

Monthly Newsletter of the Kitchener-Waterloo RAA

- May 2014 -



Geoff Royston showing the hand-carved Scimitar propeller he made for his Sirocco a few years ago and describing the amount of work involved and techniques used to create this original work of art.

President's / Vice President's Message

April's attendance was down a little compared to March, but the members who attended were treated to an interesting show and tell session. I want to thank everyone who took the time to bring an item of interest to show other members and tell us the story behind each of the items. I believe that an annual or even semi-annual "Show and Tell" will be a great addition to our regular meeting line up. Some have even suggested that it become a part of every monthly meeting, so we may be soliciting your feedback on that idea.

I want to extend a special "Thank You" to Geoff Royston, one of our lifetime members. Geoff brought a hand-carved scimitar propeller that he made for his Sirocco a few years back. It is certainly a work of art and no doubt will grace a wall somewhere as a testament to the lengths that we, as aviators and builders, will go to squeeze every ounce of performance out of our planes that we can get. Thanks Geoff!

Our committee demonstration exercise went well at the last meeting, with numerous good suggestions garnered in just a few minutes time. I really hope everyone will get involved with one of the committees and help us to build the organization. We need your ideas and input, so please get involved.

In this issue of the Leading Edge, you will find a number of new items, including an aviation history article, classified ads, a list of upcoming events and a KWRAA Executive contact list.

This month's newsletter is a little late and a little shorter because of my time commitments in preparing for a final inspection on C-FDEP. Enjoy this issue of our newsletter! – Dan

Committee of Sober Second Thought

It was a beautiful blue sky day, albeit a little cool, on April 9, 2014 when the KW-RAA Executive met to discuss chapter business and perform the first Pre-Final inspection of a chapter member's plane before the owner called in the MD-RA Inspector.

The executive had volunteered to use my Highlander build as a test project for an idea we have had brewing for a while now. Given all of the experience chapter members have in building planes, why not have a few of our own members check the plane over to look for possible issues to correct before the owner calls for a final inspection.

I was actually quite surprised at the number of valid comments and suggestions and although I was already aware of a few minor items that I had not done yet for various reasons, there were a number of quite valuable suggestions that caused me to re-evaluate how I had constructed a few items. As an example, Mac mentioned that the Rotax engine can get pretty hot on top and I had routed one of the fuel lines over the engine. Although it had a fire sleeve, Mac mentioned that it might be best if I routed it alongside the engine. I made a simple bracket and moved the fuel line to be safe.

Another suggestion was made by Gunter and seconded by all, that I change the way I had secured the radiator hoses where they passed by the engine mounts. The way I had them mounted could eventually cause the powder coat to wear off the frame and cause the engine mounts to rust, eventually causing structural weakness. A simple modification to the fastening system and the issue was rectified.

Another suggestion came from the group regarding the EGT probes which I had securely fastened to all of the exhaust pipes.

Apparently, I had forgotten that dissimilar metals expand at different rates and that before too long the bands on the EGT probes would snap and possibly pop right off of the exhaust pipes. Given that the probes were fairly secure, I loosened the grip of the bands

just a bit to minimize any chance they would pop off on me.

Another item they spotted was an aluminum bracket where there probably should have been a stainless steel one. As a new builder, apparently this is a fairly common mistake. Although the aluminum bracket will work fine, eventually the vibration in the engine compartment can fracture the aluminum and cause the part to separate from the structure it is mounted on, so I replaced it to be safe.

There were a number of other similar small items, but the guys agreed there was nothing they could see to prevent the plane from being airworthy or otherwise prevent it from passing the final inspection. After two and a half years of building, I was glad to hear that from the chapter "experts" and look forward to getting the final done.

I would highly recommend that when the time comes for the final inspection on your project, you ask the Executive to get the *Pre-Final Inspection Team* together to take a look. Even if you know it will pass the final, it's always a good idea to get another set of eyes, or in our case several sets of eyes to look it over. The items they will find may prevent future issues with your plane. The comments were certainly not all negative as I received a great amount of praise and accolade regarding the construction and look of the overall project. So, if you are a rookie builder like I was, it's a real confidence booster that you did things right... well the things that count the most anyway!



KW-RAA members doing a Pre-Final inspection

Aviation History Facts

Do you know the answers to these questions?

