



# SKYWRITER

## Calgary Recreational Flying Club COPA Flight 114



### Our Mission

Promoting the safe enjoyment of aviation for pilots, aircraft builders and enthusiasts.

### Our Vision

Welcoming owners and pilots of all types of aircraft including ultra-light, amateur-built, certified and other types of aircraft.

Connecting members through regular meetings, monthly newsletters, our website, social media, BBQ's and fly-outs.

Exchanging knowledge and information about flying and flight safety, and aircraft construction and maintenance via meeting presentations, newsletters and other events.

Sharing and enjoying real-world flying adventures.

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### Featured on the Cover:

Jim Corner flying his Kitfox Model 5 in formation with his son Ken, flying the Model II. Very memorable flight indeed.

# PRESIDENT'S MESSAGE

January 2026 *BRIAN VASSUER*



## Welcome to 2026

I hope it comes with many nice flying days and that the bad weather days are few and far between. In the first week of 2026 I have seen a large number of photos and stories published by people in Alberta who have done some amazing flights.

I have a lot of days off coming in the near future so I'm planning to do a lot of flying and write a few stories of my own. Stu and Bob are doing a good job of keeping Chestermere in flying condition so I think it will be a productive winter.

Something I deal with a lot at work when I'm creating flight plans is extreme weather, especially turbulence. Every week, somewhere in Western Canada, a Turbulence SIGMET is issued and that means there's a very real chance you will encounter something you don't want to fly into. SIGMETs are very common on the east side of the Rockies along the Foothills. Even the airlines avoid SIGMETs, especially if there's an associated PIREP from a plane bigger than a C172.

If you are using tools like Foreflight or Nav Canada ASEP, you will be familiar with the various weather layers, and it does a good job of showing forecast turbulence at various altitudes. (<https://spaces.navcanada.ca/workspace/asep/>)

I also want to remind everyone that a call to **1-866-WX-BRIEF** to get a weather briefing is still far better than anything you can find online. I've done more than 25,000 flight plans across North America and I have some of the best tools available. I still call the Canadian Meteorological Aviation Centres (CMAC) to get a briefing when I see weather that may be close to airliner minimums.

The weather briefers don't just repeat what they see on their screens. They've been watching the weather all day, comparing the TAF's and METAR's, and building a full picture of where the weather is going to be. It's not an inconvenience to call WXBRIEF for weather. It's a service you pay for, and they want to share what they know, so take full advantage of it.

