



# Skywriter



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

## From The Cockpit

by Dave Procyshen

Well it sure has been a busy spring and summer but with the days getting shorter it will soon be time for another season. The June 27th CUFC/COPA breakfast with Kevin Psutka was another well attended event. Kevin I know was impressed to see such a great turn out. This also led into the Stampede breakfast at Bob Kirkby's again for another well-attended event. Then it was the Vulcan meet and greet with the Lethbridge Sport Flyers. All this and it still was only July. Now with Oshkosh only a few days away it was time to get ready for another pilgrimage south. I would like to say that with all this flying going on it must have been a wonderful summer weather wise but it was one of the colder summers in recent history and there was more rain in June and July than all spring combined. We have surely had some late springs but this was a late summer too.

Having said that we still have our annual BBQ this coming September 19th. This will be a Sunday event from 11:00am 'til 2:00pm at Dave Boulton's farm/airstrip just west of Okotoks. This will be a fly or drive in event as some of the afternoon thermals make it for a bumpy ride home, we will have it rain or shine so lets all hope for the latter. Lets enjoy this last bit of summer and I look forward to seeing you all at the next meeting, which will be Sept 9th.

Fly Safe. →

## Oshkosh 2004, Part 1

by Dave Procyshen

Well here we are sitting at the Canada-US border (Noonan crossing) just south of Estevan, Sask. waiting to cross over and start the Oshkosh 2004 road trip. The plan was to stop at the Canadian Border office and get all items (of value) recorded so it would be easier to prove ownership upon our return in 8 days. "One digital camera, one radio, 2 helicopters and a video camera"... Two what? Asked the customs officer. Yes we were taking two Mosquito single seat helicopters to Oshkosh with John Uptigrove of Innovator Tech (here in Calgary). The officer filled out the paper work and proceeded to walk out side to apply the "Canada" sticker to them. He was amazed to see the open frame unit mounted on the back of the truck and then saw the enclosed model sitting pretty on the next truck. I could not hear exactly what he was saying but he sure was impressed. He told us to have a good time and be safe, now we had to go to the next station, the US Border.

I was at the front of the group and I could see that their interest was not with my son and me but with what the heck was coming behind me. I showed them the needed information and proceeded to pull up ahead and wait. I could see by the amount of time they spent looking it was something they did not see very often and who could blame

them. The guys gave the newly written up paper work, showed some ID and answered a few questions. Now we are on our way, Oshkosh here we come only 16 more hours. But first we stopped in for a quick visit with an old acquaintance of Ted Beck and to show him the newly completed project. This was the same fellow that got Ted hooked on aviation as a teenager. He was truly amazed at this helicopter and I could see he was thinking of how he could get one for himself. Now it was time for the road trip to begin. We drove through the day and stopped just outside of Minneapolis at midnight. We did by chance run into another family from Saskatchewan that was also going to Oshkosh so they did their best to follow us for most of the trip. We had many people looking and pointing as we passed



them or when we stopped for gas. It was amazing the amount of people that started talking to us as we tried to make quick stops at the food or gas stops. We still had 7 hours of driving on our second day to do so our stops we not very long. We had taken along the portable FRS radios so we could talk between the 3 vehicles as needed and there surely were some interesting conversations going on from time to time. It also saved us from having to guess when and where our next stop was. I would recommend it for any trips you plan to take as a group.

Next month, the arrival at Oshkosh 2004. →

# For Sale

**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 hangered, \$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) (05/04)

**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, \$22,500.00 OBO, Troy, (403) 936-8424 or email for pictures [brancht@tseesteel.com](mailto:brancht@tseesteel.com) (05/04)

*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

**Team MiniMax** - blue & white, Rotax 447 with electric starter, drycell battery, 35 US gal tank, speed fairings on wing struts, wired for radio (power, PTT and antenna), skis, 185 TT, hangered 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 Lukasik 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.

## Flying Events

**September 11** - Cardston fly-in breakfast. Contact Doug Murray 403-653-2087.

**September 12** - Rocky Mountain House Air Show, 1300 to 1600. Fly-ins must arrive before 1200. Contact W.J. Horemans 403-845-7053.

