



NEWSLETTER

Carb Heat

Hot Air and Flying Rumours

Vol 34 No. 09

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September 2004

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Next Meeting:

Thursday, September 24th. 8:00 PM
National Aviation Museum
BUSH Theatre

Feature Presentation

A pictorial retrospective of Oshkosh Air Venture 2004

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President's Page by Gary Palmer

The appearance of large numbers of hot air balloons in the local skies marks not only the annual Gatineau Balloon Fest, but also the start of our fall series of meetings at the NAM Bush Theatre.

Next meeting Thursday September 16th 8:00 PM

Despite earlier plans put forward by the NAM, like most government bureaucracy attempts at change, no change is in fact happening insofar as our meeting dates at the NAM. **We remain scheduled for the 3rd Thursday of the month at 8:00 PM at the Bush Theatre.** That means our next meeting is scheduled for **Thursday 16th September**, *not Monday the 20th* as stated in the last newsletter. Please pass this information along to chapter members who do not receive their NL by email, and might miss snail mail delivery, given the recent militancy in the "public service" unions.

Newsletter Editor position changes hands.

Rodney Stead after several years of yeoman service, has stepped down as NL editor, passing the reins over to **Bill Reed**, who I am sure can count on your continued support in the form of articles for future news letters. Rodney deserves special thanks for the fine job he has done with the newsletter; all members of the executive team respect his efforts, and I am sure our members share the feeling. Remember that the newsletter reflects the activities and concerns of an **involved membership**; it relies on your contributions to make it great, so don't let Bill down!

Upcoming October meeting Elections.

Next month's October 21st meeting will mark our annual elections: The positions up for election this year are:

1. President
2. Web Master
3. Membership Secretary
4. Technical Information Officer.

As in past years, if you are interested in running for one of these positions, please contact **Lars Eif** who is the nominations chairman, or a member of the executive team.

First Flights:

July, and August saw two new first flights in the chapter:

Martin Poettcker's Subaru powered CH601 took to the air on July 27th under the very capable guidance of test pilot, **Serge Malle**. Martin has spent considerable effort getting his engine cooling details sorted out, not unusual for auto engine conversions. Serge continues as PIC for test flights, and Martin as chief flight engineer, soon to be PIC.

Jeff Whaley's Ford V6 powered Sportsman 2+2 took to the air on August 4th, under the capable hands of **Charley Martel** shortly after Oshkosh. Jeff is likewise working on cooling system refinement as his test period continues.

Upcoming meetings/Events.

Sept 16th	The September meeting marks the start of the Fall season at the National Aviation museum on our traditional 3 rd Thursday of the month. The topic will be a pictorial retrospective of Oshkosh Air Venture 2004 courtesy of chapter members equipped with digital cameras who attended this year's extravaganza.
Oct 21st	Martin Poettcker will provide an update on the ongoing testing of his new engine and PSRU installation, and retrace some of the material that we missed at the May meeting when the video system broke down.

Thursday September 16th 8:00 PM: "Oshkosh 2004, a Pictorial Perspective".

This should be an entertaining presentation, and a chance to renew acquaintances; see you there!

Gary

GPS, Where is my GPS?

Part 2

By Curtis Hillier

Part 1 of my experience left off with me trying to wire the Palm Tungsten to the Delorme GPS unit. I found a lot of information on the Web regarding how to do this and got absolutely nothing from Delorme Technical Service. I even asked them simply “what pin to insert a 6 volt power source” (so I didn’t need batteries), and got zip back from them.

Hackers, you just have to love hackers.... While I love to find out how things work, and have torn apart almost 100% of the gadgets I have purchased (after the warranty expired and the gadget stopped functioning of course), I do not condone those who maliciously tear things apart and give out proprietary information to cause hardship to others (companies trying to stay in business). Having said this I also do not understand why a company would not provide basic information when they themselves do not sell a solution.

Having said all of this, I found a gentleman who advised that the pin I needed to supply external power for the GPS was pin 6 on the RS232 9 pin connector.

