Issue 31 April 2026

SKYWRITER

Calgary Recreational Flying Club

COPA Flight 114

CALGARY RECREATIONAL FLYING CLUB

COPA

OFFICIAL NEWSLETTER

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.

THIS ISSUE

Featured on the Cover:

The Artimus II, with Orion capsule "Integrity", ready for launch on pad 39B at Kennedy Spce Center.

PRESIDENT'S MESSAGE

April 2026 ***BRIAN VASSUER***

Either wet, or windy, or snowy!

March has not been a fun month for flying. Either wet, or windy, or snowy, but never a combination that made for good flying weather. I'm hoping April will be much better.

This month started with the news that Sonex Aircraft has declared bankruptcy. Running an aircraft business is never easy and it's no surprise that there are very few kit companies left. The Sonex is a great design and there's lots of good history so I think we will see a new owner pick up the pieces and do something positive with it.

I've been making great progress on my RV6 but I'm, at a bit of a crossroads. Back in 1998 when the plane was built it had lights, strobes, a radio and electric flaps and trim. Not too many wires to run.

In my version of the plane there's 7 antenna wires and about 50 other wires that have to get from the panel to somewhere behind the main spar. VANS allowed for one 3/4" hole for all of these wires which isn't even remotely big enough for what I need to do. I haven't figured out how I'm going to deal with this yet.

One of the other problems I'm having is that my RV6 is at Springbank and there is a lot of activity there during the day. Stopping several times a day to look at airplanes taxi by is having a detrimental effect on how quickly I can get the plane done. There are some very nice airplanes there.

So many airplanes, so little time.

Brian Vasseur

Skywriter Update

Newsletter Editor ***GREG LABINE***

We choose to go to the moon!

In the famous words of JFK…*"We choose to go the to the moon, not because it is easy but because it is hard."* That speech, 64 years ago, inspired generations and excited the world. We are now returning. A history making moment. See my article following.

This month we have more informative & entertaining content for you to enjoy.

We have some interesting perspectives on the many options available for those of you looking to install or update to a Glass Panel in your aircraft. Brian Vasseur outlines many offerings currently available to the homebuilder today. In this article, he gives a fair comparison of many products from several manufacturers and offers his opinions on various combinations.

Stu Simpson put together a fun exercise for you to test your knowledge on random aviation topics. This Trivia Challenge is interesting and most of you should get most of it. The answers appear right after the questions. Try it out and see how you do. No peeking!

Following below, I've written an article regarding the Artemis II mission, which recently launched. I've always been fascinated with the Space Program, especially the Apollo era. This is true history happening live. An exciting time!

A quick reminder, are you paid up on your membership dues?
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** If prompted for a password use: **crfc2026**

Our next meeting is Wednesday, April 8. 19:00 at the Hangar Museum.

Greg.

“New Moonshot”...history being made before our eyes.

By GREG LABINE

Houston: *“Go for TLI.”*

Integrity: *“And your Integrity crew is go for TLI, with this burn to the moon, we do not leave Earth , we choose it.”*

With that burn, mankind embarks on the next great adventure into Deep Space, leaving Earth orbit, on the journey to the Moon. It’s now time to “choose to go to the Moon” again, and continue to write the next chapter of human Space travel.

Historical context:

Consider that the Wright brothers First Powered Flight occurred December 17, 1903, When they left the ground. It was only 65 years & 4 days later that Apollo 8 launched on December 21, 1968, to leave the Earth. A short 7 months after that, Man walked on the surface of the Moon, July 20, 1969, during the Apollo 11 mission.

It would only take another 57 years until the Artemis II would launch on April 1, 2026. Technically the last visit to the Moon was December 14, 1972, during the final mission, Apollo 17 . Ironically, the entire Artemis 2 Astronaut crew were not even born yet. Since Apollo 17, the Manned Space Program “Stalled” in low earth orbit for nearly 54 years.