**September 18** - Lethbridge Sport Flyers fly-in breakfast, 8:00 am to 11:30 am at Ron Janzen's airstrip: 2600'x70' grass, N44.498 W44.026, Rwy 07/25, Freq: 123.45, caution: power line on approach to 25. Contact Ron Janzen 403-345-3013.

## 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:

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## 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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**Past President:** Bob Kooyman 281-2621  
e-mail: [kooyman-eng@shaw.ca](mailto:kooyman-eng@shaw.ca)

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

**September 18** - CUFC/COPA Flight 114 and Chestermere-Kirkby Field Young Eagles day, 0830 to 1300. Contact Bob Kirkby 569-9541.

**September 19** - CUFC/COPA Flt 114 fly-in BBQ, 11:00 am to 2:00 pm at Dave Boulton's airstrip northeast of Black Diamond. Contact Dave Procyshen 257-8064.

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## Some Boys From The Bottom of The World Drop in to Kirkby Field

by Stu Simpson

A DeHavilland Twin Otter owned by the British Antarctic Survey (BAS) flew in to Kirkby Field on August 2nd. The Twotter, as it's affectionately known, was one of two DHC-6's in Calgary undergoing overhaul at Field Aviation. The pilots, Michael Moore of Toronto, and Anthony 'Ant' Tuson of Scotland, spent the week checking out two of the research organization's Twin Otter aircraft before Tuson flies them to the Antarctic in September and October.

After arriving at Kirkby Field a crowd of onlookers descended upon the Twin Otter as Moore and Tuson opened the aircraft to



The Twin Otter landing at Kirkby Field.



Taxiing in. Too big for Terry's hangar!

spectators, many of whom were children. Moore gave CUFC members advance notice of the plane's arrival so many visitors were on hand to enjoy seeing the plane, which is the largest one to ever land at Kirkby's.

Moore and Tuson were very welcoming as they allowed everyone interested to enter the plane and explore it. Not surprisingly, no one missed out on the opportunity. Moore also joined the CUFC.

Tuson is one of a handful of pilots the BAS employs to fly Twin Otters and DeHavilland Dash 7s around the southern-most continent. The BAS conducts many types of research including climatology, geology, glaciology and more. When working in Antarctica, Ant flies out of the BAS research station at Rothera, located on the peninsula south of Argentina.

Moore is a Twin Otter instructor originally from Toronto, but currently based in Switzerland. He and Ant spent the week flying in the Calgary area to small strips where they could realistically practice STOL operations, which are the norm at the bottom of the world. Kirkby's strip is virtually the same size and elevation as the Rothera strip and so provided a good place for refresher training. After visiting for more than two hours Michael and Ant spent 45 minutes doing circuits at Kirkby's before heading to Vulcan for dinner.

The pair returned to Kirkby Field the following Thursday in a different Twin Otter, this one with wheel-through skis. They'd planned to join other CUFC members on a trip to Linden for pie, but a severe thunderstorm ruined the plan.

Moore and Tuson are planning a return trip to Calgary in September to check-out the BAS Dash 7 and may even bring it into Kirkby's. We'll keep you posted. →



Andy Gustafsson flew in with his Merlin.



Everyone was welcome to climb aboard and explore.



Michael Moore gives Spenser Simpson a some pointers on flying the Twotter.



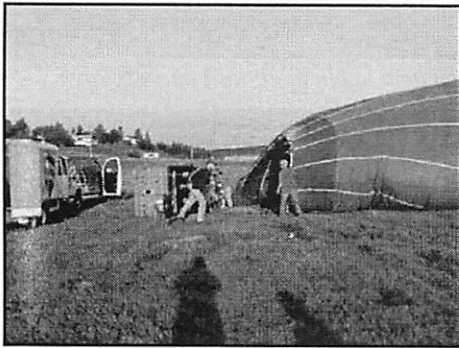
Stu Simpson shows Michael Moore where to find friendly local grass strips.

## Up Up and Away

by Carl Forman

A hot air balloon ride seemed the perfect way to celebrate Barb's 29th. birthday. Hot air ballooning requires near perfect weather. Inclement weather had caused six cancellations but seven must be our lucky number. The weather was perfect for the flight.

