



Skywriter...



April 2012



Norm Vienneau recently journeyed to Fox Creek and purchased another plane. Bert Lougheed and Norm put the Avid Speed Wing on the back of a trailer and brought the plane back to Norm's garage in Airdrie. Now it's time to do a little work and get it ready for the air.

Meeting Notice!

The April CRUFC meeting will be held at the Calgary Aerospace Museum on Wednesday, April 11, 2012!

From the Cockpit

By Norm Vienneau

He died doing what he loved.

I'm sure we have all heard this before. I was watching the evening news the other night and they had a story about an avalanche that killed one of the snowmobilers. A friend of the deceased made comment along the line "He died doing what he loved" and said what a waste. We have come to expect "He died doing what he loved" as acceptable when really the thought should be "He lived doing what he loved and died of old age".

I want to remind everyone that while there are risks involved in this hobby-sport that we are involved, we all need to do our best to make it as safe as possible. I have heard it said that some people think of our light airplanes as motorcycles of the sky and instead of giving the machines the respect necessary. They have a "good enough" attitude. Keep in mind that good enough usually isn't and good enough can quickly get you into all kinds of trouble. While the certified world has AD's, checks, annual inspections and maintenance schedules by the book. In the Amateur-Built and Ultralight world we are solely responsible for the maintenance of our craft. (Editors Note: It should be noted that Amateur-Built airplanes are subject to annual inspections as layed out in CAR 625, Appendix B & C). I am sure we all do our best to

inspect our planes and make it as safe as possible but sometimes the eye does not see what is right in front of us. I have my pre-flight inspection that I go through before every flight, checking nuts and bolts that are critical to flight safety but I must admit that there are possible things that are right in front of me that I might be missing. Recently I was helping a friend with his airplane and noticed a critical nut missing from the motor on his plane. It was the type of thing that would have gone unnoticed for some time and possibly caused an engine failure.

Other people have mentioned the idea of having someone else do your pre-flight the odd time, and after this experience I can see the wisdom in doing that.

When you do a pre-flight check of your plane, do you have a list that you check or do you do it from memory? Do you do a check everything before every flight or do you go with I'm sure it is ok?

A friend recently related the story of someone going to a fly-in and filling his fuel while there. The weather deteriorated while he was having breakfast and visiting with friends and the decision was made to call his wife for a ride home and leave his plane tied up for the night. The next day he returned to retrieve his plane and enjoy one of those magical morning

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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Skywriter

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rides home. Quick pre-flight and off into the wild blue yonder. About ten minutes into the flight, everything went quiet and the big fan at the front of the plane stopped spinning (you can sure start to sweat in a hurry when the big fan quits). The pilot was a well experience aviator and a dead stick landing was a non-event. Inspection revealed the most common fault in aviation dead sticks, a fuel problem. But this fuel problem was a little different. Problem was: there was no fuel.

Because he had filled the fuel the day before at the fly-in he did not check the level. Unfortunately while it was tied up overnight someone wanted some free fuel and decided the plane was an easy mark for a siphon hose.

Again a thorough pre-flight would have caught the low fuel condition.

Another area of safety is how we scan the horizon for traffic. Recently Glen Bishell sent an email that spoke to this. If you haven't seen it I am including it below.

This is frightening! It works exactly like it says, and is one major reason people in cars can look right at you when you're on a motorcycle or bicycle---AND NOT SEE YOU.

From a former naval aviator: "This is a great illustration of what we were taught about scanning outside the cockpit when I went through training back in the '50s. We were told to scan the horizon for a short distance, stop momentarily, and repeat the process. I can remember being told why this was the most effective technique to locate other aircraft. It was emphasized repeatedly to NOT fix your gaze for more than a couple of seconds on any single object. The instructors, some of whom were WWII veterans with years of experience, instructed us to continually "keep our eyes moving and our head on a swivel" because this was the best way to survive, not only in combat but from peacetime hazards (like a midair collision) as well. We basically had to take the advice on faith until we could experience it for ourselves because the technology to demonstrate it didn't exist at that time."

