



Skywriter...



March 2009



Troy Branch displays that all too familiar RV grin after his first flight on February 27th, 2009.

“Some of you know already, but in case you did not hear, I made the first flight on the RV10 today. All worked as it should and I plan to get a few hours on it tomorrow. It was a big relief to see all the gadgets working as they should. The plane was solid and fast. It flew hands off with no aileron trim required. Stall both dirty and clean were straight ahead and the engine performed very well. I think I picked the right plane for the family to travel in!”

Troy Branch

From The Cockpit

By Pat Cunningham

As we move into March it's plain to see were not done with our cold weather just yet. With temperature swings of 30°C, it's nice to hear some of you are getting in some nice flying trips. I will hopefully be joining you soon.



The annual banquet was held on February 28th and was another success with the final attendance being 57. The Big Rock facility was very nice with more room to mill about and a wonderful meal being served. I would like to thank Dave Procyshen and his

Don't Forget Your Cheque Books!

- 2009 dues are due... \$30.00
- Raffle Tickets are available \$10.00 each or 3 for \$25.00.



BoatCraft
6316 - 106 Street Edmonton, AB T6H 2V3
Phone (780) 437 4919 Fax (780) 433 4373
e-mail: sales@boatcraft.com.

West System Epoxy products, Fillers and Additives
Carbon Fiber, Kevlar, Fiberglass Cloths and Tapes

—

Light Weight Okoume Mahogany Plywood
(Thicknesses: 1.5, 3, 4, 5, 6, 9, 12, 18 mm)

—

Paints, Stainless Steel Fasteners

—

Alberta's Sailing Supply Centre
Stitch & Glue Sea Kayak and Canoe kits
Waters Dancing Boat kits - www.watersdancing.com

helpers for arranging a very enjoyable evening. Good job Dave!

This is your last chance to purchase raffle tickets as the draw will be held at the March 12th meeting. Remember you must be a paid-up member to purchase tickets so get your dues paid and buy a ticket to help support your club. Also coming up soon on April 4th will be the annual rust remover, see the Flying events section for more information.

I would like to thank Clark Seaborn for his presentation at the last meeting, we sometimes take for granted items such as seatbelts and it was interesting to see the technical side of designing such an important part of our flying machines.

Daryl Gillespie will be presenting a display of a Rotax 912 engine that he is currently working on at the March meeting. This engine will be in pieces and you will be able to see the inner workings of this very popular aircraft engine. Daryl will also try to answer your inquiring questions, so if you've always wondered what was really inside that 912, plan to attend.

Also in store for you, Bob Kirkby will be giving you an update on all things currently going on with COPA, always interesting. →

Calgary Recreational and Ultralight Flying Club

COPA Flight 114

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

President:

Pat Cunningham
(403)276-2617
patcunningham@shaw.ca

Vice-President: Stu Simpson

(403)
bushmaster@shaw.ca

Secretary: Ed D'Antoni
(403)247-6621
dantoni@telusplanet.net

Treasurer: Carl Forman
(403)283-3855
forman.c@shaw.ca

Director: Andy Gustafsson
(403)247-3245
gustafsa@shaw.ca

Past President:
Garrett Komm
(403)257-3127
kommair@telusplanet.com

Web site:
www.cufc.ca

Skywriter

Skywriter is the official newsletter of the Calgary Recreational and Ultralight Flying Club - COPA Flight 114, published 12 times per year

Editor: Ken Beanlands
(403)295-2079
kbeanlan@telus.net

CAVU Dreams

by Ken Beanlands

What a month! February started out with the same crappy weather we've been experiencing all winter. Fortunately, the past couple of weeks have seen a bit of a turnaround, at least for me.

It started on February 21st when I popped out an email to a couple of guys to see if anyone was interested in lunch at Lacombe. Barry and Joel said they were and that Joel was planning to bring along his toddler daughter as well. The weather was beautiful so off we went. I decided to take a few pictures of my brother-in-law's cabin on Gull Lake which ended up timing my arrival in Lacombe just minutes behind Barry and Joel.

