Carb Heat

The Newsletter of Experimental Aircraft Association Chapter 245
Ottawa, Ontario, Canada
Volume 51 No. 1 June, 2021

Our Next Meeting

TOPIC: EAA IMC and VMC Clubs
Presenter: Radek Wyrzykowski – EAA Manager of Flight Proficiency
Radek is a Certified Flight Instructor (Instrument) and Multi-Engine Instructor and founder of EAA's IMC Club
When: Thursday, June 17th, 2021, 7:30pm
Where: Virtually, via Zoom on-line meeting
Check your email in-box for a meeting invitation sent by our Chapter President on June 10th.
(it's really not hard at all to join a Zoom meeting – try it, if you're having trouble, contact one of the execs who will help you out)

Important Chapter News

No doubt we had all hoped that casting off the long shadows of winter would also have resulted in the shedding of COVID-19-related restrictions on assemblies of persons. While we have not quite achieved that goal we are getting closer day by day. Our Chapter hangar remains open however gatherings remain under the restrictions imposed by provincial and local health regulations.

Please stay tuned for updated guidance from our President and Operations Manager as the situation evolves.

In This Month's Issue

Executive Roundup

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Editor's Comments

Mark Briggs – EAA Chapter 245 Newsletter Editor

How long has it been since an edition of *Carb Heat* graced our in-boxes? This is a question I try to avoid asking myself. Suffice it to say the short answer is "too long". This has come about through a combination of factors. Yes, we can blame part of the delay on COVID-19 and the way it has caused severe curtailment of activities not just within EAA 245 but also within the entire aviation community. Most of the blame, though, rests squarely on my shoulders. I have been dealing with challenges in my personal life which have required that I sacrifice non-essential activities such that I might concentrate on a few very essential ones. While an apology for the infrequent publishing of *Carb Heat,* when combined with a Loonie still won't buy you a cup of coffee, it's the best I can do for the moment. My limitations of time and technology will continue for the foreseeable future – as such, finding either a temporary or permanent replacement for the Newsletter Editor role is a vital link in ensuring *Carb Heat* continues to arrive in your in-box – perhaps with more regularity than I have been able to muster in 2021. Please... give some consideration to taking on this role so the vitality of our Chapter might be preserved.

I'll apologize in advance for any errors and omissions made in this edition. I'm working on a single laptop screen at the end of a very skinny internet connection – this is part of what I have to do to focus on those few important activities mentioned in the foregoing paragraph. The limited screen real estate means that I, traditionally a poor on-screen editor, am faced with having to squint even harder to find mistakes. And I make lots of mistakes!

On a more up-beat note, this edition of *Carb Heat* brings with it some excellent articles contributed by our members. In addition to our usual Executive Roundup, in this edition we are provided with an interesting lesson in aerodynamics modelling by Chris Hepburn while Ken Potter regales us with a good-news story of a winter dog rescue. Where would we be without the usual excellent and detailed status update on our chapter's Cruzer build project? Once again we have a terrific update contributed by Peter Whittaker, this time with some input from one of our other Cruzer-building stalwarts, Yves Marchand.

In only a handful of days we will move from Spring to Summer. With that change of season comes a fervent hope for a return to being able to gather together in person at the chapter hangar. I so look forward to having a chance to chat and maybe even (can you believe it!) shake hands!

Until the next time, I remain...

Ed.

President's Message

Mark Richardson – EAA Chapter 245 President

Hi Everyone
Well, it has been quite a while since we had a newsletter circulated so I hope this is a pleasant surprise in your inbox. The problem is, and this has ALWAYS been the problem, is that our long suffering newsletter editor(s) have not received any content from us, the members, to put in the newsletter itself. I have written a few articles in the past and they are pretty easy to do, especially if you have some pictures to go with it. It doesn't have to be a novel, or appear to be written by Tom Clancy, just simple stuff. These days, if you get to fly ANYWHERE in your airplane, that would be considered a major news story so please, grab some pics while you're up, write some words to describe it, and send it in.

The pandemic has been going for a year and a half now and we are all tired of it, missing our friends and family (especially if those folks live in another province or country), and if you are like me, want to get a restaurant meal not contained in a brown paper bag. However, the COVID stats are starting to look quite good and there is hope in the air that sometime in the next few weeks we can start living normal (ish) lives again. It will be great to be able to congregate at the chapter hangar, have a BBQ, do some Young Eagle flights, plan a group flyout for a $100 hamburger, and all the other things we all miss so much.

That being said, I urge you not to let your guard down just yet; hang in there, follow the guidelines, and it will be over soon enough.

The Zenith gang have managed to make some progress throughout this era and it is looking really good. In fact, it actually looks like an airplane although I haven't caught any of them sitting in the cockpit making engine noises yet. Maybe I'm not there at the right time or something.

Our membership is near an all time high, and for that I am truly grateful to all of you. It has been a weird time and what with the paucity of newsletters and the Zoom meetings only, I am amazed and impressed that everyone is hanging in there hoping for a better day and for sharing their love of all things aviation with each other. Our chapter tie down area is pretty full but I think there might be some

space still available if you (or someone you know) is looking for a VERY inexpensive way to park your airplane.

Oshkosh this year is going to be a bit…strange. I'm not sure if there will be low crowds because of the lack of international attendees and nervousness about COVID, or if the dam will bust and they will be overrun. Hard to say. I personally will not be attending as I couldn't guarantee that I will have a second COVID shot by then, and, even if I did, we don't know if there will be a quarantine required upon return. I was still humming and hawing until last week when my work told me I'm going to Sweden the middle of Oshkosh week anyway. I'm disappointed that the choice was taken away from me, but that is offset by the excitement of going somewhere further away from my house than Walkley Road!

Make sure you join us on the monthly Zoom call next Thursday June 17. Radek Wyrzykowski (say THAT five times fast…) from EAA HQ will be giving us a presentation on the EAA VMC and IMC Clubs.

Check Six
Mark

Vice President

Mike Lamb – EAA Chapter 245 Vice-President

(*Hmmm here I am sounding like a broken record... Yes, Mike's input is again conspicuously absent from this edition. In the absence of any information provided by Mike himself I will take the liberty of making an announcement on his behalf. Given that he has already provided the source material in the form of Facebook posts I'm not giving up a closely-held secret.*

During the frigid months of winter Mike and his restoration partner, Bill, managed to pull off the minor miracle of getting a CYRP hangar warm enough that MD-RA inspectors were able to conduct a Final inspection of his BD-4 restoration project without having any of their body parts left stuck to the airplane. Then "the big silence" ensued while the great paper crunching machines of bureaucracy cranked out airworthiness documents. I don't think Mike and Bill

were too worried about the time it took to get these documents as they had a few other odds and sods to clean up before they felt the airplane was ready to take to the air.

