

NEWS AND VIEWS

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Coming Events

1. Next COPA 26 Meeting is Tuesday November 14,, 2023. Details to follow.
2. The next Pilot Decision Making (PDM) Zoom Workshop is Dec 6, 2023. To join, send an email to cykf.pilotworkshop@gmail.com.

In this Issue!

- Get to Know Your Canada Flight Supplement - Again! - Warren Cresswell
- Enough **PUN**ishment!
- What to Do With Partial Power Loss!
- Electric Flight at KW! - Bruce Jermyn
- Forward Slip at Port Elgin! - Geoff Gartshore
- Members' Corner - The Arrow II Story - Dave Timms

Welcome!

Get to Know Your Canada Flight Supplement - Again!

By Warren Cresswell

Do you carry a current copy of the Canada Flight Supplement on board your aircraft when you go flying?

When was the last time you browsed through the CFS to see what is there?

While an electronic CFS (eg. Foreflight or Garmin Pilot) is legal, how easy is it to find general information quickly when you need it? As student and newly licensed pilots most of us will have been very familiar with the information in the CFS. But as the years pass, how many of us are staying current with this publication?

The purpose of this quiz is to encourage the reader to dig back into the CFS (whether paper or electronic) and refresh your memory as to what useful information is contained in this publication.

Note: CFS page references contained in this document are based upon the Canada Flight Supplement in effect for the period 0901Z 3 November 2022 to 0901Z 29 December 2022. If you are using a CFS with different dates, the page references might be slightly different.

Enough PUNishment!

Our Thursday pilot lunch group was recently chatting about the Pipistrelle electric aircraft that is being used for testing and flight training at KW. The following questions came out of the discussion:

- Are students over charged ?
- When the plane comes back early did it have a short circuit ?
- How do you stay current?
- Is there any resistance from students?
- Do you have to yell 'Contact ' before starting?

We have a whole 'Battery' of puns.....

Final Chuckle

Proof the earth is flat!

70 % of the earth is covered by water - how much is carbonated ?

None - hence the earth is flat!

Plus it says "Sea Level" , not "Sea Curved".

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Question 1: You want to know where the airport CYVP is but don't know the name of the airport. Without entering it into Foreflight or Garmin Pilot, where can you find this information in the CFS?

Question 2: What does a U.S. gallon of 100LL avgas weigh at a temperature of 0° C?

Question 3: What does a litre of 65 grade oil weigh at 20° C?

Question 4: You're flying into an Eastern Caribbean airport and are given an altimeter setting of 1015mb. What is the conversion to inches of mercury that you will set into your panel-mount altimeter?

Question 5: What is the difference between a METAR and a METAR Auto?

Question 6: During your flight you encounter adverse weather conditions and wish to report these to the Flight Information Centre. Where can you find the proper format to report a PIREP?

Question 7: Your destination airport is reporting a low Canadian Runway Friction Index and a peppy crosswind. Where would you find a chart specifying crosswind limits for various CRFI values?

Question 8: Your destination airport ATIS and NOTAMs are adverting a Runway Surface Condition of 3/3/3. What does this mean and where can you find information on RSC's in the CFS?

Question 9: You are landing at night at an aerodrome with a lighting system designated as "AO" What can you expect to see with respect to the lighting?

Question 10: You are landing at an airport in uncontrolled airspace with a frequency for Centre which is remoted at the airport with what is called a "DRCO." What is this and how does it work?

Question 11: From the CFS how can you tell if the circuit pattern for the intended runway is left-hand or right-hand?

Question 12: You are flying enroute and want to check on the weather at your destination. You wish to contact FSS to obtain this information. What frequency should you use – where would you find the right frequency?

Question 13: In certain areas of Canada there are designated Air-to-Air Frequencies that pilots should use to communicate with other pilots when flying in that region. One of these is the ATF corridor between Sept-Iles, Quebec and Lourdes de Blanc-Sablon, Quebec. When flying in one of these designated areas where can you find the information on frequencies and altitudes?

Question 14: For IFR operations at many airports in Canada, mandatory arrival and departure routes have been established. For your IFR operation, especially for departures, ATC is likely to assign the published departure route. Where can these be found in the CFS?

Question 15: As VORs and Airways rapidly disappear in Canada, RNAV T-routes have been established to assist the GPS-enabled pilot to navigate along those routes. Where in the CFS can you find a list of all the RNAV fixes pertaining to a specific T-route?

