# Skywriter

## Feb 2019


Jim Corner's Kitfox V on a sunny summer morning. The 'Fox now sports a Lycoming O-360 engine and has an unbelievable climb rate.

***Photo Stu Simpson***

***Next Meeting Wednesday Feb 13h 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

*Brian Byl*


**February 2019 President's Message**

Hello Everyone

As I write this we are experiencing the longest stretch of cold weather so far this winter. With temperatures ranging down to almost -30C here and -40C elsewhere in the province it's certainly a good time to sit by a warm fireplace, enjoy a nice hot drink add make some plans for the upcoming flying season. Right now it's way too cold to fly but warmer weather will be here before we know it!

I've compiled a list of upcoming flying events (included in this newsletter) planned for Alberta and Saskatchewan this year. Through Facebook, COPA and Social Flight there is a good number of fly-in breakfasts, BBQ's, airshows and other events. COPA's Western Canadian Convention is scheduled for June 6-8 at the Innisfail Airport (CEM4). The Moose Jaw Airshow will be held July 6-7. At this time I'm not sure if General Aviation aircraft will be allowed to fly in to the Moose Jaw Air Force Base for the airshow - they haven't made the decision yet. There are also airshows scheduled for Villeneuve, Springbank and Peace River.

This month there are two ice runway fly-ins scheduled: on Monday February 18 the Gull Lake/Lacombe Flying Club Family Day Fly-in will be held on Gull Lake and the Lac La Biche Festival of Speed Fly-In February 23-24 on Lac La Biche. Both runways are fully operational and hopefully the weather cooperates.

There are other regularly scheduled coffee, donut and cookie gatherings in Three Hills, Lacombe and Olds-Didsbury. These events are pretty close to our home airports and should less than an hour flight for pretty well everyone in our club. Let's get out

**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.

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and attend some these events - after all that's why we have our planes!

As I mentioned at our last meeting we need to elect two Directors to the Board. Barry Wood's position is vacant and it would be nice to have it filled by someone who has not been a board member before. A member who has served on the board previously has offered to step up if we don't get any other volunteers. John Kerr has agreed to stay on for a second term. If you have few hours to spare a couple of times a year please think about volunteering for a position.

Garry Wutzke will be presenting a talk on CASARA (Civil Air Search and Rescue Association). The mission of CASARA is to support Canada's Search and Rescue (SAR) program and to promote aviation safety. The organization provides a much needed boost to Canada's search and rescue efforts. I'm looking forward to an interesting and informative talk.

Many thanks to Bashar Hussien for sharing his Alaska adventure with us. He showed us that a trip to Alaska is well within the capabilities of all our members. With the proper planning and an adventurous spirit there are many destinations we can explore. Thanks for the inspiration, Bashar.

So don't forget that our next meeting is this Wednesday February 13 at 19:00 at our regular location, The Hangar Flight Museum. Wear your woollies if you have to and I hope to see you there.

Oh, yeah. We are still collecting for 2019 annual dues. If you haven't paid yet, please visit Carl and he will be happy to collect your $30. What a bargain! If you're not sure if you've paid already stop by anyway and Carl will be happy to confirm your payment. If you haven't paid this will be your last newsletter. Our dues help pay for hall rental, coffee, the CRUFC website and other cool stuff.

Thanks

Brian




Bashar Hussein starts a take-off roll at Mossleigh in his Merlin with a dramatic sky in the distance.




## HOW TO GROUND-LOOP YOUR TAILDRAGGER

Anonymous tongue-in-cheek article shared by Jim Jones of The Swift Foundation

Judging by how frequently it is performed, the Ground-loop is indeed a popular maneuver. The Ground-loop is an extreme low-level figure that is highly acrobatic in nature, which may be executed in many exciting variations. It is customarily performed as the last figure in a sequence, but I have seen the Ground-loop attempted as a preliminary or warm-up maneuver.

