#### ***HOW TO:***

- With the engine running at 1500 rpm and the aircraft secured by either a pilot or parking brake plus tie-down, turn on the landing light and taxi light (if the aircraft is so equipped). This puts a pretty good load on the alternator, and helps to uncover any weaknesses.
- With the digital volt- or multi-meter set to read AC volts, measure the AC voltage on the aircraft's **DC electrical system.**

***The Voltmeter To Aircraft Connection:*** For the best results, connect to the aircraft's electrical system inside the cockpit, through an accessory (previously known as the cigarette lighter) plug. With your own "pigtail" connector you can hook in quickly and easily. These connectors are available for a couple of bucks from Radio Shack or any reputable electronics shop.

***WHAT TO LOOK FOR*** an indication of 0.75 volts or greater generally indicates that one or more of the diodes has gone bad, or that the alternator filter has gone bad.

## UNDERSTANDING WHY

WHY ONLY 0.75 VOLTS AC? Well, that is a small value of AC, but it indicates that one of the diodes may not be working correctly. Generally, this means the other diodes have to "pick up" the load, which can cause them to fail prematurely. Either way, it's a predictor of incipient failure of the aircraft's electrical system -- one you likely don't want to experience!

***THE BOTTOM LINE:*** Keeping an eye on your alternator makes good sense. When you consider how exciting your flight can get without electrically operated avionics and instruments, keeping this under your own (or your shop's) watchful eye, is both good and simple. This simple test, plus the required preventive maintenance could easily spare you from in-flight alternator failure.

??????

Do you have a favourite web aviation sight? Would you like to share it with other chapter members? If so please forward it to your newsletter editor via email and I will assemble them into a report in a future newsletter.

## WINTER FUN

Mar. 06, Kars annual skis fly in. Call Dave for details @ 613-226-7889

## EAA245 Video Library -contact Curtis Hillier 831-6352

ID	Description	ID	Description
<b>1.0</b>	<b><u>Tin Man series</u></b>	<b><u>Reference Material</u></b>	
1.1	4130 Chromemoly airframe construction tape 1 and 2	1.0	Aeroshell "Care & Lubrication of your ..."
1.2	Gas welding Aluminum	2.0	NAV Canada "PIK Pilot Information Kiosk"
<b>2.0</b>	<b><u>EAA Building your own plane Series</u></b>	<b><u>Aviation related entertaining</u></b>	
2.1	Getting started	1.0	Those magnificent Men and their flying machines
2.2	Aircraft Engine Rebuild	2.0	The building of the Voyager
2.3	Welding, Gregg Ewert and Bill Roerig	3.0	EAA's Ultimate Flight aerobatic footage
2.4	Corrosion, Goe Hindall	4.0	EAA Oshkosh 1988
3.0	Canadian Airmotive, Using the ProBalancer	5.0	EAA Oshkosh 1995
4.0	Fabric Covering with Ray Stits	6.0	CBC at Carp, 1993
<b>5.0</b>	<b><u>EAA/BEDE Series</u></b>	7.0	EAA/ESPN Borden
5.1	Understanding Aerodynamic Drag -damaged-unviewable	8.0	EAA TV show
5.2	Selecting The Best Airfoil	<b><u>Flight training</u></b>	
5.3	Aircraft Wings Designs	1.0	The wonderful world of floats
5.4	Height Lift Devices For Aircraft Wings	2.0	First Flights in your homebuilt aircraft
5.5	Understanding Airplane Stability & Control	3.0	First Flights in your ultra light aircraft
5.6	Aircraft Control Surfaces, Design	<b><u>Demo Videos</u></b>	
5.7	Design Procedures For Engine Cooling	1.0	Europa
5.5	What Pilots Should Know About Aerodynamics	2.0	Zenair CH701/601
5.9	Understanding The Aerodynamics Of Automobiles	3.0	The RV story
<b>9.0</b>	<b><u>Mike Arnold AR-5 Series</u></b>	4.0	Sonex - 2 tapes
9.1	Why It Goes So Fast	5.0	Delta Hawk diesel engine
9.2	How It's Made		
9.3	Wheel Pants		
9.4	mould-less Construction		