Question 16: The CFS publishes Lat/Long for all intersections and reporting point coordinates. For example, KENLU, which is located near where the old Simcoe VOR was located. Where can you find the Lat/Long data for all the fixes like KENLU?

Question 17: You are flying along near Bancroft, Ontario and want to listen to the local radio station on your ADF equipment. You don't have access to SiriusXM radio, so your old ADF will have to do. Where can you find the AM frequency for a radio station in Bancroft?

Question 18: The bad news is that you have made a forced landing in a clearing in a remote area. The good news is that the landing left much of the aircraft intact and you are unharmed. Now you turn your attention to survival and signalling to any overflying aircraft. You recall that there are certain Ground-to-Air Signals that you could set up on the Ground in order to signal a simple message to an overflying aircraft. But you can't remember what they are. How can the CFS help you?

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Answer 1: General Section page A17 provides a list, given by alphabetical order, for all airports listed in the CFS. It cross-references Aerodrome location indicator and name. CYVP is Kuujuaq, Quebec in Nunavik.

Answer 2: General section p. A44 gives weights for avgas and oils at various temperatures. A U.S. gallon of 100LL avgas at 0° C weighs 6.12 lbs.

Answer 3: This information is found in the same table and the avgas data are provided in the previous question. At 20° C 65 grade oil weighs 1.94 lbs. CFS Reference: General p. A44 Conversion Tables.

Answer 4: General section, page A45 provides a conversion table for mb to inches of mercury. 1015mb is equivalent to 29.97 inches of mercury.

Answer 5: METAR is taken by a qualified human observer whereas METAR Auto is taken by a stand-alone Automated Weather Observation System (AWOS). AWOS systems located outside of the Canadian Lightning Detection Network coverage area do not receive lightning data and are therefore unable to report thunderstorms or lightning data and therefore are unable to report thunderstorm and lightning activity. CFS Reference: General p. A59.

Answer 6: CFS Reference Planning page C2.

Answer 7: CFS General p. A76

Answer 8: Your destination airport is reporting the RSC in thirds along the runway. Dry runway conditions are a 6 and 0 represents the most slippery conditions. A report of 3/3/3 indicates performance will be degraded from dry runway conditions. Extra care should be taken during the landing and rollout. CFS Reference: General p. A77-78

Answer 9: This is an ODALS lighting system. Expect 1500' of sequenced flashing white lights leading to the runway threshold lights at each corner of the runway. This particular lighting system has a standard length of 1500' (for the lead-in lights) and is called an Omni-Directional Approach Lighting System (ODALS). All the lighting configurations are provided in the CFS General pp82-85. The information for an ODALS system is found on General p. 82.

Answer 10: This is called a Dial-Up Remote Communications Outlet ("DRCO"). This frequency connects the pilot with a Flight Information Centre or ATS Centre from the ground at the airport. You might use this, for example, to close out a flight plan or obtain a clearance for departure. The pilot selects the published DRCO frequency, keys the mike four times to begin the link process. The pilot will hear a conventional dial-tone and after a couple of rings the words "Link Established." This means the telephone line is open, that FSS or Centre is ready to receive your broadcast. Now key the mike in the normal fashion and transmit your request. CFS Reference: General pA89.

Answer 11: In the CFS, go to the data entry for the airport of intended landing and view the PRO section. Any requirements for right-hand circuits will be listed in this section. If there is no reference in the PRO section it is a standard, left-hand circuit. If flying in the USA, go the Chart Supplement page for the airport. Any runways with right-hand circuits will be listed. CFS Reference General p. 92.

Answer 12: In the data entry for the airport of intended landing go to the COMM section and look for the Flight Information Service Enroute ("FISE") frequency. For example, the FISE frequency at London, Ontario CYXU is 123.55. To find a map of all the FISE frequencies in a region go to Planning pp. C17-31. These maps will provide all the FISE frequencies as well as FISE service that can be

obtained via Remote Communications Outlets (RCO's). For example, in Ontario, near Wawa the FISE RCO is 122.375. You can reach London FIC on that frequency.

Answer 13: CFS Reference Planning pp. C52-54.

Answer 14: CFS Reference Planning Section beginning in Planning p. C98-C144. Select the area of the country where you plan to operate, look for your airport or departure or arrival, determine direction and altitude of flight and find the applicable Mandatory IFR route for your planned operation.