Initially I made up a “Null Modem” cable with all of the appropriate connections. I borrowed a Palm to USB/RS232 cable. I retested the GPS satellite sync at my workbench with the laptop and then made the connection to the Palm.

As expected this did not work!

Now the fun was about to begin. I rechecked all of the connections and verified that the Palm connector was solidly plugged in. Everything was as it was supposed to be according to the unofficial information. My next step was to continue my research and see if there was any mention of this behaviour. I did suspect the Software I was using on the Palm since it was a limited use trial version.

I finally found a person who suggested that the activity pin on the Delorme GPS had to be tied to 4 volts rather than the meagre 3.3 volts out of the Palm. Next I found a source that suggested that for this sort of custom interface, pin 12 of the Palm needed to be tied to ground and the ID pin (8) should be grounded by a 2.5K ohm resistor – I was using a 100K ohm resistor as per the Palm ID specs for an RS232 peripheral.

Below is a picture of the prototype cable I ended up with.



Since I still wanted a power outlet (for the radio 12V), I fed the modified cell phone 12V power adapter (top center), power supply with one leg of a dual outlet adaptor. NOTE: to reprogram the voltage for the palm/GPS, I set the voltage to the higher voltage (6V) needed by the GPS and then dropped it by 0.7 volts through a diode for the Palm. The white Velcro goes around my leg to hold the palm in place while flying. The prototype is very bulky (messy) since I didn’t want to cut any of my cables until I decide where things will go in the cockpit. This “messy” configuration also gives me the worst case scenario for noise induction and

transmittance.

The Earthmate GPS receiver can sit virtually anywhere in the cockpit: on the dash, on the seat beside me (when there is no passenger), and even in the door pocket although this limits the number of satellites I can lock onto. It rattles around a lot on the dash so I usually just place it on the seat (for now). The coating in the (Limo Black) sun film I placed on the Plexiglas roof panels, does not seem to block the signal from the satellite. I am considering a custom mount for the GPS receiver up behind me next to the roof Plexiglas.

I have noticed minor noise interference on the radio but moving the rat's nest of wire around makes the noise go away. A bit better shielding and shorter power wire lengths will no doubt solve this interference.

The set up I have now does give me the ability to

- 1) Locate my current position
- 2) Set waypoints
- 3) Track my flight via GPS location
- 4) Get a "fly to" direction based on a way point
- 5) Identify towns and cities under me
- 6) Attain ground speed
- 7) Verify altitude and Altimeter setting to some degree (as the pressure changes).
- 8) Verify my current heading and "turn to" heading better than the magnetic compass which is not all that accurate in a steep turn or a climbing or descending turn.

One note about demo SW.... I finally broke down and bought the SW since I was tired of guessing if it would work on my next flight or not. I experienced several different failure modes from not seeing the GPS receiver to taking forever to boot up. Now that I have a full purchased "key", I have not had any occurrences of faulty behaviour. The demo SW seemed to have both a limited number of uses mode as well as a time limit mode. Of course if I deleted and reloaded the SW it worked fine. This demo SW also has a very small map window in the demo version, they call it a "keyhole over the map".

Final likes and dislikes:

- 1) In my aircraft, the brake is between the side by side seats, the Palm interface cable seems to continuously migrate to that area. When I reach to apply the brakes during taxing or landing, I exert a lot of force on the connection to the palm. I do not like this and may investigate making a different mount system other than the "knee board" style I have now.
- 2) I do not like the "cigar lighter" power connectors I used, they are bulky, heavy and not very good at staying plugged in. I will likely investigate another style of power plug like the one used on my ICOM portable radio.
- 3) The display is very small and difficult to read. I have not explored all of the programming features of the GPS Pilot yet and find the SW users manual a bit lacking. I would guess it was written by the developer who knew everything about the SW (obviously), and not reviewed by a first time GPS user. Keeping this in perspective, I have not used a GPS for navigation other than the demos I have seen at Oshkosh..... so I am at a disadvantage when it comes to knowing what I am trying to achieve.