It is rarely scored however, because it is most often performed out of the Judges' line-of-sight. Also, the Ground-loop is categorized as a surprise maneuver, and therefore nobody is really prepared when it is executed. In fact, the figure is not considered genuine unless Judges, spectators and the pilot-in-command are all surprised! The many interesting and dynamic variations do not have a Degree of Difficulty or "K" attached, but rather are rated on the International HC* scale. *Holy Cow HISTORICAL PERSPECTIVE

The Ground-loop is one of the earliest recorded aerobatic figures. It was performed on virtually all of the tail-draggers dating back to aviation's infancy. The maneuver really came into its own during the Golden Era of the Ground-loop which was when the cross-wind landing was invented. Previous to this, circular landing fields were the norm and the pilot simply eye-balled the windsock and landed into wind. However, it was soon discovered that a

short straight landing strip could be plowed out and now there would be lots of room for hangars, clubhouse and an expansive cocktail lounge. Once everyone saw how much fun this new land-use concept generated, it was adopted internationally. The daily Ground-loop displays were an instant hit and helped cast the new idea in tarmac.

ANALYSIS

Most Ground-loops are weather cocking related phenomena. This means that at least one main wheel must be touching the earth and a wind is blowing. Traditionally, the maneuver is started in a cross-wind; during the landing roll-out the tail is allowed to be blown down-wind. At this point there are a variety of options that can be exercised depending on your inputs and the maneuver can take off in almost any direction and finish in a variety of attitudes. Ground-loops that occur under calm conditions are more rare and require vigorous control inputs so you really have to work at it to get a decent one.

Ground-loops can be generated anywhere from 5 mph to flying speed. When executed at high speed, the figure covers more territory and generally spawns the most interesting variations.

High-wing taildraggers probably ground-loop the best because the upwind wing is more exposed to the breeze. The high wing also enjoys a longer arm to really accelerate things once the maneuver starts. An airplane designed with the wheels forming a small triangle (short-coupled), in the hands of the right pilot, could be a Ground-looping champion.

ESSENTIAL BACKGROUND KNOWLEDGE

Avoid the study of the following subjects: a) Cross-wind Landings and Take-offs. b) Ground-Handling. Avoid seeking instruction on these subjects, for it will greatly reduce your chances of producing a truly world class Ground-loop. Also, you might want to have a good line ready in case someone raises one of these subjects in conversation: "Cross-wind Landings, heck, wasn't that about lesson 5 on your Private License? I'm way beyond that.

PREPARATION

To be successful, we must prepare both pilot and aircraft.

Pilot: To perform good Ground-loops, the best preparation is no preparation.

Aircraft: The aircraft can be prepared in a variety of ways to ensure consistently good Ground-loops. First of all, the main wheels should be shimmed to a toe-in condition. If the wheels are adjusted to track straight ahead or are shimmed slightly toe-out, the tracking will be too stable to assist your attempts at Ground-looping. Keep the tire pressures different from one another. If you know the direction of the cross-wind, reduce the pressure on the up-wind tire before going flying. And remember, it isn't necessary to change the tires until you can see the second

ply of fabric showing; a blow-out can be the start of a dazzling Ground-loop.

Avoid the hassle of taking off those troublesome wheel-pants by putting a drop of Loc-tite on the screws. Now you have a good excuse not to inspect the brakes. So, when the brake fails on one side or the caliper pinches through a rusted disc, you will enjoy a splendid Ground-loop.

At the back end, you can start by loosening the fitting that holds the tail-wheel spring to the fuselage. Just back the nuts off a few turns. Also back off the nut that attaches the tail-wheel casting to the spring. Now, slack off the steering springs a couple of links so the chains sag. And while you're at it, cut off that lock wire that some conscientious engineer installed in case the chains break. From time to time they break on landing and produce a thrilling, and rakish Cramer-like lurch. Fantastic! These simple mods will produce a delightfully loose rear-end that feels like it's on ball-bearings.

The little tail-wheel is best left alone; over time it becomes worn into an interesting cone-shape by the effects of slip stream, P-factor and gyroscopic effect. These left-turning forces create more wear on the starboard side of the tire, and soon you have a beautifully unstable little demon back there to really help you out.

