



Skywriter...



December 2010



Brian Vasseur heads out with an excited “COPA for Kids” passenger.

From the Cockpit

By Robin Orsulak

Wow!! Where has the year gone? Better yet... where has this decade gone? Looking back, this year certainly has passed by quickly from my cockpit viewpoint. As a club we have participated in our usual activities: fly-ins, air adventure, air shows and of course COPA for Kids as well as plane old fashioned flying fun. We have enjoyed some great speakers this past year and I know we look forward to more in the New Year. We have revamped our website this year and it's kinda nice to see that the virtual world is out there and actually stopping by to see what we are about. For me personally, I cannot believe that I've been in the club for 10 yrs now and I haven't grown tired of your mugs!

Yes, I've said it before and I'll say it again... pilots, but you guys (and gals?) in particular, are a great bunch of people and I look forward to continuing to seeing you all in the year to come.

Looking forward just a bit... we have our membership drive going on now, so please renew if you haven't already. This month, the club will need nominations for the following positions: Vice President, Secretary and Director at Large. I will definitely look forward to working with the successful candidates. We will be having our annual raffle draw coming up in January with prizes to be announced soon. We will be having our annual banquet near the end of February and will be looking forward to that as well.

I am quite sure that some of us, and some of our airplanes in particular, would agree "we don't like the cold". Yup, I have to admit... it takes a little longer to get airborne these days; to shovel the snow away from the hangar; to preheat the engine (for some of you); to warm ourselves up again for a bit and, if everything goes well, we have a fantastic flight. Psst... don't forget to dress for a cold walk or hike as "one never knows"... Ok, enough with the funny, but

you know what I mean. As usual, be safe have fun and take a friend along!



Calgary Recreational and Ultralight Flying Club

COPA Flight 114

Meetings are held on the second Thursday of every month, except July and August, starting 7:00 PM at the Northeast Armory, 1227 - 38 Avenue NE, Calgary.

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Skywriter

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CAVU Dreams

By Ken Beanlands

EVOLUTION OF A HOMEBUILT

As many of you know, I've been flying my Christavia MK 1 since July, 2004. The plane I fly today is a lot different from the plane that first graced the skies that summer afternoon.

Modifications of my Christavia started even before I started flying. During the taxi tests I noticed that the toe brake pedals were too upright and I was riding the brakes during normal rudder inputs. To fix this I temporarily added hardwood blocks to the bottom of the brake pedals and later installed Cessna rudder pedals that solved the issue.

In the first couple of minutes of flight, the turn coordinator I had installed (salvaged from another aircraft) died and popped the breaker. This was later removed and a simple ball indicator was mounted below the ASI.

The next series of changes were done to reduce the empty weight of the plane. The heavy Gill G-35 battery was replaced by an Odyssey, the 3/4" ply shelf behind the rear seat was replaced by 0.040" aluminum and the starter was replaced by a Sky-Tec. I did add a little weight in the form of a Grimes dual flasher strobe kit.

By the time winter rolled around that first year, I decided that the tires were too small and the engine needed a pre-heater. So, new 8.00x6 tires were installed along with a Tanis heater.

At this time, the avionics in the Christavia amounted to a handheld Yaesu radio and a Garmin GPS III bolted to the panel. With a trip to Oshkosh being planned for July, I decided that the airplane needed a transponder. To mount the transponder, the radio also needed to be replaced due to space issues.

In went an Icom A-200 COMM radio and a Narco AT-165 transponder and encoder. Things were starting to look quite professional now.

Around the same time, I started considering how I could increase the useful load. I did some careful calculations and determined that the gross weight could easily be bumped by 100 lbs to 1750 lbs. After consulting with the fine folks at Transport Canada, I went through the testing procedure and was issued a new Special Certificate of Airworthiness at the new gross weight.



Before and after shots of the Christavia panel. A lot has changed in 6 years...

I was now ready for Chrissy's debut trip to Oshkosh 2005. While there, I upgraded to a Bose ANR headset and a new seat cushion making the return trip far more comfortable. I also did some shopping for a new propeller.

In October I replaced the metal McCauley prop with an Ivo Magnum 70" prop. Two years later in July of 2007, I decided to go back to the original McCauley after having it repitched. This seemed to provide the best match of engine, airframe and prop for Chrissy.

Not much else changed between 2005 and 2008 except for some fine tuning of the oil cooling system. In May of 2008 I decided to replace the bungee shock absorbers on the landing gear with coil spring units purchased from Wag-Aero. Although they added a

little weight, the end result was a plane that's much easier to land and a lot smoother on grass fields.