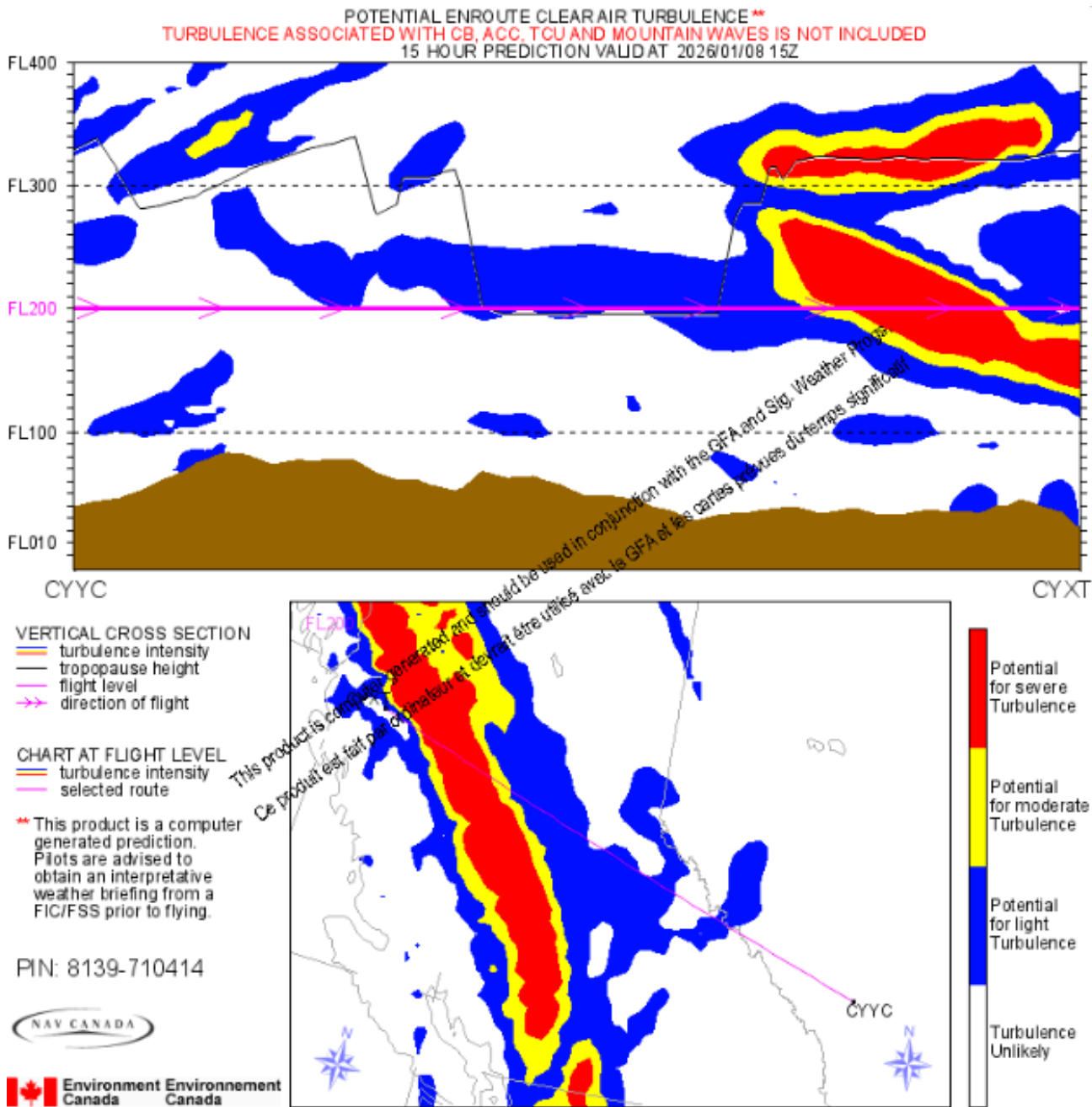
At work we use several products that forecast turbulence, and while it is a valuable feature it is based on a forecast and not real-time data. That is starting to change. If you have a Sentry or Sentry+ and Foreflight you will now have access to real-time turbulence reports from other aircraft.

I'm hoping this catches on and more companies start providing live feedback to the flight planning tools. As aircraft panels get smarter more live data should be available to pilots in flight and that will make life a lot safer.

<https://foreflight.com/enhancements/reported-turbulence>

An example of a recent flight plan from Calgary to Terrace BC. The RED is a Jetstream with 120KT winds.

**Brian Vasseur.**



# Skywriter Update

Newsletter Editor

GREG LABINE



## *Happy New Year!*

Time to kick off another year in Aviation. I hope that whatever goals you set in your flying this year, that they come to fruition. They are surely more important and tangible than the other “resolutions” we set.

This month we have a fascinating article by Jim Corner on the project he is deeply involved in. He is changing his powerplant in his Kitfox from the familiar Rotax brand, to the new Yamaha Phazer conversion. This is new territory for many of us, and it's a captivating read. His methodical approach and problem solving techniques are to be commended.

We have an informative piece from Dennis Fox detailing some interesting flying events and destinations for this year. You may want to mark your calendars and set a goal to attend as many as you can in 2026. Thanks for the info Dennis.

### **As a reminder, Annual memberships are due. Are you paid up?**

If not, please make a payment to Andrew at the meeting, or by e-transfer.

Annual dues are only **\$30**. Currently collecting September 2025 - June 2026.

**At the meeting**, you can pay by cash or cheque. (made out to Calgary Recreational Flying Club). You can also pay anytime by **e-transfer** [anmcrock@telusplanet.net](mailto:anmcrock@telusplanet.net) If prompted for a password use: **crfc2026**

**Our next meeting is Wednesday, January 14 at 19:00 at the Hangar Museum.**

**Looking forward to seeing you all there,**

**Greg.**

# Kitfox II Rotax to Yamaha Engine Conversion By Jim Corner

I first started flying my Model II Kitfox in September of 1991. At the time of building I had two engine options; a Rotax 912, which produced 80 hp; or a Rotax 582. While the 582 only produced 65 hp, the performance numbers for the plane were approximately equal due to the lighter weight of the 582. The major drawback of the 582, of course, was that a two-stroke engine used more fuel to produce the same cruise speed.