However, I heard a few more familiar voices on the radio also heading to Lacombe. It turns out that the Calgary Flying Club also decided to aim their Saturday Sortie at Lacombe. The final tally was 12 aircraft and 31 flyers at the Boston Pizza for lunch. Aircraft ranged from my little Christavia up to a DHC-2 Beaver on amphibians! What a great day!!!

Last weekend was, of course, the annual dinner and auction. We used to opportunity to plan yet another trip. Brian Vasseur recently sold his Rans to a buyer in Medicine Hat. The original plan was to fly down with him and give him a lift home. Due to the cold temperatures, that plan was changed to a flight to Three Hills for lunch. Fortunately, I contacted the rest of the group at Chestermere before I got past Strathmore, otherwise I would still be in Medicine Hat waiting for them.

This past Monday I got to do one of my favourite things while flying (No, not that!)... I got to introduce someone to the world of light airplanes. One of my fellow students had made it through 32 years without experiencing flight in a light airplane. He works for a helicopter company in Canmore and has flown in them, but it's just not the same. He had a great time. With Daylight Savings Time coming into effect this evening, I hope to be able to take more fellow students for an ab initio flight.

Speaking of students, class has been going very well. I recently received my second scholastic award and was asked to be valedictorian. Yeah, I know, I'm a keener.

One of the more interesting classes we've been doing is on autopilots. This is coming at a great time as I'm just starting to plan out the avionics and instrumentation for the Buttercup. Having done a

number of long cross countries over the past few years, an autopilot is definitely in my future.

Basically, there are three systems to consider. First, is the simple single axis or wing leveller. In addition to keeping the plane level in roll, it will also steer to a selected heading. In this case, Pitch is set using trim.

Second is the two axis system. In this case, the roll control is the same as the wing leveller, but pitch control is added for holding altitude. In most cases, a trim servo is also installed to control pitch trim and eliminate the continuous force needed to hold a pitch attitude.

The third system is the same as above, but includes a yaw dampener. Funny enough, I've heard the term yaw dampener for years and just assumed it was some sort of shimmy dampener installed on the tail. It turns out that a yaw dampener is simply the yaw control portion of the autopilot. However, on many large aircraft, the yaw dampener is always engaged whether the autopilot is on or not. It's required to control dutch roll instability and, on some aircraft, is a no-go item if it's not functioning.

For the Buttercup, I'll be going with a two axis autopilot. At this point, I haven't decided whether I should go with a dedicated autopilot like the TruTrak or use the autopilot built in to an EFIS system like Dynon or Advanced Flight Systems. I'll likely be picking Troy's brain on that one.

In addition to flying this month, I've been hard at the Buttercup project as well. I know that Troy will be disappointed with this, but it was May of 2008 since I logged any time on her; so much for working a couple of hours a day. However, I had good excuses. I spent most of the summer flying or working on the cabin. Last fall was an extremely busy month with school work and weekends at the lake and Christmas was mostly spent at the lake. However, the lake project is nearing completion and I've dusted off the Buttercup plans and gotten back to work.

I've been working on both the fuselage and the wings at the same time. I prefer doing the metal work in the warm months when I can open the garage door and get rid of some of the fumes associated with grinding and welding. Woodworking is done in the cold months. The last time I worked on the wings I had just completed the wing rib jig and had manufactured (cut) all the bits and pieces for the ribs. This included cap strips, uprights, diagonals and most of the gussets.

I had found an article on the web that described how to build a "high tech wing rib jig" using Lexan. Apparently, T-88 epoxy will not adhere to it making it



a great jig material. I built the jig so that I could clamp all the gussets on rather than nailing.

One issue I had not addressed was a modification suggested by Earl Luce (the designer) that the leading edge flaps be eliminated. The original design has the entire leading edge held in place with two 3/16" bolts. Although adequate for the 100 hp O-200, this feature will limit the V_{NE} for the O-320 power plant I plan to install. This meant a slight redesign of the ribs to include a nose block. I designed one of 1/2" ply that glues to the forward spar upright and attaches to the upper and lower capstrips. This allowed me to glue the capstrips to the nose block before laying up the rib in the jig eliminating the need for steaming the capstrips.

Of course, this makes rib building a three part exercise. First, the capstrip and nose blocks are assembled. Next, the rib is built up in the jig with the gussets attached to one side. Once the rib is out of the jig, the gussets are attached to the other side.

