



NEWSLETTER

Carb Heat

Hot Air and Flying Rumours

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Inside:

President's Page: by Gary Palmer

Next Meeting:

**Thursday, Sept 19, 2002 08:00 P.M.
Canadian Aviation Museum**

Feature Presentation

Gwen and Charlie Martel

"To Newfoundland and Beyond....."

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|--------------------------------|---|-----------------|---|
| President: | Gary Palmer | 596-2172 | gpalmer@nortelnetworks.com |
| Vice President: | Russell Holmes | 820-8572 | Russell.Holmes@city.ottawa.on.ca |
| Ops, Publishing, Tools: | Dick Moore | 836-5554 | rjmoore@uottawa.ca |
| Membership: | Wayne Griese | 256-5439 | wayner@igs.net |
| Secretary: | Curtis Hillier | 831-6352 | hillier@mosaid.com |
| Treasurer: | George Elliott | 592-8327 | gelliott@igs.net |
| Editor: | Rodney Stead | 836-1410 | stitstmp@sympatico.ca |
| Webmaster: | Martin Poettcker | 271-6113 | poettcker@rogers.com |
| EAA 245 Website: | http://eaa245.dhs.org/ | | |

President's Page
by Gary Palmer

Oshkosh Highlights.

Despite all the dire warnings, the Border Crossing and flight procedures to Oshkosh were pretty well business as usual with the major challenges being weather related. This year, challenges for many of the Carp contingent were encountered in both directions. For George Elliott, Bill Reed, and I, all the outbound planning for a northern route was scrapped at the last minute as we tried to beat a frontal system to Port Huron, and came up 5 minutes short with a free wash of the aircraft thrown in. Four hours later saw us fighting strong headwinds to Oshkosh and the start of a long hot, but thoroughly enjoyable week.

One of the major highlights was being able to stick around and cheer **Bob Crook's** Bronze Lindy for the third best plans built homebuilt at Oshkosh; no mean feat for a first time builder of a beautiful Hatz biplane. Many of you who have visited Bob's project at Smiths Falls will know how meticulous Bob is and how honestly earned this award was. *(see picture next page)*

The return flight from Oshkosh found George and I chasing a frontal system back and eventually making it to George's Muskoka cottage vowing to wait a day longer next time. As usual, we were reminded that while weather forecasters never lie, they have a dismal record of telling the truth.

Fly-in Breakfast Saturday August 11th a great success

Our annual fly in breakfast on Sunday August 11th was a great success thanks to the great work of a tireless group of volunteers led by **Curtis Hillier**. A special thank you is due to **Jennifer Hillier**, who made her Dad look good by taking care of all the really important details, like the menu, food and volunteer roundup. Thanks from all of us Jennifer!

October elections on the horizon.

As usual, our October meeting is the opportunity to step forward and become more actively involved in the running of your club. So if you are interested in joining an eclectic group of guys at executive meetings once a month, let any member of the executive know. If Lars Eif gives you a call asking you to serve, give it serious consideration.

Speakers for upcoming meetings needed.

One of the major challenges for your executive is putting forward interesting meeting topics. With a large, and varied membership, it should not be too difficult if everyone shares a bit of the workload. So if you are actively building a project, or have made some memorable trips, or just want to share some research you have done on a topic please consider being a speaker. Likewise if you know someone outside the chapter who would make a good speaker, let your executive know.

Newsletter articles sought.

Just as speakers are essential, so are newsletter contributions. **Rodney Stead**, our newsletter editor welcomes your input, so don't be shy.

Thursday Sept 19th meeting @ NAM Gwen and Charlie Martel "To Newfoundland and Beyond....."

This marks the start of the fall season and a return to the friendly facilities of the National Aviation Museum, **Bush Theatre**. Normal meeting start time is 8:00 PM

Gwen and Charlie Martel have graciously agreed to share the highlights of their flight down east to Newfoundland last year in their Sportsman 2+2, C-GMTL, which now has the distinction of being a 1,000+ hour homebuilt. In addition to lots of great pictures, you can count on loads of interesting anecdotes; one of my favourites was the need to place a long distance phone call to Paris France, to file a flight plan into St Pierre and Miquelon; the two small islands in the gulf of St. Lawrence which remain French territory. Having spent two weeks this year on a driving vacation to Newfoundland, I can assure you the scenery is as fantastic as the people

are friendly, and heartily recommend it as a vacation destination. I look forward to seeing you at the Aviation museum, at our normal start time of 8:00 PM.

