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Monthly newsletter of the Calgary Ultralight Flying Club - COPA Flight 114

January 2004

From The Cockpit

by Dave Procyshen

Season's Greeting to all our friends and family.

I have accepted the position of president for the CUFC COPA Flt 114 and by the things I have seen in the passing of the 100th anniversary of the Wright Brothers I'm encouraged. I would like to give a quick history as to my aviation background. I took my first flight at age 11 in Yorkton Saskatchewan thanks to the Air Cadet Squadron my older brother was part of. They had taken all the Cadets up and had time left over for extra flights. I jumped at the chance to get in and soar like an eagle, but with a winch launch and a quick circuit I was down before I knew it.

I did know that I was going to get back in again and soon. I joined that Air Cadet squadron and enjoyed 5 years of adventures. I was accepted to the gliding camp in Rivers Manitoba in 1978 and after 4 weeks I had my licence in hand and many hours amazing flights. In '79 I was accepted into the private pilot program in Brandon Manitoba and spent 6 weeks of intense training. By mid August I had that

treasured piece of paper that let me leave the ground on my own, now if I could just afford it. I moved to Regina after that summer and proceeded to start working so I could keep on flying. Many hours were spent flying with the Air Cadets in Regina and Moose Jaw but I would not be able to make flying my career. After getting married and starting a family, flying took a back seat but I did go when I could. My friend was working on his commercial's and I got to ride along.

With a 6-year detour in Ontario and too few hours flying I landed with my family in Calgary in '97 and I now live only 17 kms from Indus. I went to Oshkosh in '96 and saw the EZ Flyer and said to myself " it looks very basic but I'm sure it's fun to fly" not thinking I would be renting it in a mere 2 years. One of my relatives (Dick Woods) also has the flying bug so him and I do what we can to go flying. We attended

Oshkosh again in 2002 so we've been fortunate to attend Airventure twice. If you ever get the chance you have to go at least once!

I was not satisfied only renting so when the chance came to buy Dan Mitchell's RX 550 Beaver I was first in line. I have had 2 great summers of flying 50+ hours each summer. Last Sept 2002 I had my Rotax moment and that slowed my start for 2003 to only 15 hours. I have been a Director at large for the CUFC the past 2 years and enjoy getting in and helping when I can. With 3 children in many sports it does get too busy to slip away to the hanger but I have been seen many an early Saturday and Sunday with the plane in the sky and a smile on my face. I have had some of the most amazing flights and seen things I would have never otherwise had a chance to see. I'm very lucky to have an understanding wife. I LOVE TO FLY and

she would agree.

In closing I look forward to getting to know more of the pilots from our great club. I look ahead to many more events as your new president and will work hard to keep a good thing going. Safety will continue to be an item I will push for. A "Spring Rust Remover 2004" will be announced shortly. Fly Safe.



Congratulations to Terry Enmark on the first flight of his Team MiMax in December. Terry purchased his HiMax at Atlanta, GA, in 1997 and trailered it to Calgary in 1999. He has been slowly rebuilding it since.



SkyPup - 38 hours airframe and rebuilt Rotax 277. I flew Dec. 17 and should not have. The right wheel hit a snowdrift on taxing and broke off. The left wing has punctures and one rib is damaged. The prop is damaged. Very stable airplane but does not like wind. Cruise at 55mph on 1.3 gallons per hour. Single seat. Three axis control. Plans built. \$500. OBO. Bruce Lange 403-227-6577 Innisfail. langeb@rvvs.com (01/04)

Himax Parts - All hardware for a Himax 1700, both aileron and rudder control cables, complete tail section and tail wheel, right wing and both ailerons, two 5 gallon wing tanks, Alt, AS, Tach, EGT, CHT, Compass, Antenna fuel pump, Gascolator. Barry 403 935-4609 or barryleewood@hotmail.com (12/03)

Floats - Puddle Jumper Amphibious, 14ft, kevlar bottoms, rudder, brakes, new in 2001, 1hr on Challenger, red, make offer. Reid Huzzey, home 403-272-9090 work 403-298-5507 (12/03)

Phantom One - 1982, 135TT airframe and engine, flys weekly, \$5,000 OBO. Dick Rankin 403-286-5735 (11/03)

