



# Skywriter

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

## From The Cockpit

by Dave Procyshen

Well it was another monthly meeting full of flying stories and builders adventures. This club has to be one of the best for the ultralight/homebuilder around. I was very impressed with Dan Mitchell's presentation on the oleos that he built with Ted Beck and Dan Hawkins help. Now Dan Mitchell will be the first to tell you it was all Ted's work and Dan Hawkins idea, but it was truly Dan Mitchell that makes this happen. So here is how I heard it happened.

Dan Mitchell has the EZ Harvard and he wanted a new gear set-up that would give his plane another Harvard look to it but also allow for some suspension to replace the solid steel-bar gear he has currently. Dan had talked to a few other people about it but it was the challenge of getting the Harvard to look more authentic that keeps Dan working. From a distance it does make you look twice. With Dan H. having made landing gear for the T51 Mustang it wasn't much of a problem to make this work for the Harvard. Now the story could end there but it was truly the spirit and persistence of Dan Mitchell that made it come to this point of completion.

Dan told me how much he enjoyed working with all the machines in Ted's shop and how rewarding it was to make each part and see it come together. Dan had the first completed oleo at his hanger a few weeks ago and he could not wait to

see what it would look like standing next to the Harvard. Dan jacked up the wing and proceeded to remove the tire, rim and brakes and mount them onto their new home on the oleo. The pictures that Dan showed us of the oleo against the Harvard at the last meeting were taken that day and he was really proud of his accomplishment. I think Dan has shown us that with a little bit of sweat and elbow grease, and with the help of some other club members, things can happen. Great Job Dan. Now what else can we build... how about a RV9.

Fly Safe! →

## Help save Banff & Jasper

Parks Canada's attempt to close these airstrips was challenged by COPA in federal court in 1997 and Parks was subsequently ordered to complete a Comprehensive Environmental Assessment under the Canadian Environmental Assessment Act before proceeding. The reports, released for public consultation on September 27, 2004, are the conclusion of the study.

Part of this study comprised an Air Safety Risk Assessment in which it was determined there is a significant risk that pilots and passengers in light aircraft will die due to weather related accidents in the Rocky Mountains if these emergency airstrips are closed. Despite this finding Parks may decommission the airstrips anyway unless sufficient public opinion states otherwise.

## Between now and November 29<sup>th</sup> Parks Canada is soliciting public comments.

Please have a look at the documents and send in your comments in support of keeping the airstrips open, and ask your friends, relatives and neighbours to do the same.

You can read the study reports at:  
[www.pc.gc.ca/pn-np/ab/banff](http://www.pc.gc.ca/pn-np/ab/banff)

You can read COPA's submission's and commentary on the COPA web site:  
[www.copanational.org](http://www.copanational.org)

You can sent you comments to Parks at:

Email: [comments-commentaires@telus.net](mailto:comments-commentaires@telus.net)

or

Fax: 780-425-4615

or

Mail: Strategy Plus, 9608 - 100 Street,  
Edmonton, AB T5K 0T6

State in your own words that you support the recommendation of the Air Safety Risk Assessment to keep both airstrips open for emergency/diversionary use. Be sure to reference both Banff and Jasper and indicate if you are a pilot or not. Include you name, address and telephone number for audit purposes, and anything else you wish to say.

If you response by email please send a copy to [bob@skywalker.ca](mailto:bob@skywalker.ca) for my records.

Thank you for your support.

Bob Kirkby

COPA Director for AB & NWT

# For Sale

**Spectrum Beaver** - 1987 RX550 BULA, 2 seats, Rotax 503 DCSI, 35hrs since overhaul, \$9000. Dave Procyshen 403-257-8064 (10/04)

**Challenger II** - 1995, Rotax 503, electric start, 170TT, 2 helmets with built-in intercom, 6" wheels, hydraulic brakes, new skis, always hangared, extra parts, \$24,000 firm. Alan 403-742-5382 (10/04)

**Miscellaneous** - Two Ultracom helmets with intercom, red, \$500. Two A22 navcoms with accessories, \$200 each OBO. Two XL flight suits, \$50 each. One 2-metre wind sock, \$40. Brian Vasseur 512-9045 (09/04)