Install the push-to-talk switch in a remote area of the cockpit. When the tower talks to you on the roll-out, you can look down into the cockpit to locate the button, and when you look up, you may be treated to the wonderful green-and-blue kaleidoscope of rotation about the vertical axis.

TECHNIQUE (HOW-TO)
Once the pilot and aircraft are prepared, it's a little like shooting fish in a barrel; there's really nothing to it. There are several things you can do to get the Ground-loop going, but really the best thing to do is nothing. Just let it happen. If you are landing or fast-taxiing in a cross-wind and you want a Ground-loop ... you guessed it- do nothing.

Taxi with abandon. As a pilot, you are a free-spirited individual, and this can be best displayed by a carefree jaunt down the taxiway. Just let go of the stick and use the hands-free time to organize your maps and sequence cards. If the tail-wheel comes off the ground, you're going a little fast. Maybe you'll want to use the time to put on your seatbelt, polish the inside of the canopy, re-tie your shoelaces or perhaps light up a smoke. Taildraggers have the right-of-way, so you won't have to stop suddenly.

When cleared for take-off, start bringing the power up as you swing out on to the runway Of course you'll want to shove the stick forward quickly to get that tail up (you can't get it up too soon). If the plane will fly at 50, hold it on until 65. This technique spreads out the landing gear and brushes off some rubber, but every- body does it and it looks cool. If you get rolling quickly, any cross-wind

won't matter. Now rotate as you would a 767. Haul straight back and blaze into the blue.
On the approach, keep it low and fast. If the airplane lands at 50, cross the fence at 100. It's best not to have a planned touchdown point because that can interfere with the free-spirited nature of the flying event. Start fanning the rudders through 500 feet, and keep it going until you've cleared the runway. The fanning technique is to let the airplane know who's boss. Get the plane down to the runway as soon as possible, and force it to land with plenty of forward stick. The fast-landing method is good for all weather conditions, especially quartering tail-winds. Once the plane is firmly on the ground, let go of the stick, but keep fanning the rudder to cool the tail-wheel assembly. Taxi in as you taxied out.

VARIATIONS

1. 45-Degree Overland Express.

This one is best done at about 40 MPH. The airplane is allowed to weathercock slightly, the upwind wing and wheel are allowed to rise about degrees and the plane swings into wind. At 45 degrees off the runway heading, sharp downwind brake, full aft stick and aileron into wind are added to stop the Ground-loop. The plane is now headed off overland. This is useful for taking a short-cut to the washrooms after a long flight.

2. 90-Degree Quick Turn with Prop Curl.

Use the same technique as above, except at about 20 MPH. When you stomp on the downwind brake, also shove the stick forward. Even though you are traveling slower, the gyroscopic effect of shoving the stick forward will give you that extra 45 degrees of rotation. The tail will rise briskly. As soon as the prop touches the runway, pull hard back on the stick and apply both brakes. This was how the original Tip Propeller was invented. If you've done it just right, you'll probably have a much more efficient prop.

The Prop Curl can also be done straight ahead. Taxi at about 10 MPH while tucking in your shirt or cleaning your sunglasses. Keep your hands off the stick and slam on the brakes. Voila! Also try this while maneuvering the tail-wheel over an obstacle. For a more dramatic curl, hold the stick forward and add a burst of power.

3. Pitts Special Twin Arcs.

Start the Ground-loop from the roll-out at about 25 MPH. Remove all cross-wind inputs and allow the airplane to weathercock. Move the stick forward to at least neutral to lighten the tail-wheel and reduce its directional control. The little biplane will rise up on the downwind wheel and begin a concise pirouette. The downwind wing-tip will hit the runway and begin scribing an arc of red butyrate, Dacron and plywood. Without hesitation slam in full upwind aileron as if to attempt to lift the lower wing. The downwind aileron will shoot down and describe a beautiful red arc

parallel to that made by the wing-tip. Pull the stick full back, push full downwind brake with full rudder and a burst of power to erect the plane. These little red arcs are very artistic and will attract a good crowd in the evening following the day's flying.