<http://www.msf-usa.org/motion.html>

Keep in mind one of the things that needs to be done is to get the pledge out and make sure the windshield is free of dots that you have to look around; part of the pre-flight.

So in closing let's all live doing what we love and die of old age.

This week's meeting, your executive is presenting the recency self study test. After the meeting you will be able to put this test in your logbook and fulfill the transport Canada requirement. We are printing the test and will have a discussion and learning session.

Till next time I wish you

Good Lies and Smooth Skies

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FOR SALE

2000 Challenger II AULA For Sale: 220 TTSN, 503 DCDI, 15 Gal Tank, Polyfiber Superfliite fabric, Dual Controls, Intercom Headsets, 6" wheels, wide body, lots extras, Email for list. \$18,500 OBO. rhuzzey@telus.net

KR2 For Sale: NOT AN OLD FARTS AIRPLANE! Air frame TT 30 hours. Engine Continental A 65/75 TSMOH 970, No Electrics, No Electronics \$15,000.00 OBO. Glen Clarke 403-279-1036 clarkegk@telus.net (11/11)



Shop for Rent: It's a bit far from Calgary, out by my place which is N 51' 01 06.88 & W 112' 51 59.43. It would be a great place to build an airplane with the exception that it's not on an airstrip and the doors are not hangar doors but is 40 x 60, fully heated & has concrete floors. It was used to build an airplane previously. If interested call Guy Cristie at (403) 901-5594 (11/11)

1991 Macair Merlin (BULA): 782 hrs TTAF, Rotax 503 DCDI, 172 hrs SMOH, dual controls, \$18,500 OBO. Arnim Haase, (403) 240-1183, ah1183@telus.net (05/11).

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CAVU Dreams

By Ken Beanlands

For a long time now, I've wanted to extend Chrissy's capabilities to night flying. Although Glen Bishell's airfield is not lit, on occasion I can bring the plane to Springbank and leave it at work to get in a bit of night stick time. More importantly, I want to be able to fly VFR over the top (OTT). In Canada, you require 15 hours of hood time to receive your VFR OTT rating. Since I have about 20 hours, that should not be an issue.

Three times in the past year I could have really used that rating. Twice on our trip to Oshkosh, we were faced with conditions were proceeding on top of the cloud deck would have been preferable to scud running under them. Granted, it's unlikely that I would have left my wingmen behind to fend for themselves.

One other time, I took off from Bashaw to find myself trapped east of a 20-30 mile wide cloud deck with bottoms around 400'-500' and tops around 1500'. I had to fly all the way south to Strathmore before I could swing west and come around to the south end of the cloud bank and back north to Carstairs.

CAR 605.14 through 605.17 outline the equipment requirements for day VFR, night VFR and VFR OTT. Day VFR, fixed pitch, small private planes is pretty simple:

This is the existing panel, after the previous upgrade. The upper half of the panel will be replaced just above the lower avionics stack. The only instruments that will be kept are the ASI and compass.



- Altimeter
- Airspeed
- Compass
- Tachometer
- Oil Pressure
- Oil Temperature
- Fuel Quantity
- 2-Way Radios (certain airspaces)
- Transponder and Encoder (certain airspaces)

Of course, Chrissy is equipped with all of this. However, for VFR OTT the following is also required:

- DG or Stabilized Magnetic Compass
- Pitot heat
- Turn and Slip Indicator or Turn Coordinator
- Attitude Indicator
- 2-Way Radio (all airspaces)
- Radio Navigation Equipment (GPS?)

For night VFR, the following equipment is required beyond the day VFR requirements:

- Turn and Slip Indicator or Turn Coordinator
- DG or Stabilized Magnetic Compass
- Panel Illumination
- Anti-Collision Lights
- Position Lights
- Landing Light (if carrying passengers)

Armed with this information, it was time to take stock of what I needed, and what I already had. One of the stumbling blocks had been my 20 Amp alternator.