For now I'll start investigating other palm based GPS SW that supports the Delorme... and keep dreaming about the Lowrance 1000, (It is available in colour now!).

Thanks to everyone who helped with comments, research on the web, configuration and map info and the wonderful support from my family while all of my stuff was occupying the dinning room table!

Curtis Hillier

Do you have a favourite web aviation site? 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.

Mark your Calendars:

Some items have been copied from the COPA Flight and the RAA website.

August 29, DESERONTO, ONTARIO: Third ever fly-in breakfast at Tyendinaga (Mohawk) Airport (CPU6), 8 a.m. to 11:30 a.m., rain or shine. Check out maintenance training and facilities, 100LL available. Unicom 123.5. Everyone welcome. For more information call Christine at Tel.: 613-396-3100.

September 1st OSGOODE, ONTARIO, Powered Parachute Extravaganza Begins at: 04:05:00 Ends at: 10:15:00
www.karsairsports.com/chute-out

September 11, KINGSTON, ONTARIO: The Kingston Flying Club will be hosting a Fly-in Breakfast from 8 a.m. to noon. For more information call 613-389-0954.

September 11, STRATFORD ONTARIO CNM4, Bill Weir's Alternate Engines Seminar, sponsored by RAA Canada. Contact Bill Weir at 519-461-0593 billweir@lon.imag.net

September 11, TORONTO, ONTARIO: First Annual Air Rally at CYKZ sponsored by the Buttonville Flying Club and COPA Flight 44. How well can you aviate, navigate, and communicate? Whether you're flying a Cirrus SR22 or a Cessna 150, you will not only enjoy yourself but also have a chance of walking away with first, second, or third prizes of \$300, \$150, and \$75. Registration starts at 8 a.m. at the main terminal building of Buttonville Airport. Fee is \$50 per aircraft and includes a light breakfast and a barbecue lunch or \$45 for early online registration. For more information go to www.buttonvilleflyingclub.com, or E-mail: president@buttonvilleflyingclub.com, or call John Van Lieshout at Tel.: 416-948-5626. All proceeds will be donated to charity. Rain date: September 12.

September 12, ORONO, ONTARIO: Ninth Annual Barnyard Fly-in at Hawkefield, N44 00 W78 39. Best grass strip in Ontario at 3,300 feet. For more information contact Chris Gardiner at Tel.: 905-668-5703; E-mail: cgardn628@rogers.com.

September 12, BROCKVILLE, ONTARIO: A \$100 cash prize will be won at the fly-in breakfast at Brockville Municipal Airport (AKN Thousands Islands Regional Airport) to the aircraft arriving closest to a pre-set time. Complimentary gifts will be handed out to early bird pilots and to the most unique aircraft. Enjoy our specialty monster breakfasts with never ending coffee from fast pilot food lines in the sunshine or under our tent. It is highly recommended that tri-gear craft be hand pushed off the paved taxi strip for parking to avoid uneven surfaces. For more information please contact the Brockville Flying Club at Tel.: 613-342-4100.

September 18, CORNWALL, ONTARIO: The Cornwall Flying Club invite all intrepid pilots to join us for the VAPOR Rally. It tests a pilot's navigation, communication, meteorology, air law, airmanship and sense of humour skills to the very limit. First prize this year is a handheld Garmin GPS III valued at over \$500. The event starts at 9 a.m. Participants must be airborne no later than 3 p.m. All pilots must be back at Cornwall Regional Airport no later than 5 p.m. Entrance fee is \$20 per aircraft. For more information contact: Jack Hawley at Tel.: 613-347-7352 (h); 613-361-0487 (c); 613-936-5149 (w); jhawley@cnwl.igs.net or Andy Le Gourrierec at Tel.: 613-937-3078 (h); 514-829-0889 (c); 800-610-5328 (w); andy3@cogeco.ca.