Sure enough, with everybody's hind end properly plastered in paper, on June 5th THIS happened! (Umm, Mike, do we have an attitude problem here?)

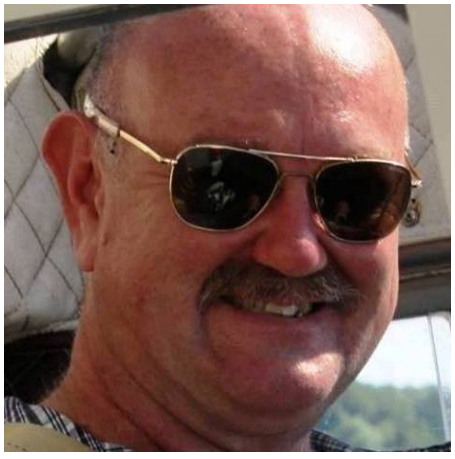
Then a few days later, THIS happened!

I believe the smiles all around are a well earned reward following several years of restoration. Congratulations, Mike and Bill, on getting your BD4 back in the air! Ed.)

Mike (in absentia)

Treasurer and Marketing Manager

Ken Potter – EAA Chapter 245 Treasurer & Marketing Manager



Well, here we are at mid year. Finally, after 15 months the there seems to be light at the end of the tunnel as we become vaccinated and the pandemic wanes. While it's been a tough time for us as a chapter socially, if there is a bright side it is that we've not been spending much money. So that said, the Chapter is in a stable positive financial position at the moment.

As most of you know the Chapter is able to accept e-Transfers for membership / tie-down payments etc. however we've had to make outgoing payments by paper cheque. This resulted in yours truly having to chase down Directors for the required two signatures (something akin to "herding cats"). The Chapter bank account is over 30 years old and one for which we pay no fees. Apparently, it's the last one of its kind and nobody at RBC seemed to know much about it. After much back and forth with RBC they have agreed to allow us to do outgoing eTransfer and bill payments which makes my job so much easier. This of course meant that I had to collect the signatures of all of the directors on multiple banking forms but this time the cat herding was easy and we got it done in under a day.

We had to forgo the annual fly in last September which robbed us of one of our principal sources of income but, we are cautiously optimistic that as we go through the summer Ontario will open up further, and as a consequence we are starting preliminary planning for a fly in for Sunday September 19th.

Cheers,
Ken

Secretary

Mark Cianfaglione – EAA Chapter 245 Secretary

As the warm days of summer set in and this COVID pandemic carries on it is important to stay positive. Luckily we have a great hobby to get our minds off of these lowly earthly problems. Working on my Zenith CH250 in freezing temperatures was challenging.(Not as cold as working on military test vehicles at -42C but I'm older now)

(Here we see what Mark has been up to – getting all that firewall-forward "stuff" looked after while freezing his fingers off! Ed.)

While the social distancing is still a thing there is always the Sunday at the hangar (now at the picnic table) where we can still see other humans that aren't trying to avoid contact. While you're there you can judge landings or even tinker while doing maintenance on a lawnmower. (Seriously... these things need to be done)

Anyway stay positive and eventually we'll be able to see each other and not have to worry about COVID. Stay safe!

Mark C.

Operations

John Montgomery – EAA Chapter 245 Operations

Hi all. It was a long boring Covid winter. Public health restrictions due to the Covid pandemic precluded our usual weekend gatherings and activities at the chapter hangar.
However, summer is here now and with the vaccination rollout well underway, Ontario has lifted the stay-at-home order and we are now in phase 1 of the re-opening plan. For phase 1 (over the remainder of June) here is a reminder if the health guidelines we still need to follow at the hangar:

- We can now have outdoor social gatherings of up to 10 people.
- Indoor gatherings (ie working on the Chapter's Cruzer project) in the hangar are still precluded at this stage.
- Masks must be worn inside the hangar/shop/lounge when other people are present.

I encourage our members to use the EAA facility and to socialize while keeping the above guideline in mind. Assuming the vaccination supply and uptake continues at this pace in Ottawa I am sure we will be back to normal seeing and flying with our friends without restrictions by the end of the summer.
We had to do a few repairs this spring. We had noticed last fall that a mount on the chapter's John Deere mower deck had torn lose.

I would like to thank chapter member Thom Van Eeghen who did fine welding repair job. The mower was back in action just in time when the grass started to grow.
We also discovered that we had forgotten to drain the chapter's turf roller over the winter and the welds had burst on one side. Mr Van Eeghan again stepped up and saved the day with an onsite welding repair at the hangar. I would also like to thank Curtis Hillier who used his compact tractor to roll the entire EAA245 grounds as well as the grass runway.

Ken potter has been a regular fixture at CYRP this spring as he gets very close to finishing the updates on his plane. You know Ken is around – and the welcome mat is out - if you see his new buddy Dany in front of his hangar.

I would like to remind our members to properly secure their aircraft when at EAA. I see many people using winch straps these days. The straps are a great convenience – but we must be sure to properly secure the straps to the aircraft and to the anchors.

Here is an example of a tie down that is less secure. All it takes is a gust of wind to rock the wing and this hook could come off the anchor:

(Note the open-ended black hook in the photo – this is trouble waiting to happen! Ed.)

Below is an example of a much more secure tie down with a winch strap that cannot come off the anchor:

The chapter is always needing more volunteers to help maintain our facility and tools. If you have some time and would like to meet more chapter members please contact me or any of the chapter executive and help us out.

