# The Journal for Canadian Aviation Enthusiasts Le magazine des passionnés d'aviation canadiens MARCH/APRIL 2023

More than

Classified Ads
(p.26)

# UNDERSTANDING AIRCRAFT LOANS

How to land solid financing

ELECTRONIC FLIGHT BAGS
THE FILING OF IFR ROUTES

RVA À PONTIAC 33E RENCONTRE DU CLUB 169 CHEZ MO'S

QUEEN OF THE SKIES
HOW THE 747 TRANSFORMED AVIATION



# AIRCRAFT SPRUCE+

**Everything For Airplanes** 







AVIATION'S BEST WEBSITE • SAME DAY SHIPPING

10.000.000+ PART























































































## VISIT OUR BRANTFORD STORE

Aircraft Spruce Canada is at 150 Aviation Avenue on Brantford Municipal Airport. This 20,000 square foot facility serves as a fully stocked distribution warehouse for our Canadian customers!



ORDER YOUR FREE 2022-2023 CATALOG! 1000 PAGES OF PRODUCTS!

www.aircraftspruce.ca Call Toll Free 1-877-795-2278

FAA AERONAV **CHARTS IN** STOCK AT AIRCRAFT SPRUCE!



#### CONTENTS

#### **DEPARTMENTS**

4 RÉGIONS QUÉBEC UN RVA HIVERNAL CHALEUREUX

4 REGIONS QUEBEC A WARM WINTER FLY-IN

**6** RÉGIONS QUÉBEC RVA DE SAINTE-ANNE-DU-LAC

**6** REGIONS QUEBEC SAINTE-ANNE FLY-IN NUMBER 11

8 INCIDENTS + ACCIDENTS LASER STRIKES AND LANDING GEAR. RAYON LASER ET TRAIN D'ATTERRISSAGE

**10** PLANE TECH MAAC NO-FLY UPDATE

12 GO AROUND COMMUNICATIONS AND AEROBATICS

**30** DISPATCHES LONG LIVE THE QUEEN

## **FEATURES**

#### **14** FILING IFR USING AN EFB

Leveraging your Electronic Flight Bag to build effective routes

#### **18** AIRCRAFT LOANS

Tips on how to land the best financing for your airplane

#### **20** MEET JONATHAN BEAUCHESNE, RENCONTREZ JONATHAN BEAUCHESNE

COPA Director for Québec, Conseil COPA pour Québec

#### 22 MO'S 33RD FLY-IN, 33E RVA CHEZ MO'S

COPA Flight 169 plays host in Pontiac. Le Club COPA 169 recoit à Pontiac

ON THE COVER: A 2023 Cirrus SR22, landed in Canada, after taxes costs roughly \$1.3 million (Photography: Cirrus Aircraft). ABOVE: Phil Lightstone captures Model Aeronautics Association of Canada members, among more than 9,500, in action.

# COPA Flight

Digital subscription enquiries, please contact copa@copanational.org Print subscription inquiries or changes, please contact Barbara Adelt, Audience Development Manager Tel: (416) 510-5184 Fax: (416) 510-6875 badelt@annexbusinessmedia.com 111 Gordon Baker Rd., Suite 400, Toronto, ON M2H 3R1

#### EDITOR

Jon Robinson jrobinson@annexbusinessmedia.com 647-448-6188

#### CONTRIBUTING WRITERS

Tim Anderson, Jean-Pierre Bonin, David Carr, Alan Hepburn, Phil Lightstone, Laura McLean, Mike Sattler, Stéphane Thiffault

#### MEDIA DESIGNER

Alison Keba

#### **DISPLAY & CLASSIFIED ADVERTISING SALES**

Mena Miu mmiu@annexbusinessmedia.com 416-510-6749

#### ACCOUNT CO-ORDINATOR

Barb Vowles bvowles@annexbusinessmedia.com 416-510-5103

#### **GROUP PUBLISHER/VP SALES**

Martin McAnulty mmcanulty@annexbusinessmedia.com

PUBLICATION MAIL AGREEMENT #40065710 COPA Flight is published under contract to COPA by Annex Business Media



#### COPA BOARD OF DIRECTORS

B.C. & Yukon Warwick Patterson wpatterson@copanational.org, 604-849-0407

Sigmund Sort ssort@copanational.org, 250-954-8850

Alberta and Northwest Territories Henry Vos, Treasurer hvos@copanational.org, 780-835-1992

Ken Zachkewich, Western Vice-Chair kzachkewich@copanational.org, 780-623-0673

Saskatchewan Candace Pardo cpardo@copanational.org, 306-621-7181

Manitoba & Nunavut Jim Bell, Secretary jbell@copanational.org, 204-293-5402

Southern Ontario Doug Ronan, Chairperson dronan@copanational.org, 705-327-4730

Ashlynne Dale . Eastern Vice Chair adale@copanational.org, 705-325-0031 Ext. 231

David Sprague dsprague@copanational.org, 416 916 6800

Northern Ontario Grant Bailey gbailey@copanational.org, 705-477-3349

Québec Jonathan Beauchesne jbeauchesne@copanational.org, 514-585-3959

Pierre Drapeau pdrapeau@copanational.org, 581-989-4303

Newfoundland and Labrador Bill Mahoney bmahoney@copanational.org, 709-685-6885

Maritimes Brian Pinsent bpinsent@copanational.org, 506-383-1867

Dr. Stephen McCarthy, 902-895-4535 smccarthy@copanational.org

Ex-Officio Jim Ferrier, Interim CEO and President jferrier@copanational.org, 613-236-4901

For Membership enquiries contact: copa@copanational.org

COPA

75 Albert Street, Suite 903, Ottawa, ON K1P 5E7 613-236-4901 | www.copanational.org

> Find us on Facebook and Instagram @copanational 💟 f 🎯 #allforflight

## CLUB COPA 52 (MAURICIE) - UN RVA **HIVERNAL CHALEUREUX**

PAR STÉPHANE THIFFAULT

Samedi le 18 février dernier avait lieu la première édition du rendez-vous aérien (RVA) hivernal de l'Association des Pilotes de la Mauricie à Saint-Jean-des-Piles, QC. Au total, 13 aéronefs se sont posés sur la piste temporairement aménagée pour l'événement sur la rivière Saint-Maurice à la hauteur du 2800 Du Parc, tout près du Parc National de la Mauricie.

La majorité des pilotes et co-pilotes de ces magnifiques machines volantes, de même que d'autres pilotes s'étant déplacés en voiture, ont assisté à la mise à jour des connaissances qui était au programme. Au total, 33 pilotes y ont participé et certains en ont profité pour agrémenter le tout d'un excellent repas.

Le séminaire sur la gestion des risques au moment du décollage et de la montée, d'une durée de 2h30, a été donné par Monsieur Alexis Étienne, propriétaire de l'école Altitude Centre de l'Aviation à Sherbrooke (www.altitude.flights), qui a fait un excellent travail soit dit en passant. Je profite de l'occasion pour le remercier. Merci à Steeve Carpentier pour son ouverture d'esprit et pour sa générosité en nous permettant d'utiliser la grande salle du 2800 Du Parc et en préparant l'endroit pour nous recevoir. Merci également à toute son équipe pour l'excellent service offert aux participants.