**MiniMax** - 90TT, enclosed engine, Rotax 503, always hangared, \$9,700. Graham, 403-601-6853 (08/04)

**Hercules 084 Engine** - 4-stroke, horizontally opposed, made by Teledyne, overhauled, price negotiable. Al, 403-271-0369 (07/04)

**Murphy Renegade Spirit** - S/N50, less than 100 hours on airframe, built under amateur built category and later changed to basic ultralight and modified to single seat. 18 imp gals fuel, full instruments, ELT, Icom A5. New Rotax 582 DCDI MOD 99, less than 10 hours, electric start, 2.58:1 "B" gearbox, 2-blade 74-34 Tennessee prop, \$26,500. Bernie Kespe 403-255-7419, office 403-259-5498 Ext 233, email [bernie.raymac@shaw.ca](mailto:bernie.raymac@shaw.ca) (0504)

**Cavalier** - 2 place side by side, zero time O-290-D2, low wing, tip tanks, 80% complete, selling due to health, \$18,000. John Ehrmantraut 256-7530 (04/04)

**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, \$19,500.00 OBO, Troy, (403) 936-8424 or email for pictures [brancht@tseesteel.com](mailto:brancht@tseesteel.com) (10/04)

*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

**Challenger II** - loaded. Radio, intercom, cabin heat, brakes, tundra tires, electric start, skis, 446 hrs TT, 144 since motor overhaul, \$16,000. Dan Pandur 780-418-4159.

**Chinook fuselage** - assembled by Mal Jones, plus second fuselage kit for parts. Contact Ed Dumas 780-484-9977.

**Volkswagen engine** - 1800cc, rebuilt with Great Planes components. No accessories, \$2200. Dan Pandur 780-418-4159.

**Rotax 503** - DCDI, zero time, with exhaust. Gearbox available, \$3200. L.E.S. 780-418-4164.

**Skypup** - reasonable offers. Dave 780-459-8535.

**Skybolt** - homebuilt biplane. Dave 780-459-8535.

**Team MiniMax** - blue & white, Rotax 447 with electric starter, drycell battery, three 5 US gal tanks, speed fairings on struts, wired for radio (power, PTT and antenna), skis, 185 TT, hangared at St. Albert, \$10,000 OBO. Ben Strafford 780-458-1606 or [larandbe@telus.net](mailto:larandbe@telus.net)

**Modified Himax partially complete** - fuselage 65% complete, empennage complete ready to cover, spars/ribs built, sufficient material to complete wings. Volkswagen engine with Colin Walker prop. Complete set of instruments. Excellent bargain for knowledgeable builder, \$3000. Viv Branson 780-460-8753 or email [vbranson@interbaun.com](mailto:vbranson@interbaun.com).

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

**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.

## 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](mailto: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.

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Visit the CUFC web site: [www.cufc.ca](http://www.cufc.ca)

## Notice

Due to Remembrance Day falling on the 2<sup>nd</sup> Thursday of November, the November club meeting will be moved to Thursday, November 4<sup>th</sup>.

## Young Eagles Day 2004

by Bob Kirkby

Our second annual Young Eagles day on September 18th was a great hit even though it was only 80% successful. The low ceilings early in the morning forced me to cancel the first group of 10 kids. It cleared up enough by 9:30 that we were able to carry on and in total flew 32 Young Eagles, 4 kids who didn't qualify for YE, and 3 or 4 parents.

I felt bad cancelling the first 10, but since Gerry MacDonald and Ralph Inkster couldn't get out of Springbank at all due to low ceilings, we wouldn't have been able to handle the extra 10 anyway. As it was everyone did 5 or 6 continuous flights and didn't finish until 1300. Our pilots were Reid Huzzey in his Challenger, Jim Corner in his Kitfox, Glen Bishell in his Bush Caddy, Brian Vasseur in his Rans S12, and myself in my Cherokee.

Our ground crew consisted of Kay and Glen Clarke and Chris Huzzey on the registration desk, Stu Simpson doing ground school, Gerry Thoreau as load marshal, Murray Cherkas as ground marshal, Ken Beanlands as official photographer, and Elmer Dyck providing snacks and



Zak Fairhall flew with Reid Huzzey.