Engines - 0484 Military engine core \$300. 0442 Military engine ready to mount, good condition, \$300. Dick Rankin 403-286-5735 (11/03)

Spiral wrap - 5/8" spiral wrap, nylon, approx. 100' available, \$0.15 per foot. Bob Kirkby 569-9541 (11/03)

Flight computer - Jeppesen CR-3 circular computer, new, 2 available, \$10 ea. Bob Kirkby 569-9541 (11/03)

Avid Aerobat - Advanced Ultralight, 102 hours since rebuild completed in January 2003, new Rotax 582 engine 3:1, Powerfin 2-blade 74" prop, new VFR instruments, new interior, new fabric and paint (red and yellow), wings rib-laced, new wide stance gear, new double tail spring with Matco tailwheel, tricycle gear option included,

new cowling with twin rads, folding wings provide easy storage in garage, cabin heat, all maintenance logs up to date, cruise 95 to 100 mph, \$24,900.00, Troy, (403) 936-8424 or email for pictures brancht@tsesteeel.com (10/03)

Cuby II - 2-place, side-by-side, 65hp MZ202, low time. Beautiful yellow airplane I need money for my next project, \$19,000. Peter Wegerich, 403-862-7148, email wegericp@telusplanet.net (09/03)

Parts - Set of 3 skies (tail ski), teflon bottoms, \$500. Arrow 500 engine, 65hp, 2 cylinder, horizontally opposed, 93 hrs, \$1500. Cuby fuel tank for left or right wing, \$100. Variety of flight and engine instruments, Alt, AS, Tach and more. Some other parts as well. Peter Wegerich, 403-862-7148, email wegericp@telusplanet.net (09/03)

Mini-Max - TT173, 3 fuel tanks, 15 USG, Rotax 447, 40hp, enclosed cockpit, removable canopy, new tires, \$8300. Stan Sheriff 934-3460 (09/03)

Notice: Classified ads are free to CUFC members. Contact Bob Kirkby to place or renew your ad (see masthead). Ads will be dropped after 6 months unless renewed.

Ads reprinted from the St. Albert Flying Club Newsletter

Team Airbike plans - complete set, manuals, excellent condition, \$200 including shipping, OBO. Reg Lukasik 780-459-0813.

Rotax 447 - CDI, B-drive, overhauled. Dan Pandur 780-418-4159.

Puddlejumper amphibious floats - used, \$2500. Dan Pandur 780-418-4159.

Gas tank - plastic, US Coast Guard approved, 11.5 US gals., new in box, \$75. Ron Swan 780-477-6112.

Modified Team Himax - and portable grey canvass quonset hangar. Single seat, taildragger, Rotax 503, DCDI, oil injection, 177hrs on engine, decoked at 100hrs. Fuel 12g, cruise 70mph. Ivo inf 1 i g h t a d j u s t a b l e

Skywriter

Skywriter is the official newsletter of the Calgary Ultralight Flying Club - COPA Flight 114 and is published 12 times per year. Forward your articles and letters to:

Editor: Bob Kirkby 569-9541 e-mail: bob@skywalker.ca

Calgary Ultralight Flying Club COPA Flight 114

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

President: Dave Procyshen 257-8064 e-mail: dprocyshen@shaw.ca

Vice-President: Stu Simpson 255-6998 e-mail: bushmaster@shaw.ca

Secretary: Mac Harrison 208-0446 e-mail: cimac@telusplanet.net

Treasurer: Ken Taylor 660-2157 e-mail: kentaylor@hotmail.com

Director: Robin Orsulak 333-3833 e-mail: vquest1@yahoo.com

Past President: Bob Kooyman 281-2621 e-mail: kooyman-eng@shaw.ca

Visit the CUFC web site: www.cufc.ca

prop. Strobe, wing lights and landing light. Skis, Clark headset, handheld GPS and Icom A22. \$19,800. Len 780-436-1928 or email to lennegreenwood@hotmail.com.

Annual CUFC Banquet

Saturday, February 21

McKenzie Meadows Golf Club

Cash Bar: 6:00 pm Dinner: 7:00 pm

Silent Auction

Tickets: \$25.00 per person

Contact Dave Procyshen 257-8064

Little Known Designs Christavia MK 1

by Ken Beanlands

Over the years, I've been buying and collecting aircraft plans of various types. For me, there's nothing more eloquent than a simple design that gets maximum performance from a minimum engine. Most of the airplanes that have appealed to me would also fall into the Canadian Basic Ultralight Aircraft definition with little or no modification.