Fortunately, it died last summer allowing me to replace it with a

50 Amp unit suitable for powering all those lights!

For night flying, the most obvious requirement is lights. Well, it just so happened that I purchased an Aero Flash wing tip system for the Buttercup. Each tip light has the appropriate red/green bulb up front and a white bulb face aft. In addition, they have a white strobe powered by a remotely mounted power pack. Landing and taxi lights will be decided

on later, but I'm leaning towards cowl mounted lights, most likely a long range driving spot light from someone like KC.

Pitot heat was next. I looked at Aircraft Spruce and was shocked to find heated pitot tubes ranging in price from \$500-\$2000! To be honest, I didn't realize that it was a requirement for VFR OTT until I read the CARs for this article. Fortunately, a quick search through my inventory of spare parts turned up a Cessna heated pitot tube from the Cessna 150 I rescued from Florida. That should be an easy install.

Now for the biggie... gyros. There are two choices here. I could load up the standard six pack, but the cost, weight and panel real estate wouldn't allow for this. The best choice these days is to go for one of the new EFIS systems. There are three units that interest me: the MGL XTreme Mini, the Dynon and the TruTrak Genesis PFD. All three have their advantages and disadvantages. The MGL has great features, but a rather limited temperature range (operating -10°C, storage -20°C). The Dynon is a bit more money, but has a great track record. The TruTrak is the cheapest and smallest, but are still not shipping despite being introduced at Oshkosh two years ago...

Along with the EFIS, I'd really like to replace the NINE engine instruments with a single Engine Management System (EMS). All three of the above mentioned EFIS also have corresponding EMS units.

With all these changes, it basically means a new panel will need to be cut. Fortunately, I think I can replace the upper half of the panel leaving the engine controls, breakers and most of the avionics in place. The new panel will actually overlay on top of the existing panel, after I carve much of it away. This will allow me to screw it in place and be able to remove it for service in the future. Even if I can slide it out a few inches, it will allow for access to connectors. I will need some new breaker switches to handle the new lighting and new equipment. In fact, an additional 10 breakers and switches will need to be added. Without a new panel, there would not be enough room to install all these new breakers.

The new panel will be designed in CAD and will be sent to one of the CNC companies in Calgary to precision cut the panel. There will be some panel changes made to the lower half as well. With the removal of the tachometer and manifold pressure gauge, there will be room for a glove box in that area. This will be a welcome addition as there's not a lot of room in the Christavia for things like flashlights, spare batteries and maps.

While I'm at it, I plan to panel mount the Garmin 296 using an AirGizmo mount and an externally mounted GPS antenna.

Another feature of the EFIS I plan to take advantage of is the RS-232 output for the transponder encoder data. However, since my older transponder does not accept RS-232 data, I'll need a RS-232 to Grey Code converter (available from Dynon). While I have the avionics apart, I plan on taking advantage of the altitude alerter built in to the transponder. I just recently realized that it has an audible alert function.

One of the design decisions I had to make is what sort of redundancy I wanted. With a GPS on board, altitude data, accurate enough for VFR flying can be easily derived from it. That means the altimeter can go. The VSI is optional to begin with and, although useful, doesn't need to be redundant. There goes the VSI! What I will keep (at least until a second EFIS is installed) is the airspeed indicator. As for engine instruments, I only plan on keeping my independent PropTach unit. Everything else goes! The plan is to sell all the leftover equipment to help pay for the upgrade.

As a bonus, the EFIS systems are all backlit eliminating the need for additional panel lights. All of my avionics also have built in lighting so the only two items that will need to be lit are the standby ASI and my fuel guage (the clear tube running up the right side of the panel). I'll likely add a pair of red LED lights to the cabin headliner to handle these.