Certainly Skylab, The Shuttle Program and the ISS, were all tremendous accomplishments. Skylab proved the validity of scientific work in space. The Shuttles CHALLENGED the hazards of space travel and made significant contributions of DISCOVERY and scientific advancements during their ENDEAVORS endeavors in low Earth orbit. (Pardon the puns). The ISS proved long-term living and working in space was possible and fostered a spirit of Global Cooperation and Teamwork. Many ISS missions involved crews from all over the world. Among the 9 great Canadian Astronauts who went into space, the most familiar and notable one is Chris Hadfield. He made multiple trips to space and even commanded the ISS on Expedition 35. In that spirit, Canadian Astronauts Jeremy Hansen will be the First Canadian to the Moon.

Apollo 8 - 1968

Artemis II - 2016

I use Apollo 8 as a basis for comparison to Artemis II as it mirrors it in mission objectives. That is Launch, Orbit and Slingshot around Earth, travel to the Moon, Orbit and return to Earth. The Apollo 8 mission, in my opinion, was one of the most courageous and risky attempted. Can you imagine being the first Astronauts to boldly go away from Earth orbit, uncertain if returning was entirely possible.

I've always liked apollo 8's mission patch as it depicts the mission profile around the Earth and the Moon and forms a big "figure 8". (See both mission patches below.)

Apollo 8 would orbit the Moon 10 times and be the first to see the Far Side of the Moon. Some refer to it as the "Dark Side", but this is incorrect. It receives sunlight as well as darkness. It is the side that never faces Earth but faces outward. It's much different looking than the familiar hemisphere we always see. The Far Side is covered by craggy, cratered and ancient highlands from volcanic activity which occurred at different points in time.

During those orbits of the Moon, Astronaut Bill Anders took one of the most iconic pictures in space. It's the Earth appearing over the Moon's horizon, which was therefore named "Earthrise". (See above)

Here follows the details of both missions:

Apollo 8

Crew: Commander Frank Borman, Lunar Module Pilot William Anders and Command Module Pilot Jim Lovell. (The latter would be the Commander of the ill-fated Apollo 13, as seen in Apollo 13 movie.)
Launched: December 21, 1968, 12:51:00 UTC from Pad LC-39A, Kennedy Space Center, Florida.
Splashed down: December 27, 1968, 15:51:42 UTC, Pacific Ocean, recovered by USS Yorktown.
Ship: Apollo Capsule/Command and Service Module (CSM), built by North American Aviation (later North American Rockwell) and Saturn 5 rocket built by Boeing, North American Aviation, and Douglas Aircraft Company.

Artemis II

Crew: Commander Reid Wiseman, Pilot Victor Glover, Mission Specialist Christina Koch and Mission Specialist Canadian Space Agency Astronaut Jeremy Hansen.
Launched: April 1, 2026, 22:35:12 UTC from Pad LC-39B, Kennedy Space Center, Florida.
Splashdown: is planned in the Pacific Ocean near San Diego, where the U.S. Navy will recover the crew.
Ship: Orion Capsule/Spacecraft "Integrity" Built by Lockhead Martin, European Service Module (ESM) built by Airbus Defence & Space, and the SLS (Space Launch System) which is NASA's super heavy-lift launch vehicle, built by a team of major aerospace contractors. Boeing serving as the lead contractor for the core stage and Northrop Grumman produced the solid rocket boosters, the upper stage (ICPS) is built by United Launch Alliance (ULA), and the engines are supplied by Aerojet Rocketdyne.

Comparing both ships:

Artemis II SLS is the most powerful NASA ever used, producing a tremendous **8.8 million pounds of thrust** at liftoff. This power comes from two solid rocket boosters, which supply over 75% of the total thrust, along with 4 RS-25 engines.

Apollo Saturn 5 rocket produced **7.7 million pounds thrust** at liftoff from its five F-1 engines.
To put that in perspective, the **Boeing 777X**, powered by two GE9X engines, is currently the passenger jet with the most thrust. Each **GE9X** engine produces **105,000 lbs of thrust**, making it the most powerful commercial engine ever certified. Artemis at liftoff, produces thrust equivalent to nearly **42 Boeing 777X's!**

However, contrary to popular belief, the **Apollo/Saturn 5** ship was bigger at **363' tall and 33' wide**. The **Artemis/SLS** is **322' tall and 27.6' wide**.