Un gros merci également à Gilles Lambert d'Aviateurs Québec pour l'organisation de ladite formation et la ges-



La première édition du rendez-vous aérien hivernal de l'Association des Pilotes de la Mauricie à Saint-Jean-des-Piles.

tion administrative du risque lié à ce RVA. Merci à la COPA pour son soutien financier à l'évènement. Un merci particulier à Denis Laroche pour les communications et les rappels, à Stéphane Bellemare, notre président, pour s'être occupé avec moi d'accueillir les avions. Surtout, merci à tous ceux et celles qui sont venus.es et qui ont fait un succès de cette première édition. Finalement, merci à Michel Chartier, président d'Aviateurs Québec, pour sa visite surprise.

Tous les commentaires constructifs visant à améliorer les infrastructures et le déroulement de l'activité dans son ensemble seront les bienvenus.

## A WARM WINTER FLY-IN BY COPA FLIGHT 52

BY STÉPHANE THIFFAULT

On Saturday, February 18, the first edition of the Mauricie Pilots Association winter fly-in was held in Saint-Jean-des-Piles, Quebec, A total of 13 aircraft landed on the temporary runway set up for the event on the Saint-Maurice River at 2800 Du Parc, near the Mauricie National Park.

Most of the pilots and co-pilots of these magnificent flying machines, as well as other pilots who came by car, attended the Flight Crew Recency training session that was on the program. A total of 33 pilots took part in the fly-in and some of them took the opportunity to enjoy an excellent meal.

A two and a half hour seminar focusing on risk management during take-off and climb was given by Alexis Étienne, owner of the Altitude Centre de l'Aviation school in Sherbrooke (www.altitude.flights). He did an excellent job and I would like to take this opportunity to thank him.

Thank you also to Steeve Carpentier for his openness and generosity in allowing us to use the large room at 2,800 Du Parc and for preparing the venue to receive us.

A big thank you is also given to Gilles Lambert from Aviators Québec for the organization of the session and the administrative management of the risk related to this fly-in. And thank you to COPA for its financial support to the event. A special thanks to Denis Laroche for the communications and reminders; to Stéphane Bellemare, our president, for w working with me to welcome the planes. And thanks to those who came and made this first edition such a success. Finally, thanks to Michel Chartier, president of Aviators Québec, for his surprise visit.

All constructive comments aimed at improving the infrastructure and the overall event are welcome.



# THANK YOU! MERCI!

We would like to recognize and thank the following donors and supporters who were instrumental in Advancing, Promoting and Preserving the Canadian Freedom to Fly.

Nous souhaitons remercier les donateurs et les contributeurs suivants qui ont contribué à faire avancer, promouvoir et préserver la liberté de vol des Canadiens.

- · COPA Flight 16 Aero Club of BC
- Gordon Jeffery
- William E (Bill) Grenier
- Sirius XM Canada Inc
- · Garmin International
- Girls Go Fly Inc.
- Airbly
- David Clarke
- The Benevity Community Impact Fund
- · Aircraft Spruce
- Jim Broughton
- Aero-Formatech®
- Derek Jenkins
- Ken Lovsin
- Skydive Toronto Inc.
- Ron Zeleschuk
- Calgary Recreational and Ultralight Flying Club
- The Personal Insurance Company
- · Skywing World
- William C. Bowden
- David Chatters
- · William D. Corrigan
- Allan J. Franko
- Robert Lord
- Edward Mannle
- · Gordon R. Treasure

- · Joe A. Van Leeuwen
- Hammond Aviation Limited
- · Lost Aviator Coffee
- YuRev Wu
- Calvin Connell
- Paul D. Tiveron
- · Brampton Flight Centre
- · Harry Cole
- Larry A. Donoghue
- John Hemingway
- · Gerald Duffitt
- Rolland Nadon
- Burton McLary
- · John N. Brewer
- Gordon Bussey
- Fernand J. Ferron
- Peter Litherland
- Len Gunson
- David E. Mowat
- Jacques Proulx
- William S. Simmons
- Tony Swain
- · Mike Whitehead
- Jocelyn Cote
- · Marc Denis
- David E. Griffiths
- Ronald Holden
- C. Dave McGonegal

- Dieter R. Neubarth
- Daniel Seymour
- · Lloyd W. Gloer
- Donald Watson
- Ben A. Bartel
- Donald Brown
- William G. Ebert
- Serge Vallee
- Jaun Carlos
- Youssef Fakhry
- Thomas J. Harpell
- Allan W. Johnson
- Michael Johnson
- Evelyn Lopez
- Olivia Rivera
- Gil Thibodeau
- Julian Wilson
- Anna Wood

# In Memoriam

- Flight 172 Kincardine in memory of Howard (Howie) Phorson
- Robert Studholme
- Fred Culin
- · Cynthia Prescott

## Thank you for the generous support from our 2022 donors and contributors

If you would like to support the COPA Flight Safety Foundation, in memoriam of a loved one or the COPA Freedom to Fly Fund, please visit: copanational.org/donate

Merci pour le soutien généreux de nos 2022 donateurs et contributeurs

Si vous souhaitez soutenir la Fondation COPA Flight Safety (FSF), In Memoriam d'un être cher ou le Fonds COPA Freedom To Fly, veuillez consulter le site : copanational.org/fr/faire-un-don-2



## Discount Avionics



- 406 Sales + Service
- Repair station for all headsets
- Factory Authorized Dealer for **Technisonic Industries LTD**
- 2-4 days turn around time on **ELT** certification
- Artex, Kannad, Pointer, Ameri-King, ACK, SkyHunter
- French + English service

PLEASE SEE WEBSITE FOR PROMOTIONS. **ADDRESS AND** SUBMISSION FORM

...........

CONV Box 3635 5 North Shore Road Cochrane Ontario Canada P0L1C0 Office: 877-878-8363 Cell: 705-272-9179 www.discountavionics.com

# **RÉGIONS QUÉBEC**

## RETOUR DU RVA DE SAINTE-**ANNE-DU-LAC EN 2023**

PAR JEAN-PIERRE BONIN

Sainte-Anne-du-Lac se situe environ à 40 km au nord de Mont-Laurier. Qué. ou approximativement 160 km au nord-est d'Ottawa, On. Ce rendez-vous aérien (RVA) est un événement qui recoit normalement des pilotes venant du centre et de l'ouest du Québec ainsi que de l'est de l'Ontario. À sa 11e édition cette année, tout était prêt pour recevoir la visite après une « pause » de deux ans.

Enfin, presque tout car il fallait compter avec la météo (toujours elle) et moins 19 degrés Celsius tôt le matin et des chutes de neiges en avant-midi qui auront gâché le fruit du travail de l'organisation. Seulement trois appareils locaux se seront posé sur le Lac Tapani mais ce fut au grand plaisir des nombreux visiteurs venus par la route



Jeunes et vieux aiment être à proximité d'un appareil d'aviation.

et par motoneige, le village se situant près d'une piste fort achalandée par les motoneigistes.

Un endroit splendide pour y venir en avion, piste de neige compacte et balisée avec des paysages magnifiques. À prévoir absolument à votre agenda l'an prochain, à la mi-janvier. 🔷

## SAINTE-ANNE-DU-LAC FLY-IN **RETURNS IN 2023**

BY JEAN-PIERRE BONIN

Sainte-Anne-du-Lac is located about 40 km north of Mont-Laurier, Que., or approximately 160 km northeast of Ottawa, Ont. The annual Sainte-Annedu-Lac fly-in is an event that normally welcomes pilots from central and western Quebec as well as eastern Ontario. At its 11th edition, everything was ready to receive visitors coming by air after a two-year "break."

Well, almost everything because weather was difficult, hitting minus 19 degrees Celsius early in the day followed by snowfall later in the morning. Poor weather spoiled much of the preparation by the organization. Only three local aircraft landed on Lake Tapanee, but it was to the delight of the many visitors who came by road and by



A marked out runway for aircraft and separate trail for snowmobiles insuring safety for all.

snowmobile. The village is located near a very busy trail for snowmobilers.