Carly Lamoureux flew with Glen Bishell



Amber Adam flew with Brian Vasseur.



Jim Corner explains the panel to Paul Heeley.

refreshments to the kids and hot coffee to the parents.

Everyone did a great job and the teamwork was fantastic. Together we made a lasting impression on 36 kids and opened their eyes to a world of opportunity they might otherwise miss.

We also made a good impression on a bunch of adults which goes

a long way toward improving public opinion of general aviation.

I am going to try to organize a smaller version on October 16th for those 10 kids we had to disappoint.

Thank you to those who volunteered for this wonderful event and I'm looking forward to next year already. ➔

## Flying Events

We've pretty well exhausted the flying events for the 2004 season. However, it's not too soon to be talking about 2005.

A feature event in 2005 will be the COPA convention in Wetaskiwin on June 24-26, hosted by the Wetaskiwin airport and COPA Flight 51. In 2002 the most successful convention ever was held in Red Deer with over 700 attending. Many club members attended and reported having a great time.

Club President Dave Procyshen has suggested we organize a group fly-out to the convention and try to organize a get-together at the convention of some of the other COPA Flights in Alberta. This sounds like a great idea, to be discussed at an upcoming meeting.

## Speaker

Our speaker for the October 14<sup>th</sup> meeting will be Dave Mulder. Dave is from the Red Deer Flying Club and is a long-time builder of exotic aircraft.

Dave will speak about two recently completed building projects: a Lancair 4P and a BD4.

# Letter to the Editor

To the wonderful group of Young Eagles volunteers,

On behalf of the students and parents from Chestermere Lake Middle School, I want to thank you for making a lasting impression on this group from our school. It was truly amazing to see kids walk away from such a terrific experience with a true enthusiasm for flight and a smile as big as the sky. It was hard not to get caught up in their excitement, if not before their flight, certainly after they had the chance to fly. Had it not been for your caring, kindness and passion for flying, I do not think it would have been the kind of experience it would have been. Had there not been the friendly faces at the front desk, on the walk-around tour and in the marshalling area, they certainly would not have had the same well-rounded experience that they did.

Many, many thanks to all of you for your hard-work and for sharing what you love to do. I look forward to seeing these kids now hand-back to the aviation industry and share their experiences to promote flying in the future.

On a personal note, thanks to all of you for letting me be a kid again and allowing me to be as excited about flying as the kids were. It does a heart good to see a day like we had yesterday and allows me to walk back into the classroom on Monday with a little more zip in my step. Special thanks to Bob and Brian for taking my family and I for a thrill of a lifetime.

Again, my heartfelt thanks to you all for an amazing experience.

Kindest regards,  
Brian Jackson VE6JBJ  
Chestermere Lake Middle School

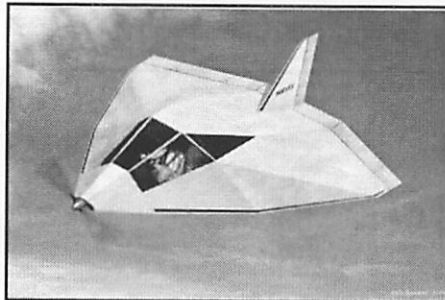
*Brian Jackson is the Science Teacher at Chestermere Middle School and one of the developers of the "Thrill of Flight" web-based aviation learning program that is used to teach grade six students about aviation in Alberta. - Editor*

## Cyberpilot

by Bob Kooyman

One of my pass times during lunch hours and occasional spare time is surfing the web. In the course of surfing, I've come across some really interesting aviation web sites. In discussion with Bob Kirkby, we decided to try a monthly column to explore the Web. Each month I'd like to share two or three aviation related sites with you.

