



# Skywriter



**May 2017**



***Next Meeting Wednesday MAY 10 at the AeroSpace Museum***

**Monthly Newsletter of the Calgary Recreational & Ultralight Flying Club – COPA Flight 114**

**Our Mission: To promote safety and camaraderie amongst aviation enthusiasts.**

# President's Message

*By Ed D'Antoni*

## President's Message

Ed D'Antoni



### Presidents Message May 2017

As I age it is important for me to gauge whether or not I am fit to fly on any given day. The FAA recently approved a self-medical assessment for Private Pilots in the USA. I found information contained in their literature invaluable in doing a quick self-assessment. Even if one is not in the USA you can still sign up, take an online course and examination. You will obtain your score but cannot print the course completion certificate. The documents one must complete and sign can be found at [https://basicmedicalcourse.aopa.org/client/app.html?\\_ga=1.102566145.1224838556.1488833862#/courses/61001](https://basicmedicalcourse.aopa.org/client/app.html?_ga=1.102566145.1224838556.1488833862#/courses/61001). One of the requisites of a self declare medical is completion of a course and taking an online test. Course and test are at [https://basicmedicalcourse.aopa.org/client/app.html?\\_ga=1.102566145.1224838556.1488833862#/courses/61001](https://basicmedicalcourse.aopa.org/client/app.html?_ga=1.102566145.1224838556.1488833862#/courses/61001).

Stu Simpson did an excellent job of preparing and presenting a Power Point guide to Border crossing at the April Meeting. An electronic copy of the presentation can be had by contacting Stu Simpson or Brian Byle. Twenty-Three of our members have submitted enough information for us to construct their Profile Page. The minimum needed is a personal photo. We have over 50 members.

Come on guys and girls we can do better than this.

The feature speaker at the Wednesdays, May the 9<sup>th</sup> meeting will be Art Irwin on Giant Scale aircraft. Bob Kirkby's technical session on emergency preparedness has been moved to the June meeting.

## Calgary Recreational and Ultralight Flying Club

### COPA Flight 114

Meetings are held on the second Wednesday of every month, except July and August, starting 7:00 PM at the Aerospace Museum, 4629 McCall Way NE Calgary.

**President:**

Ed D'Antoni

[dantoni@telusplanet.net](mailto:dantoni@telusplanet.net)

**Vice-President:**

Bashar Hussien

[bashar09@gmail.com](mailto:bashar09@gmail.com)

**Secretary:**

Andrew Crocker

**Treasurer:**

Brian Byl

**Directors:**

John Kerr

403 714 0446

[oreal\\_kerr@hotmail.com](mailto:oreal_kerr@hotmail.com)

Barry Wood

(403) 935-4609

[barryleewood@hotmail.com](mailto:barryleewood@hotmail.com)

Bashar Husien

Past President

**Web site:**

[www.crufc.org](http://www.crufc.org)

**Skywriter**

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

**Editor:** Norm Vienneau

(587) 225-3944

[crufcnews@gmail.com](mailto:crufcnews@gmail.com)

# Go Straight or Turn Back?

From Pilot Workshops

## Question:

"Engine failure on takeoff - too many pilots try to turn back to the airport and crash due to stall/spin. Why?"

## Answer:

Statistics tell us that the tendency to turn back to the airport is overwhelming. It takes a lot of discipline to lower the nose and accept the fact that we're going to make an off-field landing. So let's look at that and make sure that we're ready mentally to do just that because turning back to the field is all too often a fatal choice.

Maneuvering the aircraft at low airspeed and low altitude through a series of turns in a high-stress situation is asking too much of any pilot. And it's not a 180-degree turn back to the airport. It's a series of turns, and you're doing this when your heart is beating off the charts.

The downside is a stall-spin crash. Turning back to the airport is nearly always fatal. Don't do it! There is an altitude in which every pilot can make it back to the airport, and I absolutely agree with that comment. But unless you know what that altitude is for your aircraft, and have validated your ability to accomplish the maneuver recently, you have no business attempting it.

A big key to successful execution of engine failure on takeoff is a pre-brief on every takeoff. It only takes a second but it does prepare us mentally for the possibility of an engine failure and sets us up to make our first step the right

one rather than the wrong one. So, we need to assess our best landing options on each and every takeoff and give a short 10-second briefing. *If I experience an engine failure on takeoff, this is what I'm going to do.*

If obstacle clearance isn't an issue, climb out at  $V_y$ , best rate. Be aware of the safe altitude that will enable you to turn back to the airport, and monitor closely until you reach this altitude. Make your choice simple in the case of an emergency, and if it's marginal you have no business turning back to the airport.