September 18, BRAMPTON, ONTARIO: Sonex builders and pilots barbecue/pot luck at the Brampton Airport (CNC3) at 13:00. If you're interested in the Sonex aircraft, come and meet with local builders for an afternoon of shop talk, and maybe a finished Sonex. For more information contact Chris Horsten at Tel.: 905-846-8555; E-mail: airplanes@sympatico.ca.

September 18, OSGOODE, ONTARIO: Second Annual Powered Parachute Extravaganza at N45 10 30 W75 34 50. For more information contact John Moore at Tel.: 613-277-2088 or visit the Web site: www.karsairsports.com.

September 18, LACHUTE, QUEBEC: Third International Precision Flying and Navigation Exercise of Lachute. Organized by EAA Chapter 266 and COPA Flight 118 at Lachute Airport (SE4). You don't have to belong to one of these organizations to participate. Participants will fly a course, identified by headings and turning points, and be timed (each participant will indicate to the organizers the ground speed that he chooses). As last year the course is approximately 100 miles. During the flight a number of pictures will have to be identified and marked precisely on the map. There may be a precision landing at the end of the course. Come to re-live for an hour the era, not so far away, when you couldn't rely on a GPS or a LORAN to navigate and had to keep your eyes on the map, the compass and the ground at the same time, Lots of fun! Registration fees \$10. Briefing at 10:00. For additional information contact Michel Moreau at Tel.: 514-694 2129; E-mail: mjmorea@videotron.ca. Rain date September 19.

September 18, LACHUTE, QUEBEC: Troisieme Exercice de Vol de Precision et D'observation International de Lachute. Organisé par le chapitre EAA 266 et le Flight COPA 118 à Lachute (SE4). Ouvert à tous (vous n'avez pas besoin d'être membre de l'une de ces organisations pour participer). Les participants devront effectuer un parcours, identifié par des points tournants et des caps, pour lequel ils seront chronométrés (chaque participant choisit et indique aux organisateurs la vitesse sol à laquelle il souhaite effectuer le parcours). Comme l'an passé le parcours est d'une centaine de miles environ. Durant le parcours ils devront identifier et indiquer avec précision sur la carte l'emplacement où ont été prises un certain nombre de photos qui leur seront remises. Il est possible qu'il y ait aussi un atterrissage de précision à effectuer à la fin du parcours. Venez vous replonger à l'époque, pas si lointaine, où les GPS, LORAN n'existaient pas, et mettre à l'épreuve vos qualités intrinsèques de navigateur et d'observateur, et vous amuser un peu... Vous pouvez emmener un ou plusieurs navigateurs à bord. Frais d'inscription \$10 nombreux prix! Réunion pré-vol à 10:00. Pour tout renseignement contacter Michel Moreau au Tel.: 514-694 2129; E-mail: mjmorea@videotron.ca. (le 19 septembre en cas de mauvais temps).

September 22-26, MEAFORD, ONTARIO: International Plowing Match 2004 at the Owen Sound Billy Bishop Municipal Airport (CYOS) 44 37'N - 80 35'W. Fly into the Billy Bishop Airport - 4,000 feet paved runway; no landing fee; free overnight parking with \$25. Fuel purchase. Free shuttle to and from IPM site 20 minutes away. For more information contact Ron O'Donoughue at Tel: 519-372-1939; Web site: www.ipm2004.ca.

September 26, BANCROFT, ONTARIO: COPA Flight 119/Bancroft Flying Club's Fall barbecue from 11 a.m. to 3 p.m. at the Jack Brown Airport. For more information contact Norman Jull at Tel.: 613-332-3674; E-mail: normjull@sympatico.ca.