This is a splendid place to come by plane, with a compact snow runway add to your calendar for next year, taking place in mid-January. 🗢





# **INCIDENTS + ACCIDENTS**

These reports are taken in part from Transport Canada's CADORS website.

ONTARIO REGION
A Eurocopter EC130 B4 was engaged

in aerial survey work within the northwest portion of the control zone at Timmins/Victor M. Power (CYTS), Ontario, with the pilot and three passengers on board. During the flight, while approximately 4NM to the NW of CYTS at 250 feet AGL, the pilot received an aural caution, followed by an indication of low engine (Arriel 2B1) oil pressure. The pilot turned towards CYTS and announced their intentions to return to the airport. During the next 30 seconds, accompanied by additional warnings, the oil pressure began to drop rapidly. The pilot elected to make a precautionary landing on a frozen swamp, where they landed the helicopter and shut down the engine without incident.

# PRAIRIES AND NORTHERN REGION

A Cessna 172N from Calgary/Springbank, AB (CYBW) to CYBW was given "Taxi A, cross Runway 26, C, D south your discretion". C-GXUV taxied A onto Runway 08 to D. A Civil Aviation Safety Inspector (CASI) looked into this occurrence. Students are taught to read back all instructions to ensure proper understanding of instructions and to avoid any misunderstandings. This teaching method has been discussed further with the student to convey the importance of reading back all instructions to avoid this type of incident in the future. Additionally, students are encouraged to draw out their taxi routes on their airport taxi maps on their knee boards to add more clarity and understanding to all taxi instructions.

#### PACIFIC REGION

A Piper PA-30 (Twin Comanche) aircraft, was conducting a local training flight near Abbotsford (CYXX), BC, with 1 instructor and 1 student on board. As part of the training, the pilot attempted to lower the landing gear. The Gear Motor CB tripped and the landing gear down-and-locked light did not illuminate. The pilot reset the CB and attempted to lower the landing gear a second time, with the same result. The pilot did not reset the CB and



completed the manual gear extension emergency checklist. The landing gear down-and-locked light still did not illuminate. The aircraft returned to CYXX and flew a low approach over Runway 19 and requested that ATC visually observe the position of the landing gear. ATC advised that the landing gear appeared down but it could not be determined if they were locked. The aircraft landed on Runway 07 and, approximately 1 second after touchdown, the nose and main landing gear collapsed. The aircraft stopped on the runway and a small fire erupted under the left wing between the fuselage and the left engine. The 2 occupants exited the right front door and ARFF extinguished the fire. There were no injuries; the aircraft sustained substantial damage.

#### ATLANTIC REGION

A DA 20-C1 from Fredericton, NB

(CYFC) to Fredericton, NB (CYFC) called for priority arrival back to the airport. The controller asked if there was an issue. The pilot said the generator light was on and the volt meter was fluctuating. Aircraft Rescue and Fire Fighting (ARFF) was put on standby. The aircraft landed safely at 0134Z.

#### **RÉGION DE L'ONTARIO**

Un Robinson R44 II a rapporté avoir été frappée par un laser à travers la fenêtre droite de l'aéronef. Le laser était vert, statique et durait 10 secondes. La tour de Toronto/Billy Bishop (CYTZ), ON, a été informée de l'incident et de la localisation du point d'origine du laser (zone d'Eglington et de Bayview) presque immédiatement après l'incident. La tour a signalé par radio (118.2 MHz) que cette information avait été transmise à la police et qu'elle ferait l'objet d'une enquête.

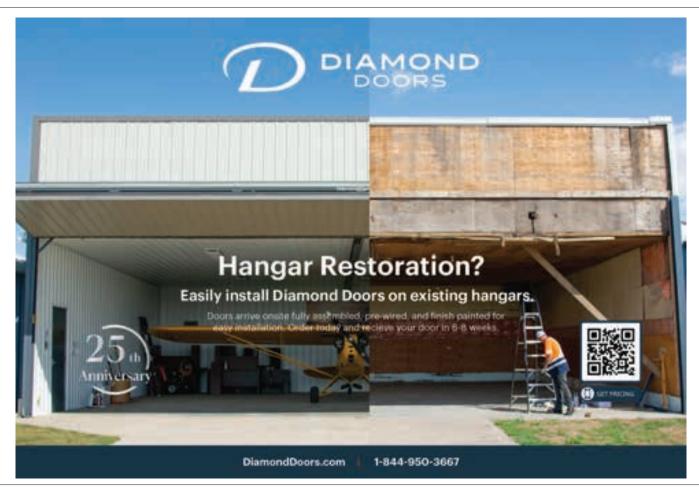
#### RÉGION DU QUÉBEC

Un Cessna 150M de Montréal/St-Hubert (CYHU), QC, à Montréal/St-Hubert (CYHU), QC, a reçu l'instruction d'élargir son vent arrière vers la droite.

Un Saab 340B de Québec/Jean-Lesage (CYQB), QC, à Montréal/St-Hubert (CYHU), QC, a indiqué avoir été la cible d'un laser vert à environ 7 NM en finale vers la piste 24R, entre 2 000 et 2 500 pi d'altitude.

#### REGION DE L'ATLANTIQUE

Un Diamond DA 20-C1 de Fredericton (CYFC) NB, à Fredericton (CYFC) NB, a appelé pour effectuer une arrivée prioritaire à l'aéroport. Le contrôleur a demandé s'il y avait un problème. Le pilote a répondu que le vovant du générateur était allumé et que l'information sur le voltmètre variait. L'aéronef a atterri en toute sécurité à 0134Z. 🔷



# MAAC NO FLY

#### REMOVAL OF R/C MODELER EXEMPTIONS CHANGES THE GAME

On December 17, 2022, the Model Aeronautics Association of Canada (MAAC) sent an email to its members advising them that its board had made a difficult decision mandating the temporary suspension of all outdoor model aircraft flying effective immediately. Check the December 22, 2022, COPA eFlight article for background information.

The good news is that MAAC's no fly mandate took place during the Canadian winter, when many members switch attention from flying to building their radio controlled (R/C) model aircraft. This hiatus from flying has been meet with criticism from MAAC members who feel it's their right to fly model aircraft. Some members feel that this mandate provides MAAC with an opportunity to ensure that their Transport Canada exemption from CARs Part IX is not revoked. The bad news is that the exemption has been revoked.

On February 25, 2023, MAAC members received a document from MAAC's President Mike Anderson, stating: "In the January 23 eBlast, we outlined a plan to reauthorize outdoor flying that was suspended in December on a siteby-site basis. By January 31, we had reauthorized over 50 sites. A few days later, on February 3, Transport Canada called a special meeting with MAAC's Transport Canada Advisory Group and senior management. At that meeting, we were advised that our Exemption from Part IX of the Canadian Aviation Regulations (CAR) is no longer in effect due to breaches of exemption condition 3, sanctioning fields in controlled airspace without the required written agreements". Exemption Condition 3 is: Prior to sanctioning a field in Class C, D, E, F, or any other type of restricted airspace, MAAC shall obtain an authorization through written agreement from the appropriate controlling agency or



user agency... The agreement shall include operational boundaries, maximum altitudes and communication protocols to facilitate the safe operation of RPAS at the field." MAAC is collaborating with Transport Canada (TC) and NAV Cana-

da working toward a new exemption.