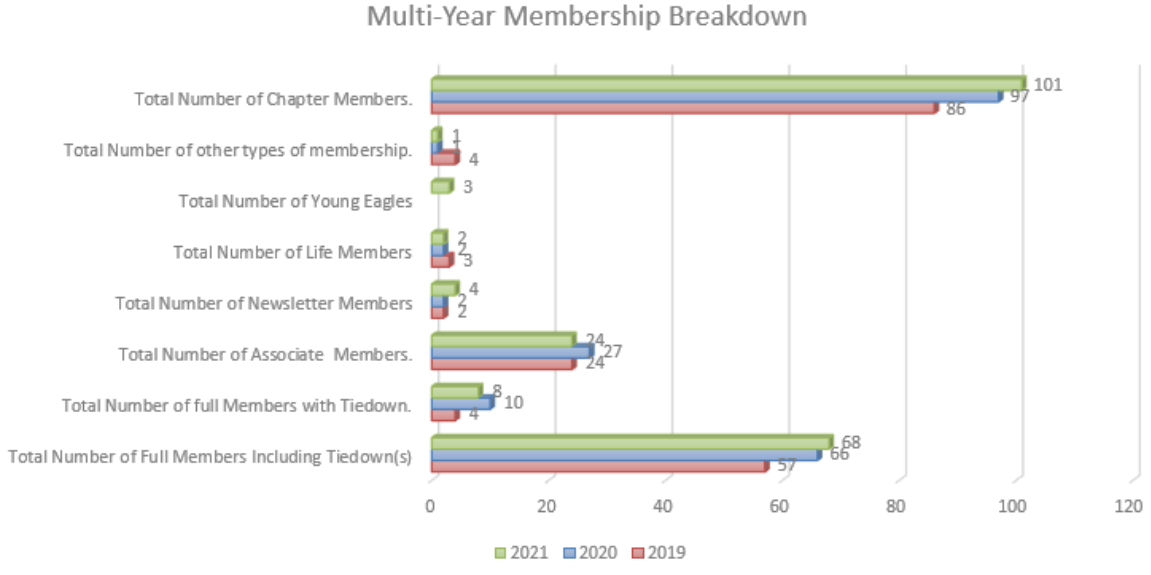
See you at the hangar,

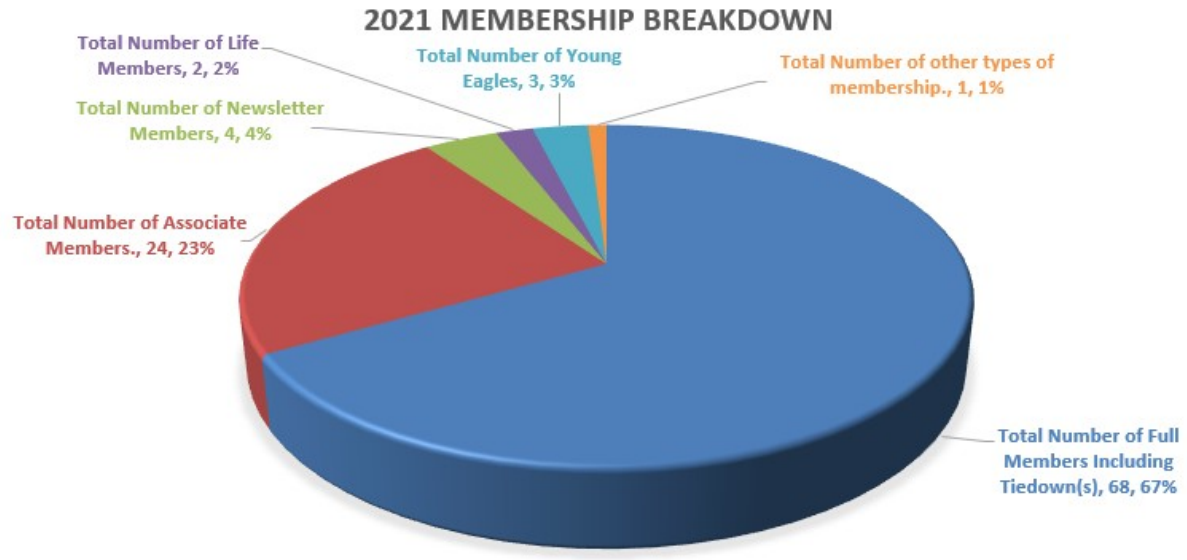
John M.

Membership & Webmaster

Phillip Johnson – EAA Chapter 245 Membership Coordinator AND Webmaster

It's a while since I issued a report as membership coordinator so here goes. We're now in June 2021 and typically the 2020 membership renewals would have all been in a long time ago but this year has been different and we've found new members and lost a few old ones. Our prices have been unchanged for more than five years and we are again continuing to maintain the same membership rates as in previous years. This year has been troubled by this raging pandemic and we understand that we have been unable to offer the same level of service as in previous years however the running costs have not altered either. The executive thanks all its members for their continued support.
The graphics below show the membership at the end of 2019, 2020 and at June 2021 with the following breakdown:





As of the time of writing, we have lost five members who were members last year, but we have gained fifteen new members this year and we now have 101 members in our chapter. This is a record going back a good number of years. Let's keep growing as it benefits everyone.
As a result of some comments from Charlie Becker at EAA headquarters, they are looking to see how many members of various chapters are actually members of EAA in Wisconsin, and they have found that chapters are quoting memberships greater than they are supposed to be reporting, and we have been asked to track responsibly. Remember, our insurance is only valid for EAA members. You may have noticed that I have been asking for your EAA number in the recent past. This number is used to track your membership status with EAA. We have now discontinued the Newsletter membership and all members are required to be members of EAA in Wisconsin before they can be a chapter member. This is nothing new, it has just been tracked very poorly in the past. It may become mandatory for chapters to adopt Charlie Becker's Roster management tool in the future if we do not clean up our act. This is not just Chapter 245 but all chapters worldwide.

On the personal front. I didn't get a chance to visit my winter home down south this winter, but this did give me a chance to try some winter flying in the Cozy. Many Long-Eze/ Cozy pilots had told me that it was going to be cold in there as the air leaks are notoriously bad in these craft. I have made some deviations in the plans to minimize the air leaks and to force warm air past my feet and that sure paid off. Winter flying was a blast and with minus 4000 Density Altitudes I had gobs of power and huge amounts of lift. The air was smooth and the Cozy just wanted to fly. It must have been difficult to see me though with everything white and being in a white aeroplane with no accents I think I could have been invisible.

(Apologies to Phil – there was supposed to be a snazzy photo of his Cozy here but the final version of his notes to me contained only blank white space. Hang on there – I see what you did with that white airplane against a pure white snow background!!! Ed.)

As many of you know, I am now on the EAA Canadian Council as the Chapter Liaison guy so if you need anything from the council, please let me know. I have also been promoted to EAA Tech Counselor with specialities in Composites, Automotive engines, and Electrical. If you want expertise in building an RV don't come to me as I'm not your guy, but in case everyone has forgotten, I am the Technical Information Officer (TIO) for the chapter so if you need some technical information please

come to me and I'll see if I can help you out. I may not have the knowledge, but I can definitely help you out in doing the research.

Webmaster Report (Chapter 245 (eaa.org))

As it has been a while since the last newsletter, you may have noticed our web pages had become stagnant. Our Webmaster went AWOL and we had not been able to contact him. As a result, I took on the role and brought the web pages up to snuff. I've given it some of my style and what I believe a web site should look like but at the end of the day the website belongs to the chapter so if you want to see something there, then just let me know and I'll do my best to add the content to feel we need.
You will notice the home page Chapter 245 (eaa.org) is now changing every month with the main message being the expected subject matter for the next general meeting plus a thank you for the previous presenter's presentation.