- 1. Who was the first person to fly an aircraft over water but out of sight of land?
- 2. How many flights did the Silver Dart make?
- 3. What was the first mass-produced plane?

Who was the first person to fly an aircraft over water but out of sight of land?



In 1909 a Cape Bretoner named Douglas McCurdy, became the first person in the British Empire to fly a heavier than air aeroplane.

After participating in flying exhibitions from 1909 to 1911 he was offered \$8000 to fly a plane from Key West to Havana. McCurdy navigated by using the smoke from six steampowered boats placed along the flight path. Reaching an altitude of 1000 feet and a speed of 48 miles per hour, he headed south to Cuba.

As he approached land his engine quit and he was forced to land his plane in calm water just off the coast of Cuba. He was credited with breaking two records on this flight by reaching Cuban territorial water.

McCurdy survived his barnstorming days because of a combination of luck and good choices. He practiced good risk management and learned everything he could about the machines he piloted. A lesson we should all live by today!

How many flights did the Silver Dart make?

We all know the Silver Dart was the first plane to fly in Canada. It made its first flight on February 23, 1909 from Bras d'Or Lake at Baddeck, Nova Scotia. Built by Alexander Graham Bell and Douglas McCurdy, it made over 200 flights (some sources say over 300) before a crash rendered it unable to fly.

The Silver Dart had a 50 hp. engine, a 50 mph speed and a service ceiling of 50 ft. The Silver Dart's range was a mere 20 miles.

What was the first mass-produced plane?



The Curtiss JN-4 Canuck recorded more firsts than any aircraft in Canada: first to be mass-produced, exported in large quantities, and used for military, airmail and survey flying.

The Curtiss JN-4 is possibly North America's most famous World War I aircraft. It was widely used during World War I to train beginning pilots, with an estimated 95% of all trainees having flown a JN-4. The U.S. version was called "Jenny", a derivation from its official designation. It was a twin-seat (student in front of instructor) dual control biplane. Its tractor prop and maneuverability made it ideal for initial pilot training with a 90 horsepower (67 kW) Curtiss OX-5 V8 engine giving a top speed of 75 miles per hour (121 km/h) and a service ceiling of 6,500 feet (2,000 m).

After the war, numerous JN-4 Canucks made their way into civilian use. The Canadian government received over 50 JN-4 as part of a post-war Imperial gift but only a ten of these aircraft saw active use in the CAF of the 1920s.

What's happening in May?

We have a very special two speaker meeting planned for May. Join us for a presentation by Twin City Graphics to find out how you can dress up your ride using vinyl graphics rather than paint for registration marks and stripes. Then our own Lee Coulman, Director of

Airmanship and Flight Safety will fill us in on valuable lessons learned at the Hamilton COPA Safety Seminar. If you fly a plane, own a plane, are building a plane or about to paint one you won't want to miss the May 12, 2014 meeting!

Upcoming Events: (Highlighted lines are KWRAA Events)

May 12	-	May Meeting at 7:30 in the Cadet building at CYKF
June 13 to 15	-	Hamilton Airshow - Canadian Warplane Heritage
June 21	-	KWRAA Fly-In at Cam Woods in West Montrose
June 28 & 29	-	KW Airshow at CYKF
July 19	-	KWRAA Fly-In at Frank Spoelstra's in Tiviotdale
July 28 - August 3	-	Air Venture Oshkosh in Wisconsin
August 2	-	KWRAA Fly-In at MacPat Field in Arthur
August 15 to 17	-	UPAC Convention – Lubitz Field, Plattsville ON
August 23	-	KWRAA Fly-In at Roth Field in Mount Forest
August 30 to Sept. 1	-	Canadian International Air Show – CNE Grounds
September 8	-	Regular meetings resume at 7:30 in the Cadet building at CYKF

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

Executive Contact Information:

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Classifieds: Wanted to Borrow: 1/8" Clecoes for float project – Need for 3 to 4 months – Dan O.

Reminder: If you haven't paid your 2014 KW-RAA Chapter dues, pay Mike at the May meeting!!!

Our next meeting is at 7:30 on Monday, May 12, 2014 in the Air Cadet building at CYKF. Please plan on being there... and bring a friend who has an interest in aviation.

We have a presentation on Aircraft graphics and Lee Coulman is going to present some important safety info for builders and pilots.

It's going to be another great meeting!