As production has progressed, I have been doing step one and three on one evening and step two on the second. This means I'm turning out one rib every two days. I could go faster, but I keep running out of clamps. Currently I'm up to rib 8 of 22. If all goes well, I should have the wings completed this spring.

If you hadn't noticed, the calendar is certainly filling up with events. There are a few big ones on the horizon for our club including the Rust Remover in April, Bob Kirkby's event in July and the COPA Convention in mid July. Stu Simpson is planning a group trip to Seattle in early June and I'm sure that Glenn Bishell will be scheduling his event soon (usually around Father's day). If you see something I haven't included, please drop me an e-mail.

One last item I'd like to mention... I'm out of articles again. Please help out by putting pen to paper (bytes to Word?) and telling us about what you're building, what you're flying, interesting flying stories, or any other aviation related articles.

See you on Thursday!



Pictures from top to bottom

1. Step one, attach the capstrips to nose block..
2. Build up the wing rib using half the gussets.
3. Rib removed from jig ready for lower gussets.
4. Installing the rest of the gussets.

FOR SALE

Notice: Classified ads are free to CUFC members. Contact Ken Beanlands by e-mail to place or renew your ad (see masthead). Ads will be dropped after 6 months unless renewed.

Continental A-75-8 engine. Only 360 hours since 0-time rebuild in 05. Comes with Marvel carb, and Sensenich metal prop, plus prop hub and bolts. Needs exhaust and baffles (damaged exhaust available). A light-weight, extremely reliable and easily maintained engine package. \$5800. Call Stu at (403) 255-6998.

Subaru EJ25 Engine. Long block, complete engine under 10,000 miles. 165hp N.A. fuel injected. Firewall forward will weigh approx. 300 lb complete. Will require a psru – I recommend www.gappsru.com for a really good unit. This engine is a super aircraft engine, with 5 main bearings, engine block is only 13” long. I have a few spares for it, such as alternator, injectors, oil filter etc. I can help you design an engine mount as well. Invested \$1900, asking \$1200 OBO, just need the garage space. Peter Stenabaugh (403) 280-6715. (12/08)

Ivo Magnum Prop, 70” ground adjustable, 2-bladed propeller with approximately 200 hours TTSN. Designed to fit a Franklin hub (different from both Lyc. And Cont.) but can be adapted to fit most engines with appropriate hub from Ivo. \$450 OBO. Contact Ken Beanlands (403) 295-2079. (10/08)



Light Engine Services Ltd.

AUTHORIZED
ROTAX
REPAIR CENTRE

For Rotech Research Canada Ltd.

- Aircraft Sales - Service
- Rotax Engine Sales - Service - Parts
- Engine Test Stand Service
- Engine/Flight Instruments - Radios
- Propellers - Spinners - Accessories

Call: 780-418-4164
or 1-866-418-4164
e-mail: lightengine@clearwave.ca

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

AIRPARK LOT • \$29,000, PRICED TO SELL, Fantastic ½ acre lot with trees. Aero Estates Airpark, Lot 77 on beautiful Lake Palestine. Contact Don Usher, Telephone: (250) 223-8380. (08/08)

Beaver RX 550, 422 hr TTAF, 90 hr since total rebuild. 100hp Subaru, 3 blade warp drive prop, Mono 2000 amphib floats with electric retract, all surfaces in Cenconite with Polytone, extra wing tanks, carb heat, radio intercom, GPS, full gauges. Will trade for a boat or 5th wheel „, but try me on about anything as it is time to hang up my wings Always hangered in Kaslo B.C. \$14,000.00. Contact: Russ White - umm48611@telus.net (07/08)

Snowbird 1. C-IDRM. 64 hrs total time on Rotax 277. 60mph cruise. 38 mph stall. Always hangered. Excellent condition. 2.5 hour range with reserve. Fly’s hands off with trim set. Flown regularly. I want to buy a two-seater. Innisfail. Bruce (403) 227-6577. (06/08)

V.W. 1915 c.c. engine – 40 hrs. T.T. Comes with Sterba prop. Can be heard running, still on plane. Cost \$7000 new, asking \$3500. Call Doug at (403) 728- 3844. (04/08)