The event Calendar Event Calendar (eaa.org) is also active so please check this out to see what is coming down the pike. I did give a detail description of everything in the last newsletter, but I think the biggest change is under the newsletter tab. I have managed to secure back issues of Carb Heat going back to 1999, with a big thank you to Russell Holmes. Wayne Griese has just given me some more back issues of Carb Heat going back many years, so I will be working on adding material right back to the chapter conception.
I have previously asked that members send me a high-resolution photograph of their aircraft they currently own. Not something they used to own or would like to own but what they own today. I would also like just one sentence to add to the photograph. The purpose of these pictures is to show potential members, what we are building/flying and who's doing what. It is attractive to the potential member when he sees other members have the same aircraft. For example, I have an aviation friend who did not join EAA because it was only for homebuilders. Now he is a member.

Remember, this is your website so if anyone has additional requests on what is needed from a chapter website, please contact me at Membership@eaa245.org .

Phillip Johnson

Young Eagles

Mark Briggs – EAA Chapter 245 Young Eagles Coordinator

This update is a difficult one for me to write. I have been having so much fun working with our Young Eagles in the past, but 2020 and the first half of 2021 have so significantly curtailed the program that I feel as though we are mired in concrete. Being ever-hopeful, it is not beyond the realm of possibility that Ontario will experience a re-emergence from COVID restrictions by late summer or early autumn. Should this come to pass I believe our Chapter will be well positioned to squeeze in a Young Eagles fly day before the cold weather returns.

This brings me to the second part of why this note is so difficult to write. While I derive a huge energy boost from working with Young Eagles, I know that my personal situation will not allow me to produce the level of effort required to make an Autumn Young Eagles event happen. To be successful our Chapter must find a person who is willing to take over as the prime mover for such an event. I will continue in the Young Eagles Coordinator role until a replacement or a co-coordinator steps up and will provide as much assistance as I can to ensure this new person is well positioned for success in this role.

As is always the case, if you are interested in flying a Young Eagle, please let me know by email to the young.eagles@eaa245.org email address.

Likewise, if you know of a young person who would like to experience flight, please reach out and I'll do the very best I can to link that young person to a volunteer pilot. Of course our volunteer pilots are the backbone of this operation, providing the critical "lift" it needs to accomplish the goal of giving flight. If you're interested in flying Young Eagles please fire off an email in my direction and I'll add you to our roster.

Mark.

MEMBER ARTICLES

Exploring the Envelope From the Ground….

By Chris Hepburn

Since before my first job with De Havilland Canada as an aerodynamicist (way back when), I've always had an interest in low speed aerodynamics and aircraft design.

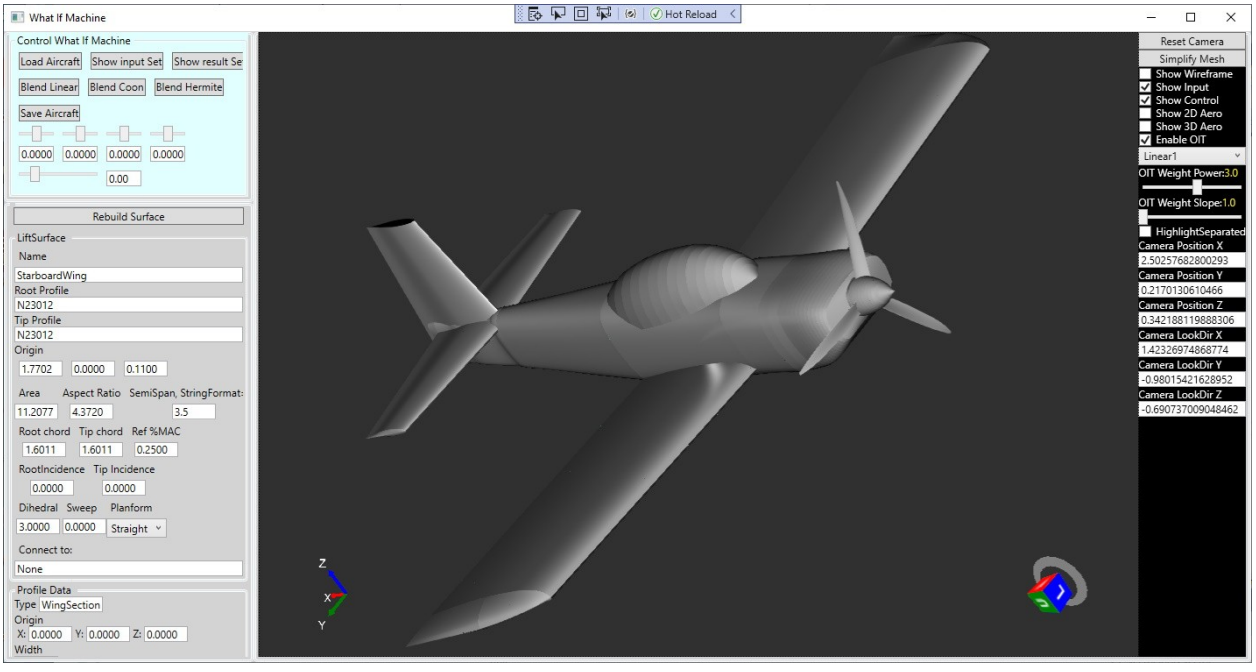
Some among us may remember a presentation I did way back in the 90s showing off a 3D analysis and design tool I was writing to help me design and build a sailplane. Well, life kinda got in the way of that project (it happens to the best of us).