**Brian:** I follow the example of a fellow Cessna 195 pilot and go through a quick engine failure scenario on every take-off. If I experience a failure below 1000' AGL what am I going to do? If I have the failure after 1000' what am I going to do? If I am going to turn back to the field which direction am I going to turn as it is dependent on wind direction and obstacles/obstructions that could affect the same completion of the return manoeuvre.

*George Murray with the wings on his new plane.*



## Fat Dumb and Happy

NOW SERVING SOUTHERN ALBERTA AND BEYOND

**DOUG EAGLESHAM**

Independent Rotax Maintenance Technician  
Specializing in Rotax 4 stroke engine service and heavy maintenance

Call or email: 403-498-9522

 **RMT**

eaglesham.de@gmail.com

I want to give a huge thank you to Stu Simpson. He has provided the quizzes to further our learning over the past few months. Stu is an incredible resource to CRUFC and always willing to lend a hand to a member in need. His cheery attitude is indicative of a member that is truly excited about aviation in it's every stage. Starting with a Beaver early in his career and using a Merlin to fly to California Stu has many great stories to tell. His latest plane a Cavaleer takes Stu places many only dream of. In the past Stu has organized air ventures to points across western Canada. Thank you Stu for being part of CRUFC.

This months newsletter is a little thin. The month seem to fly by. (Pun Intended) and I did not get much of a chance to harass members into writing for the SkyWriter. In fact I was sitting at home and got Ed's email with his President Message and thought wow is it that time already. That was a quick month..



**Light Sport Aviation Inc.**  
Ultralight Pilot Training School, where your dream comes true

Winter's Aire Park, Indus  
Bashar Hussien  
403 612 4255

[info@lightsportaviation.ca](mailto:info@lightsportaviation.ca)  
[www.lightsportaviation.ca](http://www.lightsportaviation.ca)

So there we were flying along Fat Dumb and Happy as the saying goes. POP GRRRRR ROAR. What was that? We were out for a morning flight and the exercise was to fly straight and level along a country road. Straight and level means not gaining or losing altitude and an equal amount of horizon under each wing. I have had beginner pilots fly with me and take almost 2 hrs before this basic skill is sufficient to move on to the next stage of flight. Alberta has a lot of straight roads so this is an easy skill to practice. There is nothing more disconcerting to a passenger that flying at a weird angle nose slightly up and crooked as you fly to a \$100 hamburger. But I digress.

We had been flying the exercise for about 40 minutes and it was time for a break. Linden was 25miles away and would provide coffee and washroom facilities.

When we were about 2 miles east of the runway and getting ready to cross overhead. POP GRRRRRRR ROAR. What was that? Smoke was coming into the cockpit. OH OH, "My Plane" I stated as I took over the controls.

"Linden traffic this is November Juliet Victor turning an immediate right base for runway 16." Power back, let's get this thing on the ground NOW. Add a little power to check that the motor is there if needed and more smoke in the cockpit. Okay I guess we land with as little power as possible. Open both doors to keep the air fresh. A few

moments latter we were back on the ground, safe. I did not call Mayday or Pan Pan as I felt it was more of an inconvenience than an emergency but I did make sure I got to the ground as soon possible. If I were in Red Deer airspace where there were many airplanes in the circuit I may have used a different approach to getting the plane back on the ground.

Normally I always carry a full tool set in the aircraft with sockets, wrenches, and a multi bit screwdriver.

For some reason today was different. I did not even have my trusty pocket knife that I sometimes use as a pretend screwdriver. I can't even get the cowl off to see what the issue is.

These boots are made for walking, so down the road we go to the local grocery store. (I was hoping they would have a small hardware section and carry a screwdriver.) No such luck. That meant a walk down the valley and up the hill to the Home Hardware store. As we started to walk a lady who had heard me ask for some tools at the grocery store, drove up and asked if we would like a ride. "Yes please" She Also waited will I picked a small crescent wrench and a Phillips screwdriver and took us back to the plane.

You gotta love the small town friendly helpfulness. I took the cowl off and found the muffler had broken at the elbow in the back of the motor. This break meant that the exhaust was blasting right onto the firewall and had burnt the fiberglass noise mat. Thus the smoke entering the cabin. Thank goodness for a stainless steel firewall. This was not on a weld joint but rather a

flat part of the tube near the bend. I was able to remove the back nuts and take the muffler and the elbow off. Another long walk to the east end of town and we stopped into the local welding shop pieces in hand.