October 2-3, HALIBURTON/STANHOPE, ONTARIO: Haliburton/Stanhope (CND4) Fall Colour Fly-in and Haliburton County Artist Studio Tour. A bus will depart both days at 11 am for a three to four hour tour of the various galleries and studios in the area. This is traditionally the best weekend for Fall colours. What a great way to finish the summer flying season! Brunch 1000-1400 Local. Call John Packer at Tel.: 705-754-2611 or visit our Web site for information and current weather www.stanhopeairport.com or E-mail: airport@halhinet.on.ca.

October 13-15, BARRIE, ONTARIO: Georgian College in collaboration with Embry-Riddle Aeronautical University presents an Aircraft Icing Management Seminar. The trainer will be Capt. Edward (Buddy) Counts and guest lecturers are Paul Johnson and Doug Ingold. For more information contact Jane Daines, program manager, Georgian College, at Tel.: 705-728-1968 ext. 1625; E-mail: jdaines@georgianc.on.ca or Kay Matthews, program manager, Embry-Riddle Aeronautical University at Tel.: 866-261-2464; 386-323-8666; E-mail: Matth9b7@erau.edu. Or visit the website: www.erau.edu/omni/ec/soctapd/icing.html. To register call 705-728-1968 ext. 1698.

FOR SALE

Place your ads by phone with Bill Reed 613-831-8762 or e-mail to bill@ncf.ca
 Deadline is first of the month. Ads will run for three months. You may request a two-month extension.

For Sale:	Price
Volkswagen 1600cc "Beetle" engine completely rebuilt	\$1,000.
Volkswagen 1600cc "Beetle" engine partially rebuilt	\$275.
Larger (6-cyl) Continental Oil Cooler (8"x9")	\$50.
Lycoming accessory case dual take-off adapter (ie hydraulic and vacuum pump)	\$150.
Piston Ring Set for E-185/0-470 Continental series	\$100.
Continental C-85/0-200 ring set and rocker pins	
Lycoming dynafocal engine mount	\$75.
Two shoulder harness inertia reels \$	\$10. ea
Four seat belts metal to metal like new	\$20. ea
Lunkenheimer Primer	\$20.
Two fuel pumps, hand-operated (wobble-type)	\$20 ea
Two Scott parking brake valves (new value \$150 U. S)	
Pair Goodyear 600x6 wheels and brakes	\$150.
Pair wheel pants for amateur-built a/c	\$50.
Vista (cockpit fresh air) Vent	\$15.
Lightweight automotive starter and bracket for Lycoming	\$150.
Parachute seat pack – condition unknown	\$50.
Miscellaneous older instruments, gascolator	
Piper trim wheel and cables -	\$15.
06/04 Garry Fancy (613) 836-2829	

For Sale:	Price
1993 Hatz biplane, TTSN 240 hrs, Engine lyc 0290-d2 135hp SMOH 415. king radio, elt ,Recent refurbish, asking	\$49,000.
06/04 rick rickards @ 905-765-6403 rickr@mountaincable.net	

For Sale:	Price
Garmin 90 GPS with yoke mount bracket and power cable	\$100 OBO
05/04 Keh @ 613-825-6171 email_keh@canada.com	

For Sale:	Price
Engine mount for a Rotax 503 (inverted)	\$100.
Engine mount for a Rotax 582 (upright)	\$200.
Rotax 582 exhaust for Pelican \$150, moulded composite cowl for the Pelican	\$350.
Aluminium float kit - Easy Lift #1150 capacity original price was \$3500	\$2500
06/04 Grantley Este 613-832-1797 este@compmore.net	

Your Ad Here

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 email bill@ncf.ca



EAA Chapter 245 Membership Application

NEW:___ RENEWAL:___ DATE: _/ _/ _
 EAA NUMBER:.....
 EXP Date: _/ _/ _
 NAME:.....
 ADDRESS:.....
 CITY/TOWN:.....
 PROV:.....PC:.....
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 EMAIL:.....
 DISTRIBUTION Preference: email..... post.....
 AIRCRAFT & REGISTRATION:.....

OTHER AVIATION AFFILIATIONS:

COPA:___ RAA:___
 OTHER:_____

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:
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