4. 180-Degree Pirouette with back-track

This one is best attempted in a light high-wing with narrow bungee landing gear, a Cub will do. The maneuver works best in a quartering tail-wind. This figure looks difficult, but is really pretty simple. It works best if the pilot does not interfere. Get the weather-cocking started in the usual manner. Move aileron out-of-wind and push the stick forward to get weight off the tail. 20 MPH is fine. As the up-wind wing rises, the center of gravity swings as a pendulum toward the lower wing. About the time the down-going wing smacks the runway, the center of gravity will have swung to the outside of the downwind wheel. Apply this brake hard. Now it's as if you had two upwind wheels because the center of gravity has migrated outside via centrifugal force. So now it wouldn't matter which brake you applied, the effect would be to increase the rotation of the Ground-loop. The wing-tip smacks off the tarmac, the brake completed a full i80-degree turn, and fast-taxi back to the but- ton.

5. Ground-loop with Bunt.

This is certainly one of the more dramatic figures in the Ground-loop family. You'll want to be traveling a little faster to get this one, say 35 MPH. The figure should start slowly then get faster and tighter as rotation sets in. A dry runway is necessary, and a quartering tail-wind from the left is best. Once rotation starts, shove in full down-wind stick and full forward elevator. This will really tighten up the rotation. Now add full brakes and full power. The tail will shoot upwards and the airplane will do a kind of shoulder roll right on to its back. This is really low-level inverted, and you should ensure that your belts are very tight. This figure should be reserved for the last flight of the day.

CONCLUSION

The Ground-loop has been around for almost a century and I'm sure it will be with us forever. And to keep it alive, all we have to do is be a little complacent, a little cock-sure and in a little hurry. Most important, one needs a thorough misunderstanding of weather cocking, cross-wind take-offs, landings and ground-handling. Sounds pretty easy to me.

Enjoy your spin-around!

Bob Kirkby about to clear the active with his beloved Piper Cherokee at Kirkby Field. By Tina Simpson

## Engine Failure on Takeoff

Featuring Tom Turner

Question:

"Engine failure on takeoff: I've heard so many opinions on a safe altitude to turn back. Do you have any real experience or results on how pilots perform in this area?"

Answer:

Many years ago I taught Beechcraft Bonanza simulator training at the Beech factory airport in Wichita. Engine failure immediately after takeoff provides the least margin and the greatest chance for disastrous results, so it received special emphasis. Simulators provide the only opportunity to practice this emergency safely.

In the preflight briefing, I would ask my student what he or she felt was the lowest altitude at which the engine would quit and the pilot could make it back to the runway. The most common answer I'd get was 800 feet above ground level. So I'd tell my student that's exactly what we'd do. With plenty of warning the engine would quit at 800 AGL. The pilot then had to bank to 45 degrees at the best-glide pitch attitude, while simultaneously pulling the controllable-pitch propeller control to the low rpm position to attain maximum glide performance. In four years of presenting this scenario, I don't recall a single pilot successfully making it back to the runway from 800 feet above ground level the first time he or she tried—even when knowing beforehand exactly when the engine failure would occur.

Next, we'd try it from 1000 feet AGL. Again, the pilot knew exactly when the engine would quit. He or she would also have just practiced the procedure. A few pilots would make it back to the runway from 1000 feet AGL, with advance warning and very recent practice. But most still could not.

What I found was that most pilots could make it back to the runway if the engine quit at 1200 feet above ground level, but only after two practice attempts immediately before the successful turn back, and only with precise knowledge of when the engine would quit.

We'd then try it from 1500 feet AGL. On an average-length runway in calm winds, pilots could easily get the airplane turned around and aligned with the runway from this height, but in most cases they were too far away from the runway to glide all the way back to the pavement.

Then, I added a little realism to the exercise. To account for the element of surprise, I'd set the pilot up for a fifth takeoff, telling him or her the engine would quit at 1200 feet AGL. I told the pilot, however, to hold attitude straight ahead for five seconds to simulate the time it takes to recognize the problem, choose a response, and initiate corrective action. With this simulation of surprise, almost no one in four years made it back to the runway…even

though they had significant recent experience practicing the turn back maneuver.