Our balloon held eight passengers plus the pilot. The set up and launch procedure was interesting. Poles and safety wires were attached to the basket and the burner apparatus was secured to the poles. Finally, the huge balloon was attached to



The balloon begins to inflate. Photo by Carl Forman.

the burner apparatus and stretched out over the ground. The basket was tipped on its side. Two gasoline engine powered fans were used to inflate the balloon. Next, the propane burners were lit up and the heat was directed into the balloon. In about a

minute, the balloon began to rise and in another minute we were directed to climb aboard. After a few additional safety checks the burners were turned up and we had lift off.

The lift off is noticeable for its lack of drama. The first clue that we were airborne was that we were inching away from the launch crew. We never felt any acceleration. We flew serenely over the city at 300 to 800 feet above the ground. Below us we could see the bustle of traffic. First, we flew over some light industrial areas and then some quiet neighborhoods. The dogs below barked angrily at the balloon. The views were spectacular. The rain we had this summer painted the landscape a lush green.

The pilot maintained a temperature differential between the air in the balloon and the outside air of 70 degrees C. The temperature inside the balloon cannot exceed 120 degrees C without damaging the fabric. Our one hour flight consumed 130 liters of propane which was about half the fuel at takeoff. A lot more fuel is required on a hot day or when carrying a heavier load. An Icom A5 handheld radio is used to stay in contact with Calgary tower.

We were told that every landing in a hot air balloon is a controlled crash. A 75 yard wide strip of ground just south of the Trans-Canada highway was identified as a

potential landing site. The pilot pulled ropes to let out some of the hot gases. We descended to within 50 feet of some residential roof tops. The pilot was all concentration as she was judging descent and intermittently firing the burners. At the appropriate moment she pulled the ropes to



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Landing site selected, we begin our descent. Photo by Carl Forman.

dump more hot gasses and the basket descended the last 6 feet fairly quickly. There was a gentle but unmistakable collision with the ground. The basket remained upright. We climbed out and helped secure the balloon. After a glass of champagne, our flight was officially over.

For an ultralight pilot it was a nice change of pace. Barb and I both agreed it was a great way to celebrate a special event. →



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## Young Eagles Day

CUFC/COPA Flight 114 will hold it's second Young Eagles event on Saturday, September 18.

For more information contact  
Bob Kirkby 569-9541.

## Diary of an Amateur Test Pilot

by Ken Beanlands

### Part 1 - The First Frights...err Flights

In 1989, I embarked on a project I estimated would take 5 years to complete, the building of a Christavia MK 1 airplane from scratch. Just shy of 15 years later, it finally flew. Over the 15 year period, the plane was moved from it's original home in St. John's, Newfoundland to Calgary in 1995, then to a new house in 2001 and finally to a hanger at Glen Bishell's airstrip just east of Carstairs.

Although 15 years seems like a long time, there were fairly large stretches of inactivity while I worked on other projects around the house not to mention the time it took to build up a shop that matched my father's in Newfoundland where the Christavia was hatched. I also started building at a very early time in my work career, merely out of university 6 months, which introduced delays while I saved up for materials and tools. The total number of hours to build was near 3000, although I could now do it in half the time with the tools and experience I now have. By far, the greatest amount of time was around the changes I made to the original design.

I have had a great deal of help in this project. First, by my parents in Newfoundland who let me use their shop and tools to start construction. I've also had a great deal of help and advice from numerous members of both the RAA Calgary chapter and the Calgary Ultralight Flying Club. Most recently, Glen Bishell and Mike Sweere have been a tremendous help in the final assembly and first flights of the plane. Of course, the greatest source of assistance has been from my wife. Renee has helped out on numerous occasions, covered half the plane, listened to me gripe and complain about parts that didn't fit or corners that I painted myself into, and has been totally supportive of this entire endeavor (she's even supporting the idea of a Bearhawk...). Without her

support, the plane would never have flown.

Despite being heavier than I had hoped (empty is at 1114 lbs, gross at 1650 lbs) and a little nose heavy, the plane seems to be exactly what I was looking for. I decided to pull together the notes I had made and share them with you.