TC's exemption for MAAC members to CARs Part IX had 15 conditions, two of which pertain to the location of the MAAC sanctioned field: within three NM of an aerodrome listed in the Canadian Flight Supplement; located within Class C, D, E, F or any other type of restricted airspace, MAAC shall obtain an authorization through a written agreement from the appropriate controlling agency.

The cancellation of TC's exemption to CARs Section IX requires MAAC members to adhere to the CARs, beginning with obtaining a TC Basic or Advanced RPAS license. For a Basic RPAS license, the R/C modeler is just required to pass an online exam consisting of 35 multiple choice questions; 90 minutes to complete the exam; and a score of 65 percent or higher is considered a pass.

MAAC members are free to fly from fields if the location does not breach the association's safety codes. MAAC provides its members with \$7.5 million in liability insurance (bodily injury and

▲ MAAC has more than 9,500 members and 420 approved flying fields.

property damage) as part of their benefits. Some MAAC members are contemplating giving up their membership. Under the CARs, self-insuring your RPAS model is not an option as liability insurance is a regulatory requirement.

Without the Exemption, a R/C modeler must be cognizant of several restrictions placed by the CARs. While there are a large number of rules, from an R/C pilot's perspective, many of them can be distilled down to (Basic License): 901.14(1) No pilot shall operate a remotely piloted aircraft in controlled airspace without a Special Flight Operating Certificate (SFOC); 901.41 (1) No pilot shall operate a remotely piloted aircraft system at any special aviation event or at any advertised event except in accordance with an SFOC; 901.73 No pilot shall operate a remotely piloted aircraft system under this Division if the aircraft is within three nautical miles from the centre of an airport or within one nautical mile from the centre of a heliport unless the operation is conducted in accordance with the established procedure with respect to the use of remotely piloted aircraft systems appli-

cable to that airport or heliport; 901.19 (2)(a) operate an RPAS within 12 hours after consuming an alcoholic beverage; and 901.56(1) recency requirements. To facilitate the transition of MAAC members to RPAS pilots, a good understanding of Section IX is required.

Under the exemption, MAAC members held individual obligations to TC, which include: not operating their model beyond visual line of sight; give way to full scale aircraft, airships, gliders and balloons; be in good standing with MAAC: adhere to the current version of MAAC's rules, procedures and safety guidelines; demonstrate to a person delegated by MAAC that he/she has sufficient knowledge and experience to control the model; the member will mark their model with a MAAC member number; if the member is operating in Class C, D, E, F or other type of restricted airspace, the member will fly

from a MAAC sanctioned field; if the field is not sanctioned by MAAC, then the member will obtain written authorization from the controlling agency; the MAAC member must adhere to all of the conditions that are detailed in the agreement with the airspace controlling agency; a member flying at a MAAC sanctioned field or any other field which is within three NM of a aerodrome shall ensure that their model does not conflict or pose a hazard to other aircraft in the vicinity of the field; the member shall not operate their model in a reckless or negligent manner.

As a member benefit, MAAC has collaborated with RPAS WILCO, the provider of an app which helps users identify airspace and document their flying activities. As an official distributor of NAV Canada information, all RPAS WIL-CO's data regarding airspace, NOTAMs, Canadian Flight Supplement listings

for aerodromes and the aeronautical charts are all kept current.

With the loss of Transport Canada's exemption to PART IX of the CARs, MAAC members can enjoy their hobby through obtaining their RPAS Basic License (depending upon the weight of their R/C model). The process appears to be daunting, but with a bit of studying and collaborating with other R/C modelers or RPAS pilots/instructors, should allow the average R/C modeler to pass the exam.

More information will be released by MAAC over the next few months if a new exemption can be obtained. The real question, however, surrounds the impact to the sport (and hobby shops) as modelers give up their passion. Operationally, as the summer approaches and R/C clubs conduct Fun Fly's and other events, will Transport Canada's SFOC process be able to keep up? 🔷



# LET'S TALK

#### LIFE LESSONS OF LEARNING AND TEACHING OTHERS TO FLY

s pilots we all understand the importance of communication. "Readback is correct" is what we long to hear from the team in the tower. But what if the receiver is beside - or in front - of you? Sometimes, there is a big difference between what is said and what is heard. Two instances come to mind that have guided me over the last 40 years of flying. One involved my friend (and Chief Flying Instructor) and the other myself, directly. Both occurred on gliders and when I was learning to fly. The non-fun side of the two is that they had equal potential to go from being a humorous story into a TSB Accident Report.

As I mentioned in my intro to this series, I started my flight training in gliders. On the 10th of July, 1982 (a date that will live in hilarity), I strapped my skinny self into the front seat of an L-13 Blanik. This robust, all-metal, fully aerobatic glider allowed me to scare my instructors and push the engineering limits of its undercarriage's robustness. But eventually I had my act together and I was allowed to go on my own (January 31, 1983). At the time when I was in the club, the Chief Flying Instructor was John Viney (JV, a gentleman pilot, engineer and outstanding glider display pilot who loved doing outside loops). It was his experience in aerobatics that saved two lives. He told me the story as we were chatting one afternoon, discussing the value of being proficient at communicating and aerobatics.

John was asked by the other instructors to assess a young pilot who was having difficulties in their circuit work. Not unusual (as most of us can attest to), because it can be very difficult to visualize the angles and descent profiles when you have the added pressure



Cockpit of L-13 VH-GVT at "all out" during a winch launch; airspeed at 38 knts with zero altitude.

of no go around option. Add in the fact that you only get one circuit every half an hour or so (this being the average time between launches), as opposed to every six minutes (for a powered aircraft), and you can have a student suffering from frustration and a crisis of confidence. John said the launch (via cable) went well. The release, at about 2000' agl, gave him time to assess the student's overall handling of the glider. Nothing leapt out at him, he said, so they set up for the landing.

Downwind was normal, but the base turn was late. Okay, angle the base leg in and leave the speed brakes closed no biggy. Turning final, they were in an okay (kinda) position, but maybe a little low. The one thing he noticed was that the student was letting the airspeed drop. Not unusual if you lift the nose trying to extend to the field, which is a very common mistake student glider pilots make. So, the conversation went something like this: JV "you're getting slow" (with no action or response from student); JV "you're getting SLOW!" (said with a little more urgency as the ground was now close, with no action from the student to this prompt, John was now covering the controls); JV (with authority) "You're Too Slow, Go FASTER!"

At this point the world flipped. John

found himself in an inverted glider at less than 200' agl. He went instantly hands on, barked "MY CONTROLS" (which later turned out to be not needed as the student had let go), and completed the roll to upright, but at the cost of direction (they were now pointing 90deg left). The large paddock that was now in front of them became their landing site. The revised landing was uneventful, with no damage to glider or crew. After calming down, he asked the obvious question. "What did you do?" (To be honest, John knew what they had done, as he felt the sudden pedal movement, hence his reaction to complete the roll, but he wanted to really know why).

"Well," came the shaking reply, "when you said go faster, I put my foot down".

It was car thinking. How do you go faster in a car, you put the right foot down.

How do you do a Snap Roll in an aircraft. You slow to near stall speed, then provide an assertive rudder and elevator input. By the time John issued his command to "Go Faster", the student was task saturated, and close to overload, so in a panic, resorted to known habits. They put the foot down. Despite no elevator input, they snap rolled right.

The lesson John learned was to communicate with greater clarity. Instead of "go faster," he felt he should have said "lower the nose" or "a little forward on the stick". A sharp "Go Faster" merely put the student into full on panic, which nearly resulted in a full on tragedy.