I had originally planned to do all of this in April. However, the taxman had other plans for my spare cash this spring. The biggest chunk of change required for this upgrade will be in the EFIS and EMS units. My plan will be to stage over the next few months upgrade leaving the EFIS and EMS until next spring. Unfortunately, I do need to do something now about malfunctioning encoder. This will be replaced by the new MGL ALT-4 combination altimeter, encoder, OAT and VSI gauge. It will also give me the opportunity to check out the cold weather tolerance of the MGL systems. It also costs less than an encoder.

I also plan on installing safety cables for the landing gear and build up a set of skis for Chrissy over the summer. I got some great information from a COPA member in Ottawa who has designed and built numerous sets of skis over the years including the latest set for his RV-7! More on that later... I'll be sure to keep you all updated on my progress as the projects progress.

That's it for this month. As always, if you have had any interesting flights, tried any new projects, done any construction projects or just have an issue you want to get off your chest, put it in writing and submit it to me as an article. I'm always willing to help on your articles if needed.

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Now, That's Flying!

By Stu Simpson

I was, as the saying goes, right on the ragged edge. It was the toughest approach I'd ever made in 25 years of flying, right at my limits, and it was fun! I fought turbulence and wind shear like I've never seen. And for a few seconds I was actually frightened in an airplane; a very strange feeling for me.



It was September at a backwoods airstrip in Idaho, on the lee side of a mountain that was churning a gusty 20 knot wind into a raging cauldron of turbulence. I regularly put the controls to the stops just to stay pointed in the approximate direction of the runway.

Luckily, my Merlin has such good STOL performance, and such good low-speed handling, that I knew I could make the landing. Probably.



And I did make it, but it was ugly. I touched down beneath the trees on my first bounce just as a three-point buck wandered onto the last third of the strip. But by the end of my second bounce, I knew this just wasn't meant to be, nor did I want to subject my wingmen to such a beating. I powered up, still coursing with adrenaline, and left that backwoods airstrip behind.

Now, that's flying!

And then there's Darren Scarlett, who owns an RV-7. It's beautiful and powerful. It has a 180 horsepower engine and a constant speed prop. It's fast, too. I mounted a video camera in his cockpit once and recorded him as he did three rolls and then pulled up into a Cuban Eight. I watched by the runway as he shot a low inspection pass at high speed. I could see his smile flash as he zoomed by in the sunlight.

Now, that's flying!

How about Geoff Pritchard? He's got this pristine, and I do mean pristine, 1946 Champ that he recently rebuilt from the ground up. It's gorgeous in red and white. When that Champ is on the taxiway silhouetted against the evening sun, or in the sky against the deep blue, the effect is simply mesmerizing. Geoff and the Champ float along up there thumbing their noses at age and time, making the most of every minute they're in the sky.

Now, that's flying!

Wade Miller has what some consider a dream job. He's an airline captain. He pilots a 737, worth around \$70 million dollars, probably more. It has stuff in the cockpit that comes straight out of Star Wars. And Wade gets to work with it all. The plane's capabilities are simply amazing. It zips along at about 500 mph, climbs beyond 40,000 feet, and still lands on runways only a mile long in nearly any weather. And 737's make money.

Now, that's flying!

Barry Davis flies a homebuilt airplane now, but he used to fly a Cessna 182. A great deal of that flying was done at night. He'd cruise over the city and

watch the world sleeping below. He'd see cars and trucks scooting along beneath the endless cones of street lamps. A million or more lights of all colours would dazzle as they reflected from the glass of the downtown skyscrapers. Red and green fireflies would race through the blackness above the horizon as other planes came and went at the airport. And an uncountable number of stars would twinkle overhead until an errant cloud would scrub them away for a few moments.

Now, that's flying!

And Bob Kirkby. Bob has a terrific airplane - a Piper Super Cruiser. It's a flying piece of history that looks like it just rolled out the factory door. It did, of course, back in 1947, but you'd never know to look at it. Bob loves to get up in the Cruiser with one of his grandkids, or another airplane buddy, or maybe just by himself. He'll go about half an hour away to where there's a restaurant that serves pie almost right next to a grass airstrip. Bob and the Cruiser love grass runways.