I've got three sites of interest for this month. The first is one of my perennial favourites, Barnaby Wainfan's Facetmobile site. The Facetmobile is a wingless lifting body that Barnaby built in the early 1990's and flew to Oshkosh in 1994. The plane is spin and stall resistant (I could use one of those) and resembles an F-117. In October 1995, Barnaby experienced a "Rotax moment" and N117WD was damaged in an encounter with a fence. Barnaby and his wife Lynne



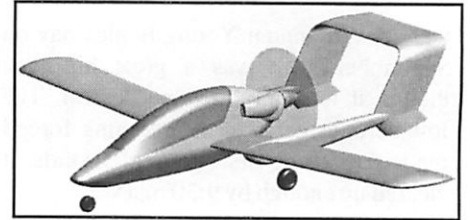
are rebuilding the airplane (slowly) while raising three children and trying to earn a living.

In the meanwhile, Barnaby has done quite a bit of engineering to develop the concept into a reliable, inexpensive, two seat "sports plane". The link

<http://members.aol.com/slicklynn/facet.htm#FMX4S>

will take you to their home page. I urge you to take a look around. Read the article about his flight to Oshkosh. It reminds me of the Air Adventure! Of particular interest to me was a new PDF file link to the "NASA PAV (Personal Air Vehicle) Project" near the bottom of the page. The vehicle is unique. The ideas on vehicle construction are revolutionary!

My second site of interest is another airplane project. I used to enjoy reading about the progress of a trio of aircraft being built by an outfit called Dreamwings. They actually had the prototype Valkrie flying before poor management and



underfinancing brought the company down and took 150 peoples' aircraft deposits with them. Now a group of former deposit holders has started to build another high performance "glass" aircraft.

Vulcan Aviation is prototyping an ultralight/sportsplane that resembles an OV-10; two seats, pusher prop, tail booms, and a high vertical stabilizer between the booms.

Visit [www.vulcanaero.com/index.html](http://www.vulcanaero.com/index.html) to see a dream taking shape.

Did you know that Canada is the world's leading site for research into ornithopters? An ornithopter is an aircraft that flies by flapping its wings and a group based out of the University of Toronto Institute for Aerospace Studies has built one that (almost) flies.

C-GPTR is a full scale flying machine equipped with a 25 hp two cycle motor, a



conventional tail group, and wings that flap, but no propeller. It is self-accelerating, has conducted taxi tests at over 50 MPH and made short hops in ground effect. Take a look for yourself at [www.ornithopter.net/index\\_e.html](http://www.ornithopter.net/index_e.html). →

## Diaries of an Amateur Test Pilot - Part 2

by Ken Beanlands

### You can Tuna Fish, but can you tune a plane?

The last time we met, Chrissy, my newly completed Christavia MK 1, had just completed it's third flight, accumulating 1.9 hours. So far, no serious problems have been encountered although a number of small issues are being addressed.

The hope had been to finish the 25 hour test flight phase by the time the Calgary Ultralight Flying Club left on their infamous annual Air Adventure Tour. With only a couple of days left before we leave on vacation and only a week after that before the Tour, this target is no longer achievable. However, I'm having so much fun flying the plane, I'm not that disappointed about not flying the Tour, although I do plan to provide ground support.

#### July 24, 2004

This morning was flight number 4 for Chrissy. Prior to the flight, I changed the wing twist by 2.5 turns on each side to take out the right wing low trim. I also replaced one of the AN fittings under the tank to remove a slow fuel drip I was getting. While filling the tank, I took measurements at 2.5 gallon intervals to calibrate a dipstick.

I had also noticed that the stick was not comfortably positioned, so I swapped in a strait stick in place of the original stick that's offset forward by about 3"-4". The strait stick just clears the front of the seat.

Finally, I lengthened the turnbuckle on the left rudder cable to help with the left pull. However, I won't add a trim tab until the break-in is finished and I can run at part power again to figure out what's needed in cruise.

The weather was clear with visibility about 8-10 miles in haze. Winds were straight down the pipe at 8-10 kts out of the south. Just as I was ready to taxi out to the runway, a Cherokee showed up. This is an unusual event at Bishell's as there are seldom drop-in visitors. After a check of the sock and final, I taxied to position and took off.

The first thing I noted was the fact that the plane now flew hands off (but not feet off, it still requires a little right rudder) and was far more comfortable with the new stick position.