What can we learn from this experience? There is really no option of turning back to the runway if an engine quits shortly after takeoff. It may be possible to make a slight turn to the left or right for the best landing option. But the standard guidance is correct: if an engine quits on takeoff, keep the wings level and land straight ahead.

Tip courtesy of Pilot Workshops

## The following is a reprint from a forum I follow. Good words of Advice from the lady of the house.

I had a "my own fault" repair to do some years ago to my own CH2CWS. At that time I was a BFI and my instructor (an AFI) had me follow him across the lakes to take a look at one of our students runway that ran through the middle of a farm field. The student was wanting to take his plane there and hangar it but he was having trouble landing on the 3100' of pavement where we were training from.

When we found the little strip it was about 1200' feet long and plenty enough. On the approach end there were some high tension power lines just above the trees. The other end was a deep ravine with trees on the other side. My instructor in his CH2LW slipped his plane in and made a good landing. I thought, "if he can do it I can too." I should have been able to but a couple of things made the approach different than I was expecting.
The power lines intimidated me so I was higher than I should have been on my approach. Secondly, I had the doors on my clip wing and a hard slip is different than it was without the doors. The result was me floating down the short runway too fast to land and looking at the large trees on the other side of the ravine. I got it down and landed but I was past the smooth ground and stopped in the rough stuff. It stopped quickly!

So quickly that the nose wheel folded up and cracked the nose cone. The damage wasn't great but it was enough the I had to go a borrow another Challenger's nose gear to put on in order to fly it out.

The funny part of the story was two weeks later when my wife asked why I was moping around these last few days. Told her about how I bent the airplane. "Anyone hurt?" I told her "no." "Can you fix it" Told her I had already done that with about $40.00 in parts. She changed her approach and asked me how many hours I had in Challengers. Told her I wasn't sure but at that time it must have been 3-400. Then she asked how many landings I had made. I was getting a bit irritated and said, "honey I don't know ... maybe 5-600. Why it that important?" then she said, "didn't you ever think you might make a bad one?"

Truth is ... no I hadn't. I've since learned that scratches, bumps, and bruises happen. Get over it ... fix it and go fly!

## A flight to Vermilion

On January 12 Doug Eaglesham, Carl Forman, Bob Kooyman and myself decided to try our luck in Vermilion and see what it had to offer. After a very nice 1:15 minute flight I heard Doug announcing his arrival in Vermilion. Carl chimed in and said he was about 20 minutes back. Almost perfect timing considering we started from three different airports and have a quite different cruising speeds. Doug landed and reported that while there was some slight snow drifts they were no problems.

The air was very smooth except for about 5 minutes near Forestburg – it was a great day for flying.


He was correct – the drifts were no problem at all. What he didn't mention was the very large grain terminal just off the final approach to the runway! The 230' terminal is only 4400' from the threshold of Runway 28 and you pass just over it. I'm sure I wouldn't want to do this approach in low visibility – yikes!

Jim Bristowe from the Vermilion River Flying Club (COPA Flight 204) met us at the terminal and gave us a ride to the restaurant. They are trying to promote more aviation activities in the Vermilion area and were very happy to have us fly in. In the future they hope to be able to provide fuel, a courtesy car, tie-downs and would like to host a Fly-In breakfast.

There is a restaurant within a 15 minute walk so that's a good option if you're hungry. I can't vouch for the quality of the food, though!

**CRUFC Adventure Flight to Florida 2019**

by Stu Simpson

One of my long standing flying goals has been to fly my plane to Pensacola, Florida, to see the US Navy's aviation museum. To that end, Doug Eaglesham and I have cobbled together a plan for that flight in May of this year. He'll be flying his CTLS and I'll be in my trusty Cavalier. Is anyone else interested in coming along?

Here is the rough plan that we have so far. See what you think.

Departure date: Monday, May 13th. Due to commitments that Doug and I have, this date is pretty solid.

Proposed Routing

Day 1

CFX8 KCTB KRPX KSPF 591 nm

Kirkby Field (or Calgary area) to Cut Bank, MT, to clear customs; Round Up, MT for cheap fuel (MOGAS, too), and Spearfish, SD, for overnight.