GSC Tech Prop - Wood - 64 X 36 RH Pusher - 2 Hrs run Can be seen at 167 Cove Place, Chestermere, AB Day – (403) 769 7019 Eve (403) 226 7224 – Jerry Bruce Freestone Gull Lake SK (306) 672 4124 \$275.00 firm. (05/07)

Team Minimax Single place taildragger, C-IFCZ completely enclosed and streamlined Rotax 503, 3 blade IVO prop. Two 5 gallon wing tanks, 100 hours total time, external radio antenna, located in Vulcan Industrial Airport, always hangered, Asking \$9000. Contact Graham at (403) 601- 6853 or gramillington@yahoo.ca (04/07)

→

Jim Corner's new Kitfox Model 5





BLUE YONDER
AVIATION

936-5767

Located at
Indus-Winter
Aire-Park

Dealers for
Easy Flyer
T.E.A.M. mini-MAX

Build and fly this popular kit for only \$6500.00

Merlin

- Flight Training
- Ground School
- Intro Flights \$25.00
- Gift Certificates
- Rentals (Block time)

FLYING EVENTS

Saturday, April 4th Calgary, AB – CRUFC Rust Remover will be held from 0900 to 1200 at the Cardel Homes Place. Contact Bob Kooyman or Carl Forman for more details.

May 3rd, Red Deer - COPA Flight 92 Rust Remover, Red Deer Flying Club will hold their spring Rust Remover. It will be held in the Sky Wings Aviation hangar. Pancake breakfast from 8:00 a.m. to 11:00 a.m.. Lunch from 12:00 p.m. to 1:00 p.m.. Rust remover sessions starting at 10:00 a.m., 11:00 a.m. and 1:00 p.m.. For more information please contact Bert at 403-350-5511.

May 10th, Sundre, AB – COPA Flight 146. Sundre Flying Club Annual flying breakfast. Everyone is welcome. You can fly in, drive in, walk in or wheel in. Admission fee is \$8.00 for adults and \$4.00 for children. The event runs from 8:00 a.m. to 12:00 p.m. COPA Flight 146 Sundre is honouring the Centenary of controlled flight in Canada. For more information please contact Michelle Penney and Wayne Bumphrey at 403-638-8027. Tom Mennear is acting as our convener.

May 17th, St. Albert Flying Club, AB (CES4) – Speed Dash (Fun Event) 78 nm triangle task starting and finishing at Westlock Airport, co-ordinates N54 08 32 W113 44 27. Pilot briefing: 8 a.m. and barbeque to follow with a rain date of May 18th. For more information please contact Ben Strafford 780-458-1606 or email larandben@cruzinternet.com.

May 30th, Wetaskiwin, AB - The 2009 Induction Ceremony and dinner for Canada's Aviation Hall of Fame will be held at the Reynolds-Alberta Museum in Wetaskiwin. For information and tickets, contact Justin Cuffe at 780-361-1351 ext. 241 or email cahf@telusplanet.net.

May 31st, Camrose, AB (CEQ3) – 54th Annual Fly-in Breakfast. A hearty Western Breakfast. One of the largest Fly-ins in Western Canada with over 100 aircraft expected. A Free picture of your aircraft on short final will be sent to all Pilots. Co-ordinates Camrose Airport N53 02 25 W112 48 56. For more information please contact Barry Graham at 780-781-7004 or email grahamb@cable-lynx.net.

June 3rd to 6th, Edmonton, AB – Canadian Women in Aviation Conference 2009, Biennial CWIA. We have secured a venue, and the hotel is already taking reservations at a reduced rate - just quote the CWIA conference! 1-800-716-6199. Coast Plaza Hotel, 10155 105 Street NW, Edmonton, AB, T5J 1E2. 780-423-

4811. More information and conference registration to follow, and will be posted on the CWIA website <http://www.cwia.ca/conference.htm>.

June 5th – 6th, Cardston, AB (CEA6) – 3rd Annual Cardston Fly-in. BBQ –Friday evening 6:30 p.m. to 8:00 p.m.. Movie in the Hangar Camping on the field (limited power) Pancake breakfast – Saturday morning 8:00 a.m. – 10 a.m.. Located at the Cardston Airport co-ordinates CEA6 N49 09 45 W113 14 28. For more information please email Douglas G. Murray at dgmurray@toughcountry.net.