Mission Profiles:

Artemis core stage burned for about eight minutes before separation, leaving Orion in a highly elliptical orbit with an Apogee (point of elliptical orbit which it is furthest from the Earth) of roughly 1,200 nautical miles, nearly five times higher than the International Space Station. After completing High Earth Orbit operations and system verification, Orion performed a 5-minute, 49-second **TLI Trans-Lunar Injection** burn using its European Service Module, placing the Orion spacecraft on a Free-Return Trajectory to the Moon.

It will travel in the region of space called Cislunar space (Earth-Moon area) the vast, three-dimensional volume of space encompassing the Earth, the Moon, and the region between them. The word “Cislunar” comes from Latin and technically translates to "on this side of the Moon" or "not beyond the Moon".

It is scheduled to loop around the Moon on **Monday, April 6** and return to Earth without further propulsion, with only minor course corrections planned. Return to their home planet, scheduled to arrive on **Friday, April 10**, concluding with Splashdown and recovery.

So, what's the big deal with Artemis II, and why is NASA describing the mission as "historic"? The Artemis II mission will send humans Farther from Earth than ever before. The current human-distance record, set in April 1970, by the three astronauts during Apollo 13, is **248,655 miles**.

Artimis will reach maximum distance, at apogee, of **252,799 miles**. A distance over 4,100 miles further away. The Orion capsule will conduct a lunar flyby at the closest approach of about **4,047 miles** from the far-side lunar surface, and will deliver the valuable insights needed to eventually land on the Moon again in the future.

Legacy:

Between 1968 and 1972, 24 Astronauts flying on eight Apollo missions journeyed to the moon. Even more so, three of those people flew twice. Six of those missions landed on the lunar surface and 12 men walked on it.

Today, there are only 5 Apollo crew members still alive, who went to the Moon. The first four are those who walked on the Moon: **Buzz Aldrin** (Apollo 11), **David Scott** (Apollo 15), **Charles Duke** (Apollo 16), and **Harrison Schmitt** (Apollo 17).

The other surviving Apollo crew member is **Fred Haise** (Apollo 13), who went to the Moon and orbited it, while trying to limp home after their inflight explosion.