Answer 15: CFS reference Planning Section beginning p. C145-C171 provides the information for Fixed RNAV routes of all kinds. A list of fixes for each T-route is found on Planning pp. C159-C170.

Answer 16: CFS reference Planning Section beginning p. C203-C228. The fixes are listed alphabetically making it easy to quickly find the one you want.

Answer 17: The CFS listed all AM broadcasting stations in Section D beginning on p. D20. Go to the Ontario region, find Bancroft and you will see that the call-sign for the AM station at Bancroft is CBLV. Dial in the frequency for this station, which is AM 600 and set your audio panel to hear the ADF signal. Note that the power of this station is only 40w so you might not be able to listen to it for long! With almost all NDBs now decommissioned in Canada, this listening function for AM radio stations is about the only utility you may still be able to get from your ADF!

Answer 18: In Section F of the CFS, which is the Emergency Section, there is information on the Ground-to-Air Signals, including a chart of the symbols which is provided on p. F5-F6. CFS Section F, which comprises twenty pages, provides a myriad of emergency information including such topics as transponder operation, traffic control light signals, interception orders, ground to air signals for SAR, two-way COM failure procedures for IFR, emergency communications procedures and many others. It is recommended that you read this section of the CFS periodically to stay current and know what is contained in this important section of the CFS. It could save your life. **(Editor's Note: I have some of this information laminated and carry it in my aircraft for quick reference).**

While a very bulky publication, the Canada Flight Supplement is actually a terrific publication packed with all kinds of general, planning, nav/com and emergency information, in addition to all the specifics for each airport in Canada.

While it may be a long time since you have taken a close look at the publication, it is a good idea to do so periodically to remind yourself of important information pertaining to your flying and to facilitate knowing where key information can be quickly found in the CFS.

Maybe it's time to pull out the CFS and have another look!

What to do with Partial Power Loss (From: Pilot Workshops with Wally Moran)

“Well, I guess we can say at least that a partial power loss is better than a total power loss. At least we have a few more options.

My first thought is to undo whatever it was that you most recently did. If you just switched fuel tanks, switch back. If you just leaned, enrich the mixture ... you get the idea. The next step is to try all the troubleshooting items on your engine failure checklist. You need to develop a flow pattern that covers all the items. This is not the time to start looking for the checklist. **These items must be in long-term memory** (emphasis by Editor).

Remember as you lose power the nose will drop as the airplane wants to maintain its trimmed speed, so you need to start applying back pressure on the elevator and began slowing to best glide speed. Don't give away a bunch of altitude while you are doing your checking. Altitude means options and at a time like this options are good.

If you have been playing the *what if* game, you already know what direction the nearest airport is, so turn in that direction as you are troubleshooting and trimming. If you are not always thinking about where you would go if you developed an engine problem, you are not doing your job as PIC. (emphasis by Editor).

If you can't solve your problem, hold your altitude until the airplane slows to best glide speed and see if you have enough power to maintain altitude. If so, limp along to the nearest airport. Even a little bit of power will extend your glide significantly, so maintain best glide and conserve as much altitude as possible. Of course, that engine could quit at any time, so as you progress, keep picking out forced landing possibilities.

Arrive over your airport as high as you can, then maneuver to set yourself up for a normal pattern with a downwind leg at approximately 1000 feet above field elevation. Now if you have previously practiced power-off landings from this position you are in good shape. Be careful not to get too high and fast on the approach, but also remember that once you close that throttle, you may not get any power back.

Naturally, getting help from ATC and declaring an emergency, time permitting, is helpful; but most of the work is up to you.

So in summary, know your flow pattern for troubleshooting your engine problems, maintain situational awareness, be able to trim and fly your aircraft at best glide speed and practice power-off landings from the downwind leg. Doing these things will significantly improve your odds of a safe landing.”

C - GAUW - Electric Pipistrel at CYKF!

By Bruce Jermyn, COPA 26



Let me introduce you to **Golf Alpha Uniform Whiskey – GAUW!** That call sign was not likely chosen randomly.

In almost every Aviation magazine picked up today one can probably come across an article describing some form of electric aviation technology under development. Indeed millions, if not billions of dollars are being spent on projects around the world.

However, this new totally electric plane is right here, right now and a distinguished local success story to be proud of; a “feather-in-the-cap” of the Waterloo Region Aviation World.

This two-seater Pipistrel Velis Electro is the first of its kind in Canada arriving last Fall to make its home in Waterloo Region at the Waterloo Wellington Flight Centre (WWFC) School. Manufactured in Slovenia, it is also the first and only electric plane to be certified in Europe as commercially available.



