

Monthly Newsletter of the Kitchener-Waterloo RAA

- December 2015 -



The folks at Ariss Valley Golf and Country Club did a superb job of preparing a great Christmas dinner for us and the venue was nicely decorated for the occasion. As they say, a good time was had by all!

President's Message

Is global warming finally showing up here? In last month's article I mentioned about the great opportunity we had to get some late season flying in this year, with average temperatures almost 10 degrees above normal. Well here we are mid-December and the last couple of weeks have again been warm indeed. Unfortunately, it came with morning fog, hazy air and often a lot of wind, mind you, there have still been a couple of good flying days, but my plane is home for the winter now in anticipation of that inevitable snow.

For anyone still flying this winter, I am envious of your ability to continue enjoying this hobby we love so much. For many of us April will be the next time our wheels leave the tarmac or grass. Not flying for several months creates a few issues including how quickly our piloting skills get rusty. Join us on January 11, 2016 when Fred Grootarz will be conducting our annual recurrent training seminar. As usual he will issue a sticker for our logbooks to show TC that we have met the training requirement.

Christmas is just around the corner now and a number of us have already enjoyed a great Christmas dinner. The annual KWRAA Christmas Dinner was held at the Ariss Valley Golf and Country Club and by all indications from attendees it was a great success! The venue was enlarged and nicely decorated for Christmas. The food was amazing, with a great selection, cooked just right and more than enough to feed our gang. Even the deserts were great with a large selection and plenty left over. Feedback from everyone was very positive, so expect to be back there next year!

Thanks to the generosity of our members, there were lots of excellent door prizes and a large number of books and technical manuals available to be selected as prizes.

Congratulations to Hetty Thorp, winner of the Holy Golly award and Cam Wood for the Mike Edwards award. Both have made notable contributions to our organization over the years. You both deserve the recognition for the work you do to make our fly-ins so successful.

Dan

Thanks again to Lee Coulman for another great technical article in this month's issue.

Another "Mature Built" Aircraft

-by Lee Coulman KWRAA

I've been let down again this year. Well at least my number of takeoffs equals the number of landings. This is good news at least. It's the quality of landing condition that hasn't been good.

In May my gear retraction system let go and on a rather gusty ugly day. I had even picked the best stretch of grass runway to reduce the gust effect but I touched down on the upwind wheel, but suddenly found myself sliding on the grass towards a runway pylon. That put me out of service for a month when I broke a clevis that shouldn't have broken and turned out to be obsolete. At the RAA National hangar we recreated the part and replaced it on the plane, but kept wondering "why did that part fail". The clevis shouldn't have been stressed when the gear retraction system is over-centre. Was the bracket material too soft or was the gear slightly out of alignment? Why had the kit manufacturer changed the design? These were questions I needed answers to, so I began to look back at the history of the plane.

Searey GJIB was built in 2002 and has suffered through 850 hours, including at least

1200 runway landings and 2000 on the water. Some of these landings weren't great but we had a maintenance schedule. That "schedule" seemed to get updated with each new failure. The landing gear area on this airplane is particularly a breeding ground of new items.

First, the tailwheel retraction locked-up resulting in a wheels-up landing and the replacement of pulleys that tend to seize every 2 years.

Second, the wheel bearings would seize up, probably due to the frequent water landings. Bearing inspection is now done annually.

Third, in 2006, JIB was upgraded to electric gear actuators in place of the original hand-draulic system. This was great but the configuration of my landing gear bulkhead changed significantly and the forces maybe weren't all accounted for in this hybrid mishmash of hydraulic, manual and electric system parts. A geared motor can provide a lot of torque to break cables and shift structure around, and yes it has.

Fourth, the wheel rims aren't really rated for the growth in gross weight. They cracked but didn't let go. Replaced the 6 ply tires with 2 ply and put more inspections on the schedule.



You get the idea, but I got a lot of help.

So here we are with a lot of weak areas and where did the kit designer go? Well luckily, they are still in business and do have a current design with some parts support. The new design, the "LSX" is lighter and faster and apparently much better designed. My "Mature Built" is showing its design age.

So this month's problem didn't create much noise or lots of broken parts. After a rather nice landing on a rather rough grass runway, a noticeable CLUNK occurred. The airplane listed to the right but kept going. What is it this time?

The landing gear wasn't broken but the supporting structure had failed. Two high strength chromoly tubes had broken which supported the gear axle. After some investigation, it turned out that these were structural band-aids put in some time ago by the previous owner-builder. They were the best solution at the time. The kit manufacturer has now standardized on electric gear and has fully (re) designed the landing gear bulkhead for the loads. Fully webbed brackets now replace these tubes with probably less weight and more strength.



Fortunately, the kit manufacturer has a fix for our Searey Classics.

Unfortunately, this is over \$800 US and is very intrusive, requiring lots of downtime and disruption of control cables and torque tubes as well as electrical lines.