Since I've been collecting information and plans for the past 20 years or so on these types of aircraft, I decided to write a series of articles on the lesser known aircraft in the hopes that it may help you choose your next project.

The first aircraft is one I'm very familiar with, the Christavia MK 1. The Christavia is very similar to the early certified aircraft designs of the 30's and 40's although it was designed in the late 70's. The designer, Ron Mason, was involved in Christian missionary work and was looking for an airplane that could be used in the back country of Africa (hence the aircraft's name). The plans have been around for about 20 years with around 75 flying and 500 plan sets sold. The plans are still available from Ron Mason.

Rather than go for a radical design using exotic materials, the Christavia uses traditional materials and building techniques to form an incredibly strong airframe. The fuselage employs a 4130 welded steel tube frame. If cost is a major factor, Mason also provides an alternative material list for building with 1020 mild steel. Although cheaper, the resulting materials are also heavier to compensate for the weaker material strength of 1020. If you are planning to build it as an Ultralight, then you might want to consider 4130 throughout. The floors and upper cabin area is built using a plywood frame and the single door on the right hand side is of wood construction.

The cabin is a very comfortable 29" across and the front seat has sufficient headroom for guys well above 6' tall. The rear seat is a little cramped in leg room, but is still usable for guys up to 6' and 200 lbs. Dual c o n t r o l s a r e provided although the brakes, mixture



Christavia MK 1

and carb heat are only available to the pilot. One of the nice things about the MK 1 is that it is solo'd from the front seat. There is a small baggage shelf on the "hat rack" area behind the rear passenger, but it is quite limited. I made a few design changes to the control system that allows for a larger baggage area below the hat rack area. Since this is a tandem seat plane, the baggage area is quite far behind the CG, making the plane very sensitive to loading. A weight and balance is a must before every flight.

The landing gear is a Piper-style tripod design utilizing bungee cords. If I were to do it over, I'd switch to a compression spring landing gear for simplicity and a cleaner, more aerodynamic look. Of course, the plane is only available as a taildragger.



Christavia MK1 on floats.

The wings are a standard wood truss wing rib design with two 3/4" spars in each wing. The ailerons also use the same construction and are, in my opinion, far too heavy. If I were to do it over, I'd switch to an aluminum aileron similar to an Aeronca's. I have one in the basement and the weight difference is about 12 lbs vs. 1.5 lbs each! The aircraft is not equipped with

flaps. The wings are supported by a pair of streamlined tube struts with jury struts attached about half way out.

Fuel is provided by a single nose tank with a stock capacity of 18 gallons. Two 6 gallon wing tanks can be added increasing the total to 30 gallons. The original MK 1 prototype was powered by a Continental A-65 and was listed with a gross weight of 1300 lbs and an empty of 740 lbs with no electrics. It was later swapped out for a C-85 and the gross was lifted to 1500 lbs. On floats, a 1650 gross weight can be used.

Build time, if you stick with the plans, should come in at around 1700-2500 hours. Mine will be closer to 3000 hours, but I couldn't make up my mind about engines and kept changing things. I could do it again in about 1700 hours.

To build this as an Ultralight, I would suggest several changes:

- * Only use the nose tank and build it from aluminum (18 gallons is fine for smaller engines)
- * Build the ailerons out of aluminum.
- * Build the upper cabin framework from aluminum
- * Switch the 0.030 galvanized iron firewall to 0.018 Stainless Steel
- * Make the floors form a fiberglass sandwich or aluminum construction.
- * Use the compression spring instead of the bungee cords in the landing gear. (Continued on page 4)

Christavia - continued from page 3

* Install a lighter engine (Rotax 582, 618, 912 or 912S or even the Jabiru 2200/3300) or a small Continental (A-65, A-75, A-80, C-75, C-85, C-90) without electrics.

* Limit the gross weight to 1200 lbs.