When it came time to actually choose an engine, I reckoned that the substantially lower price of the 582 would permit me to buy a lot of fuel with the money not spent on the substantially higher priced 912. I installed the 582.

After accumulating approximately 80 hours flying time on my new airplane and engine, I departed on one of my most memorable flights ever. Using a flight plan speed of 70 knots I traveled from Airdrie to Summerside, Prince Edward Island, and back again.

As you can imagine, at this speed the journey required many fuel stops. Because the Kitfox was so new to everyone at that time, curious onlookers caused flight delays at almost every landing. During my stop at Thunder Bay one of the tower controllers actually asked me to please wait until he got off shift and could come and see the airplane!

Another thing that made this trip most memorable was that I got to take my father for his first ever airplane ride! When I told him I was building an airplane, he was a bit skeptical, unsure that he'd ever want to go for a ride in it.



However, he conceded that if I could fly the Kitfox from Calgary to Toronto that it should be safe enough for him to take a ride. I was able to overfly the family farm where I grew up, located on the south shore of Lake Simcoe.

It was an experience of a lifetime for Dad to be able to see his farm from the air.

The Model II has now accumulated approximately 1200 hours flight time, but has been a bit neglected over the past several years. My son Ken has been flying it, and I have, too, occasionally.

I've actually built another Kitfox. In 2008 I finished building my second one, a Model 5, equipped with a Lycoming O-235.

On my 80th birthday in 2019 I had another very memorable flight. I was able to fly in formation with Ken flying the Model II while I flew the 5. Not many people can say they flew in father/son formation in aircraft that they built themselves, let alone on their 80th birthday. A memorable flight, indeed!



In retirement one needs to keep busy and in addition to skiing and golfing, I need to have an ongoing project.

Over the past years I've read various articles about people having great success converting Yamaha snowmobile engines for aircraft use.

There were three models being converted, the Phazer, the Sidewinder, and the Apex, which are, two, three and four cylinder engines, respectively. Unmodified, these engines range in output from 80 to about 160 hp. Turbocharging on some iterations could add up to 100 hp more. I decided to replace the 582 in the Kitfox II with the 80 hp Phazer engine.

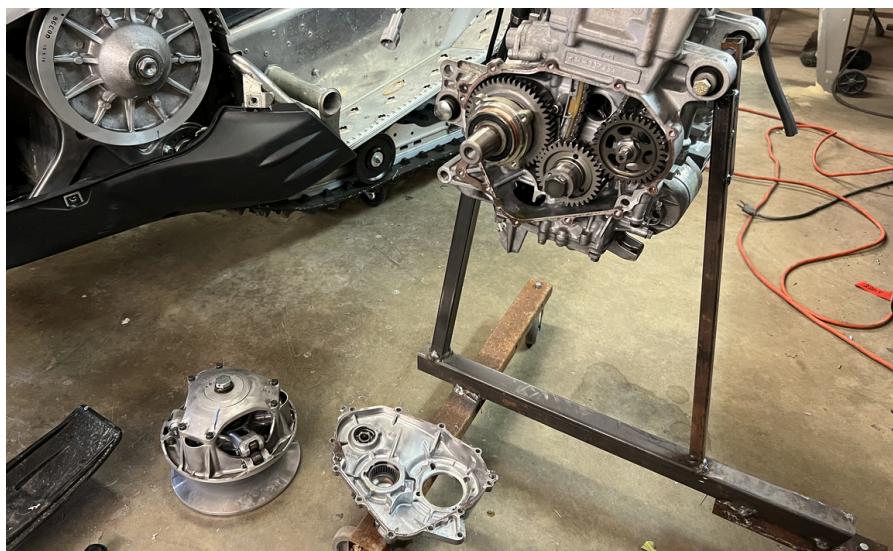
I priced out the various components that I thought I'd require and it appeared that I could put a relatively new engine in the airplane for around \$10,000. The project started with the purchase of a Yamaha Phazer snowmobile which provided the donor engine for the project. I actually operated the snowmobile at the Airdrie airport for a while to get a feel for the engine's characteristics. I noted that the engine really started to develop power when the RPM got up to about 8000 and the snowmobile was traveling 35 to 40 km/h. The ability to accelerate really kicked in at this level!