Fortunately, we have a Searey forum with lots of experienced builders. Unfortunately, they all have different advice. Should I upgrade to the new improved bulkhead or should I repair and stiffen the existing tubes? There are people who have done both. This is a question I am processing now. Fortunately, I can get help, I just need to ask. It sometimes pays to be "mature", even if you are out of date.



Editor's Note: Searey C-GJIB is currently out of commission, but Lee expects to have it repaired and ready to fly again in the Spring.

The broken chromoly support tubes are clearly visible in the photo above.

2015 KWRAA Christmas Party Photos













The larger venue provided lots of space to mingle and converse with the other KWRAA members, their wives and numerous guests and friends prior to supper.













Little did I know when taking these pictures that I would catch Pat and Hetty selling the winning 50/50 ticket to Don (in red) and Dorothy Benton. Congratulations to the winners, who were attending their first KWRAA Christmas party in several years. It was a great event and we all left feeling like winners... very full winners!









News from EAA

"December 9, 2015 - The Senate Committee on Commerce, Science and Transportation on Wednesday passed S. 571, better known as the Pilot's Bill of Rights 2 (PBOR2), bringing significant third-class medical reform one big step closer to reality." If this passes into law in the US, hopefully it won't be too long before we see it in Canada. For the full story, check out this link... http://www.eaa.org/en/eaa/eaa-news-and-aviation-news

News from COPA

Back in the October issue of The Leading Edge, Lee Coulman told us about the ELT issues he encountered and how helpful the CBR verification e-mails were that informed pilots when their ELT tests were conducted successfully. There is now word from COPA that those e-mails may soon resume! Great news for anyone travelling over less-than-desirable terrain in Ontario and beyond!

http://www.copanational.org/files/CBRV%20COPA%20Final%20EN.pdf

If you haven't seen the Double-Ender you have to check out this video...

https://vimeo.com/141295334

It's certainly different, but I believe for the size of the wing, it's a very heavy airplane. It doesn't seem to go anywhere that a Kitfox, Highlander, Super Cub or Pegazair can't go. With 260hp it likely has a higher climb rate and the visibility is certainly incredible. It'll be interesting to watch this one develop.

See you at the January 2016 meeting at 7:30 on the 11th!

Fred Grootarz will be conducting the annual recurrent training and issuing logbook stickers. This is a great opportunity to fulfill the bi-annual currency training requirement.

Upcoming Events in 2015: (Highlighted lines are KWRAA Events*)

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February 8	-	February Meeting at 7:30 in the Cadet building at CYKF
March 14	-	March Meeting at 7:30 in the Cadet building at CYKF
April 11	-	April Meeting at 7:30 in the Cadet building at CYKF
May 9	-	May Meeting at 7:30 in the Cadet building at CYKF
June (TBA)	-	KWRAA Fly-In at Cam Wood's in West Montrose (Tentative)
July (TBA)	-	KWRAA Fly-In at Mike Shupe's (Tentative)
July 25-31	-	Air Venture Oshkosh in Wisconsin
August (TBA)	-	KWRAA Fly-In at CPR3 in Teviotdale/Palmerston (Tentative)
August 10-21	_	LIPAC Convention Lubitz Field Platteville ON

January 11 - January Meeting at 7:30 in the Cadet building at CYKF (See above)

August 19-21 - UPAC Convention – Lubitz Field, Plattsville ON Sept 3-5 - Canadian International Air Show – CNE Grounds

September 3 (TBA) - KWRAA Fly-In at CMZ2 – Metz/MacPat Field in Arthur (Tentative)

September 12 - September Meeting at 7:30 in the Cadet building at CYKF
October 17 - October Meeting at 7:30 in the Cadet building at CYKF
November 14 - November Meeting at 7:30 in the Cadet building at CYKF
November 25 (TBA) - KWRAA Christmas Party in lieu of a December meeting

Executive Contact Information:

KWRAA President: Vice President: Secretary: Treasurer: Director ACT: Director AFS:	Dan Oldridge Clare Snyder Clarence Martens Mike Thorp Gunter Malich Lee Coulman	(519) 651-0651 (519) 886 8032 (519) 742-3159 (519) 338-2768 (519) 747-5066 (519) 664-8217	oldridge @golden.net clare @snyder.on.ca cemartens @rogers.com mhthorp @hotmail.com gmalich @rogers.com lee.coulman @gmail.com
Director FSE: RAA Canada:	Mac McCulloch Gary Wolf	(519) 848-3392 (519) 648-3030	macpat@live.ca garywolf@rogers.com

Classifieds: Check them out on our website... see below!

Reminder: If you haven't paid your 2016 KW-RAA Chapter dues, pay Mike at the January meeting!

Be sure to check out the KWRAA website regularly for the latest information regarding KWRAA events and more chapter information. www.KWRAA.net

^{*} KWRAA events are fly-in and/or drive-in (Please advise the host in advance if you plan to attend whenever possible.)