We were, as a group, discussing this incident because of my little moment. Again, John was highlighting to all of us the importance of communication. My flight was not scary, low or unplanned, but there was a major breakdown in communications between me in the front seat and my instructor in the back. I was already solo, but on this flight, I went with one of our instructors to explore the effects of G-Loading on stall and controllability. This was a practical exercise my instructor (not John, by the way) and I came up with as a follow on to classroom work. Not many aircraft can do what we wanted to try, but the L-13 is (or was) one of them.

The premise was simple. After release from tow, we would climb up to about 4000' over the field. We would then porpoise the aircraft to Zero G (just like the Vomit Comet) and check for controllability below the stall speed - I mean, well below the stall speed. This was not overtly unusual for me. because in order to gain certification to fly glider aerobatics, the bunting manoeuvre was common in training flights. But this time the bunts would be prolonged and more assertive in the pushover. The instructor did the first

two as a demonstration of technique and to test the theory.

I did the next one, but was late and slow on the push. During the recovery from full nose down, the instructor provided critique and advice. As he was doing this, I was hands off because he had intimated change of control. Sure enough, the nose came up with his commentary about watching for the peak attitude for the maneuver, followed by the pitch over (which, from my perspective, seemed even softer than my earlier attempt), and recovery nose down to regain airspeed. At this point, a lesson was learned (for both of us).

"Not bad Mike," he began, "but you need to be more aggressive on the push still." We are now near vertical nose down, with speed rapidly rising. The Officer's Mess and golf course of RAAF Base Laverton are looming larger in my windshield. I thought about his comment for a couple of heart beats,

then replied: "What do you mean my push, I thought you were flying it?"

There was silence for another couple of heart beats. Then a yell from us both, "MY CONTROLS." I went hands on, at the same time as he, and we both pulled to max G (from memory, on this machine that was about 5G). I then relinquished control with a definitive "Your Controls." That 4,000 feet was our saving grace. We cancelled the rest of the flight, landed normally and walked to the clubroom to destress and debrief. Neither of us had communicated well.

A couple of days later, we repeated the flight as first intended, with communication now improved. The aeronautics lesson learned was incredible (flying an aircraft in full control at 10 kts indicated and at zero g), but the communications lesson has stood with me to this day. As has the aerobatics, but that's a story for another Go Around. \*



# Filing IFR WITH AN EFB

#### HOW TO SET UP YOUR ELECTRONIC FLIGHT BAG

BY ALAN HEPBURN

n a recent article, I discussed changes that Electronic Flight Bags have brought to filing VFR flight plans. Now, we'll look at how they can be used in filing of IFR routes. Again, I'll be using the fltplan.com GO app. The switch to area navigation has had a major impact on IFR flying over the last few years in large areas of Canada, where conventional navaids have almost been eliminated. This has resulted in a dramatic change to enroute navigation.

We used to route via airways. Nowadays, we just about always route direct. The only advantage offered by airways is that they provide surveyed terrain clearance. To determine your enroute altitude when flying off airways, you'd think you would use the Area Minimum Altitude on the low altitude IFR charts. However, the rectangles to which these altitudes apply are too large to be useful. The best way to determine your minimum altitude is to look at the Maximum Elevation Figures on the VFR Navigation Chart and add a 1,000 feet (2,000 in mountainous areas). In mountainous terrain, airways may offer slightly lower minimum enroute altitudes. Following T602 from Calgary to Vancouver lets you fly 800 feet lower, for example. Everywhere else, you might as well route direct. ForeFlight's Route Profile View can help in selecting your enroute altitude.

The main reasons for deviating from a direct route are to follow one of the Canada Flight Supplement (CFS) Mandatory Routes (Yes, Mandatory, they used to be Preferred) near major airports, or perhaps to make a dogleg around restricted airspace. To make a dogleg using an Electronic Flight Bag (EFB) you'd insert a turning point in your route, as we did in my earlier article on VFR routing, but for an IFR flight you make the turning point a published IFR waypoint, rather than dragging your route to a prominent geographic feature, since you don't want a lat/long waypoint included in your filed IFR route.

Taking Ontario as an example, there are about 100 airports with IFR approaches. Of these, 19 have mandatory departure and/or arrival routes. If you plan to use one of these airports, you should not expect direct clearance and, accordingly, modify your flight planned route. Not only will this keep you clear of the busy airspace, but if a Standard Instrument Departure (SID) or Standard Terminal Arrival (STAR) is included in your route, you will not have to copy the string of waypoint names that might be necessary if you were issued a point-to-point



Figure 1: The CFS lists four departures for a flight from Toronto City Centre (CYTZ) to Kingston (CYGK).

clearance. Between the remaining 80 per cent of airports, your clearance will usually be direct. You simply fly along the line from departure to destination until cleared for an approach, then head direct to the Initial Approach Fix. To facilitate the selection of a Mandatory Route, the CFS lists arrival and departure routes for each airport by direction of flight. Those directional routes may be followed by a few which apply to specific destinations. The CFS defines these routes in terms of traditional navaid identifiers, RNAV waypoint designators, or ARR or DEP procedures. The arrival and departure procedures in the CFS Mandatory routes do not have quite the same nomenclature as the SIDs and STARs in the Canada Air Pilot (CAP). For example, a departure from Toronto City Centre (CYTZ) that is shown in the CFS as BOMET DEP OLABA is shown in the CAP as BOMET7.OLABA - the ICAO standard designator format, which is used to file a flight plan. Thus, you cannot copy the route from the CFS into your flight plan verbatim.

In the aftermath of NAV Canada's navaid modernization program, there are basically two types of SIDs left In Canada: Vectored SIDs and RNAV SIDs. The vectored variety simply define your heading and climb requirements after takeoff.

DAVSI TESUK YTR	5	11/06/2022	7,000	PA27(ME Piston)
DAVSI TESUK YTR	5	11/01/2022	19,000	BE30(ME TurboProp)
BOMET7.OLABA	>10	11/01/2022	19,000	BE30(ME TurboProp)
BOMET7.OLABA	>10	10/26/2022	15,000	SW4(ME TurboProp)
BOMET7.OLABA	>10	09/26/2022	13,000	BE10(ME TurboProp)

Figure 2: GO app provides The 5 Most Recent Planned ATC Routes for a CYTZ - CYGK flight.

They say nothing about your route. RNAV SIDs require the use of GNSS equipment, because they include one or more RNAV waypoints to which you must navigate after takeoff. Typically, the routes for all runways merge at the endpoint of the "primary procedure." This is usually followed by one or more transition routes, which take you to the point where you proceed enroute. Each RNAV SID has a "primary procedure identification" which comprises a 5-character designator, followed by a single digit "validity number". The validity number serves to distinguish each revision of the procedure, so you don't wind up following an out-of-date procedure. This Primary Procedure Identification appears at the bottom of each page in the CAP describing both the primary procedure and its transitions. To insert an RNAV SID in your plan, you insert the primary procedure identification, followed by a point, then the designator for the endpoint of the subsequent transition that you want to file.

Of the 19 Ontario airports with Mandatory Routes, nine have RNAV SIDs and six have STARs. Most of these airports are around Toronto International. As a specific example, let's look at a flight from Toronto City Centre (CYTZ) to Kingston (CYGK). The CFS lists four departures to the east (Figure 1).