Removal of the Phazer and its associated wiring was a bigger project than I expected, and I began to appreciate the sophistication of this snowmobile. Many interlocks provided operator safety, and protected the engine from destroying itself in spite of operator efforts.

Once the engine was out, it appeared very similar in size and appearance to the 582. It is a four stroke 80 hp engine and has an approx. 600 cc displacement, very similar to the 582. Both are liquid cooled engines, but the Phazer is fuel injected, and the computer controls ignition and mixture control. The 582 maximum RPM is 6800. On the Phazer, it's 12,000!



***Yamaha Phazer engine after removal from snowmobile  
...first glance it could be mistaken for a Rotax 582.***

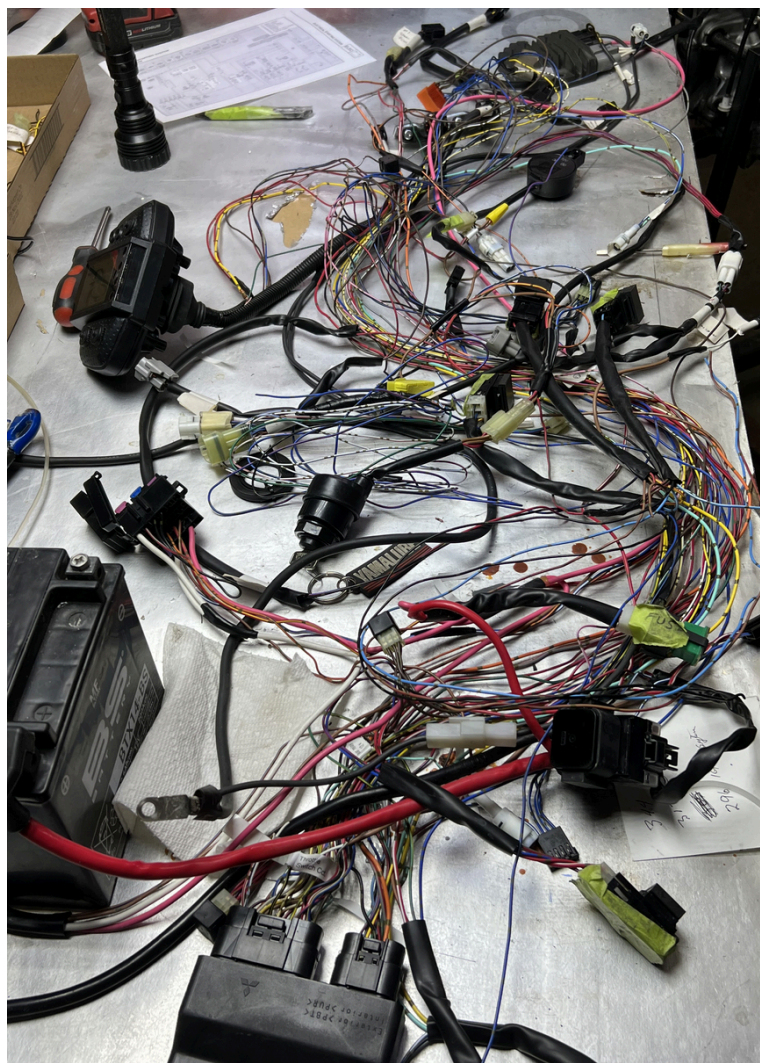


***Phazer internal gearing. Left is output shaft, then crankshaft  
and then balance shaft, needed at the high RPM's.***

I was able to transfer the gearbox from the 582 to the Phazer as it has a built-in gear reduction on the output shaft to the gearbox. With this extra gearbox, propeller rotation is the same as the 582. That means I can use the same prop as I did with the Rotax. I added a centrifugal clutch to enable easier engine starting.



***Photo shows adapter plate which replaces the Yamaha gear cover. The Standard Rotax "C" gearbox then bolts directly to the Adaptor.***



***Part of the snowmobile wiring harness which was sorted, shortened and rewired. More than 50% discarded!***

I also installed an electronic sensor on the prop hub so I could read propeller RPM directly instead of trying to convert tachometer RPM. I put the engine on a test stand to explore operating requirements and safety factors. I was able to discard about 50% of the snowmobile wiring at this point.