With these changes, I think that the weight can be brought down to under 700 lbs leaving over 500 lbs useful. With a full tank, that's still around 400 lbs for people and baggage. If floats were used, you would still have a strong single place airplane using either the Murphy 1500 float kit or building the Falconar 1500 wooden floats.

The airframe cost for such a plane can be quite reasonable:

Steel tubing and sheet	\$2,500
Wood and plywood	\$1,500
Aluminum	\$1,000
Struts	\$1,000
Fabric	\$3,000
Wheels, brakes and tires	\$1,200
Basic instruments	\$1,500
Prop	\$1,000
Misc parts and hardware	\$2,300
Total	\$15,000

The engine costs can vary from around \$2,500 for a half time, A-65 up to around \$20,000 for a 912S. Personally, I think a 912 or Jabiru 2200 would work nicely and cost around \$14,000. So for little under \$30,000, you could have a new, 2-place aircraft with good performance

Speaking of performance, on the C-85, the

designer claims a 1000 fpm climb and a 105 mph cruise. Stall speed is listed at 40 mph. With the lighter 80 hp engine and airframe climb and stall should be close to this, even with our 3500' elevation.

I keep saying "if I had to do it over again", maybe someday I WILL do it over again. The next time, I would build it as light as possible and go with dual wing tanks (no nose tank) and add flaps. However, I would stay with the heavier Rotax 912S, Continental or Lycoming engine and keep the 1500 lb gross. I'm certain I could build a fully electric MK 1 with 100 hp + at under 800 lbs.

Specifications

Overall Length	20'-8"
Height	7'-0"
Wing Span	32'-6"
Wing Chord	4'-6"
Wing Area	146.25 sq.ft.
Wheel Tread	6'-0"
Empty Weight	745 lbs
Gross Weight	1500 lbs
Wing Loading	8.8 lbs/sq.ft.
Fuel Quantity (std.)	15 Imp.Gals
	18 US Gals.
Fuel Qty w/wing tanks	25 Imp.Gals
	30 US Gals.
Power Plant	65-150 hp
Recommended Power	85-115 hp
Vne	142 mph
Maximum Cruise	120 mph
Cruise Speed	105 mph
Flap Speed	N/A
Stall Speed	40 mph
Avg. Climb Speed	1000 fpm
Avg. Take-off Roll	300'
Servicable Ceiling	15,000'
	250 "

Range 350 miles Loading +4.5/-3.0G

Annual CUFC Raffle

Renew you club membership for \$20.00 and buy a ticket on the raffle for \$10.00



1st prize: Makita 12v cordless drill with keyless chuck.

2nd prize: Makita 9.6v cordless drill with key chuck.

3rd prize: Jet 45-piece socket set.

Draw will take place at the January meeting. You must buy your 2004 club membership in order to buy a raffle ticket.

If you can't make it to the meeting call Bernie Kespe to order your ticket - 255-6998.

Annual Elections Held

The club's annual election of the executive was held at the December meeting. Your 2004 executive is:

President - Dave Proceshyn Vice-President - Stu Simpson Secretary - Mac Harrison Treasurer - Ken Taylor Director at Large - Robin Orsulak



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Ski Season - Part 2

by Andy Gustafsson

In my last article I was building skis for my Merlin. The strap-on skis with the "boot" setup for the wheel makes this a fast and easy installation and as I said, the wheels can stay on the plane. When I return to my hangar I can un-strap the skis and roll my plane into the hangar in yes, 5 minutes or less. The drawback is that I can't land on bare ground. You need wheel-penetrating skis for that, but then the whole set-up will be more complicated.

My first test flight was, as I use to say, very educational. Before that first flight I did a lot of mushing through all kinds of snow. Despite what some people say, that the skis are a little short at 40" long and 16" wide, they work fine. My field has ridges, snowdrifts and areas where the horses have kicked up the snow. So the field is a good place for ground testing. The skis float over the uneven snow without any tendency to bury themselves. The runners underneath the bottoms help to keep the plane in a straight line on hard packed snow and ice, on the take-off run and landing. My calculations with angle of attack of the skis was initially set too flat, so after my first take-off the left ski tip wanted to move downwards in the slip stream. I could feel it in the controls and I slowed down to just above stall speed to make the tip come up again. The limiting

cables did their job to prevent the ski-tip from going down too much. I climbed to maybe 300' and slowed down so as not to aggravate the balance of the skis. At 45 mph the left ski popped up again, and I flew a wide turn over t h e snow-covered

fields making sure not to bank too steep in the turn. With a thousand feet of runway, that was 300' wide, there was ample room to line up, and I managed to set the plane down very carefully in the soft snow.