All use the same primary procedure, BOMET, with different endpoints. To see the BOMET departure, you'd look it up in the CAP for Toronto City Centre, where you can see its designator is BOMET7. The BOMET SEVEN SID has four published transitions. If, as in this case, there is more than one transition, they are usually listed on the first page of the SID in the CAP. The most appropriate transition in this case would probably be MIVOK, since the others take you east of your destination. To

IKLEN TONNY	>10	09/19/2022	8,000	SR22(SE Piston)
IKLEN TONNY	>10	09/17/2022	8,000	SR22(SE Piston)
IKLEN TONNY	>10	06/14/2022	10,000	P46T(SE TurboProp)
IKLEN TONNY	>10	11/14/2021	12,000	BE20(ME TurboProp)
IKLEN TONNY	>10	10/08/2021	8,000	SR22(SE Piston)

Figure 3: GO app provides The 5 Most Recent Planned ATC Routes for a CYTZ - CYVV flight.

file this SID, you'd insert BOMET7.MIVOK as the first element in your route. Once you have inserted a SID in your route, the GO map displays the SID waypoints after the endpoint of the primary procedure, but the SID designator continues to be displayed in the "Edit/Route" window. You don't have to specify the runway number when you file a SID or STAR. ForeFlight displays the entire route from the runway, but you need to prefix the SID designator with the runway number, for example 08.BOMET7.MIVOK. The "08" does not get filed.

For departures from CYTZ to CYGK, the CFS also lists a point-to-point route: DAVSI TESUK YTR. Since your destination is included, it would probably be your choice at this point.

STARs are a lot like SIDs. All STARs in Canada now appear to be RNAV STARs, i.e. they require the use of GNSS equipment. You join the primary procedure via one of the published transition routes, which come together at a common point. From this point, the route fans out to the various runways. You insert the STAR designator as your route's last element. Joining the STAR at the common point is acceptable. Unlike SID transitions, the transition route designators for STAR transitions are not listed anywhere. You just read them off the appropriate Arrival Routes page. If the arrival procedure you are flying ends at a downwind termination waypoint (DTW) with a dotted arrow specifying a track in degrees after it, as all the RNAV STARs in Ontario now appear to do, it's an open STAR, and you can expect to receive vectors to final after crossing that waypoint.

Inbound to CYTZ from CYGK, the CFS lists two mandatory routes from the east: ILIXU ILIXU ARR and KEMVI ILIXU ARR. Per the CAP, the ICAO designators for the STARs are ILIXU.IL-



#### **FLIGHT PLANNING**

AGNEX UKPAG.ILIXU1	8	01/08/2023		SR22(SE Piston)
AGNEX UKPAG.ILIXU1	8	12/08/2022	8,000	PA30(ME Piston)
AGNEX UKPAG.ILIXU1	8	10/16/2022	10,000	SR22(SE Piston)
AGNEX UKPAG.ILIXU1	8	10/07/2022	10,000	SR22(SE Piston)
LIDAG UKPAG	8	10/06/2022	8,000	PA30(ME Piston)

Figure 4: GO app provides The 5 Most Recent Planned ATC Routes for a CYTZ - CYTA flight.

IXU1 and KEMVI.ILIXU1. Now, let's look at what support the GO app offers in selecting your departure and arrival routes, using that CYTZ - CYGK flight as an example. You can view CAP charts for SIDs and STARs at a given airport using the Procedures tab on the Airports page, or you can see them overlaid on the map by touching *Procedures* when editing the route.

When you are filing using Create Flight Plan on fltplan.com, you are presented with a list of CFS Initial Route Segments. For CYTZ - CYGK, it only displays one route - the one we found above in the CFS that is specific for CYTZ to CYGK, so the app has filtered out the generic directional departures to the east. For any other airfield to the east other than Trenton, you would be presented with a list of directional departures to the east, all involving the BOMET SEVEN SID, with different endpoints. The app translates these into ICAO standard format, so you

SEDOG T723 LIDAG	>10	01/07/2023	9,000	SR22(SE Piston)
SEDOG T723 LIDAG	>10	12/09/2022	9,000	SR22(SE Piston)
SEDOG T723 LIDAG	>10	11/25/2022	9,000	SR22(SE Piston)
SEDOG T723 LIDAG	>10	10/15/2022	9,000	SR22(SE Piston)
SEDOG T723 LIDAG	>10	10/06/2022	9,000	SR22(SE Piston)

Figure 5: In the face of Covid-19 restrictions, author Al Hepburn's 5 Most Recent list when filing CYTZ to CYTA.

can copy the text straight into your route.

The Mandatory routes are perhaps what you are supposed to file, but ideally, you'd like to be cleared as filed. What clearances have been issued for this route recently? When you create a flight plan, the fltplan.com provides two other lists: The 5 Most Recent Planned ATC Routes between A and B, and Other Recent Planned ATC routes. My experience is that you are more likely to be cleared by one of the 5 Most Recent routes than those in the CFS, so I tend to pick my filed route from this list. The Other Recent list is often outdated. For each route, a date, an altitude, an aircraft type, and the number of times the route was *issued* are included. For smaller airports. these lists are often blank, probably because the issued route was Direct. The technical support staff at fltplan.com was not much help in determining where these issued routes come



## **Waterloo Wellington Flight Centre** The Skills You Need - The School You Want Strong education and industry partnerships give our graduates a competitive edge and the skills needed





**1-877-FLY-WWFC** info@wwfc.ca wwfc.ca

Waterloo Wellington Flight Centre professional programs are approved as vocational programs under the Private Career Colleges Act, 2005 (PC# 105919) from. They said that they scavenge the FAA's data stream and post the routes for your planned flight, if they exist. In the case of routes in Canada, the FAA seems an unlikely source. Let's see what the 5 Most Recent list has to say about CYTZ - CYGK (Figure 2). The BOMET7. OLABA SID has been issued most frequently, but only to turboprops. It takes you a bit to the east of Kingston, but presumably ATC would clear you for approach before you got that far. The DAVSI TESUK YTR destination-specific route was issued to an Aztec, so in my Twin Comanche, with Kingston as my destination, I'd file that. After YTR NDB, vou proceed direct CYGK. You can copy any of these routes into your flight plan using the GO app, but, for the app to accept YTR, you need to add -NDB after it.

If your destination is Wiarton (CYVV), the app lists several options from the CFS, including departures to the north, northwest, west and southwest. There is no route specific to CYTZ - CYVV. To the northwest, which is where you want to go, it lists AGDUT KASED and IKLEN TONNY. AGDUT takes you right over Toronto International. Figure 3 shows a 5 Most Recent list has for that route. I'd file IKLEN TONNY, which avoids overflying Toronto International by taking me north initially, then direct CYVV after TONNY.

Now, let's assume you are inbound to CYTZ. Instead of CYGK, we'll assume a departure from Pembroke (CYTA), which lies to the northeast, to illustrate a point (Figure 4). The CFS lists the ILIXIU arrival via KEMVI or ILIXU. Either would entail a significant dogleg. The most frequently issued route listed in the 5 Most Recent list is AGNEX UKPAG.ILIXU1, which is more direct. Adding AGNEX keeps you away from restricted airspace around CFB Petawawa. In fact, the second entry was issued to a PA30, which was probably me, although I certainly didn't file the route eight times recently.

How does this work out in practice? I can only speak for the route between CYTA and CYTZ, which I continue to fly frequently. Inbound, the AGNEX UKPAG. ILIXU1 route gets me cleared as filed. Departing CYTZ for CYTA, the CFS lists only the BOMET departure. I've tried filing it, but never get it. What does the 5 Most Recent list suggest, see Figure 5. All say SEDOG T723 LIDAG, so that's the one to file, despite what the CFS says. On my Garmin 530, that would involve punching in a total of four waypoints, but I know from experience this is not what will happen in the air. I enter SEDOG, just in case. My clearance is the ISLND ONE departure, radar vectors SEDOG, flight planned route. Once I'm talking to Terminal, I request Direct Pembroke when able, and I am vectored toward the Oshawa area, then cleared direct. 🗢



#### Are you hosting an event soon? Or looking to get involved in your local flying community?

**CHECK OUT THE** 

# **COPA EVENT CALENDAR**

New events are added regularly!