It is reported that it can fly up to 12,000 feet and carry two persons with a combined weight of 378 lbs. with about a 50 minute flight duration. Recharging of the two Lithium-ion batteries takes roughly the same amount of time since pilots report not going below 30% charge before returning to land. Cruise speed is about 100 knots and as expected relatively quiet with 60 decibels of noise emitted – about the same as the level of normal conversation.

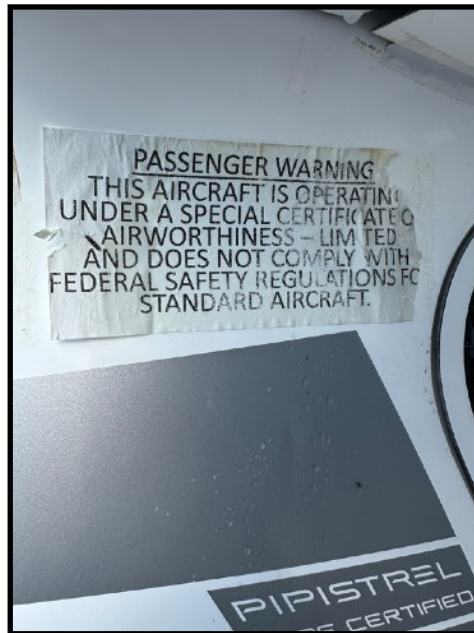
You too can own one for close to \$300,000, but keep another \$40,000 in reserve to cover the tax. No need to worry about the price of gas and oil, but a battery is expected to last 2,000 hours with a proposed cost of \$20,000 (US) to replace.

This project was made possible through a joint venture with the University of Waterloo and the Waterloo Wellington Flight Centre.



It is not yet part of the regular squadron of planes available at WWFC as it is being flown under a Special Certificate of Airworthiness and not yet certified by Federal Safety Regulations.

Operation of it continues under the “research” umbrella with a short list of operators and commercial usage is probably a couple of years away.



Noteworthy are the combination “flaperons” in contrast to the typical split flaps and ailerons usually found in general aviation.



Not unexpected, all components seem to portray a light-weight look and feel. Certainly, lowering the flexible plexiglass enclosed doors is not like slamming the doors of a 172.



The cockpit is simplistic with “stick-and-rudder design” and a clean appearing dash with beneficial airspeeds clearly demarcated in direct view.





Electric aircraft are not above being “snagged” as it was recently for a Static Pressure problem. It was grounded for a short period of time as only one technician is certified to work on it at the Flight Centre maintenance shop.

If you would like get a close-up live look it can usually be found tied down outside on Apron 2 right next to the WWFC maintenance hangar (close to an electrical outlet!). A bit of a shame for a new plane not to be hangared indoors though.

For those interested in reading The Record’s recent newspaper article it can be found at:

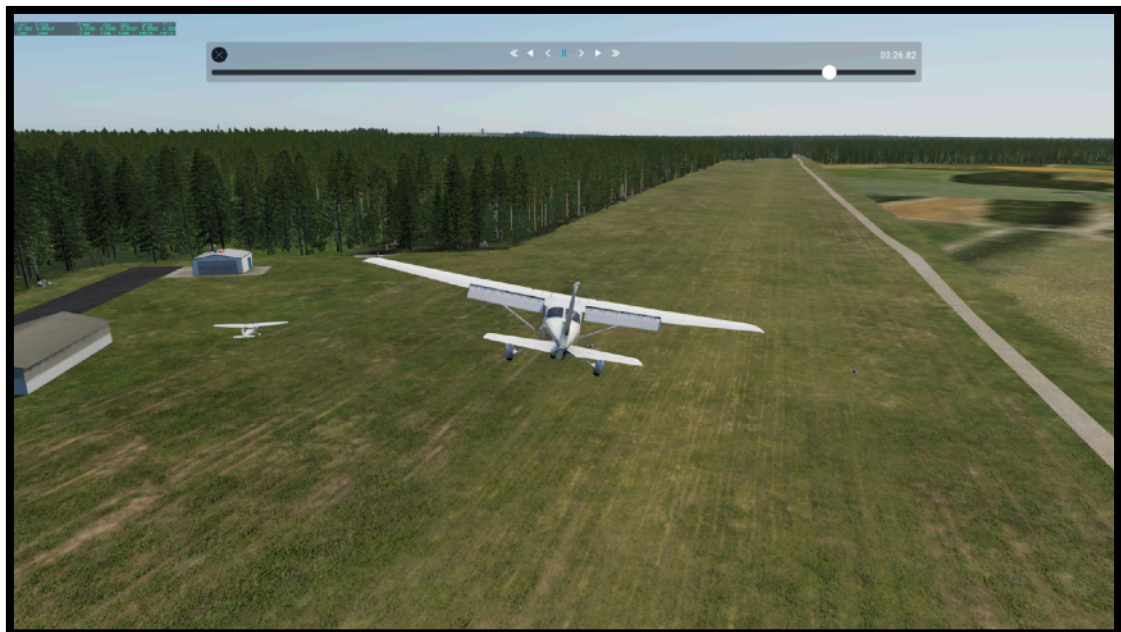
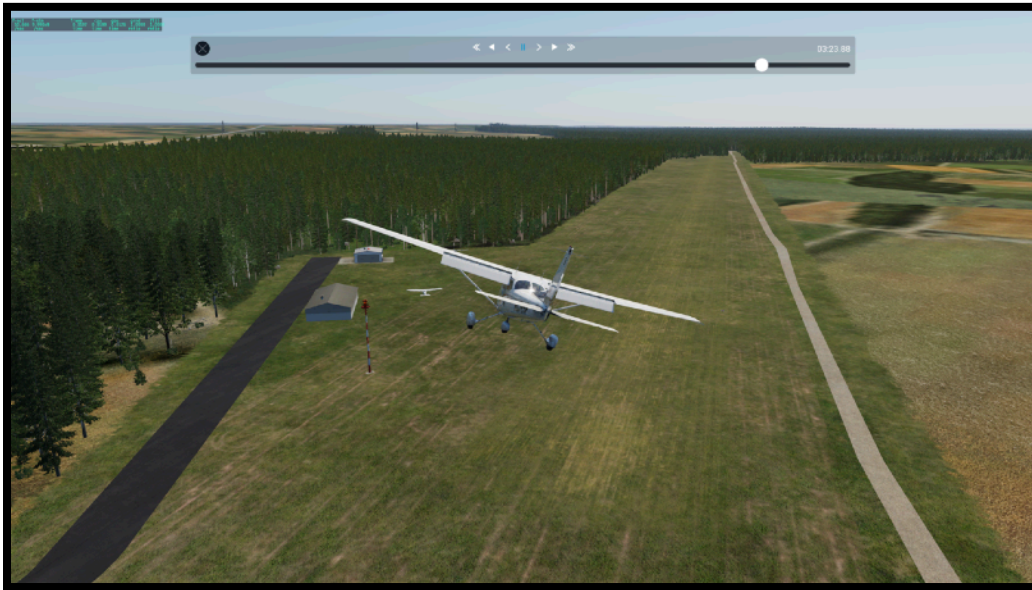
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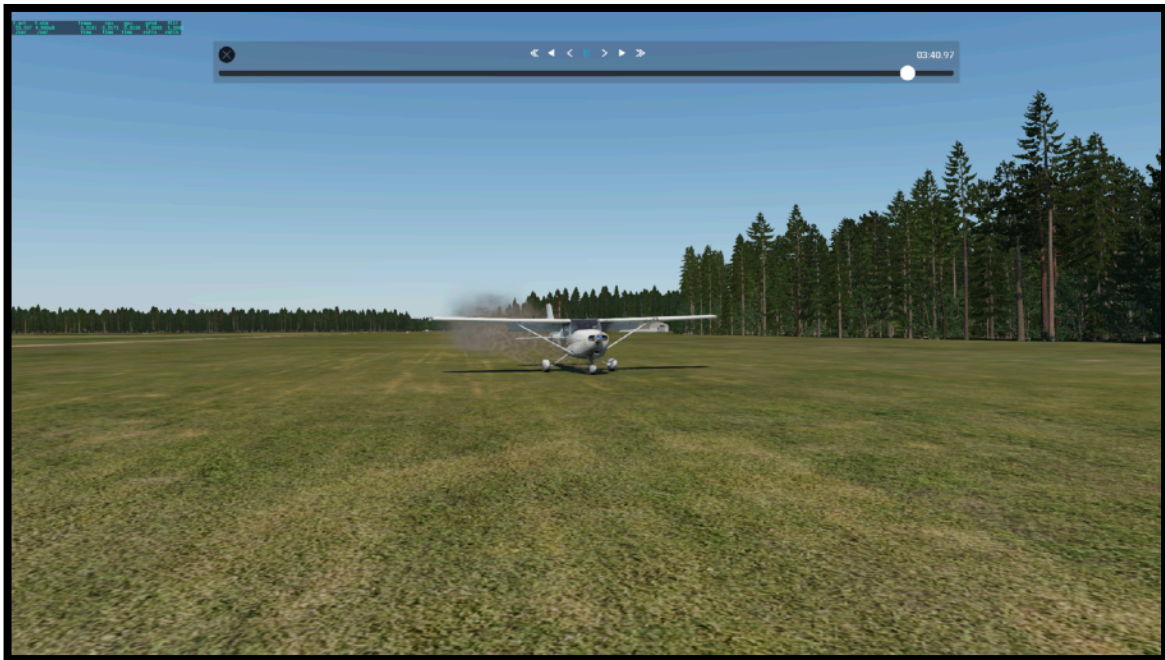
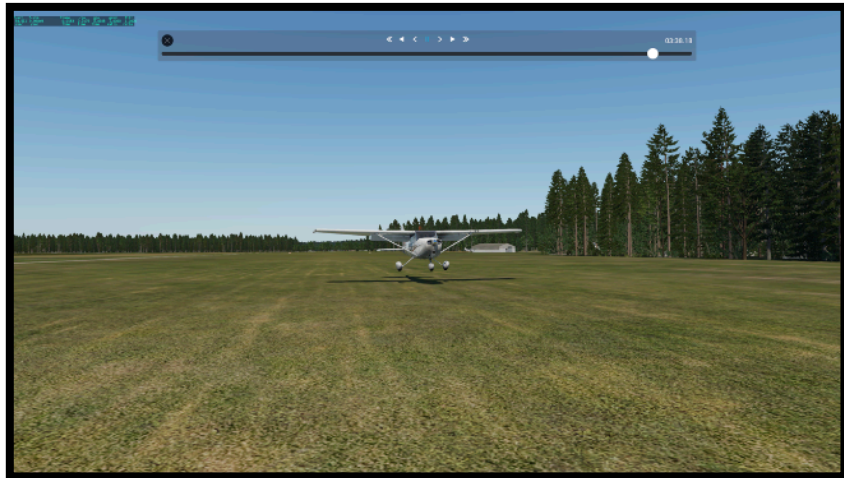