### July 5, 2004

Well, after 14 years and 10 months of building, C-GREN (AKA Chrissy) finally took to the air this afternoon for a quick 10 minute flight around the patch. The flight was cut short by an oil temperature that was dangerously close to the redline. The temp had stabilized at about 220 during the taxi testing just prior, but in the air, it hit about 240, just below the redline. Also, the oil pressure started dropping to the minimum at this temp. I suspect the culprit is a prop with too coarse a pitch and too small an air duct to the oil cooler (currently 2"). I can also seal up the seal around the oil cooler a bit better to help this.



*The Christavia ready for it's test flight.*

On the plus side, the CHT's were perfect at 300 F, right in the middle of the 240-400 F operational range. The old T&B gyro I was using is not up to the task so it'll be removed in favor of a simple skid indicator. The red flag was on before I took to the air, and the breaker popped in flight. No biggie there, I only installed it to use the ball anyway.



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Other than a little heavy on the left wing, easy to fix with the adjustable for end in the rear strut, she flew great. Even with a very coarse prop, I was seeing 600-700 fpm at about 65 mph indicated and at a gross weight of 1524 lbs.

I had started with taxi tests doing about 12 runs varying from walking speed up to about 40 mph with the tail high. The only problem noted there was that the bottoms of the rudder pedals were too far forward and I kept dragging on the brakes. A 10 minute fix added two 3/4" blocks to the bottom of the pedals, and everything was good.

The take-off was done by letting the speed come up to about 35 and pushing the tail up to level. She flew off at about 45 and started to climb at about 50 mph. Climb was good and for a moment I had a feeling of pure elation and then absolute dread at what I was doing! What makes me think that I can build and fly a plane!! I shook it off by telling myself that I was flying the Citabria. When the voltmeter dropped to zero, I immediately realized that the gyro breaker had popped and remembered that the voltmeter was tied to it. I tried to cycle it, then left it off having figured out the problem

I had planned on climbing to 3000' AGL and trying a couple of stalls, but the oil temperature was really concerning me and I was worried at what a continued full power climb would do. So, I decided to try a couple of stalls at 2000' to try and  
*(continued on page 6)*

*Test Pilot - continued from page 5*

establish some sort of approach and landing speed. I could not get it to break at all and she was still climbing at 30 mph indicated. I'm very pleased with the stall characteristics.

I flew the approach at 65 and had to forward slip a little to compensate for the light, left crosswind. The landing was a little long and included a flare that was a little high and maybe a bit hot, but resulted in only a little bounce. The bungee gear really absorbed the energy and helped it really stay planted.

My wife, Renee, caught the whole thing on video tape including a few little sobs on take-off and landing. Unfortunately, it will be a week or so before I can fly again as we leave for Arlington in the morning.

**July 18, 2004**

Well, the whole thing was put on hold for 6 days while we went to Arlington. This was good as I got a chance to consult with several "experts" I know and came up with a plan of attack.

I put together an order on Monday and had the parts on Tuesday evening. I went out to the airport on Wednesday and started hauling things apart.

The first step was to remove the faulty T&B gyro and replace it with a blanking plate. Since I only really installed the thing to use the ball, I got a lightweight slip indicator that screws into the bottom of an existing 3-1/8" instrument, in my case the ASI. In the process, I dropped 2 lbs from the plane...good.

Then I tackled the rudder pedals. I have a pair of stamped aluminum pedals off a Traumahawk (I believe) which I attached to the existing 1/2" tube framed rudder pedals. The new pedals have a 1" relief at the heels that has solved the problem nicely and only added 6 ozs

The third challenge was to replace the current oil cooler shroud and duct with a better one. The original was an old carb

heat air box that I modified. The seal around the bottom wasn't that great (3/8" gap at either end) and it was fed by a 2" hose coming from the nose bowl. This was replaced with a 3" hose from the right, rear baffle. I built a whole new shroud from 0.032" aluminum and in the process saved another 1 lb over the original installation.



*The Christavia airborne. Photo by Stu Simpson.*

I finally finished everything yesterday evening. The winds were only 4 kts, but unfortunately were 90 degrees to the runway!