Fast forward a bit….
Well, I retired last year from CAE so now I have finally have time to do what I want to do for fun at my own pace. (As well as fly C-GOGO) So with what I've learned since the 90s (quiet Mark R) I decided to revisit that old code and apply newer tech to it and see what I could come up with.
Its always been a pain in the backside to develop reasonable 3D models of aircraft suitable for a panel based 3D CFD. (At least for me.) *(And for me, since I don't even know what a CFD is! Ed.)* Most of the commercial tools are designed to be quite flexible so engineers can model arbitrary bodies for analysis. (Flexibility can result in complex user interfaces)

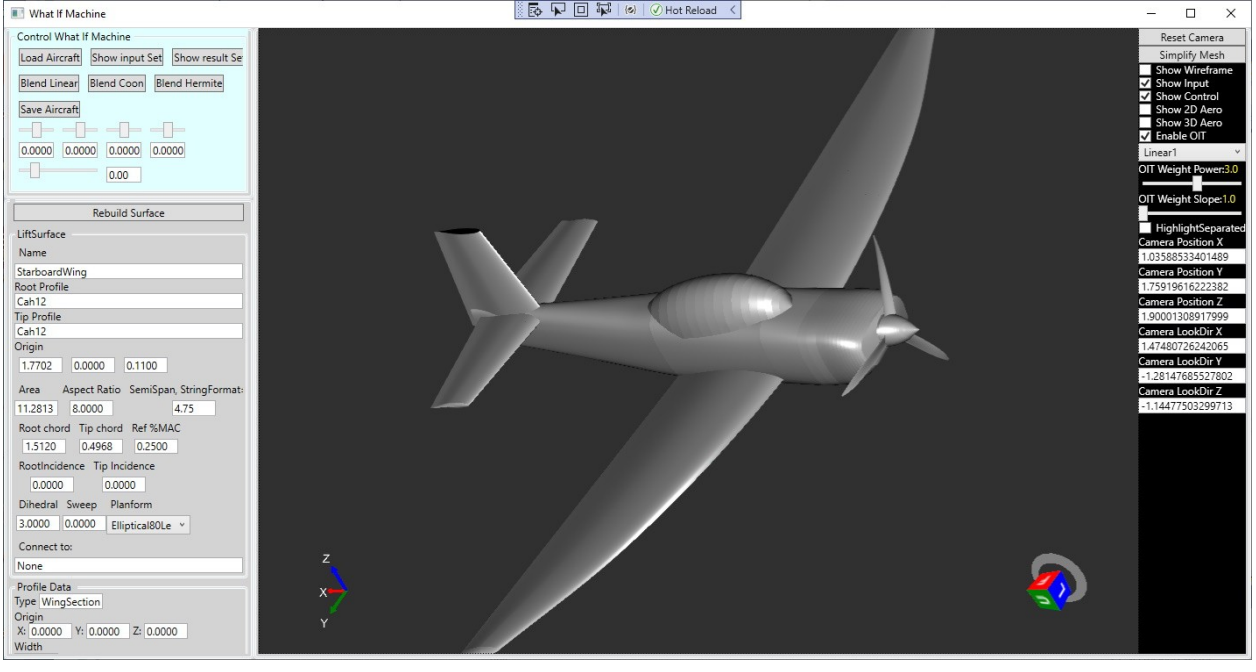
My end game is to develop an OpenSource tool that will allow somebody to play with aircraft design parameters and easily modify the model without spending hours and hours generating an analysis model. Its also an objective to abstract out all the arcane rules you need to follow to make the CFD model produce more or less believable results. Of course, its also necessary to be able to export the model to other capable software like Solidworks.

However.... aircraft are quite parametric... Wing area, Wing span, Aspect ratio etc etc. It's possible to define an aircraft geometry with just a few parameters. (Did I mention I hate drawing stuff?... or fighting with a computer to get it to draw stuff?) Imagine an xml file that holds a simple set of body definitions.
The original 90s software was pretty wired to just doing sailplanes. This version is a more adaptable… it can still generate a sailplane, but powered stuff is easy as well.

Its time for "the picture is worth a thousand words ".



This is a model approximation of the RV8.. (The left pane shows the parameters used to define the starboard wing) If the Aspect ratio and planform are changed we get the next image : sort of an RV-Spitfire....



OK, so now the fun part. The basic premise of the software is the usage of 'smart' parametric surfaces... they can follow orders (think “please draw through these input coordinates then please join yourself to this other part... and when you are done, export yourself to format that can be read by another analysis tool”)

This leads to image three... A 'fin off' model of the RV8 at 15 degrees AOA run through a 3D boundary layer enabled panel method. This is an old NASA code that I modified to include Eppler's boundary layer method to determine transition and separation. The boundary layer thickness on lifting surfaces is fed back into the panel method for lift correction. Its an old school technique, but, its still gives pretty good results..