The following spring I replaced the 121.5 MHz ELT with an Artex 406. That, coupled with my SPOT tracker provides a great combination in the event I ever have an accident.

The last big change took place last winter. I brought the plane to work and upgraded the avionics by adding a new Garmin SL-40 COMM and a new Garmin GMA-240 audio panel. At the same time I installed the Monroy traffic monitor in the panel and wired it up to the audio panel. This installation allows me to monitor three frequencies at the same time as well as listen to my iPhone at the same time. This configuration worked well on our trip this summer and I finally have the avionics stack I wanted.

This spring I also added a spinner purchased from Great Plains engines. This allowed me to finally dynamically balance the engine and prop making it very smooth...

One last modification was done last month when I upgraded the Monroy to provide directional data as well as distance and altitude of nearby traffic.

So, what's next? Well, I'd love to set up Chrissy for night flying with the installation of an EFIS and engine monitor system, larger alternator, landing and taxi lights and position lights. However, with the Wittman Buttercup progressing well, I may leave Chrissy alone and concentrate on putting a high tech panel in the next plane.

Speaking of the Buttercup, I've put my nose to the grindstone and have been getting some things done. I now have all the wing ribs completed and I've been working on the tail. To date, I have the horizontal stabilizers, vertical stabilizer and rudder completed along with the fuselage structure. Of course,

there are a lot of fittings and pieces to be added like seats, doors, control systems, landing gear and other such minor items ☺.

As with the Christavia, I couldn't leave well enough alone with the original design and have already made a number of changes. First, the leading edge flaps have been replaced with a conventional fixed leading edge. This is both for strength and reduction in complexity.

I'm also putting an O-320 on in place of the more conventional O-200. This led to some suggestions from the designer that included adding an additional wing bay by adding a drag wire, anti-drag wire and compression strut. The wing dimension won't change, the bays just become smaller.

The latest changes I've been making are with the control system. The original system had a single control stick between the sticks. I really prefer the dual control stick with the pivot below each stick. So, borrowing from some other aircraft designs I have kicking around, I've come up with a workable system.

The other change in the control system is to use a trim tab. The original trim used a spring that had an adjustable center to provide elevator trimming. Now I can employ an electric trim system, which arrived last week from The Ray Allen Company. I also ordered the trim indicator and stick grips with trim switches.

If you hadn't noticed, we've been a bit dry on material over the past couple of months so if you're getting tired of my ramblings please send in any articles or stories you might have and you can share the limelight.

I wish everyone a Merry Christmas and a Happy New Year! ➔

The Wittman Buttercup (SuperCup?) takes shape ...



FLYING EVENTS

FOR SALE

WEEKLY Lethbridge, AB – The Lethbridge Sport Flyers (COPA Flight 24) would like to invite you to our weekly Saturday morning breakfast, 7:30 am, held at Smitty's Pancake House, 2053 Magrath Dr. S. in Lethbridge, Alberta. To contact us please call our club President, Brian Wilson 403-345-6603 or send us an email at Lethbridge-Sport-Flyers@telus.net.

MONTHLY First Thursday of every month High River Airport (CEN4), AB – EAA Chapter 1410 Monthly Meeting at the Dueck Hangar the 18:30hrs to 21:00hrs. Come by and visit! Please contact Paul evenings at 403-271-5330 or eaahighriver@shaw.ca or visit www.eaahighriver.org for more details.

December 4th, Calgary, AB (CYBW) – COPA Flight 14. Intro. to Formation Flying Ground School. Calgary Flying Club Classroom. FAST Standards will be taught by experienced formation instructor, John Northey representing the Swift Formation Committee. \$45 incl lunch. For more information please email Bill Beaton bdbeaton@shaw.ca.

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Coleman portable generator for sale. 10 hp, 5000W, excellent shape. \$500 OBO. Contact Ken Beanlands (403)295-2079 or at kbeanlan@telus.net (10/10)

Volksplane VP2 for sale. Modified 2 place Volksplane made into a comfortable single with a 29" cockpit, 354 TTSN. Many extras and modifications including full canopy (fiberglass), cubby style landing gear with springs. Adjustable pilots seat, 4 point harness. VW engine is 1800 cc and is fully balanced with tuned exhaust and a reduction drive of 1.6:1. Climbs at 800 FPM and cruises at 80 MPH @ 3500 RPM using only about 3 GPH. Two 9 gallon wing tanks. Looking to trade up to a two seat airplane or sell. Asking \$15,000 OBO. Contact Guy Christie at (403)901-5594 (cell) or at gcpegasus@gmail.com or Bernie at stardustertoo@shaw.ca. (05/10)

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