To publish an event on the calendar, complete the form found at copanational.org/event-calendar



Do you belong to an active COPA Flight?

Active COPA Flights are eligible for COPA Air Meet insurance provided by Magnes Group Inc.



COPA Flights <u>must</u> complete the Certificate of Insurance Request Form for all accepted events. This form can be downloaded here: www.copanational.org/copa-flights

Vous organisez un événement bientôt? Ou vous cherchez à vous engager dans votre communauté de vol locale?

CONSULTEZ LE



## CALENDRIER DES **ÉVÉNEMENTS DE COPA**

Les nouveaux événements sont ajoutés régulièrement!

Pour publier un événement sur le calendrier. remplissez le formulaire qui se trouve : copanational.org/fr/calendrier-des-evenements

Faites-vous partie d'un Club COPA active?



Les Clubs COPA doivent remplir le formulaire de demande de certificat d'assurance pour tous les événements acceptés. Ce formulaire peut être téléchargé ici : www.copanational.org/fr/clubs-copa/







#### HOW TO LAND THE BEST LOAN FOR YOUR NEXT AIRPLANE

BY PHILLIGHTSTONE

en years ago, a Cessna 172 with a high-time engine, but low airframe hours, was worth roughly \$28,000. That same aircraft value has skyrocketed to over \$110.000. A brand-new Cessna 172 retails for \$480,000 and there's an 18 month wait. A 2023 Cirrus SR22. landed in Canada. after taxes costs roughly \$1.3 million.

Piston airplane shipments in 2022, according to GAMA, reached 1,524, up 8.2 per cent from 2021. "The average age of the fleet is still 48 years old, so the opportunity for growth in the piston market is pretty good," said GAMA Chairman Eric Hinson. With the rise in aircraft values, at the end of term of an obligation, some borrowers are buying the loan capturing the increased equity in the aircraft.

There are two different types of financial debt instruments: Loans, where the borrower has title to the aircraft; and leasing, where the lender has title. Most aircraft financial instruments tend to be loans, but there are a few aircraft in Canada under a lease obligation.

Financing (often through partnerships) is an alternative for many pilots. Some airframe organizations like Cirrus and AOPA have in-house financing teams securing loans for their customers. Some aircraft brokers and dealers have established financing floor plans, which are typically short-term loans (usually one year) allowing the reseller to acquire aircraft inventory. Aircraft lenders are focused on making sure you can service the debt with your existing income sources, handle known expenses like the down payment, up-front insurance costs, and maintenance reserves for expenses like an unexpected overhaul; and that you have a well-established credit history showing your ability to pay various types of debts.

In the Canadian context, many chartered banks are not familiar with aircraft loans, but some will provide such loans to high value clients as a part of a larger wealth management program. It is reported that Royal Bank of Canada and the Bank of Montreal will finance aircraft. However, as aircraft borrowing is not a core line of their business, the documentation tends to be standardA Cirrus SR22 landed in Canda after taxes costs rough \$1.3 million.

ized with very little room for change. Financing aircraft is a niche marketplace in the Canadian GA context, due to the small number of financial transactions (in Canada as of year-end 2022 there were 37,220 registered aircraft). In 2022, there were 217 aircraft added to the Canadian Registry.

Many financial institutions (FI) use the five C's of lending when evaluating the risk associated with any loan: capital: the amount of cash the borrower can contribute to the acquisition; collateral; a borrower's cash flow for making payments; credit background; and the borrower's character. In today's aircraft marketplace, with valuations increasing, the debt to value quotient has been dropping substantially, making lenders more comfortable.

Founded in 1900, and after a few name iterations, Iowa State bank (also known as Bank) is unique as a pilot owned and operated bank. Chris Grimm, CEO of Bank, says "Over 21 years, we only had to repossess an air-

craft twice. The same individual ran into tough times. We were able to take back the aircraft and sell them."

Some top tier Canadian banks will accommodate aircraft financing for clients of their bank; they will not necessarily rely on the aircraft as collateral, but rather rely on the client's bank investments, deposits on hand. However, financial companies like LBC Capital (a division of Laurentian Bank), PNC Aviation Finance, General Bank of Canada, Coast Capital Savings, Echo Aviation Leasing, and the Canadian Western Bank offer aircraft financing. Most of these organizations have a minimum transaction value (MTV). One of these institutions explained that its minimum transaction is \$1 Million, with typical fixed costs of a transaction (paid by the borrower) comprised of legal fees, appraisal fees and bank commitment fees. For example, on a \$1 million aircraft financing transaction, these fees could be as high as 4.5 per cent of the loan amount, but, as the loan size increases, this could decrease to one per cent of the loan amount. Interest rates and cost of funds of banks can vary a lot, especially in the current environment, and each bank will do its own risk-return analysis (asset risk versus credit risk) to establish pricing. While some lenders offer non-recourse financing (where the asset condition will be kev). other lenders will base themselves on the financial strength of the borrower where the asset will be less important.

For a small transaction, the aircraft buy would be comprised of: roughly a 20 per cent deposit, one-time fees of \$45,000 (or more), an interest rate of eight to 10 per cent, an amortization period of 15 or 20 years, and a term of five years. At the end of the loan term, the debt can be repaid without penalty, or a new indebtedness instrument obtained (if the borrower's credit scores have not changed).

Obtaining financing begins with the FI qualifying the transaction, ensuring that the transaction meets minimum hurdles required by a credit committee. In addition to the five C's, some financial institutions look at how the aircraft will be operated. Essentially, is the aircraft operated by a commercially rated flight crew, hired by the aircraft owner or is the aircraft flown by the owner/operator? With the impact of Covid and aircraft valuations, some FIs are getting seven to eight calls daily from pilots or operators looking for financing. A critical component to the qualification process is verification of the creditor's source of the deposit funds, to ensure that the FI follows both risk management and regulatory obligations (think OSFI and FINTRAC).

Financially, the monthly repayment amount will be comprised of an interest component and a capital component. Some financial institutions will use an amortization period of up to 25 years' amortization (for a new aircraft), matching duration of the loan based

upon the life of the aircraft. But many FI's will use a formula to determine the amortization period (age of aircraft minus 25). Once you have secured an FI to fund the transaction, contact a lawyer with aviation experience to ensure that the terms are appropriate and properly documented. Ehsan Monfared, Partner at YYZ law, reports: "Depending upon the value of the aircraft, sometimes it does not make sense to have lawyers involved in the transaction. Some FI's are inflexible with their financing agreements. However, with larger aircraft or more complex transactions, retaining a lawyer with aviation experience ensures that the borrower's interests are protected."

Based upon the size of the aircraft, the transaction may come in scope with the Cape Town Convention and Protocol. The primary aim of the Convention is to resolve the problem of obtaining certain and opposable rights to high-value aviation assets, namely airframes, aircraft engines and helicopters which, by their nature, have no fixed location. Some lenders do not understand the Cape Town treaty and the manner in which international aircraft registrations work. Irrevocable De-registration and Export Request Authorization (IDERA) is a key component of an aircraft acquisition. Knowing when an IDERA is necessary and who to submit the IDERA to is critical to ensuring that the lender's interests are best protected. 🗢



# MEET JONATHAN BEAUCHESNE

#### COPA DIRECTOR FOR QUÉBEC

BY LAURA MCLEAN

Since 2001, Jonathan Beauchesne has been flying across the country, abroad and exploring his home province of Québec. He is a financial expert who joined the COPA Board of Directors in 2014 after sitting on the Board for Aviateurs Québec for 10 years and his current term runs until 2026. He actively visits COPA Flights and airports throughout the province, eager to meet association members and chat about aviation.