I decided to lean out the mixture for the full-power flight as I had accumulated a lot of carbon on the left bungee the previous flight. However, shortly after take-off, I

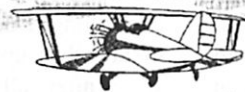


*Chrissy flies with the Dragonflies. Photo by Stu Simpson.*

noticed the oil temp climbing so I richened the mixture which dropped the temps to normal.

This morning, I took closer notice of the GPS altitude and noticed that it was consistently out by 300-350 feet from about 3500' AGL up to 6500' MSL despite the fact that the GPS and altimeter were only out by 9' on the ground. The Altimeter is showing low, which means the static pressure is too

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high. This is confirmed by the airspeed being low since the difference between static and dynamic pressure is too low. I'm going to try putting a small O-ring on the static tube ahead of the static ports.

After an hour, I decided that it was time to land. The approach and landing were a lot better as I ignored the altimeter and flew the circuit using the GPS altitude settings. I had far better results than the Thursday night flight as I'm sure I was flying that one 300' high, requiring a quick dump of a lot of altitude on short final.

Oil consumption is still around 1/2 liter per hour. I plan to do another 2-3 hours at full power to assist the break-in before continuing the test flying. I'm starting to get a little more confident in my abilities and the airplanes abilities, but I'm really looking forward to the lower prop pitch.

#### July 25, 2004

Well, there's now 4.0 hrs air time on the Christavia. The engine seems to be running smoother at idle and I may adjust the idle down to 750 rpm from the current 850. Before, I was having trouble getting it to stay lit below 850, but it seems to be idling much better now. The idle range from the manual is 750-950 RPM.

I slipped an O-ring over the static tube today ahead of the static ports. The ASI (Continued on page 6)

*Test Pilot - continued from page 5*

seems to be within 5 kts now (still reading low) and the altimeter is within about 150-200'. I may try installing a small washer using a little silicone to hold it in place. I'm certainly on the right track though! Full power cruise is about 96-97 kts and the 75% cruise is closer to 85 kts. The prop will be going in on Wednesday for a re-pitch but I won't get to try it until the 16th due to our vacation in Newfoundland.

**August 18, 2004**

I finally received the newly re-pitched prop and installed it. The new static RPM has leveled off at 2550 rpm and the full power cruise RPM is about 2680. I went for a short, 30 minute test hop that confirmed that the idle RPM is too high (higher now than the prop is flatter). After landing, I noticed that the O-ring I had installed on the static mast had snapped so I replaced it with a thicker rubber grommet. Climb performance is marginally better with about 700 fpm solo. Not quite what I had hoped, but that is at 4000' MSL. We're now sitting at 4.5 hours.

**August 25, 2004**

The planned Air Adventure tour was finally cancelled due to poor weather. This left a perfect opportunity to head to Carstairs and work on the plane. Also, with the Air Adventure Tour cancelled, I decided to fill the 100 gal slip tank that was to be used for the Tour, with 100 LL. This means that I no longer need to fool around with plastic jugs and I can ground the plane while refueling.

It took about an hour, but I finally got the

idle set down to about 650 RPM. After buttoning up everything, I decided to take her up for a spin; after all, now that we had officially cancelled the Tour, the weather was looking much better!

After 10 minutes of cruising around, I decided to try a few stop and goes (with a back track). The combination of low idle RPM, flatter pitch and a little more experience on the plane finally helped bring it all together for some respectable landings. I learned that an approach speed of 70 mph was required to produce an acceptable landing, anything less resulted in crunching the tail wheel in first. This isn't surprising considering that the Citabria requires the same approach speed. The elevator trim is still not producing enough back stick pressure for my liking on approach. 1.1 hours resulted in a total time of 5.6.

**August 26, 2004**

Stu Simpson had mentioned that he would likely head to Red Deer, and possibly St. Albert on Thursday as the weather was forecasted to be good. Since that put them directly through my 25 NM tethered area, I asked Stu if he'd give me a shout before leaving and I'd meet up with them. I'd finally get my chance to fly with the Dragonflies! Stu said that they should be near Airdrie (extreme southern end of my region) at about 9 AM following the power lines. I showed up there about 9:05 just as they were coming into view. I formed up with Stu with his "Jolly Green Giant", a Bushmaster II in camo colors, and with Carl Forman in his Mini-Max "Phoenix". A few minutes later, Bob Kirkby joined the formation in his Starduster Too.