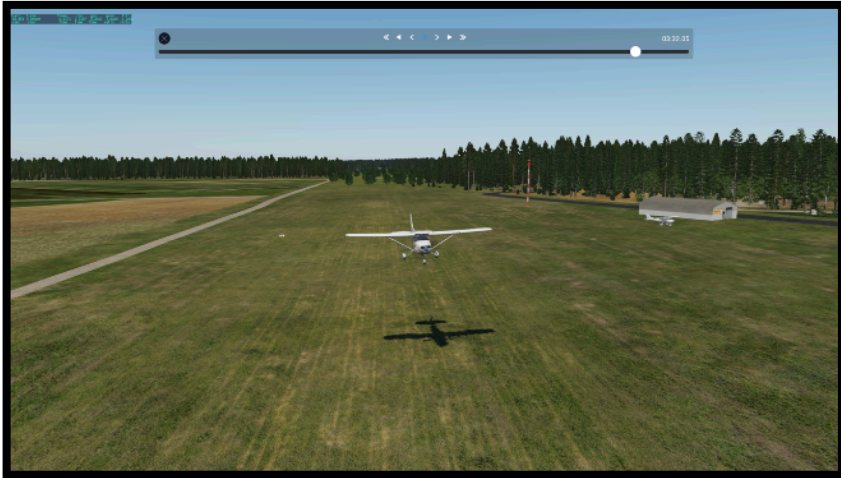
As we “charge” ahead into the future of aviation, electric planes will be one path forward and will no doubt spawn a generation of new aviators interested in this green technology.