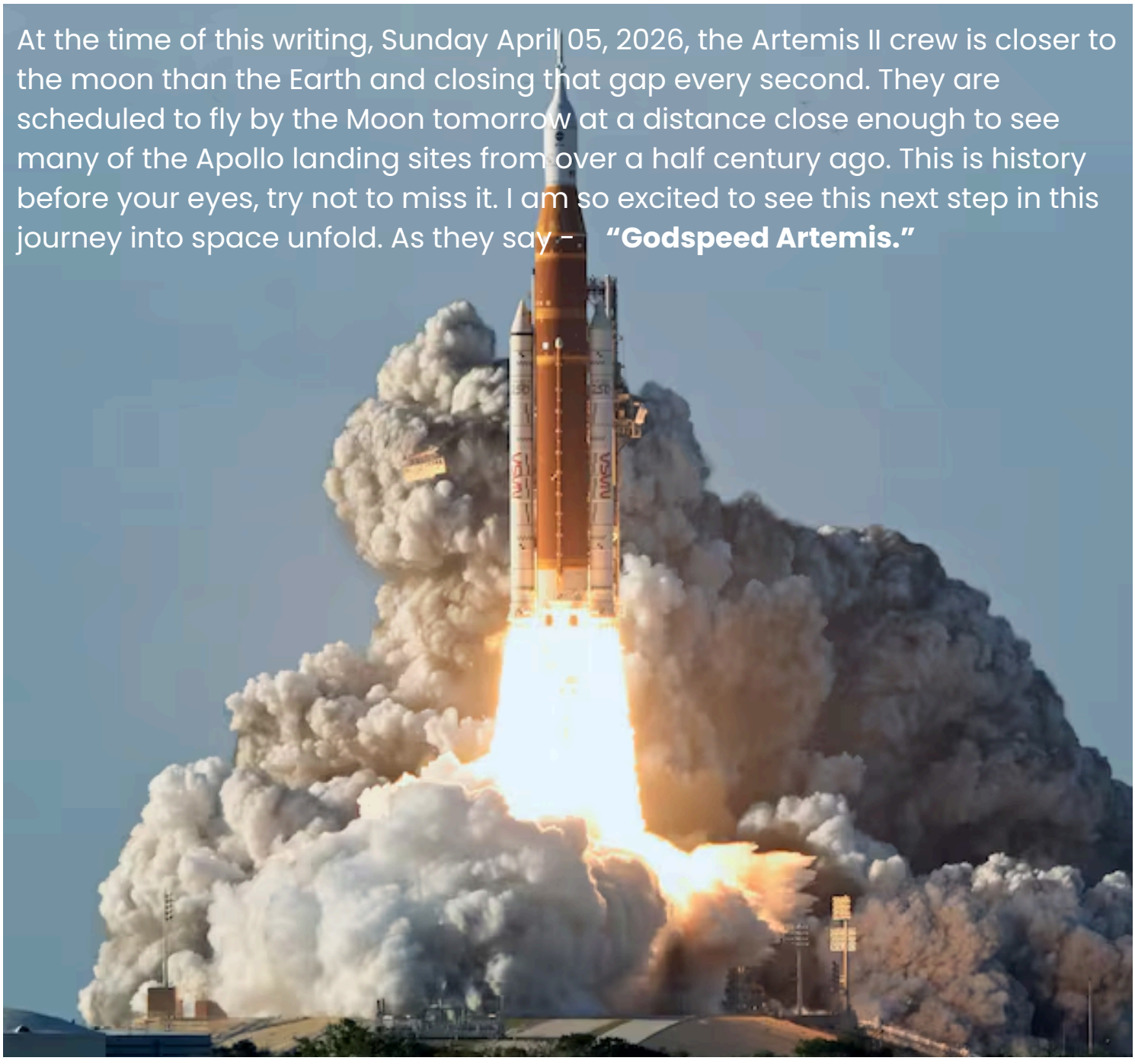
That mission was commanded by Jim Lovell and was depicted in the Movie Apollo 13 by Tom Hanks, and Fred Haise was portrayed by Bill Paxton. In the movie, Tom Hanks, speaking as Jim Lovell, says *"I look up at the moon, and wonder, when will we be going back, and who will that be?"* I guess we now know when and who that is.

Fun fact: In the movie Apollo 13 there is a brief cameo appearance by the real Jim Lovell, before he passed. The scene is on the carrier deck after recovery from splashdown. The Senior Officer Tom Hanks is speaking with is actually Apollo 13 Astronaut Jim Lovell, whom he spent time with studying in preparation for this role. (See picture below.)

Conclusion:

I've always been a space program nerd. I was born during the Gemini program and remember Apollo when I was a young boy. I have been to both the Kennedy Space Center in Florida, and the Johnson Space Center in Houston Texas, multiple times. Once as a boy in the late 1960's, again with my wife and kids in 2008, and recently with my wife in 2023.

Because space travel is the logical and natural extension of aviation, this next phase of manned spaceflight is a huge leap forward for us nerdy pilots and speaks to the young boy in all of us.



At the time of this writing, Sunday April 05, 2026, the Artemis II crew is closer to the moon than the Earth and closing that gap every second. They are scheduled to fly by the Moon tomorrow at a distance close enough to see many of the Apollo landing sites from over a half century ago. This is history before your eyes, try not to miss it. I am so excited to see this next step in this journey into space unfold. As they say - **"Godspeed Artemis."**

GLASS PANEL OPTIONS
By Brian Vasseur

One of the things about the panel in my RV6 is that it is incredibly expensive for a few screens and a couple of radios. Altogether my panel is worth as much as my CH250.

It's nice, and Garmin is the current favorite right now, but it is just too expensive for most builders. I started looking at other options to see what someone would do if they were on a budget but wanted to have glass.

Garmin, Dynon and GRT are my favorites because they have been around for awhile and have a wide range of products. I'm confident they will still be in business in 20 years which is how long I hope my equipment lasts.