Another piece of the puzzle I have not mentioned yet was I had a commitment to be back in Airdrie to run the sound for my Grand daughter's Spring musical The Lion King by 12 o'clock. My Copilot had promised his daughter he would be at Calgary International by 12.30. It was ten o'clock and we were running out of time.



As I walked into the welding shop with pieces in hand I got that "really you want me to drop everything and do that for you" look. The promise of an airplane ride and it was "well give me a few minutes and I will see what I can do." By 10:30 we had the repaired part in hand and we were walking back to the plane. No rides back this time so I guess we were going to get our ten thousands steps in early. And here I am without my fitbit.

The Crescent wrench worked just fine to get the muffler remounted and we were ready to be airborne by 11am.

When I first had the issue I had called a couple of club members to see if assistance could be offered.

As we were putting the muffler back on Jim Corner arrived in his trusty KitFox. He agreed the weld was “a thing of beauty and a joy to behold”. I asked Jim to follow us back to CGB2 as a safety watch and we were back on the ground at Carstairs before 11:30. Hurry to get the plane tucked away and off to Airdrie for me and Calgary for my Co-Pilot. We both made our commitments. Linden is a pretty good place to fly and the people pretty willing to help. Thanks Linden and thanks Jim for putting your golf game on hold and helping a friend.  
Norm

## Little refinements

When I first put my plane in the air I promised myself I would continue to make little refinements to make the plane the best I could afford. I had always hoped that this would be my hundred mile an hour airplane. Aviation is a hobby and I don't like to use my family's retirement savings to fund my joy in life. (frankly I can't afford to) My Aviation is done on a budget and that is part of the reason I like ultralights.

With self annuals and repairs and modifications self made it is less expensive to keep the plane in the air. This means getting the speed performance of the 120s and the 140s at my field takes a little extra effort. When I purchased my plane as a project it came with an in flight adjustable propeller. I wanted to get the plane in the air first without any extra issues the propeller might offer but after 75hrs on the clock I thought it was time to get it moving. Besides at this point with the prop only ground adjustable I am still the slow guy with the Savage Cub pulling back on throttle for me to keep up.



I installed the propeller with a two blade configuration to start and did some quick tests to confirm all was good. I had heard that the In flight adjustable from IVO has had some issues with the motor on the ultralight propeller. My thinking was the two blades would be easier on the motor than trying to force three blades though the pitch change.

I also surmised that the two blade might give a little better speed than the IVO in a three blade configuration. I had used the two blade configuration on my Avid Speed Wind and could see 100mph with the 582 power plant. I thought with the KitFox and a 912 100MPH should be guaranteed. I had run a two blade configuration on the KitFox when I first put her in the air but was not satisfied that it was the best solution. The speed was good and would seem to get above 100mph but the take offs and climb seemed to suffer. With the inflight adjustable I should be able to overcome that issue by using the electric motor to fine tune the pitch for best take off and climb and then switch to cruise pitch once in the air. So what kind of speed can I get with 5200 RPM straight and level?

With a little further testing I noted that my take offs seemed to take longer than I was happy with and climb was not what I was hoping for. I think the propeller was slipping too much as it bit the air. I went back to a three blade configuration and the motor seemed much happier. It runs smoother on three blades than it does on two as an added benefit. Did I lose some speed. Yes I am back down to 105-110 but still I have a 100mph Ultralight. One of the goals I was shooting for. BTW Mike's KitFox with the 100HP ULS is reported to cruise at 115 and gets off the ground very quickly. His pro is ground adjustable. I know a KitFoxer in Vernon that cruises at 118MPH with his 80HP IFA Model V and another in Phoenix that can Cruise at 125 with his hundred horse and a IFA.



Yep the airspeed reads 114-115MPH  
How about that a 100knot ultralight, on  
80horses.  
That's impressive.

There are a lot of other little refinements for me to make over the next while and as I am planning a trip to Eastern Manitoba and Northwestern Ontario, some will be made before I go and some after I get back.

One of the things I must do is install a VOX intercom. My radio is an early FL760 and the intercom is switch on or PTT activated. I have a VOX intercom that will be a welcome addition.

I just put a rudder trim on. I have not tested it yet but hope to make it electric controlled eventually. Same with the elevator and ailerons.