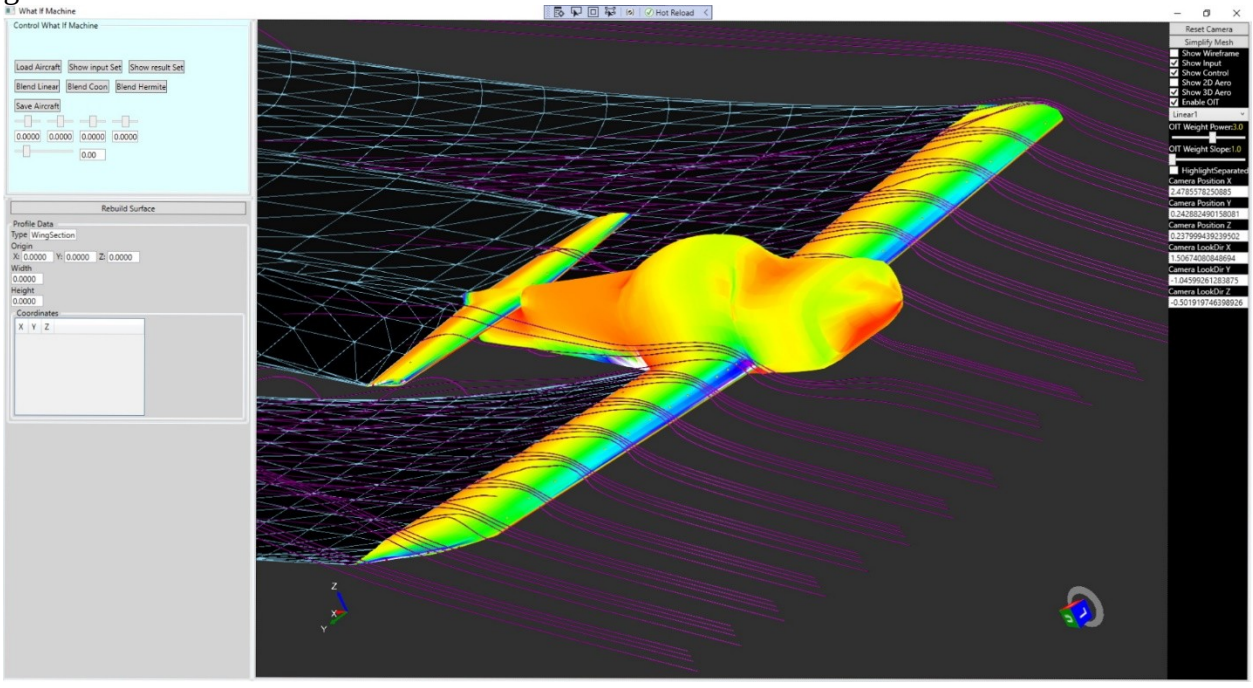
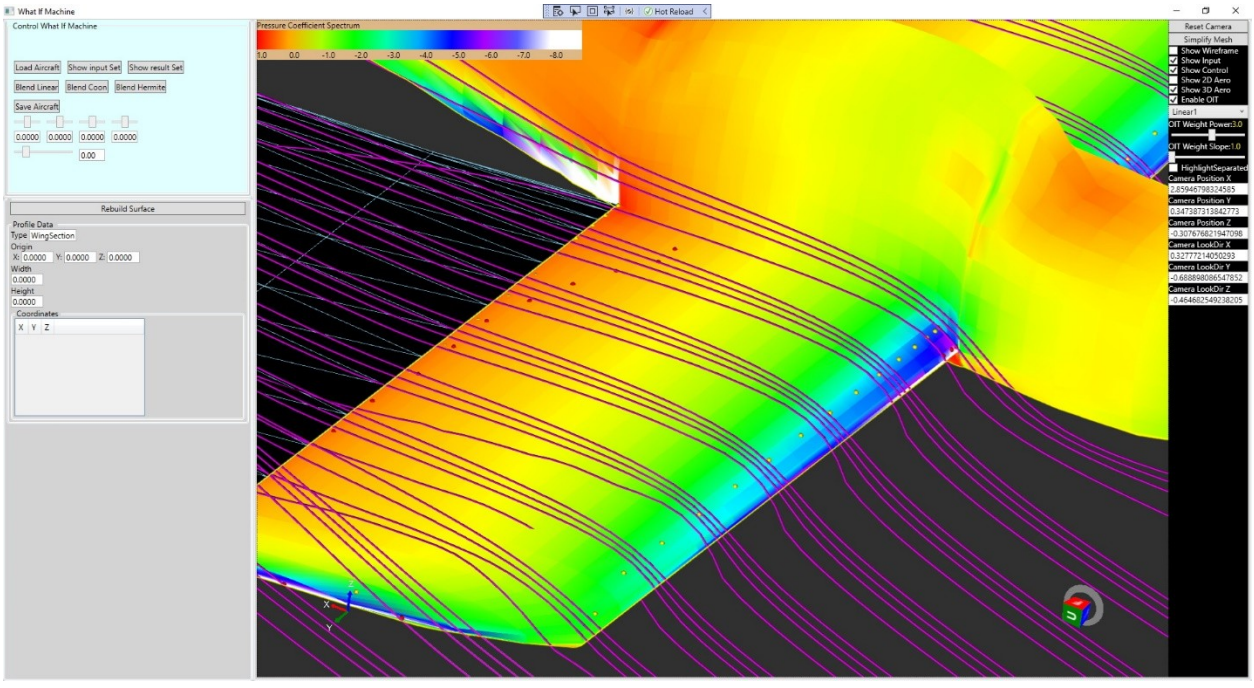
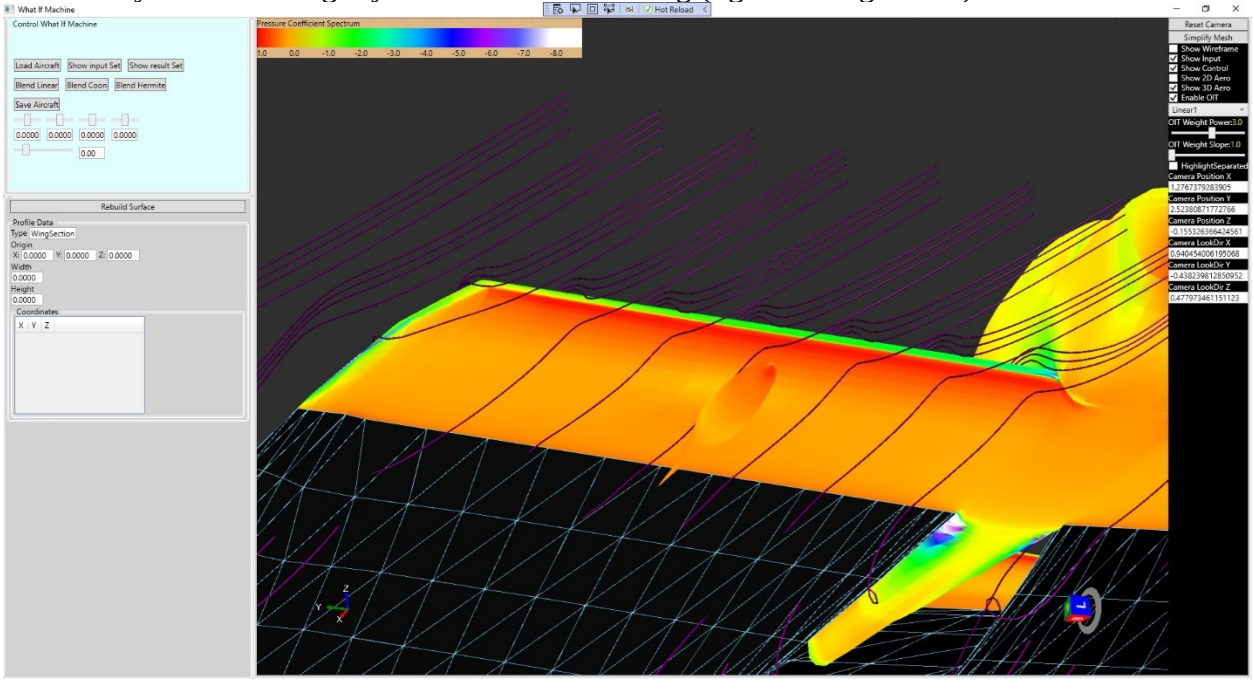


Image four is a closeup of the starboard wing...the Yellow spheres in the wing mark the estimated transition points (laminar flow to turbulent flow), and Red spheres show separation. The purple lines are streamlines (smoke trails that follow the local airflow direction to help visualize the flow) The colourization of the plane shows the speed of the air going over the surface which is reduced to a non-dimensional number called a Pressure Coefficient (Cp), (You can see a Cp legend on the next image) When the air is stationary, the Cp = 1.0 (The air is ‘stagnated’). When it is the same velocity as the free stream, Cp = 0.0, and, as it is goes faster than the free stream, Cp becomes negative. Think of it as a ‘suction’ when its negative. Aerodynamicists get a ‘feel’ for Cp plots that show the effects of shape on the airflow. A rule of thumb is if Cp gets much lower than -5.0, the airstream will no longer be attached to the body it’s trying to flow around. If you look closely at the wing root intersection, you will see the leading edge is around a Cp of -6, and the boundary layer analysis has put a ’red’ sphere right at the junction point, showing that the air has separated from the wing there.