To start with though a new contender from a Canadian manufacturer is 360 Avionics:

https://www.360avionics.com/store/avionics-experimental-airplanes-flight-instruments

They have entry level display starting at $1000 Canadian and also have an integrated engine monitor which can be added. I haven't done much research on them but as a Canadian company I plan to pay a lot of attention them when it's time for my next project.

Garmin offers the G5 which is a 3 1/8" instrument that can be an Attitude Indicator + airspeed + altimeter + vertical speed + directional gyro for about $2500. You can buy a second G5 and set it to be a dedicated directional gyro. Very little panel space required. Add a magnetometer for about $600 and you can have a very functional glass panel for $3000 - $6000.
These are very full featured and it will run autopilot servos and can be used in a full IFR environment. Still not cheap but a fraction of the cost of going to the big displays.

Dynon is also very popular and very well supported. The D30 is similar in functionality to the Garmin G5 and you can keep adding features as you like. Price will be in the same ballpark as the Garmin. I've excluded the portable Dynon D3 EFIS because it does not integrate with Pitot Static so you would still need steam gauges.

UAvionix offers the AV20 and AV30 which sell between $1500 and $2900. The AV30 is similar to the Garmin G5, the AV20 is more basic.

One nice feature is these can be the control head for a TailBeaconX which is an ADSB transponder You can get a whole package for $6500. If I was doing a basic VFR airplane an AV30 and TailBeaconX would get serious consideration.

Grand Rapids (GRT) has the GRT Mini which is more expensive than the Dynon and Garmin but with a lot more features and will be cheaper to expand. It can also be used to control a TailBeaconX. GRT has been around for a long time and they also have a very popular engine monitor that integrates well.

I have an EIS in my Zenair and it has paid for itself many times over.MGL is manufactured in South Africa and has been around awhile. Several of the club members are using them and they now own TRIG avionics which makes for a nice integrated package.

Falken Avionics is being used by one builder in High River. I have not seen it flying yet and I don't know what their history is so I don't know if this would be a good choice to investigate.

The challenge with all of these entry level EFIS solutions is that it is very easy to spend a lot more money adding on extra features. In the end though it will be worth it to go glass instead of steam for your next project.

The entry level glass displays are about what it would cost for new steam gauges and the extra features out of the box make it will worthwhile.

If you're still looking at options for your project then take a look at some of the companies above to see if they might be the right solution for your plane.

TRIVIA QUESTIONS – Pt 1

By Stu Simpson

Stu Simpson took the time to put together this Trivia Challange. It contains the questions and answers. Give it a try and test your knowledge. This is Part One. Part Two will appear in next months Skywriter. Have fun and Good Luck!

Q. What's the magnetic variation at Calgary International Airport, and where would you find this information?

A. 15 deg east, found in the Canada Flight Supplement.

Q. In the Canada Flight Supplement, for an airport such as Ponoka or Lethbridge under the CUST heading there can be an entry of AOE/CAN. What does this mean?

A. The airport is an airport of entry through which pilots and aircraft can enter Canada, however, all persons on board must have CANPASS privileges.

Q. The Cessna 310 pictured here is an older model with the older style fuel tanks on the wing tips. What were these tanks affectionately know as?

A. They were called 'Tuna Tanks'.

Q. The aircraft pictured above is Bob Kirkby's Piper PA-12. What was the model name that Piper gave to this elegant classic?

A. The Super Cruiser

Q. Can you list three main differences between a Rotax 582 Mod 90 "Grey Head", and a 582 Mod 99 "Blue Head"?

A. The Blue Head features a thermostat/water bypass system, improved rotary valve seals uses a mechanical ceramic seal, whereas the Grey Head uses rubber seals. Blue Heads typically require larger radiator capacity. The Blue Head is generally considered more reliable, with roughly 23% lower fuel consumption than the older Mod 90 Grey Head.

Q. What is the primary difference between a Rotax 912UL and 912ULS?

A. The 912UL produces 80 hp, while the ULS produces 100 hp.

Q. Where is the fuel pump located on a Rotax 912?

A. On the right side of the engine in a tractor configuration, just aft of the gearbox.

Q. What is the model name for Cessna's iconic 182?

A. The Skylane.

Q. Do VW engines and their derivatives, such as AeroVee and Great Plains, turn their props clockwise in a tractor configuration, or counter-clockwise?