After pie, he'll take-off to who-knows-where and cruise along at, oh, maybe a thousand feet over the ground. He'll watch as the land changes color in the season, maybe getting greener, maybe browner. Bob will feel the stick as the wind tugs on the ailerons every now and then, checking to see what it can get away with. He might snag a thermal and then ease off some power as that small burst of heat floats him along a little bit faster on a little bit less gas. Bob will smile at that.

And soon he'll make that last turn onto final approach at his own grass airstrip. Bob will set the Cruiser down so smoothly that for the first few seconds he'll wonder if he even landed. Really, I've seen him do it.

Oh, ya. Now, that's flying!→



FLYING EVENTS

WEEKLY Lethbridge, AB – The Lethbridge Sport Flyers (COPA Flight 24) would like to invite you to our weekly Saturday morning breakfast, 7:30 am, held at Smitty's Pancake House, 2053 Magrath Dr. S. in Lethbridge, Alberta. To contact us please call our club President, Brian Wilson 403-345-6603 or send us an email at Lethbridge-Sport-Flyers@telus.net.

MONTHLY First Thursday of every month High River Airport (CEN4), AB – EAA Chapter 1410 Monthly Meeting at the Dueck Hangar the 18:30hrs to 21:00hrs. Come by and visit! Please contact Paul evenings at 403-271-5330 or eaahighriver@shaw.ca or visit www.eaahighriver.org for more details.

April 21st, Edmonton, AB (CYXD) – COPA Flight 176 is holding a Rust Remover / Recurrency at Hangar #39, 9:30 a.m., lunch provided. Pre-registration is required for catering. Send cheque for \$30 per person to COPA Edmonton Flight #176, 12804-107 Avenue, Edmonton, AB, T5M 1Z9 by April 7, 2012. Late registration \$40. For more information please contact copaedmonton.ca or Larry at 780-421-1506

May 6th, Red Deer, AB – The Red Deer Flying Club / COPA Flight 92 will be holding their Annual Fly-In / Drive-In pancake breakfast from 8:00 a.m. until 12:00 noon. For more information, please contact Bert at 403-343-3808 or skyhawk@telusplanet.net

May 20th, Westlock, AB (CES4) – St. Albert Flying Club Nav/Dash Fun Event, COPA Flight 61. Held at the Westlock Airport with a rain date of Monday, May 21. Precision flying exercise around a course and a complementary BBQ to follow. Pilot briefing 9 a.m. in terminal building. Join us for a fun day of flying. For more information, please email stabfc@gmail.com.

May 27th, Barrhead, AB (CEP3) – Barrhead Flying Club 3rd Annual Fly-In /Drive-In Breakfast. Serving from 8:00 a.m. - 11:00 a.m. 100 LL fuel available, golf course beside airport - T time booking required call 780-674-3053. For all fly In inquiries, please contact Wade at 780-674-0142 or wadeevans@telus.net.

June 2nd, Cardston, AB (CEA6) – The Cardston Flying Club would like to extend an invitation for all to attend the 5th Annual Fly-In Breakfast from 08:00 until 10:30. Co-ordinates N49 09 45 W113 14 28. For those flying in the day before, there is camping on the field and a shuttle service to the town Friday and Saturday. Come and enjoy the beautiful scenery in Southern Alberta and see the Waterton Lakes Park from the air. For more information please contact Douglas Murray at dgmurray@toughcountry.net

June 9th, Lethbridge, AB (CMF3) – Fly-In Brekky from 08:00 to 12:00. Come on out! Good food, good fun, good times! Rain June 16.

June 10th, Cold Lake, AB – COPA Flight 90 is having a Fly-In Breakfast from 7:00 a.m. to 11:00 a.m. everyone welcome. Fuel is only \$1.60 per/liter. For more information, please contact John Vardyat 780-826-9484

June 10th, Innisfail, AB (CEM4) – Innisfail Airport Fly-In Breakfast, from 7:00 a.m. until 11:00 a.m. For more information, please phone 403-343-6924 or 403-391-2497.