I was delighted to find that Chrissy seems to like the slow flight



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regime quit well as I cruised along at 60-70 mph with the throttle back to 1900 RPM. The trim was my only complaint at this speed. Stu took a few beautiful, in-air shots of the formation. I tooled along with them, for about 30-40 minutes before the tether started to draw tight forcing me to return to Carstairs. It certainly was tempting to just fly on with them. Oh well, that should be soon enough.

The interesting thing is that this flight was 1.8 hours long, with more than half of it at or below 2000 rpm in cruise. The second half was in the circuit. Total fuel burn was 7 gallons! That's only 4 gph. After refueling, I went up for another 1.1 hours cruising at 2300 the whole time. This yielded a 6 gph fuel burn. Total time is now 8.5 hours.

**August 27, 2004**

I came up with a possible solution to the elevator trim problem. I looked over the Wag Aero Wagabond plans they show a spring between the upper elevator horn and the fuselage structure to help relieve back stick pressure. I can't see why this shouldn't work on Chrissy. I had an assortment of springs and took them along to the hanger. Since getting in at the tail is pretty much impossible without cutting fabric, I decided to pull the belly pan and see if I could attach it somewhere on the control stick end. There was a perfect location between the lower front stick control attachment and the front lip of the torque tube to install the spring. An hour after I started, I had eliminated nearly all the effects of gravity on the elevator. It would hold any position I put the elevator in.

*(Continued on page 7)*



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*Test Pilot - continued from page 6*

Two hours of cruising and circuits confirmed that I had licked the trim problem! I'm really starting to get comfortable with the plane and I have a lot more confidence in its reliability. Total hours are now at 10.5.

**August 28, 2004**

This morning I decided to attempt the dreaded climb test that all Amateur-Built planes are required to do; the results of which are submitted with your final paperwork to Transport Canada. To bring the plane to the 1650 lb gross weight, I filled the fuel tanks and added two 5 gallon cans of water, one on the rear seat and one in the cargo area. This resulted in a CG right about at the mid-point with me in front. I actually performed 3 climb tests and averaged them out. Transport Canada requires a measured 3 minute climb that starts as soon as the climb stabilizes after take-off. On a standard day at sea level the requirement is 1280' in 3 minutes. However, they do account for elevation and temperature differences which, using the graph provided, showed that my requirement at 3500' and 60 F is about 700' in 3 minutes or about 230 fpm. I gained an average of 1480' in 3 minutes easily exceeding the requirements.

Having a full tank, I continued cruising around for about 2 hours before an approaching cell shut me down. After it passed, I popped up for another hour of circuits and some stall speed testing. The power off stall is coming in at about 40 mph IAS and power on is 35 IAS. As the fuel burned off, the CG continued to progress rearward with no ill effects. Another cell shut me down, but not before hearing Glen Bishell and Bjorn landing in Hanna. They were on their way back from picking up a new Cessna 120. I was quite impressed that my little handheld Yaesu radio was transmitting and receiving over 100 miles!

After the third cell passed, I headed up again. I started heading west of the field

until I heard Glen calling from Three Hills. I made my way east toward Three Hills hoping to meet up with them. Thinking that I had missed them, I started heading home only to be buzzed by the 120 half way back. It's quite a neat machine with a fast cruise on a small engine (120 mph on 90 hp).

By the end of the day, I had another 3.5 hours racked up with the only persistent snag being the ASI indicating about 8 mph slow. The total time is now 14.0 hours.

**August 29/30, 2004**

I was a little late getting to the airfield on Sunday night and only had enough light to get in 0.6 hours. The 30th was a beautiful evening for flying with no wind and a beautiful sunset and moonrise! I took the opportunity to do some speed runs to get a closer idea of what the cruise speeds would



*Ken Beanlands in his Christavia. Photo by Stu Simpson.*

be. I ran from 1900 all the way up to 2680 in 100 RPM increments (using the digital tach) Speeds ranged from 70 to 112 mph TAS. Then I tried the slow-flight, holding it nicely at about 50 mph IAS (about 60 mph TAS).