Day 2

KSPF KOFK KGLY KJBR 803 nm

Spearfish to Norfolk, NB, Clinton, MO, Jonesboro, AR for overnight.

Day 3

KJBR KMEI KPNS 367 nm

Jonesboro to Meridian, MS, to Pensacola, FL

I want to visit the US Museum of Naval Aviation, which has been on my to do list for several years now.

From Pensacola, we have a number of other options, too. We could sit on the beach for a day. We could then fly east for half a day (about 380 nm) to the Orlando area with the primary goal of visiting the Kennedy Space Center near there, and any other tourist attractions we want to see. For example, Kermit Weeks' Fantasy of Flight Museum is nearby in Kissimmee, FL, and would likely be well worth a stop.

For the trip home, we can make it up as we go, with potential stops in Atlanta, Memphis, Nashville, Dayton, Indianapolis, Chicago, Minneapolis-St. Paul, etc. Many, many options are available to us.

Alternatively, from Pensacola we could fly west to see the Houston Space Center in Texas, and/or the Commemorative Air Force in Arlington, Texas (near Dallas - Ft. Worth). We could go on to see the Boneyard and Pima Museum in Tucson, and even go as far as San Diego to see the aircraft carrier museum there before heading home. Again, there are legions of options for us heading west from Pensacola.

Surprisingly, the total straight-line distance out and back to home is within a

couple of hundred miles going either way from Pensacola, so it gives us a lot of latitude in picking where we want to go.

We have planned for a total of 12 days, to be back on May 24th. This trip is easily doable in such a time frame, even with some minor delays, provided we're prudent and flexible with our route planning on the trip.

Are you interested? Please let us know asap. You don't need to commit to it right now, of course, but if you want to be kept up to date on the planning, please ask to be kept informed. We're going to hold a preliminary planning meeting soon to work out some more initial details. Even if you're just thinking of doing the trip, that'd be a very good meeting to attend.

I've flown the Cav through a lot of the areas that we'll be visiting, and I can tell you that this will be an unforgettable adventure regardless of where we end up travelling. How cool will it be to fly a small airplane from here to the Gulf of Mexico, and then the Atlantic or Pacific coast?!!

My experience tells me that you'll need a plane with a minimum cruise speed of 110 - 115 knots or better to best cover some of the distances involved. Alternatively, perhaps buddying up with someone who has a suitable airplane and wants to share expenses could work, too.

This promises to be an unbelievable experience for those who do it, so please get in touch with me at bushmaster@shaw.ca if you want to be included in the next steps.


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82 In Flight:

Gerry MacDonald pilots the Cessna 182 he co-owns with Barry Wood and two others over the Alberta prairie.

Wade Miller and his Zenair CH250 an instant before touching
down for pie at Linden.

# VFR Weather Review Course

**Join us for a review of weather that affects VFR pilots like you. Using real world examples, this in-depth one-day course covers weather maps and weather systems, decoding and understanding METARs, TAFs, PIREPS and FDs; basic mountain weather, and a vast array of weather sources both on the ground and in the air.**

**WHEN:**
Saturday, March 23rd
9 a.m. to 5:30 p.m
COST: $25, includes drinks, lunch and snacks

**WHERE:**
Cambrian Heights Community Hall
600 Northmount Dr. NW
Calgary

**Your Instructor:** Stu Simpson has over 2300 hours flying throughout North America. With a passion for weather and how it affects VFR flying, has taught ground school and mentored numerous pilots to help improve their knowledge and skills.

Stu

**If you fly anything from ultralights to light twins, this day of weather learning has something for you!**

## Register by contacting:

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

Brian Byl: bbyl@shaw.ca
(403) 861-6716

## Send cheques payable to CRUFC to:

Carl Forman
201 Point McKay Terrace NW
Calgary, AB
T3B 5B6

Brian Byl
102 Coleridge Rd NW
Calgary, AB
T2K 1X4

## Or Interac transfer to:

forman.c@shaw.ca

**Calgary Recreational and Ultralight Flying Club**
**Balance Sheet**
**As at December 31,**

| | 2018 | 2017 |
|---|---|---|
| **Assets** | | |
| Current | | |
| Cash | $7035.81 | $7,462.88 |
| Accounts receivable | $350.00 | - |
| | 7,385.81 | 7,462.88 |
| **Liabilities** | | |
| Prepaid memberships | 870.00 | 1,305.00 |
| **Retained earnings** | 6,515.81 | 6,157.88 |
| | 7,385.81 | $7,462.88 |