Gary



Subject: Impossible Return

In May 1992 at Tumbler Ridge, B.C, a Piper Cherokee aircraft with five passengers on board crashed following an attempt by the pilot to return to the runway after experiencing an engine failure. The aircraft was only a 100 feet above the ground when the engine problem occurred. The aircraft stalled during the attempted turn, causing loss of control at an altitude from which recovery was impossible.

This was not an isolated accident. During a ten year period from 1982 to 1991, there were 176 accidents resulting from engine failure after takeoff in single engine aircraft. In about half of these, the pilot tried to turn back to the departure runway instead of landing straight ahead. In most of these accidents, the pilot lost aircraft control while attempting the impossible return to the runway.

An analysis of these accidents showed that an aircraft crash, caused by loss of control as a result of excessive maneuvering, is 10 times more likely to cause fatalities, and 5 times more likely to cause serious injuries than if the pilot had elected to land straight ahead. Lower ground speed associated with a straight-ahead into-wind forced landing, as well as being under control prior to impact with the terrain, reduces the risk. Surprisingly, the data also revealed that experienced pilots are just as likely as novices to attempt the impossible.

Using data from the Cessna 172 Aircraft Flight Manual, our test pilots crunched some numbers to help convince you that straight ahead and under control is your only real option.

Using the following conditions, the analysis was done for an engine failure at 500 ft and 1000 ft.

CONDITIONS AND ASSUMPTIONS

| | |
|----------------------------------|-------------------------|
| Altitude | Sea level |
| Temperature | ISA |
| Wind | Calm |
| Climb Speed | 75 Knots |
| Rate of Climb to 500 feet | 688ft/min. |
| Rate of Climb to 1000 feet | 675ft/min |
| Glide speed after engine failure | 65 knots IAS |
| Glide performance | 1.5 miles per 1000 feet |
| Bank angle in bank | 30 degrees |

The analysis assumes a straight climbout followed by a 270 degree turn, a reversed 90 degree turn to the runway. It also assumed that the climb starts at the end of the runway at 50 feet and at the specified climb speed. Flap extension for landing was not considered.

| RESULTS | Failure at 500ft | Failure at 1000ft |
|--|------------------|-------------------|
| Time to climb | 39 secs. | 84 secs |
| Distance covered | 4937 ft | 10,634 ft |
| Radius of turn | 648 ft | 648 ft |
| Return distance covered during turns | 1296 ft | 1296 ft |
| Distance remaining to runway | 3641 ft | 9338 ft |
| Total distance from failure back to runway | 7711 ft | 13408 ft |
| Glide capability after engine failure | 4560 ft | 9120 ft |

The analysis shows that from 500 ft a turn back would result in a landing 3150 feet short of the runway, and from 1000 feet the landing would 4300 feet short.

You can argue that a tighter turn reduces the distance back, but it also increase the load factor and therefore degrades the glide performance gaining you no advantage.

If a 10 knot headwind is considered and the numbers rechecked the results show that the landings would still be 1840 feet short in the 500 ft case and 1460 ft short in the 1000 ft case.

The calculations indicates, that given sufficient wind a return to the field **MAY BE THEORETICALLY POSSIBLE**, but the hazards of a downwind landing in such a strong wind would not make this advisable, especially if one considers the very low ground speed during a forced landing directly into a strong headwind

In summary, for a single-engine aircraft, given reasonable wind conditions, it is not possible to return to the takeoff runway following an engine failure. Straight ahead and into wind is the only option.

Place your ads by phone with Rodney Stead @ 836-1410 or e-mail to sttstmp@sympatico.ca Deadline is first of the month. Ads will run for three months with a renewal option of two more months.

T Hanger stand alone unit at Carp north end of field. New, RV6 landing gear in the box New, 3 blade propeller in the box Nearly new, Tig welder Lincoln 175 Subaru engine Amie 613-831-9079 05/02

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 sttstmp@sympatico.ca



EAA Chapter 245 Membership Application

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Associate Member ___: \$30.00 Newsletter plus Chapter facilities
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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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