A. They rotate Clockwise when viewed from behind the propeller looking forward (pilot's perspective), depending if reduction drive is used or not.

Q. Club member John Kerr flies a gyroplane known as the RAF 2000. What does RAF stand for, and where were these gyros manufactured?

A. Rotary Air Force, from Kindersley, Sask.
(Ed. note - I believe manufacturing was moved to Upington, Northern Cape, South Africa in 2007.)

Q. What are the airport identifier codes for Red Deer, Lethbridge, Drumheller, Three Hills and Edmonton International?

A. CYQF, CYQL, CEG4, CEN3 and CYEG.

Q. What is the aircraft shown in the photo below?

A. The Rans S-6 Coyote II, in this case with the 116 wing of only 116 square feet.

Q. An aviation map in Canada and the US is known officially as a VNC. What does VNC stand for?

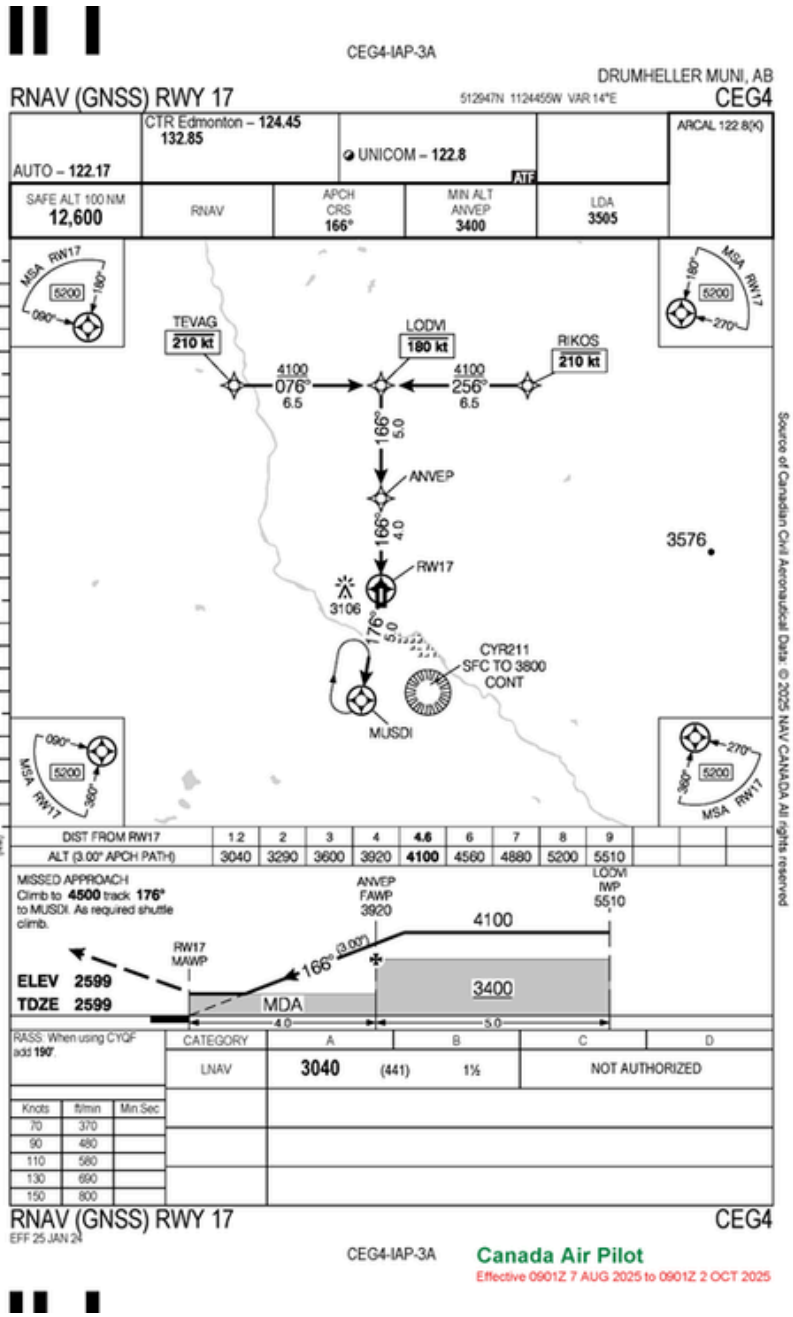
A. VFR Navigation Chart.