I also noted the differences between IAS and the speed I was getting on the GPS. At higher speeds, they were out by about 8 mph dropping to about 4 mph at 60 mph with the indicated speed being slower than GPS in still air. At 50 mph the error



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increased to 10 mph, probably due to the high angle of attack of the pitot tube. I was at a loss to explain why I was still reading so much lower than I should.

Then it dawned on me...The GPS is reading TRUE airspeed in still air and the ASI is giving INDICATED airspeed with no correction for pressure altitude! I ran some quick calculations to convert TAS to IAS and VOILA...the ASI is dead on! I guess I've had too much flying at or near sea level where the errors are not as pronounced. The total time is now 16 hours.

**Conclusion**

Although the flight testing is continuing, the remainder will likely be limited to getting some fuel flow numbers and burning off the remaining 9 hours. In general, I'm quite happy with the machine, but I'm already making up a list of minor changes. I'm looking at replacing the 600x6 tires with 700's or 800's to help with ground clearance and touchdown attitude, not to mention flight-line attitude.

I've also purchased a new set of bungees, a little stiffer than the current ones, to replace the carbon caked ones currently in use. I also bought a J-3 cover to protect them. Over the winter, I've planned some minor changes to the secondary structure (door frames, window frames, floors, etc) in an effort to reduce the weight.

I hope to have the hours flown off by the Labor Day weekend so I can attend a couple of the fall fly-ins. I look forward to more flights as a Dragonfly! →

## The Kingdom on the Horizon - Part 1

by Stu Simpson

My God, that tree was close!

I sailed the Giant over a tall, jagged pine with less than ten feet to spare and snapped my attention back to the runway ahead. Over the button and still twenty feet up, I chopped the throttle, nosed over and headed for the grass. Still a bit hot on the speed, the Giant touched down hard and I danced on the rudder pedals to dodge the mole hills that dotted the runway like chicken pox. Luckily, the mounds were soft and squashed easily away beneath the tires.

Gustafsson was on the radio, now, emphatically warning Botting and Clarke to beware of the pines. I taxied all the way to the end to give my wingmen some room. I turned around just in time to watch Glen Clarke, the last of our troupe, bring his J-3 Cub in for an unusually rough landing. My heart nearly stopped when the Cub's left wing came within inches of the ground as he fought to control the plane on the strip's uneven surface. But Glen, who's one of the best pilots I know, got things back under control quite nicely and we all trundled over to the shut-down area.

All in all, just another routine landing at the Highwood- Adderson airstrip.

I quickly began refuelling with the extra gas I brought along. The Giant would need it for today's flight. The Dragonflies would leave this strip in the foothills and fly to the vast and mysterious kingdom of the west, called the Rocky Mountains. They sit next to the sky, only a few miles west of Calgary. Their blue-grey silhouettes are always just out of reach for the average ultralight pilot. Castled with granite ramparts that sometimes tear the very clouds from the air, the Rocks form a legendary, forbidden place. They're notorious for their meteorological treachery and have dangerously few places for emergency landings. All aviators must be cautious in this domain.

I knew these facts, but felt we could successfully challenge the mountains today. And I figured such a flight probably wouldn't be as dangerous as our landing at Adderson's.

During our time on the ground we met Royle Adderson, a successful businessman who owns the ranch and airstrip; and Bob



Glen Clarke's J3 Cub. Photo by Stu.

Purkess who looks every inch the tough and ready cowboy that he is. Purkess runs the ranch for Adderson. Both were very welcoming and helpful, especially when Botting had trouble with his engine. He'd somehow fouled a plug on start-up when we were ready to leave.

Despite an hour's work, and having all the supervision he could handle, Botting couldn't get the engine to run satisfactorily. He wisely decided to scrap the mountain trip and go home. Clarke volunteered to escort him. Gustafsson and I would continue on.

*To be continued next month.....*



Allan Botting's Vagabond. Photo by Stu.



Contemplating the options at Adderson's strip. Photo by Andy.