This morning, I went back out. The winds were pretty much down the pipe at 5-10 kts so I pulled out the plane and fired it up for a quick check of the firewall forward changes. Just before shutting down, I heard a homebuilt call in on downwind. Fellow chapter members Ralph Inkster and Calvin Thorne dropped in to check on my progress in Ralph's Caviler, an all wood, low-wing trike (currently for sale). Shortly after, my wife, Renee showed up. We gabbed for over an hour while I waited to see what the winds would do. Finally, with no more excuses, I decided to go for another flight.

I arranged with Ralph to fly chase while Calvin took a few digital pictures for posterity. Since he was quite a bit faster, I took off first. This time, the oil temperature settled nicely at 220F indicated (which I've determined is about 210F really) despite the 31C temps! The cylinder head temperature on #4 and #2 jugs (right ahead of the 3" hole I cut in the baffles) actually DROPPED and never came above 200F.

By the time I was on downwind, Calvin had caught up with me. The first thing I was

able to determine is that the ASI is off by about 13 kts. He was showing 90 kts and I was indicating 77. This was also confirmed by GPS. I was doing 93 kts on one heading and 73 kts on the reciprocal while indicating 70 kts. I'll have to fiddle with the pitot and static lines to solve this one I think.

Another thing that became apparent is that the trim is mostly ineffective. I'm pretty certain that gap seals will solve the problem. Finally, I determined that the left wing low problem I was experiencing before is actually a need for a rudder trim tab, not a wing twist. After 10-15 minutes of formation flying, Ralph broke off and headed home. We had a great deal of static between the radio transmission between the two planes when they were in close proximity, but once he got over 1/2 mile away, it cleared up nicely. Talking to other aircraft in the area also indicated that I was transmitting and receiving clearly at least 25 NM to Beiseker.

I was able to get one nice, crisp stall at just under 30 mph indicated, which is probably closer to 40 mph CAS. I think the fact that I'm at the forward point in the CG envelope is making it hard to fully stall.

One other thing I noted was that full throttle cruise yields only 2500 RPM and 2350 on the ground. I'm going on the assumption that I should have almost redline RPM at full throttle. I'm also slightly over-square (about 2" worth) which I'd like to fix. I'm thinking that I should go to a 53" pitch rather than the current 57".

The main performance concern I have right now is that the acceleration on take-off is lower than I'm happy with. The Citabria at gross was certainly off quicker from the same field than I'm getting solo. However, the plane is still climbing at 600-700 FPM despite the coarse pitch at relatively high density altitudes. I'm certain that the prop fix will solve this. Anyway, 40 minutes later I was back on the ground after another very successful flight.

*(Continued on page 8)*

## South of the Bow

by Dan Mitchell

The weather forecast called for rain that morning and severe thunderstorms in the afternoon and evening. It was about 10:30 when I finally arrived at my hangar at Indus. Two of the hangars at the field were open and the Merlin and Beaver RX550 that are hangared in them were gone. The taxiways had been mowed recently and the freshly-cut grass smelled great. The sun shone brightly between the scattered clouds and everything seemed fresh and clean. It was turning out to be a much nicer morning than the weatherman had forecast.

After opening up the main door to my hangar, I pattered around inside for a while, with no plan to take the EZ Harvard up for a spin. I topped up the oil and added fuel to the wing tanks. Robins had been busy building three nests on top of the south wall since I had been there last. They had also made a terrible mess on my airplane. The nests were empty and incomplete so I removed them, hoping the birds would be discouraged and rebuild somewhere else.