June 16th, Carstairs, AB (CGB2) – 16th Annual Fly In Breakfast will be June 16, the day before Father's Day. We will serve breakfast from 8:00 until 12:00.

June 17th, Morinville, AB – COPA Flight 61 Mike's Father's Day Fly-In Breakfast FROM 8:00 a.m. to 11:00 a.m. Mike and Rose Poworoznik's farm strip (CMN6). One mile north, three miles east of Morinville. N53 50 13 W113 33 48 Runway length: 2600 ft. North/South orientation. 60 ft wide groomed grass. Communication Frequency 123.2. Caution: Wire at south end. For information, please contact us by email at stabfc@gmail.com

June 17th, Fairview, AB (CEB5) – Fly-In Breakfast at the airport 2 miles west of the town, celebrating the 66th birthday of the airport. Sponsored by COPA Dunvegan Flight 174. Rwy 04 & 22 WAAS approaches Avgas & Jet B cardlock AWOS 122.975, ph 780-835-2712, NDB 295, ATF 122.8 maintenance facility. For more information, please contact Ian Macdonald at ian.macdonald@telus.net or 780-834-8162

July 7th, Chestermere, AB (CFX8) – The 21st Annual Chestermere-Kirkby Fly-in breakfast will be on July 7th this year from 0830 to 1200. www.skywalker.ca

July 15th, Vulcan, AB (CFX6) – Annual Flying Club Breakfast. For more information, please contact Norm 403-485-2791

July 28th, Cayley, AB – Joe English Memorial Fly-In. Pancake Breakfast from 08:00-10:00 and lunch from 11:00-1:00. Featuring Displays, Vintage Aircraft, Tour the Bomber Command Museum of Canada (transportation provided). Located at the AJ Flying Ranch (CAJ7; PAGE 101-CFS), under-wing camping available (27-28) other accommodation available at Nanton and High River. 3 miles east of Cayley and #2 intersection, co-ordinates: N50 27 32; W113 45 46, 658 Avenue and 168 Street. Runway: 07/25; 5,000 ft; 4400 ft. paved, radio: ATF 123.0 (Call AJ Traffic). Avgas available and no landing fee. For more information please phone 403-646-2270 or office@bombercommandmuseum.ca. Visit our website at www.bombercommandmuseum.ca

August 12th, Westlock, AB (CES4) – COPA Flight 139, Westlock Flying Club Annual Fly-In/Drive-In Breakfast and Mini-Airshow 7:00 a.m. to 11:00 a.m. Airspace closed from 11:15 a.m. until noon for airshow. BBQ night before for the wing campers. For more information, please contact Geroge 780-349-1094.

August 25th, Calgary AB (CEH2) – RAA Annual Breakfast. The Calgary RAA and the Cu-Nim gliding Club are having our fly-in/drive-in breakfast again at the Cu-Nim Gliding Club Airport (CEH2 Black Diamond). Cost is \$7 per plate. Last year we had about 10 planes fly out, let's beat that this year. Overnight camping facilities! Several people came out Friday and camped over. There will also be discount gliding again. Don't miss it. For more information, please contact Bob at bjwings@hotmail.com

September 15th, Okotoks, AB (FX2) – Okotoks Flying Club / COPA Flight 81 Fly-IN Pancake breakfast from 08:00 to 11:00. For information, please contact Jim at 403-689-6950 or j-sbleaney@shaw.ca

September 30th, Shoal Lake, AB (CKL5) – COPA Flight 162/Shoal Lake Flying Club's Annual Fall Fly-In Breakfast. As the flying year and our 20th year draws to a close come and help us celebrate! French toast, sausages, juice and coffee for \$6. For more information please contact Dennis Schoonbaert at 204-365-7088 or slflyingclub@gmail.com.

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