Two things had to be worked on. The single bungee cord that was holding the tip up did not have enough strength to do so, and a second bungee cord was installed. The second adjustment was to increase the angle-of-attack of the ski so the slipstream is actually lifting the ski tip up instead of pushing it down. One single bungee cord would probably do the job with the angle of attack adjustment, but the second bungee I feel is for back-up safety.

I was ready for another testflight. I advanced the throttle and the plane leaped into the air surprisingly easy. I climbed slowly to 300' making sure that the adjustment corrected the problem and the skis would hang the way they should. This

time everything looked and felt the way it should. I trimmed up for an easy cruise at 75 mph all the way down to Indus, with touch-and-go at Kirkby's. The landings are the same as on wheels, but when applying the brakes nothing happened! Then it hit me, your wheels are not turning. Old



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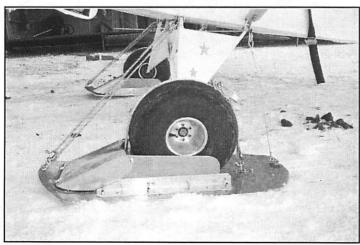
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habits are hard to change.

The increased drag slows the plane down 4-5 mph but who is in a hurry. The weather was sunny and calm and +5C at 500'. The snow started to melt from the skis and blowing away in the slipstream. Coming back from Indus I swung over and started my descent for Chestermere Lake for a steaming cup of coffee at the restaurant. I flew at 5' over the snow-covered ice and slowly reduced the throttle setting. The skis touched the snow softly and I came to a halt a couple of hundred feet from touchdown. I sure got the looks when I swung around and shut down just outside the restaurant. It was a perfectly calm day with -5C outside temperature at the surface on this crisp, sunny day. Traffic on the highway was slowing down to take a look at my plane. Life is great I thought while I sipped my coffee.

Testing of my invention will continue through the winter and I will probably make improvements as I go. The tail-ski is under development and I will have it installed and tested in the weeks to come. There has been a lot of interest in my skis and if you are interested in building your own you can contact me for more information. The rigging of skis is a little different for different aircraft.

Stay tuned. >



Slip-on skis designed by Andy Gustafsson, on his Merlin.

CUFC Celebrates the Centenary of Flight

The Calgary Ultralight Flying Club turned out in force to celebrate the 100th anniversary of powered flight on December 17th. The day was clear with a light wind and a little crispy. Aircraft started arriving about 1100 and the party lasted until 1600. About 35 people showed up at Chestermere-Kirkby Field to enjoy an afternoon of flying and talking flying. Twelve people arrived by air in 10 aircraft from Indus, Carstairs and Springbank. Six local aircraft were airborne as well.

In spite of the crispy weather pilots did what pilots love to do on the flight-line before retiring to the warmth of the pilots' lounge for coffee, donuts and good cheer (some liquid cheer was enjoyed by those who didn't have to fly home). Everyone commented on what a great time they had and resolved to find more excuses to hold wintertime fly-ins.



The crispy weather doesn't stop pilots from hanging around the flight line to talk flying and admire the aeroplanes. Photo by Bob Kirkby.



Aviation nostalgia abounds at Chestermere-Kirkby Field, and December 17th was no exception. This could be a scene from 50 years ago with Glen Clarke's ski-equipped Cub in the foreground and Calvin Thorne's SuperCub taxiing for takeoff in the background. Photo by Bob Kirkby.



December 17th turnout out to be a great day for flying. This photo shows visibility is only limited by the Rockies. The old South-Calgary airport can be seen in the lower left. 60 years ago this airport was buzzing with Harvards and Tiger Moths as part of the British Commonwealth Air Training Program. Photo by Bob Kirkby.



The pilots' lounge was steaming with hot coffee and aviation talk. Ken McNeill arrived with two bottles of champagne and Orville and Wilbur were toasted numerous times throughout the afternoon. Photo by Bob Kirkby.