### Items for Sale:

If interested in these items call Hugh Glynn at 613-225-7356			Asking C\$		Value
Item	Qty	Description	Ea.	Lot	US\$
Flight Computer	1	Jepson Tech Star Ser#14238		\$80	\$100
Fuel Testers	2	ASA 1used, 1 new	\$3	\$6	\$6
Vertical Speed indicator	1	Pioneer Model A57S # AC20662		Make Offer	
Tillitson Fuel Bowls	2	Gascolators	\$20	\$40	\$50
Primer	1	unknown		Make Offer	
Cabin Pressure Altimeter	1	2 1/4 " panel mount		Make Offer	
Turn & Bank Indicator	1	Ball style		\$30	\$39
Panel Airspeed Indicator	1	unknown		Make Offer	
E L T personal portable	1	Narco Avionics Battery operated		\$185	\$185
Magnetic Compass	1	New Airpath CB2100-T4		\$100	\$120
Aircraft Intercom - Flightcom	1	Voice activated 4 place I12GX new		\$125	\$150
Dynamic Microphone	1	New		\$60	\$87

Place your ads by phone with Rodney Stead  
 @ 613-836-1410 or e-mail to [stittmp@sympatico.ca](mailto:stittmp@sympatico.ca)  
 Deadline is first of the month. Ads will run for three months. You may request a two month extension.

**Wanted: 3 wire screw on connection for RC Allen model A2475-2 turn and bank with 5/8 x 24 pitch thread.**  
 02/04 Carl Bertrand @ 613-837-7412

**For Sale: Federal 1400 Skis, 10 inch wide. \$900.00**  
 Set Continental A65 exhaust pipes \$175.00  
 2 New Avcom headsets model AC200 \$150.00  
 01/04 Brian Mckinley @ 613-487-2451 or 613-299-8424

**For Sale: McCauly prop DTM533 73 x 57 1A170 8 bolt**  
 Fits Continental 0300 \$600.00  
 Wheel Pants for Cessna main gear pointed end style no backing plates \$100.00  
 Stromberg carb. For 65-85 HP Continental  
 With air box \$100.00  
 Baffles for 85 HP Continental \$50.00  
 Soft Com 4 place intercom \$100.00  
 01/04 Call Jim @613-830-4317

**For sale: Lycoming 0235-C1, firewall forward with all logs SMOH 1500 hrs. Removed from wind damaged aircraft. Compression good, one new cylinder. \$4995.00**  
 Engine mount from Fleet Canuk for 0-235 \$350.00  
 01/04 Peter @ 613-729-0683, [piper909@magma.ca](mailto:piper909@magma.ca)

**Wanted 2 six inch Cleveland wheels**  
 10/03 E-mail: [acholush@yahoo.ca](mailto:acholush@yahoo.ca) Gerhard Herget

**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  
 e-mail [stittmp@sympatico.ca](mailto:stittmp@sympatico.ca)



**EAA Chapter 245 Membership Application**

NEW:\_\_\_ RENEWAL:\_\_\_ DATE:\_\_\_/\_\_\_/\_\_\_  
 EAA NUMBER:.....  
 EXP Date:\_\_\_/\_\_\_/\_\_\_  
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**Annual Dues:** January 1st to December 31st. (porated after March31st for new members/subscribers).  
 Associate Member \_\_\_: \$30.00 Newsletter plus Chapter facilities  
 Full Member: \_\_\_: \$55.00 Newsletter, hangar, workshop, tiedowns. (Note: there is a one time \$200 initiation fee when you become a Full Member)  
 Newsletter subscriber \_\_\_: \$30.00 Newsletter  
 Note Associate and full members must also be members of EAA's parent body in Oshkosh WI, USA

Make cheque payable to:  
 EAA Chapter 245 (Ottawa)  
 Mail to - P.O. Box 24149, Hazeldean R.P.O., Kanata, Ontario, K2M 2C3