There were a few quirks to overcome. For example, the engine wouldn't rev up unless the transmission was in either forward or reverse gear.

I had to convince the computer these things were not necessary for flying. I electronically fooled the computer into believing that it was in gear!

Then the snowmobile computer generated approximately 40 error codes, all which had to be eliminated.

My RCAF training in reading electronic circuit diagrams certainly helped with this aspect of the operation, as did my computer hobby background.

The next step was to fabricate a motor mount. To do this I made a plywood "firewall" duplicating the aircraft's mounting dimensions. Then I suspended the engine via the prop flange above the mock firewall. The mount was fabricated by cutting and fitting steel tube and plate pieces, one small part at a time, until everything fit properly.

The Phazer has a fairly large oil tank, and it took considerable time to find a mounting location that worked in the new set-up. I spot welded each piece in place, and then removed the assembly for final welding.

After the engine and mount were attached to the airplane, I had to readjust all of the wiring lengths to fit the engine's new home. Computers take a lot of wiring! I chose to utilize the snowmobile's engine display as part of the airplane panel. I've read that other builders make the snowmobile display a plug-in feature for troubleshooting if required.

I chose not to relocate the fuel supply rail (which feeds fuel to the cylinders) from the top of the engine. Unfortunately, this required considerable cowling modifications, which added quite a bit of time to the whole project. (See below)



***New Cowl design (Above left) Compared with old Cowl in Summerside pic. (Above right)***

Once everything was installed and tested as much as I could in my garage at home, I moved the plane back to Kirkby Field for more ground runs, and then eventual test flights. Much to my dismay, the initial engine runs would not exceed 8000 RPM, the point at which engine was begins to develop full torque.

I investigated many theories and possibilities, including prop pitch, exhaust tuning, fuel pressure, wiring faults, and so on. Online research indicated that the "Y" in the exhaust was too close to the engine. Thus, I rebuilt the exhaust system with a minimum of a recommended 18 inches from the exhaust port to the Y in the pipes. I thought this was going to be the solution, but the results proved me wrong.

Some more ground trials only got the RPM up to 9500, but that was actually enough to do a few short flights. Once airborne, though, engine RPM dropped off to about 8000 which prompted an immediate return to base. There was just enough power at 8000 to maintain altitude or to get you safely to the point of the accident!

I replaced the ignition coils, but to no avail. My choices then came down to replacing the engine control computer, and/or replacing the fuel injectors. Both choices are very expensive.

As a last ditch effort before spending lots more money, I elected to remove and clean the existing fuel injectors. This turned out to be the solution to a very frustrating problem.

I was surprised because I'd installed a new fuel pressure regulator that could adjust the pressure from 20 to 80 PSI. The regulator didn't result in improved performance, thus I didn't think the injectors would be the problem. I was wrong! The engine now performs the way it should.

At this point there's not enough time on the airplane to evaluate performance numbers and fuel consumption. It does appear that the climb rate is slightly better than with the 582. I expect that as I get more hours on the Phazer, fuel consumption will be about half that of the Rotax.

My initial estimate for time to do the conversion was six months. It ended up taking three times that long, partially because I had another airplane to fly, as well as other projects on the go. Cost turned out to be about 30% more than I anticipated, so the total installation was about \$13,000.

There were many times during final testing that I wished I had never started the project. However, now that it is finally running the way it should it's more like an accomplishment than a chore. Only time will tell if it's really been worth the struggle.





## **It's the start of a brand new year of flying adventures....**

My New Year's resolution- fly more this year than last year. No need to park the airplane just because it's winter. Winter can provide some of the best flying conditions of the year, you just have to dress for the season.

Cold, dry air = excellent aircraft performance. It also means a lot of days of abundant sunshine and silky smooth rides, but where to go? Here are some ideas.

## **For the last 10 years, several flying clubs have offered Saturday morning "coffee break" fly ins:**

-**Three Hills** on the 1st Saturday, usually in Earl's hangar and often fresh cooked breakfast. (except in spring seeding and fall harvest)

-**Medicine Hat Gas City Flyers** on the 2nd Saturday each month, offer a \$10 all you can eat pancake breakfast and great hospitality.