The Wright Event 2003

The Wright Flyer may not have gotten off the ground on Dec 17th but the CUFC sure did get this event flying. We had over 30 people that stopped in to honour the achievement of Orville and Wilbur back 100 years ago. The lounge was full of pilots with many stories going on about many different things but the main bond was and still is the fun of flying. It was very well attended for an informal event. I did have the chance to go for a flight with Stu Simpson and it was great to think back to what started it all, a couple of bicycle guys with an addiction for flying, some things still amaze us. I would like to thank Bob Kirkby for hosting this event and from the comments I heard members would like to have a few more winter gatherings of the less formal kind. Thanks Orville, Thanks Wilbur. - Dave Proceshyn

Joe Pilot

by Brian Vasseur

As I see age 40 starting to loom in my future I've been wondering whether I have finished my mid life crisis or haven't started it yet. The realization that my career wasn't even half over yet made me think long and hard about whether I can spend the next 25 years behind a desk wishing I was somewhere else.

One of the perks of my job is that I get to do a lot of flying and I have an opportunity to fly the commuters between Calgary and Edmonton a couple times a month. I always wondered whether this was really fun or if it was just like being a bus driver. I've had a chance to visit with the pilots flying the King Airs or the JetStreams and they all really liked what they were doing. It didn't matter that it was the same flight over and over, or that the pay wasn't all that great, they really liked going to work every day.

I figured that while I had the job behind the Jesk that paid me enough money for flying lessons that now would be a good time to get a commercial rating and see what options there were for me when I was done. I have only an Ultralight permit that I got in 1995 and I've thought a lot about getting an RPP so I could take people with me. The idea though was that I didn't want to fly well enough to just get from A to B, but I wanted to fly well enough that I never had doubts about my abilities in any situation I might find myself in. I had the opportunity of several hundred hours of dual time in C170's and C172's since Dad always had a plane and we did a lot of flying. everywhere from Winnipeg to Inuvik. I half expected that between the dual time. 500 hours of just watching from the right seat and the 50 hours I put on the Rans in the last 12 months that I would easily breeze through the basics and get on my way to the more challenging items.

I ended up signing up with Calgary Flight at the International airport. Joe White, the guy in charge of new students, took me through their entire operation and convinced me that they would give me the quality a n d dedication I was looking for. He stated right up front that they were the most expensive place to get training, but I felt it was worth it to get what I was looking for.

My first few lessons were just ground briefings going over the basics of climbs,

was all pretty much review so next was onto the Diamond Katana for my first flight. The Katana is a 2 seat 125 HP fiberglass low wing and ideally suited to training. Everything was in familiar positions and I settled in pretty quickly.

This was my first attitude adjustment.

Something I wasn't at all prepared for was how quickly I could get behind the airplane before I even made it to the runway. I fumbled my way through the checklist, fumbled my way through the runup but I made it to the hold point for 34 with my instructor satisfied that I had everything done and ready to go. After the takeoff from 34 and a turn towards the NE everything started to feel better. The airspace wasn't busy, the controllers didn't talk too fast and we got out near Strathmore for some practice. The turns went fairly well after I was prompted to get a bit more coordinated on the controls. climbs and descents were more uncoordinated because I was adding power at the wrong times (Attitude, Power, Trim) instead of what I usually do in the ultralight, (Power, Attitude, Trim). After a bit more than an hour I got the feel for the airplane and we headed back to Calgary. My instructor took over once we got to Chestemere, I was just to mentally drained to think clearly from this point.

For the next lesson the Katana was down for maintenance so I was moved up to the Cessna 172's. Time for my next attitude adjustment. I had expected that being in a familiar cockpit would increase my apparent skill level. Everything went much



RR1, Site 6, Box 11, St. Albert, AB T8N 1M8

descents, turns and general handling. This

better up to the take off but I had forgotten how much right rudder 200 HP demands to stay straight on the runway. Fortunately runway 34 was again wide enough for me and we went out east for slow flight, endurance flying and just a practice stall to prepare me for the next lesson. I'm convinced that the slip-skid ball has a remote control because the only time it seemed to stay centered was when my instructor was flying. He flew the approach and landing and I managed to do the shutdown checklist on my own without missing anything.