Little refinements. Seems like the fun never ends.

# FOR SALE



**Cuby II with Rotax 582 for sale \$9500.00**  
195 hrs on Rotax 582  
Approximately 500 on airframe  
Oil Injected - no mixing  
2 x 10 gallon tanks  
85 MPH Cruise  
Icom A5 radio  
Intercom and headset  
Ballistic parachute cost \$4200.00 US never mounted  
in any aircraft available for \$2000.00  
Call Gary Abel [403-901-7876](tel:403-901-7876) [garyabel@shaw.ca](mailto:garyabel@shaw.ca)

**FOR SALE :**  
60 x 40 Hangar at Drumheller Municipal Airport  
CEG4. New Steel Roof 2013. Gravel / Sand floor.  
Located on Tarmac, directly off runway 34.  
Asking Price 20K OBO.  
Phone: George at [403-931-1645](tel:403-931-1645)  
E-Mail [george7@hughes.net](mailto:george7@hughes.net)



Leburg crank triggered electronic ignition for four  
cylinder engines. Will work on any four cylinder  
engine. Comes with Ford Visteon coil, trigger wheel,  
electronics and manual. Dwell curve built into the  
electronics. Easy installation. \$ 700.00 invested.  
Asking \$300.00. Tim Vader, 403 620-3848,  
[vadert@shaw.ca](mailto:vadert@shaw.ca)

Hangar at Springbank for sale. 1/2 share of 66'Wide x  
40'Deep x 16'High, with 50' x 14' bifold doors, south  
opening. Insulated, gas roughed in. \$100,000. Call  
Cam at 403-970-5394.



# CRUFC Skywriter Pop Quiz

Welcome to the Skywriter's newest feature where we quiz you on your knowledge of things aeronautical. Please bring any questions you have about the quizzes or the answers to the next CRUFC meeting so all members can share in the learning.

## **Rotax Engine Quiz**

1. What is the recommended spark plug gap range for a Rotax 2 stroke engine?
2. What spark plugs are recommended for a Rotax 582?
3. What are the gear reduction ratios for a Rotax 912UL and Rotax 912ULS?
4. What is the maximum permitted coolant temperature allowed on a 582 and a 912?

## **Lycoming/Continental Engine Quiz**

1. What is the recommended oil change interval for a Lycoming or Continental engine?
2. On a Continental C-85 or a Lycoming O-320, where is cylinder number 3 located?
3. What is the maximum allowable engine oil temperature for Phillips XC20W50 aircraft engine oil?
4. A Sensenich propeller is stamped at the hub with the following markings: 74DM-60. What does this mean?
5. When running magneto wires to the spark plugs, what is the rule used to decide which wires go to top or bottom plugs?

## Rotax Quiz Answers

1. Rotax quotes a spark plug gap of .016 to .020" with .018" being optimum.
2. Rotax recommends only NGK B8ES or BR8ES, preferably with solid tips, rather than screw on tips.
3. The ratios available for the 912UL are 2.27:1 and 2.43:1. For the 912 ULS it's 2.43:1.
4. Rotax literature states maximum coolant temperature for a 582 as 175 degrees F. For the 912, it varies from 240 to 300 degrees F depending on the coolant used and the type of pressure cap used in your system. Refer to Rotax's 912 literature for more information. [http://www.rotaxservice.com/rotax\\_tips/rotax\\_feed4.htm](http://www.rotaxservice.com/rotax_tips/rotax_feed4.htm)

## Editors note

The 582 Temperature monitors coolant temp while the 912 monitors head temp as the sensor is not in coolant on the 912. That accounts for the large difference.

## Lycoming/Continental Quiz Answers

1. Engine manufacturers and oil manufacturers specify an interval of 25 hours of operating time when no spin on oil filter is used, and 50 hours if a filter is used.
2. Number 3 cylinder is located on the rear right side when viewed with the prop out front.
3. Aircraft oils are specified to a maximum operating temperature of 245 degrees F.
4. There is no 'W' present, which means wood. Thus, it is a metal prop of 74" diameter, with a DM style hub (meant to bolt onto esignated prop flanges) and with a 60" pitch rating.
5. The rule is "same top, opposite bottom". For example, the left mag will have half of its wires run to the top plugs on the left side cylinders, and half run to the bottom plugs on the right side cylinders. Some plug caps are also stamped with the correct plug info, e.g. T2.