Another interesting point is the boundary layer will also get ‘tired’ if it has been accelerated too fast, and then slowed down as it proceeds downstream… there has been too much energy lost, so the boundary layer tends to separate as it slows down. You can see that looking at the aft side of the wing where there has been more separation predicted. This distribution of the separation in this case is actually ‘good’ because it shows there is greater separation at the root than the tip, which will result in a more benign stall behaviour because the outboard part of the wing it still flying.



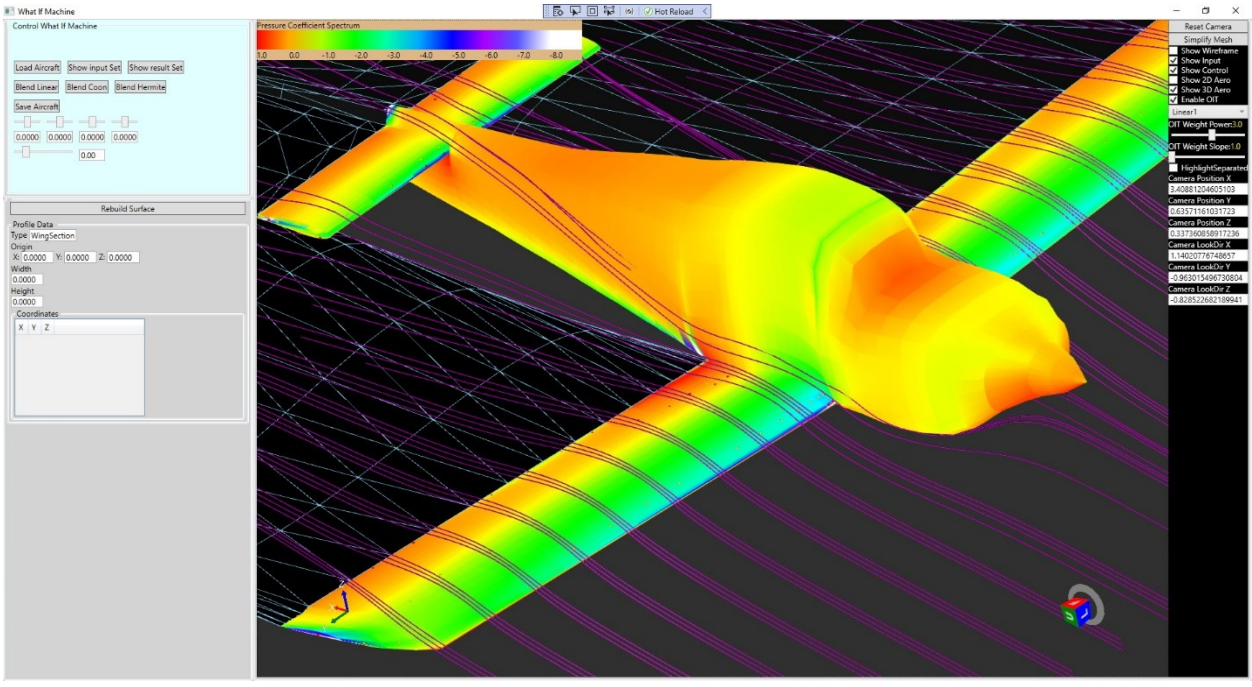
The real fun begins when you want to try something...like adding an underwing pod. What will that do to the pressures under the wing?
The pods I added are pretty streamlined bodies, so the impact on the lower surface is actually pretty minimal...you can see slightly faster flow on the wing (lighter orange color)



Another objective of the software is to make it easy for a user to try crazy things…. Like add a second wing… apply different dihedral…. Or even distort a surface by dragging a definition point to a new location.

Its fairly simple to define a new aircraft model… when I posted a summary of the software on Vans Airforce, a reader asked if I could generate a model for an RV10… I took on the challenge. It took

about an hour to morph the RV8 model into an RV10 model using the aircraft specs from Vans website. Its not an exact model, but its pretty close…. It uses the RV10 wing section so you can see the different Cp distribution colours on the wings compared to the 8.



I could go on for hours…. I will probably do a presentation at a chapter meeting so you can see what it can do live.

Boring bits….

For those of you familiar with XML, I've included a snippet of the definition file used to build body of the RV8. Basically, it's a table of contents pointing to other simple components, for instance, the RV8Body is made up of a Fuselage, cowling, spinner, and Canopy. The flexibility of using XML lets the software use a dictionary of objects that can be defined using basic elements such as cross sections, wing airfoil coordinates or arbitrary points in 3D space.

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  <WidthProfile>     <ProfileName>UnitCircle</ProfileName>    </WidthProfile>
  <HeightProfile>     <ProfileName>UnitCircle</ProfileName>    </HeightProfile>
  <SectionProfile>     <ProfileName>TopHalfCircle</ProfileName>    </SectionProfile>
  <CenterLine>     <ProfileName>CanopyCenterLine</ProfileName>    </CenterLine>
  <IsSubComponent>true</IsSubComponent>
  <AttachToComponent>RV8Body</AttachToComponent>
  <IgnoreExport>false</IgnoreExport>
  <SpanwisePanels>20</SpanwisePanels>
  <ChordwisePanels>15</ChordwisePanels>
 </BodySurface>
 </BodyList>
</BodySurfaces>
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The Starboard wing looks like this…..

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  <AircraftSurface>
   <Area>11.2413</Area>
   <AspectRatio>4.372</AspectRatio>
   <Dihedral>3</Dihedral>
   <Planform>Straight</Planform>
   <RefMAC>0.25</RefMAC>
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    <RootChord>1.5</RootChord>
    <RootIncidence>0</RootIncidence>
    <RootProfile>       <ProfileName>N23012</ProfileName>     </RootProfile>
    <SemiSpan>3.50</SemiSpan>
    <SurfaceName>StarboardWing</SurfaceName>
    <Sweep>0</Sweep>
    <TipChord>1</TipChord>
    <TipIncidence>0</TipIncidence>
    <TipProfile>       <ProfileName>N23012</ProfileName>     </TipProfile>
    <xOrigin>1.7702</xOrigin>
    <yOrigin>0.0</yOrigin>
    <zOrigin>0.11</zOrigin>
    <IgnoreExport>false</IgnoreExport>
    <SpanwisePanels>15</SpanwisePanels>
    <ChordwisePanels>20</ChordwisePanels>
  </AircraftSurface>
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Chris.