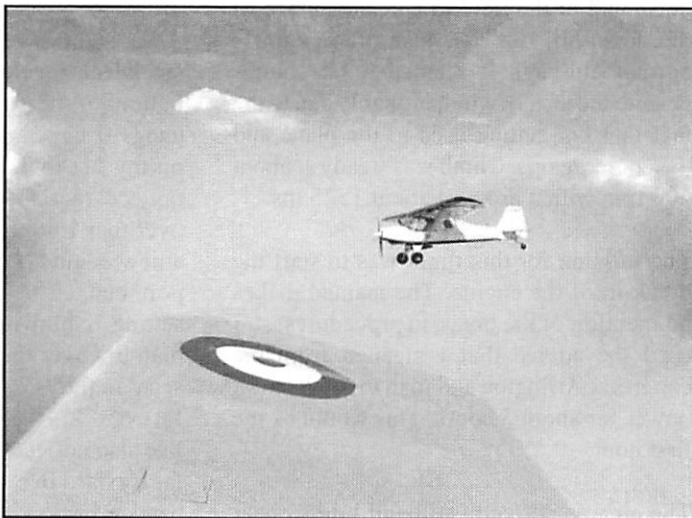
After cleaning off the plane, I wandered outside. The scattered clouds persisted and large thunder heads were beginning to form to the south west. Tall and white, with a sense of what was to come later in the afternoon. But at that moment the conditions in the vicinity of the airfield looked inviting. So there I was, standing in the sunshine in front of an open hangar with a fully preped airplane inside. What to do? What to do? Flying was the obvious answer.

I rolled the 'Harvard out of the hangar and

did my pre-flight inspection. Although the winds were very light, they seemed to be coming from all directions. The wind socks around the field were hanging nearly straight down but they were revolving in slow circles. Obviously unsettled conditions were on their way.

While warming up the engine and going through my pre-flight checks I monitored the local radio frequency. There was no one on the radio and no one visible in the circuit or the immediate area. I announced my intentions as I entered the runway, took off and headed south. Once in the air it as apparent, at least this far north of the active weather, that conditions for a late morning flight were perfect.

I had no particular destination in mind, but



Garrett Komm's Merlin off Dan's wing. Photo by Dan Mitchell.

I wanted to be south of the Bow River, well clear of any traffic that might be in the vicinity of the airport. I also didn't want to stray too far from home. I figured if I stayed between the developing storm clouds and the airport I could turn around and head back to the airfield and away from the poor



Dan Mitchell's EZ Harvard. Photo by Garrett Komm.

weather if conditions deteriorated.

The clouds in the area were broken with a base at approximately 4700' (1400' AGL). There were a few ripples in the air but it was still very comfortable. The outside air temp registered 14°C on the digital thermometer on my instrument panel. The fields below were every imaginable shade of green and the Bow River sparkled in the sunlight as I climbed to 4700'. Shadows cast by the clouds on the fields below were sharp and well defined, adding to the beauty of the morning.

I was 10 miles south of Indus when I heard Garrett Komm in his Merlin report in to Indus traffic. He was 10 miles NE of the airfield, approaching Langdon on his way back to Indus. As Garrett flew south west towards Indus I turned east and radioed my position. We switched to 123.7 and agreed to meet up east of Indus.

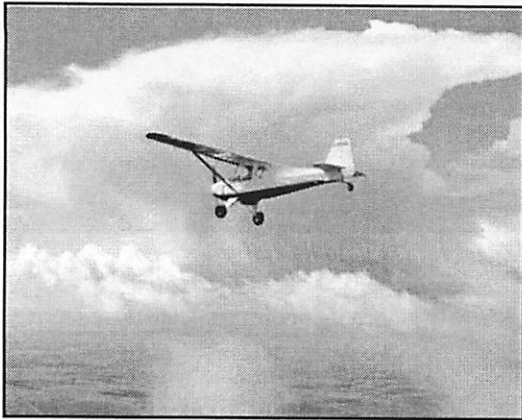
South of Langdon I swung the 'Harvard north to join up with the Merlin. Garrett reported that Dave Procyshen was up with him in his nordo Beaver RX550. I spotted Dave's Beaver at my altitude off my one o'clock and he waved as he passed by my right side. It seemed to take a while for Garrett and I to spot each other. We kept 200' elevation between us as we got closer together until we had visual contact. When we had each other in sight I turned 180° and joined up with the Merlin heading south. When south of the Bow we

*(Continued on page 8)*

*South of the Bow - continued from page 7*

chased each other between the clouds for the next hour and a half.