**Approved by the Board**

President Treasurer

**Statement of Revenue and Expenditure**
**Year ended December 31,**

| | 2018 | | 2017 | |
|---|---|---|---|---|
| **Revenue** | | | | |
| Membership dues | $1,665.00 | | $1,785.00 | |
| Raffles (net) | 611.71 | | 268.23 | |
| Donations | 458.92 | 2,735.63 | - | 2,053.23 |
| **Expenditure** | | | | |
| Meeting hall rent | 1,170.00 | | 1,300.00 | |
| Website | 567.00 | | 367.00 | |
| New computer | - | | 596.40 | |
| December social(net) | 445.85 | | 738.87 | |
| Other events | 173.25 | | - | |
| Robert Thirsk presentation | - | | 251.00 | |
| Miscellaneous | 21.60 | 2,377.70 | - | 3,253.27 |
| **Net revenue (loss)** | | 357.93 | | (1,200.04) |
| **Retained earnings, beginning of year** | | 6,157.88 | | 7,357.92 |
| **Retained earnings, end of year** | | $6,515.81 | | $6,157.88 |

# FOR SALE

## Hartzell C2YR-1BFP/F7497-2 72" Blended Airfoil Propeller.

Looks factory new! This Scimitar Hartzell prop was bought new in May of 2013 and was totally overhauled in November of this year. It is a "0" time certified propeller that looks like it just came from the factory because most of it did.

$9000.00 or best offer

Gary Abel 403-901-7876

## Windsocks

Two new windsocks, size 3 ft diameter by 12 ft length, $150.00 each OBO. Purchased by the Bomber Command Museum in Nanton but too large, paid in excess of $250.00 each. Contact Doug at 403-498-9522.

## FOR SALE
## ANDREASSON BA-4B HAWK

**ANDREASSON BA-4B HAWK.**
**BRAND NEW NEVER FLOWN**

**"0" Hours on Engine/Airframe/Prop**

**Extremely well equipped**

**~~$23,900~~ Reduced $20,000**

**PLEASE**
**E-MAIL…….george7@hughes.net**
**FOR "INFORMATION PACKAGE AND PRICING"**

The Andreasson BA-4B is a Swedish-designed sport biplane that dates from the mid-1960s.
This BA-4B is an excellent example of the type. It features all-metal construction, superior build craftsmanship, a 0-timed engine, terrific panel and a removable full canopy. It is built for small to medium sized pilots. The builder, Gerry Theroux, was a retired aircraft maintenance engineer, and his experience with structures and systems on large airliners shows in the build quality and attention to detail that this BA-4B demonstrates.
Aircraft Features :

Lycoming 0-235-L2C 118 hp, O SMOH. Overhaul completed in 2015, engine properly preserved in a heated garage or hangar since then. Will need proper break-in sequence completed. 2000 hour TBO. Dual P-Mags allow variable and always optimal ignition timing. This translates to exceptional fuel economy and reliability. The ability to use automotive spark plugs saves even more money over having to use aviation spade plugs.
Oil cooler and remote oil filter. Propeller is also O time SOH. Trio Avionics EZ-Pilot single axis (roll) autopilot. The EZ-Pilot is slaved to the included Garmin 296 GPS and will intercept and hold a course the pilot selects, or operate autonomously to any heading the pilot selects. It can slave to any GPS featuring standard NMEA data output
Panel mounted Garmin 296 GPS. An MGL comm radio Mode C transponder. Standard ASI, altimeter, VSL, fuel gauge, and tachometer. Quad gauge for oil pressure and temp, CHT and EGT. Full electrics with proper wiring and circuit breakers. Electric pitch trim with electronic position indicator. Flaperons, which will also work with the EZ pilot. Adjustable rudder pedals. Cabin heat and cabin vent cooling.
4 full-span ailerons for exceptional roll control. Fighter plane-style stick grip with switches for comm, trim and autopilot. 5-point harness. 55 litre fuel tank (14.5 US gal). Spring steel landing gear, dual brakes and 6.00 x 5 tires. Full swivel tail wheel. Wingtip and strobe lights. Full plans and a set of claw tie-downs Additionally, the engine needs the initial ground run break-in, plus the standard in-flight break-in to seat the rings and to stabilize oil consumption.
The BA-4B is currently registered as an ultralight aircraft and has not yet flown. As an ultralight, it does not require the standard amateur-built restrictions such as staying within only 25 NM of the home airport for the first 25 hours of flight. The pilot has a lot more freedom to explore the airplane at his or her discretion.