Q. What types of airports are most likely to have VTA charts?

A. Larger, busier airports with high volumes of jet traffic in congested areas that a VTA chart helps to declutter.

Q. What does VTA stand for and what is the chart scale?

A. VFR Terminal Area chart at a scale of 1:250,000.



The following questions are for the chart shown above:

Q. What is this chart?

A. It's an IFR Approach Chart for runway 17 at Drumheller.

Q. Does this approach use an Instrument Landing System (ILS).

A. No, it uses onboard GPS with pre-programmed waypoints instead of ground-based ILS radio signals.

Q. These charts are traditionally known by a name shared with a certain culinary implement. Do you know what it is?

A. They're traditionally known as IFR Approach 'Plates'.

Q. What is the name of the publication series that contains Canada's IFR approach and departure charts?

A. The Canada Air Pilot.

Q. What is the technical term for the cloud type that produces severe thunderstorms, and how is it abbreviated in weather reports, forecasts and charts?

A. Cumulonimbus, denoted as CB.

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

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

CLASSIFIED

Buy and Sell

All things related to Aviation

Rotax 912 Exhaust kit $890

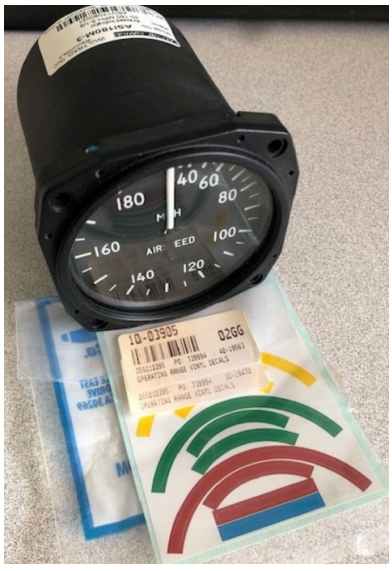
Rotax 912 Exhaust kit fits UL & ULS engines. New, never used. Complete. $890

Al Baljak **403-708-0369** **dolac91@gmail.com**

New Falcon ASI $375

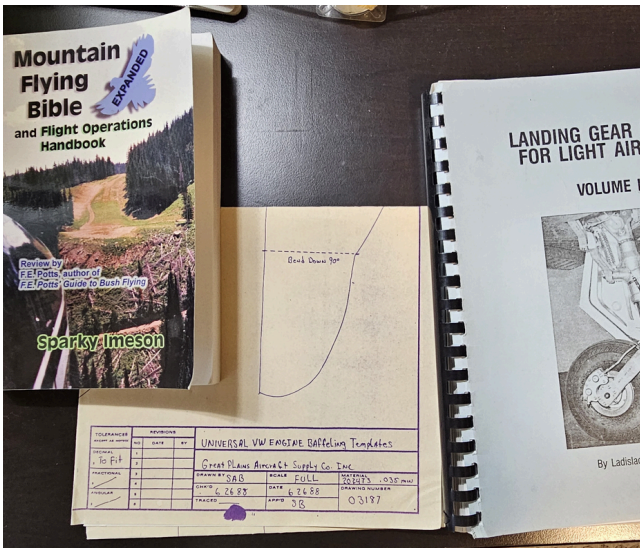
New Falcon ASI P/N ASI180M-330-180 MPH, 3-1/8" (Aircraft Spruce part # 10-03000) Operating range vinyl decals included (A/S Part# 10-03905) Still in the box, $375.

Bob Kirkby **403-512-9158** **Bobk@skywalker.ca**



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 **Qualicum Beach, BC**
(250) 752-7413 (Home) **(250) 927-7419 (Cell)**

Wanted:

1. Need someone with CAD experience to help me fine tune my panel design in my RV6.

2. Looking for a used Attitude Indicator for Experimental.

Brian Vassuer **403-828-5281** **brian@brianvasseur.com**

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