Winter Lost Dog Reconnaissance Flight

By Ken Potter

Last January one of my neighbours here in Lanark Village adopted a rescue dog from Turkey.

Unfortunately, the dog managed to get off leash one cold winter evening and bolted.

Over the next few days, she was spotted several times and had wandered out into the countryside by a nearby farm. Between Microsoft Teams meetings for work I joined the search team helping to do ground searches for her. Her trail would point us in the right direction and then it would snow and we would be back to ground zero. At one point I began to ponder if an aerial search in conjunction with a ground search might not be more effective.

With my Grumman Cheetah still being out of service for its panel replacement I approached Mark Briggs to see if he was interested. Well, Mark, like all of us, needs no excuse to fly, especially if it's for a good cause and he agreed. On the planned day, I ended up in a work meeting that seemed to go on forever and as a result was late arriving at CYRP and the sun was slowly sinking towards its mid winter departure on the western horizon. When I arrived, Mark had his Sportsman prepped. We did a pre-departure safety briefing, started up and took off into the smooth winter air.

It was glorious flying weather as we headed westward into the setting sun. In short time we were descending towards the search area; Mark flying and me texting back and forth with the ground search party. Before arriving in the search area, we did a threat and hazard assessment of the area. It is close to my home and I thought I knew it well. Mark asked about towers and I explained that there was new 500' tower ½ mile to the north which we could pick up easily but that was not yet on the charts. Mark then pointed to port and said "what about that one". Crap, there was a low 200' tower on the far eastern edge of our search zone that I did not even know about. We agreed that minimum altitude would be the legal 500' agl and thankfully we were over open farmland with fields barely covered in snow should be need an alternative landing spot. The Sportsman's performance made it the perfect aircraft for the mission, allowing Mark to safely fly at a relatively slow speed to enable me to concentrate on the ground below.

Beginning a grid search centred on a distinctive local farm, I soon received a text that the ground crew had spotted the pup along the Mississippi River near our location. We commenced to make passes along the river and sure enough, there were tracks leading into a wood lot along the river bank. I let the ground search party know but by then, it was time that we returned to Carp. Again, it was a glorious winter day to fly and, on the way, back we detoured to do a touch and go at Chris Dunham's ice strip on Clayton Lake.

As it turns out, they did not find the dog that day but three days later picked up its trail on another farm close by. The farmer's daughters were horseback riders and experienced in the woods so set off to follow the trail. Sure enough, they found the tracks end at pile of wood a mile into back on their farm and underneath was the elusive pup. They nabbed her before she could get away and rode her back to the waiting search team.

Overall, after 9 days on the loose, in a foreign land in bitter winter weather, she was no worse for wear and tear, having only lost some weight. She's now been adopted by a family in Carleton Place ending the saga.

Oh, and the rescue organization that brought her to Canada and led the search has promised a celebratory pig roast later this summer when Ontario opens up more. Yum!!

Cruzer Project Update April, 2021

By: Peter Whittaker and photo by Yves Marchand

Activity on the Zenith 750 Cruzer project has been slowed down due to more stringent COVID-19 restrictions. Some progress has been made in the last month with a few weekday visits where a maximum of two people spread out in the hangar. The following photos capture the progress made since the end of March.

Our youngest builder on the Cruzer project was given the unenviable task of polishing off excess glue from repairs done to a crack in the windshield. The crack had formed earlier during an initial stage of fitting and required multiple attempts at stop drilling before the crack finally ceased to propagate. The excess cement was successfully removed and replaced with a glass like finish thanks to Colin's efforts with a Dremel tool and polishing compound.

The Cruzer has dual brakes and brake lines were fitted using tubing specified by Matco for their brake assemblies. Brake lines were routed to exit the fuselage at the sides just behind the main gear attachment brackets and then follow trailing edges of the gear legs to each caliper. A metal protective shroud was temporarily secured with zip ties.


AVEO Engineering LED wingtip lights were acquired and fitted to the plastic wingtips. The wingtips were fitted to the wings and drilled ready for riveting. The lights were installed so that they can be removed as their own inspection panels to access wiring connections just inside the wingtips.

And finally, the big question – do the lights work? The wiring connections and lights were tested at stages during the installation and for this a 12V battery from a cordless drill was used as the power supply. The strobes give an intensely bright flash even during daylight and are built in with the navigation and position lights.

An access opening was made for each upper flaperon linkage which is required for installation of the control rods. Cover plates were fabricated from clear Lexan and installed with nut plates. The idea was to facilitate easy inspection of the linkages.

Peter.

(For those who have not been able to make a trip to the hangar lately, the photo below, taken by Yves Marchand, shows the bubble doors installed. This is a very slick installation and looks "easy". In fact their installation was anything but easy! The final result is a pair of doors which function well and look terrific. Well done, Cruzer Team! Ed.)

Upcoming Events

Be of good faith – as our province and neighbouring provinces emerge from COVID lockdowns, this area of Carb Heat will once again be populated with places to go, events to attend and other good aviation happenings.

Classifieds

So..... Much..... Emptiness.....

If you have something aviation-related to sell, or are looking for a particular part or item, drop an email into my in-box at newsletter@eaa245.org and I'll get it posted in our next edition!

Who We Are

Experimental Aircraft Association Chapter 245 Ottawa. We are a group of Amateur Aircraft Builders, Owners, and Enthusiasts with a hangar, lounge and workshop facility located at the Carp Airport, just west of Ottawa.

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EAA 245 Website: https://chapters.eaa.org/EAA245

Membership Application and Renewal Form

We have a "Google Group" for the EAA Chapter. If you are not familiar with Google Groups, it's a service from Google that provides discussion groups for people sharing common interests. If you'd prefer NOT to be a member of the group, please tick the box in the membership application form when you renew your membership.

Experimental Aircraft Association Chapter 245

Application Date: _____

New: ☐ Renewal: ☐

I do NOT wish to be part of the EAA Google Group ☐

Name:_____

Street:_____

City/Town: _____

Province: _____

Post Code:_____

Phone ( )_____

Aircraft Type:_____

Registration: _____

Aviation Affiliations

EAA #_____ Expiry Date: _____

COPA: RAA UPAC

Other _____

Annual Dues: January 1st to December 31st (pro-rated after March 31st for new members)

Associate Member: $50*

Full Member: $100*

Newsletter, hangar, workshop, tie-downs.

*Note. Associate and full members must also be members of EAA's parent body.

Cheques should be made payable to: EAA Chapter 245 (Ottawa)

On-Line E-Transfers to Treasurer@eaa245.org are preferred.

Note: PayPal payment is available – please consider adding $3 to cover the fees.