After 2.5 hours of dual I've realized that I'm not going to be soloing anytime soon, and at this point I'm starting to wonder whether I really know how to fly at all. I finally take my own plane out for a few hours to reassure myself that there is hope for me. I booked flights every day now that I'm off work so that I can try and keep some continuity.

The third flight was much better from the start. I knew what to expect, the airplane did what I expected it to, and the controllers did what I expected them to. The trip out to Strathmore was uneventful and we climbed to 7500 to try some stalls. The first few went pretty well until my instructor told me that I wasn't actually stalling it and I was recovering too quickly. This time pull it way back, way way back until I thought we were going straight up, then the airspeed went to zero and the nose dropped. I got it recovered in only 500 feet. After a few more of these I got the feel for it so we went onto climbing turns with a stall and descending turns with a (continued on page 8)

Joe Pilot - continued from page 7

stall. The first one went as expected, I was on the rudder and the airplane recovered pretty well. The second one I had the trim set too far down and I took my hand off the throttle (power on) to pull back some more. A climbing right turn, the stall came, and the combination of torque and stalled wing did the spin to the left just like it was supposed to. Had I not had the ailerons crossed, used a bit more rudder and pulled the power my instructor probably wouldn't have had to recover the plane. I know how to do this, I'm still surprised it happened when I was (I thought) fully prepared for it to happen. The ten minute flight back to Calgary allowed me to relax a bit and I did, with some coaching, a pretty respectable landing.

In next months article, groundschool, the exams, the circuits and how missing a checklist item on the apron can mess up the rest of your flight.

Air Adventure Video Applauded

The 2003 Air Adventure Video edited and produced by Allan Botting with commentary by Stu Simpson is receiving rave reviews. The 55-minute video contains some great flying footage and expertly documents the most successful club event to date.

After viewing the video COPA President & CEO Kevin Psutka emailed this comment, "I just watched the video of your Air Adventure. It was super! The COPA hats looked good too. Please pass on my thanks to all of the organizers and ground crew who made the Adventure a great tool for getting aviators together and giving them an excuse to fly."

The video is available on DVD from Allan Botting (241-9166) for a nominal charge of \$5.00. →

There's Electricity in the Air!

Reprinted from AVweb

The intrepid folks at the FASTec project, based in Worcester, Mass., are working away on their hydrogen-powered electric airplane. "We expect our first flight sometime in late December or maybe early January," Jim Dunn, director of the project, told AVweb on Saturday. Advanced high-energy, lithium-ion batteries will power the first flight as the first step in the



The Electric Airplane, or Eplane, will be developed around an all-carbon French-built DynAero Lafayette III, which will be powered by an advanced electric motor supplied by UQM Corp.

long process of developing a flight-ready system that will work on hydrogen-powered fuel cells. The E-Plane is scheduled to start ground testing around the 13th of December, Dunn said. Battery testing is progressing, and the team is working on the motor mount and is finishing the avionics package. The second phase will fly with a combination of the

batteries and a 10- to 15-kW fuel cell. In its final form, the E-Plane will fly solely on the power of a fuel cell and have a 500-mile range, with emergency assist from reserve lithium ion batteries. Fuel cells, unlike batteries, generate electricity rather than just store it. They are fueled by hydrogen and oxygen gases, and can operate as long as they are fed the gas, which can be produced by solar power. FASTec foresees wide use of electric planes in the future

because they are simpler to build and maintain, produce zero emissions, and are inherently quiet.

For more information go to: www.aviationtomorrow.com

The Perfect Challenge

An excerpt from "Why We Fly", a recent article in COPA Flight by aviation humourist and author Garth Wallace. Reprinted with permission.

Flying appeals to our need to get out of bed. Humans have always searched for more than food and shelter. To live is to seek challenges, try something new, look for action or find a better way.

Learning to fly is our mini Mount Everest. The same sense of adventure that drove the Wright Brothers and others to experiment with flight, drives us to learn how to fly.

And the learning never stops. Flying requires a stimulating balance of mental, motor and emotional skills. Aviation continues to challenge pilots as long as they are flying. No one has ever flown a perfect flight. There is no hole-in-one, no complete game, no winner/loser, no first and second and no perfect score. There is just the satisfaction that you have earned the right to fly again. >



Oops!