In my short flying career I have only had the opportunity to fly in conditions like this a few times. I do not have the literary skill to convey the stunning beauty of the



*Garrett Komm in his Merlin. Photo by Dan Mitchell.*

view among the clouds. The blue Alberta sky, the delicate white clouds off my wing tips, the magnificent greens of the fields and the sun sparkling off the river below . . . Fortunately we each had our cameras with us. The accompanying photographs do a much better job of conveying the awesome beauty of the flight than I can put into words. These are just a few of the 140 digital pictures Garrett and I took between us during the flight.

We never strayed far from our home field at Indus but it was like being in another world. Fortunately the weather conditions remained perfect for the duration of our flight. After an hour and 50 minutes of wandering the famous blue skies of Alberta we turned for home.

It had been an extraordinary flight. I am very pleased with the photos we took that morning. The flight was one memorable experience and the pictures will help me treasure it forever.

By the way, the robins did return. Since that Sunday morning, one nest was rebuilt, the eggs have hatched and now there are four robins making a mess on the trainer yellow paint on my 'Harvard. →

*Test Pilot - continued from page 6*

**July 23, 2004**

After waiting since Sunday, the boomers finally left us alone last evening. Temperatures were cooler than they had been at about 20 C. I arrived at the airfield later than I had planned at 7:30 PM and started in on the gap seals for the trim. Then I refueled, preflighted the plane and pushed her out. Mike was out mowing the property but he was the only one around so I told him my intentions and he said he'd keep an eye out for me.

The engine caught on the second or third blade as normal and settled into it's normal idle, rough by Lycoming standards, but quite normal. After the oil temp gauge showed about 120F, I did a run-up. After consulting with the engine manual, I'm now quite comfortable with the 175-200 RPM mag drop at 1800 RPM. The manual allows for 250 as long as the difference between the drops is less than 50 RPM.

A quick check of the sock showed that the winds were still flat calm so I taxied to the north end of the field to take advantage of the down-hill run. The take-off was fairly normal although it seemed a bit shorter despite the lack of wind, probably due to the fact that I'm getting used to the plane and the cooler temps. Climb was steady at about 600 fpm with a gross of about 1525 lbs.

The mission for this flight was to start the break-in of the engine. The manual makes no mention of the break-in procedures, so I used the advice that I gleaned from the experts at Arlington and plan to run it at full power for about 5 hours. This would be the first hour.

The air was perfectly still and I didn't hear a single radio call all evening. It was hazy with visibility down to about 4-5 miles. The first thing I noticed was that the trim was now MUCH more effective with the gap seals in place.

The controls, left to their own devices, are currently uncoordinated requiring a bit of left aileron and right rudder to straiten up.

This will be fixed before the next flight with a fixed rudder trim and adjustments of the strut fork-ends.

Then I played with the cruise speeds. The ASI is still registering low despite my attempts to straiten the pitot tube a little. I think I'll try flaring the end a little to compensate. However, according to the GPS, the winds were less than 2 kts and the full throttle cruise at 2500 RPM and 6000' is 96 kts! That's 110 mph! Not bad at all.

After about 45 minutes, I decided it was time to land.. The first approach was way too high and hot. I aborted. The second approach was better, but I still touched down a little hot, and about 2/3 up the runway. Fortunately, I landed uphill and had more than enough time to stop. I think that the combination of an 800 rpm static idle (right at the minimum RPM range specified in the manual) and the coarse, 57" prop is actually giving me a 0 to positive thrust condition on final rather than the negative thrust normally experienced when I pull the power back to idle on the Citabria. I'll have to adjust my circuit and approach accordingly until I get the prop pitch changed next week to 54".

After shutdown, I noticed that I have a small leak developing at the T-fitting in the bottom of the tank that splits off my sight gauge. I have a spare so that will be first on my list tonight. I checked the oil and noticed that I consumed about 1/2 liter over that 1 hour, which is not unusual for a new engine. I also need to clean off the port bungee as the full power, full rich setting is blowing back a little carbon. I plan to cover them with a vinyl covers as seen on the J-3.

I've also noticed that the stick is a little too far forward to be comfortable, so I plan to bend it back a bit to a more comfortable position. So, it looks like tonight will be a maintenance night rather than a flying night. At any rate, testing is progressing well. If I can get all the snags fixed tonight, I'll be flying again tomorrow morning.

*Part 2 next month. →*