### **-Iron Creek Flying Club at Flagstaff Regional Airport (Killam Sedgwick)**

on the 3rd Saturday. Shelly is famously known for her abundant selection of home-baked treats. She was recently recognized by in appreciation of her outstanding dedication, missing only 1 day in 10 years of hosting the coffee breaks!

**Wetaskiwin** does the 4th Saturday, Merv and friends are always very hospitable, and the Reynolds Museum is just across the runway with a taxiway right to their back door.

**Vulcan** occasionally puts the coffee on for the 4th Saturday (and we should encourage them to try harder)

### **There are some more "one-off" events coming up also:**

**The Fur Hat Festival** is sponsored by the Rocky Mountain Flyers Association on the 1st weekend of February. It happens at the Red Deer Forestry strip west of Sundre. You can fly in for an afternoon, or for the more hardy, why not try winter camping overnight.

**The Gull Lake Family Day fly in** is (usually) on Family Day, this year it (should) go on Feb 16. (stay tuned for confirmation) The Lacombe Flying Club clears a suitable size runway and parking area on the ice at the south end of Gull Lake. They have been known to cook up breakfast sandwiches and offer hot drinks.

**Lac la Biche Ice Festival** runs from Feb 26- Mar 01, which is earlier than recent years in an effort to get ahead of the warming weather trend that has caused some cancellations in recent years. This is a full-on Festival with car, motorcycle and sled ice racing and other winter sport feature events. This event has apparently been going for decades, who knew?





## Calendar of coming Aviation events

### **First Saturday each month-**

**CEN3** Three Hills, AB. Fly- Coffee 9:00 to 12:00 noon.

### **Second Saturday each month-**

**CYXH** Medicine Hat, AB. Fly-in Breakfast 8:00 to 12:00.

### **Third Saturday each month-**

**CEK6** Flagstaff - Killam/Sedgewick, AB. Coffee and Treats by Shelly.

### **Third Saturday each month-**

**CEG4** Drumheller, AB. Coffee.

### **Fourth Saturday each month-**

**CEX3** Wetaskiwin, AB. Coffee 9:00 to 12:00

### **Fourth Saturday each month-**

**CFX6** Vulcan AB. Coffee

**Also see other events detailed in article above by Dennis Fox.**

If you have any future events, please feel free to forward the details to me so I may share them here with the members. [crufcnews@gmail.com](mailto:crufcnews@gmail.com)

# CLASSIFIED

Buy and Sell

All things related to Aviation



## Rotax 912 Exhaust kit

**\$890**



Rotax 912 Exhaust kit fits UL & ULS engines. New, never used. Complete. \$890

**Al Baljak**

**403-708-0369**

**[dolac91@gmail.com](mailto:dolac91@gmail.com)**

## New Falcon ASI

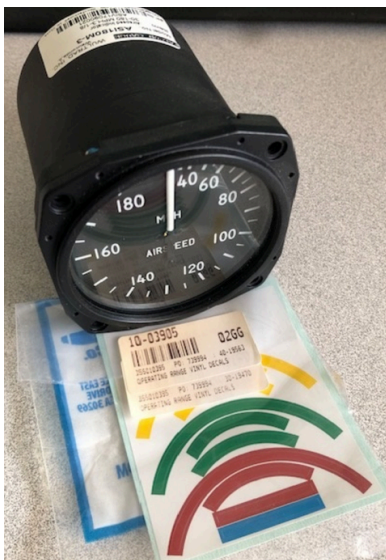
**\$375**

New Falcon ASI P/N ASI180M-330-180 MPH, 3-1/8" (Aircraft Spruce part # 10-03000)  
Operating range vinyl decals included (A/S Part# 10-03905) Still in the box, \$375.