Forward Slip at Port Elgin (Geoff Gartshore)

I found myself a bit high on approach to runway 24 at Port Elgin during a recent XPlane 12 sim flight, so I decided to get in some forward slip practice in the Cessna 172.

The photos below document my procedure - you can be the judge of the result.....





MEMBERS' CORNER - THE ARROW II STORY - DAVE TIMMS

A "Toronto to Vancouver" four day "train trip" this Spring... travelling on VIA RAIL's "CANADIAN"... resulted in an encounter with a piece of Canadian History and the discovery of an outstanding "Aviation Effort" that I NEVER BEFORE KNEW... "even existed!"

The Aviation Encounter and the discovery of "THE AVRO ARROW MUSEUM" came when I was returning home Via West Jet making a "stop over" in Calgary. I was reconnecting with an old school chum I hadn't seen in thirty years. I asked if he knew of any Aviation Museums we might visit.

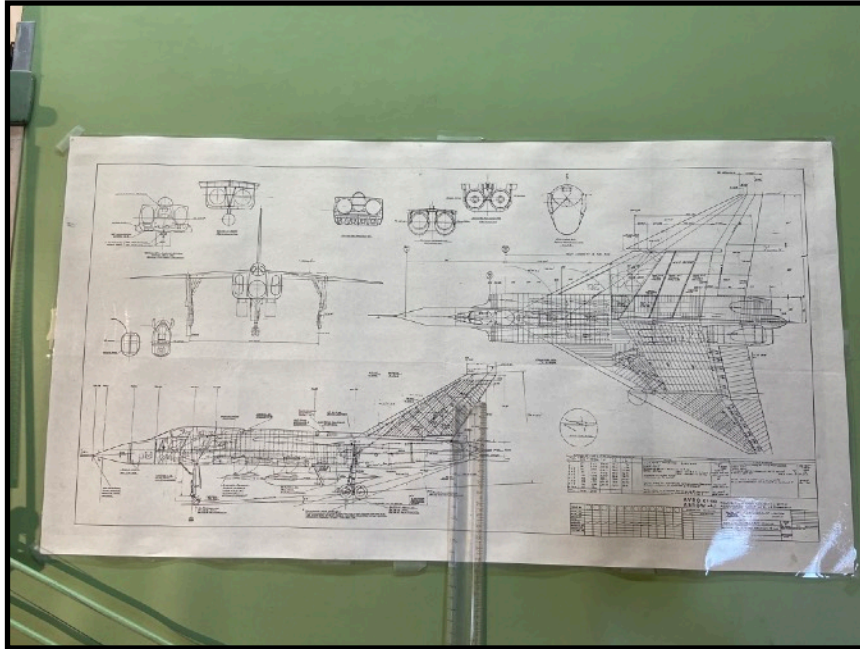
He arranged a personal tour of THE AVRO ARROW MUSEUM, located at CYBV ... Springbank, Alberta. Airport. CYBV is located west of Calgary International. (CYC)

Transport Canada constructed CYBC as a reliever airport for CYC .. deferring the need for a parallel runway at the International airport. The airport officially opened in July 1971 and is the 6th busiest airport in Canada.

It's the Home of THE AVRO ARROW AVIATION MUSEUM. Over the past several years members of the Museum have "build and flown" radio controlled "MODELS" of the AVRO JETLINER and the CF105 ARROW.



NOW they are in the process of building a "SIXTY PERCENT" reproduction "Carbon Fiber" ARROW 11.



They plan on actually flying the aircraft in two years! I spoke with the two pilots who are planning the flight. One recently became a Captain, flying an Airbus A-321... the other a Senior Captain on a Major Airline flying "BOEINGS ." The Senior Captain told me they plan on installing an "artificial" SIDE STICK in the Arrow 11... to make the Airbus Captain feel at home!

They have two Canadian TUDOR Jet Engines to be installed, so it wont be flying "supersonic."

Lets give you a little history of AVRO.

In 1908 Sir ALLIOTT VERDON ROE (A.V.Roe) built and flew his first airplane the AVRO 1. He formed a company in 1910 and by 1913 he was producing the AVRO 504 working with the Royal Flying Corps. This was AVRO's gateway into producing Military Aircraft.

The company came to Canada in 1945... after the War... becoming AVRO CANADA. It was located in Malton, Ontario. That's now the location of Toronto Pearson International Airport. (CYYZ).

1950 saw the company experience great success with the first Canadian designed CF100. AVRO produced CF100s for the RCAF, NORAD and NATO.

1953 saw the beginning of The Avro Arrow project. Over 20 thousand people were employed by the company by 1957.

In 1959, AVRO CANADA was declared "Bankrupt!"

The five existing CF105s were scrapped by the Government. Everything related to the project was destroyed. However some documents were preserved and the AVRO ARROW MUSEUM has these documents and construction manuals.