June 7th, Lacombe, AB – 43rd Annual fly-in Breakfast from 7:30 a.m. to 12:00 p.m. Whether rain or shine come and see the display & learn more about the airpark. Located at the Lacombe Airport. For more information please contact Don Warner at 403-396-4323.

June 13th, Springbrook, AB – The Harvard Historical Aviation Society host Air Affair that will kick off with a pancake breakfast at 8 a.m. and precede a day full of activities. This will include Celebration of Centennial of Powered Flight with the arrival of the Back to Baddeck relay flight, commemoration of the 65th anniversary of Andrew Mynarski's fatal flight, classic airplane and car show and shine, ribbon cutting of the property donated by the county, kids aircraft activities, aircraft rides and more. For more information please phone 403-886-5711 or 403-886-4187, email to infor@penholdbase.ca. Please visit our website at www.penholdbase.ca

June 14th, Bonnyville/Cold Lake, AB (CYBF) – COPA Flight 90 Fly-in Breakfast from 0700 hrs - 1200 hrs. For more information please contact John Vardy at 780-826-2132 or email jvardy@telusplanet.net.

June 21st, Vernon, BC – The Silver Star Rotary Club presents it's 1st annual Wings and Wheels event from 10:00 a.m. to 4:00 p.m.. New, experimental, automobiles, bicycles, RV's and more. Attention pilots Vernon Flying Club pancake breakfast for fly-in's from 8:00 a.m. to 10:00 a.m. Happens rain or shine, indoor and outdoor exhibits and seminars, on site food vendors, nearby parking and shuttle services. Tickets at the gate for \$5.00 per person, \$20.00 family and children under 6 are free. For more information please visit our website at www.silverstarvernon.org.

June 30th and July 1st, Corman Airpark near Saskatoon (CJN5) – 3rd annual Corman Airpark Fly'n Fair. Pilots who fly in on either day and leave their aircraft on display for the public will get free breakfast Canada Day, and a chance to win an award in the appropriate category. Gates open to the public both days at noon. Food will be available from vendors both days. Free draws will be held for

airplane rides. Dealers and Manufacturers are invited to exhibit their aircraft and demonstrate them within normal circuit procedures. Grand fireworks will be performed at twilight on the 30th. To help cover some of the costs, the drive-in spectators will be charged a \$5 per car charge as they park. Checkout the website: www.cormanairpark.ca for more details. For info about the event email us thru the website or phone 866 882 3380.

July 4th, Chestermere-Kirkby Field (CFX*) – Annual Fly-In Breakfast. Breakfast will be served between 0830 and 1100.

July 8th to 12th – Arlington Fly-in and Sport Aviation Convention 2009. For more information, see <http://www.nweaa.org/>

July 10th – 12th, Wetaskiwin, AB – "Westebello" 2009, Third Annual Western Canadian Challenger Rendezvous! We'll be at COPA in Calgary, and then planning to join the flight across Canada Details at: http://www.challengerwest.com/irocnroll_tour.htm.

July 13th – 17th, Red Deer (CYQF), AB – AYA 2009 Annual Convention. AYA is the international type

club for owners and pilots of Grumman American light aircraft. Grummans are renowned as fun, sporty, efficient, and safe personal aircraft with relatively simple systems, offering more performance at a lower cost than comparable models of other types. For more information please contact Steve Peach 403-932-4323 or email editor@aya.org.

July 17th, Calgary, AB – John Lovelace's Century of Flight Calgary Springbank Airport stopover at COPA Fly-in on cross country flight. See http://www.johnlovelace.com/more/extended/Cross_Canada_Century_Flight.html

July 17th to 19th Calgary, AB – The 2009 COPA Convention is being held at the Springbank Airport (CYBW). It promises pilots and flight enthusiast a well rounded program that is educational, experiential and a lot of fun.

July 27th to August 2nd, Oshkosh, WI. – EAA Airventure 2009. For more details see <http://www.airventure.org/>

→

The Howard DGA Gathering in Hayward, WI. This event occurred just before Oshkosh Airventure 2006.