The airplane weighs about 700 lbs empty, and as noted, it will best fit small to medium sized pilots. The rudder pedals are adjustable via turnbuckles, and there is some room for adjustment in the seat
This airplane will have outstanding performance with an excellent power-to- weight ratio, terrific climb and roll rates, and an estimated cruise speed near 150 mph! You won't find that in other ultralight aircraft.

This plane is registered in the Ultralight category.
Everything is available to put it in the air again. It was very well built and I have several pictures of the build.
I am open to any reasonable offers or trades.
Guy Christie 780-542-1073
email; gcpegasus@gmail.com


## Volksplane VP2

This VP was completed in 2003 and has over 300 hundred hours flown.
Since 2013 it has been in storage. In Calgary
Many modifications were done some of which are;  built using plans for the two place version but made into a comfortable single seat with a 29" cockpit, Fuel was incorporated into the wings (18 gallons), landing gear is cubby style instead of leaf spring, full canopy installed, wing tips, push pull tubes for the elevator and ailerons instead of cables.
The engine is an air cooled 1776 cc Volkswagon but is disassembled and needs to be rebuilt. Comes with a 6 :1 Valley Engineering re-drive (3rd generation) plus a Diehl case for full electrics.

# 2019 Flying Events

**February**

18 Lacombe Flying Club Gull Lake Family Day Fly-In 11:00 - 14:00

23-24 Lac La Biche Ice Fly-In, Lac La Biche Lake
laclabicheflyingclub.ca/events

**March**

2 Drayton Valley (CER3) - coffee and doughnuts

**May**

5 Red Deer (CYQF) Fly-In Breakfast

26 Camrose Fly-In Breakfast, Camrose (CEQ3)

26 Barrhead (CEP3) Fly-In Breakfast

26 Drayton Valley (CER3) Fly-In Breakfast

**June**

2 Lacombe (CEG3) Pancake Breakfast

6, 7, 8 Western Canadian COPA Convention, Innisfail Airport (CEM4)

7, 8 Cardston (CEA6) Fly-In Breakfast, 8:00-10:00 Saturday
Camping, BBQ, movie Friday night

15 Bishell Annual Father's Day Breakfast, Carstairs-Bishell Airport (CGB2)

**July**

6, 7 Moose Jaw Airshow, Moose Jaw Airforce Base (CYMJ)

22-28 EAA Airventure, Oshkosh, WI (KOSH)

27, 28 Wings Over Springbank, Springbank (CYBW)

31 Thunder In The Peace, Peace River (CYPE)

**August**

10 Westlock (CES4) Fly-In Breakfast

17, 18 Edmonton Airshow, Villeneuve (CZVL)

**Regular Scheduled Events**

Every Saturday

Lethbridge Breakfast at Smittys, 07:30-10:00

Lacombe (CEG3) coffee, donuts and sometimes home baking, 08:00-11:00

Every 1st Saturday

Three Hills (CEN3) coffee, 09:00-12:00

Every 2nd Saturday

Olds-Didsbury (CEA3), coffee and donuts, 09:00-13:00

Every 3rd Saturday

Flagstaff Regional (CEK6) coffee, 09:00-13:00

Every 4th Saturday

Wetaskiwin (CEX3) coffee and treats, 09:00-11:30