James C. Floyd, a Design Engineer who worked on the ANSON, LANCASTER and TUDORS in the U.K. moved to Canada in 1946. He became the Chief Engineer for AVRO Canada in 1952. That led to the development of the AVRO JETLINER, the CF100 fighter and the CF105 Arrow, an incredible "Supersonic Interceptor."

Let see what took place before the ARROW was scrapped.

The first flight of the CF105 Arrow was March 25, 1958. Test pilot Jan Zurakowski was in the air for 35 minutes accompanied by a CF100.

[Januz Zurakowski was born September 12 in Ryzawka Russia. in 1932 he learned to fly gliders and in 1934 joined the Polish Airforce 161 Squadron flying fighters. in 1939 Zurakowski emigrated to England where he joined the RAF and by 1942 had reached the rank of Flight Lieutenant and Deputy Wing Leader of the Northolt Wing. Joining the Empire Test Pilot's Course in 1944 he test flew de Havilland HORNETS, METEOR fighters, and JAVELINS].

In 1952 Zurakowski test flew the CF100 for the first time. He had worked for six years for AVRO CANADA before being chosen to fly the ARROW.

Zurakowski was quoted, after the first flight in the Arrow as saying "I have never test flown an aircraft with so few problems!"

The second pilot to fly the Arrow was Woodman who flew the ARROW on April 22, 1958 during it's 8th flight. He flew the ARROW for a total of six flights.

On September 14th, during the 20th Flight Zurakowski attained the speed of 1.89 Mach.

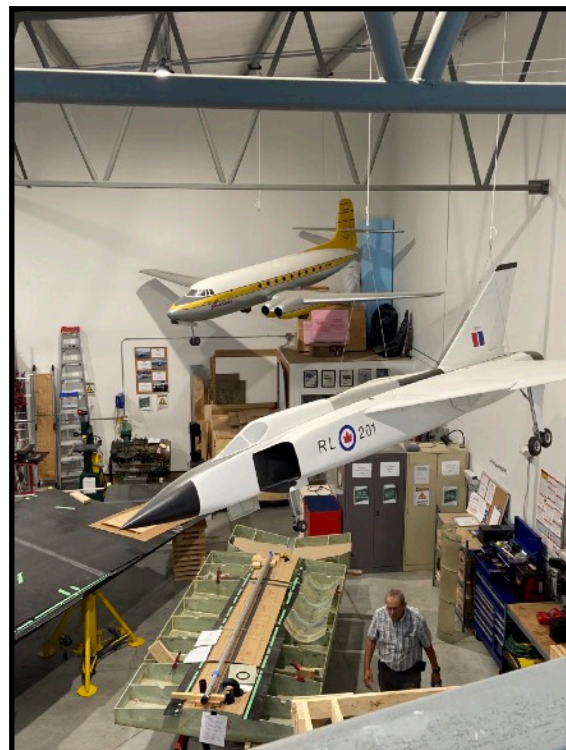
The fastest speed flown by the ARROW was on November 11, 1958 (Remembrance Day) Potocki was the pilot and he reached the speed of 1.98 mach on the ARROW's 44th flight!

Potocki flew the last flight of the ARROW, it's 59th, on February 19, 1959. Only one other test pilot flew the Arrow COPE and he flew the ARROW only five times.

Zurakowski and Potocki have the distinction of having "one each" of the landing accidents! The ARROW operated out of Malton with one exception. It landed at CAF Base Trenton #204.

James Chamberlain was the Chief of Technical Development for the ARROW.

The ARROW was leading edge in many technical areas such as structure, aerodynamics, propulsion, stability/control, flight control, electronics, hydraulics, fuel systems and more, yet it was SCRAPPED... because of it's HIGH COST



There was one additional "treat" I experienced while at CYBV. A turbine powered Antonov AN-4 took to the air. "A very nice Bi-Plane."



I hope the ARROW MUSEUM at Springbank Airport, Alberta will be successful in it's efforts to put Canada's ARROW back into the air.

In 1958 I was taking flying lessons at the London Flying Club. The trainers were 95 mph Fleet 80 "Canucks" and Aeronca Champs !

MEANWHILE --- YES --- Zurkowski and Associates were flying at "close to" TWICE THE SPEED OF SOUND!

It all came to a SAD END in 1959!

My flight back to CYKF was "full of good memories!

Have a Safe Winter Flying!
See You in 2024!