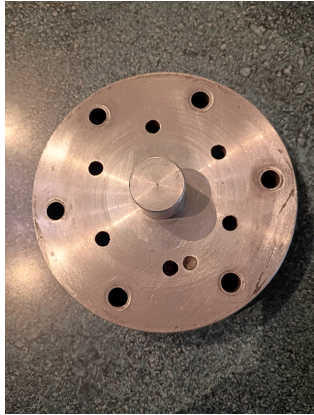
**Bob Kirkby**

**403-512-9158**

**[Bobk@skywalker.ca](mailto:Bobk@skywalker.ca)**



## Airplane stuff



**Prop Spacer**  
1" X 5 3/8" Last on  
a Continental O-  
200 with a three  
blade Warp Drive  
prop. (Used)  
**\$35.00.**



**AVCOMM Headset Model No.  
AC-200PNR**  
Good condition, Like New.  
**Asking \$65.00**



**SPOT Emergency Personal  
Tracking Device**  
Can be used in aircraft, boats,  
hunting etc. 1st generation.  
Never been used. Requires a  
subscription. **Asking \$35.00**



**ACK -ELT Remote  
Panel Switch** Part  
# E-01-05.  
(Used)  
**Asking \$25.00**



**ACK 406 ELT Mounting Tray**  
With straps (New).  
**Asking \$10.00**



**Pilot Knee Board**  
For notes/maps  
etc.  
**Asking \$25.00**

**Barry Davis**

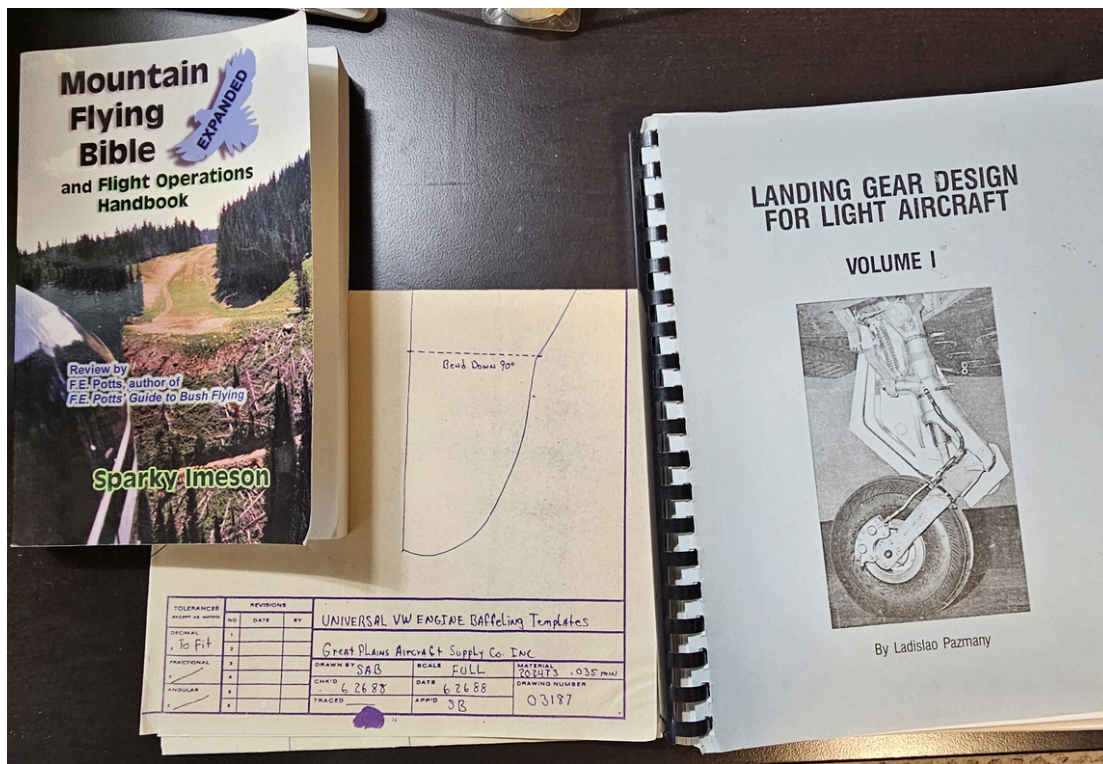
**403-463-2630**

**[bdavis1@shaw.ca](mailto:bdavis1@shaw.ca)**

## Cleaning out garage items

I've been cleaning out the garage and found these items. If anyone in the Club is interested, the books and baffle plans are free. I'd like to get \$100 for the tail wheel (plus shipping).

Cheers.



**A couple of Books and Baffle Plans for a VW Engine, Free.**



**6" Matco tailwheel \$100, plus shipping.**

**Bernard Kespe**

**(250) 752-7413 (Home)**

**Qualicum Beach, BC**

**(250) 927-7419 (Cell)**

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