#### **TELL US ABOUT YOURSELF**

I am originally from Montreal. I am a wealth manager and a professor of taxation at HEC Montreal. I started flying at Mascouche airport (CSK3) in the summer of 2001 - my dream of flying planes had finally come true. Afterwards, I got involved in organizations supporting general aviation... I make it a point to travel throughout Québec to meet with COPA members, as being on the ground is essential to understanding local issues. I regularly publish articles in COPA Flight related to my presence at aviation events. I hold a commercial pilot's license (airplane) Canada/USA, with multi-engine, IFR and seaplane ratings.

I always wanted to fly. I imagined being able to discover different countries, people and cultures and that motivated me. Flying gives you a window to the world that few other passions can. In addition to making me explore and discover the world, general aviation gave me access to a fascinating universe and allowed me to meet an enthusiastic. supportive and helpful community.

#### YOUR MOST MEMORABLE FLY-**ING EXPERIENCES?**

Flying over Rocher Percé, Toronto and seeing the CN Tower up close, flying an open cockpit PT-17 Stearman and doing aerobatics, flying to the Canadian Warplane Heritage Museum in Hamilton to fly a Harvard and chat with the dedicated and friendly staff, flying in the Rockies, flying over the Okanagan Valley... as they say, "only in Canada". Abroad, I had the chance to fly over the Hoover Dam, the Grand Canyon, Death Valley, the Golden Gate, Alcatraz, to fly in the cock-



Jonathan Beauchesne holds a commercial pilot's license with multiengine, IFR and seaplane ratings.

pit of a B-17 bomber in Oshkosh and to fly over Vermont in a glider.

#### WHY JOIN COPA'S BOARD?

COPA is the largest aviation association in Canada and the one that defends the right to fly in the country. Its involvement in many battles has allowed aviators to continue to enjoy the privileges we enjoy today.

In Québec, for example, COPA has supported legal cases to defend the primacy of the federal jurisdiction in aeronautics, has enabled the construction of new aerodromes in addition to ensuring a constant link with the various stakeholders of the aeronautical world to maintain a high level of safety in general aviation

#### ONE THING EVERY PILOT SHOULD KNOW?

Check the NOTAM before leaving.

#### **BEST PLACE TO FLY?**

Just about everywhere in Québec.

#### **BEST \$100 HAMBURGER?**

Trois-Rivières, Bromont and Ottawa Byward Market. 🔷

# RENCONTREZ JONATHAN BEAUCHESNE

#### CONSEIL D'ADMINISTRATION DE LA COPA POUR QUÉBEC

PAR LAURA MCLEAN

Depuis 2001, Jonathan Beauchesne est un aviateur actif, qui a vu des paysages à travers le pays, à l'étranger et qui a exploré en profondeur sa province natale du Québec - y compris le survol de la mondialement célèbre Roche Percé. Jonathan est un expert financier qui s'est joint au conseil d'administration de la COPA en 2014 après avoir siégé au conseil d'administration d'Aviateurs Québec pendant 10 ans et son mandat actuel se termine en 2026.

#### PARLEZ-NOUS DE VOUS

Je suis originaire de Montréal. Je suis gestionnaire de patrimoine et enseignant en fiscalité à HEC Montréal. J'ai commencé à piloter à l'aéroport de Mascouche (CSK3) à l'été 2001. Mon rêve de piloter des avions se réalisait enfin. Par la suite, je me suis impliqué dans les organisations soutenant l'aviation générale. Mon engagement a débuté en 2008, alors que j'ai eu le privilège d'être accueilli dans le Conseil d'administration d'Aviateurs Québec (jusqu'en 2018). Mon engagement s'est élargi en 2014 lorsque j'ai joint le conseil d'administration de la COPA à titre de directeur pour le Québec, poste pour lequel mon mandat actuel s'échelonne jusqu'en 2026. Je me fais un devoir de parcourir le Québec pour y rencontrer les membres de la COPA, car la présence sur le terrain est essentielle à la compréhension des enjeux locaux. Je publie régulièrement des textes dans la revue "COPA Flight" en lien avec ma présence aux événements aéronautiques. Je possède ma licence de pilote commercial (avion) Canada/États-Unis, avec qualifications multi-moteurs, IFR et hydravion.

J'ai toujours voulu piloter. Je m'imaginais pouvoir aller à la découverte de pays, de gens et de cultures différentes et cela me stimulait. L'aviation permet une ouverture sur la planète que peu d'autres passions peuvent offrir. En plus de me faire explorer et découvrir le monde, l'aviation générale m'a donné accès à un univers fascinant ainsi que de me faire rencontrer une communauté passionnée, solidaire et au service des autres.

#### **QUELLE EST VOTRE** EXPÉRIENCE DE VOL LA PLUS **MÉMORABLE?**

Il y en a plusieurs... nous avons un si beau pays ! Survoler le Rocher Percé, Toronto et voir la Tour du CN de près, piloter un PT-17 Stearman à cockpit ouvert et faire des acrobaties aériennes, piloter jusqu'au Canadian Warplane Heritage Museum de Hamilton pour y piloter un Harvard en plus de discuter avec le personnel dévoué et si sympathique, piloter dans les Rocheuses, survoler la Vallée de l'Okanagan... comme on dit, "only in Canada"!

À l'étranger, i'ai eu la chance de survoler le Hoover Dam, le Grand Canyon la Death Valley, le Golden Gate, Alcatraz, de voler dans le cockpit d'un bombardier B-17 à Oshkosh et de survoler le Vermont en planeur.

#### **POURQUOI AVEZ-VOUS REJOINT LE CONSEIL** D'ADMINISTRATION DE COPA?

La COPA est la plus grande association d'aviation au Canada et celle qui défend les droits de voler au pays. Son implication dans de nombreuses batailles a



Depuis 2001, Jonathan utilise l'aviation pour voyager un peu partout au Canada et aux États-Unis.

permis aux aviateurs de continuer de profiter des privilèges dont nous bénéficions aujourd'hui.

Au Québec, par exemple, COPA a supporté les causes juridiques défendant la primauté de la juridiction fédérale en matière d'aéronautique, a permis la construction de nouveaux aérodromes en plus d'assurer un lien constant avec les différents intervenants du monde aéronautique pour maintenir un niveau élevé de sécurité dans l'aviation générale.

#### UNE CHOSE QUE VOUS PEN-SEZ QUE CHAQUE PILOTE **DEVRAIT SAVOIR?**

Vérifier les NOTAM avant de partir.

#### MEILLEUR ENDROIT POUR VOLER?

À peu près partout au Québec.

#### **MEILLEUR \$100 HAMBURGER?**

Trois-Rivières, Bromont et Ottawa (Byward Market). 🗢

# MO'S 33RD FLY-IN

#### QUEBEC AVIATORS WELCOMED TO PONTIAC BY COPA FLIGHT 169

BY JEAN-PIERRE BONIN

I wonder how many fly-ins in Canada have been held 33 times (within 35 winters). No doubt, Maurice Prud'homme is known by many pilots and aviation fans in western Québec and Eastern Ontario and well beyond. A team of volunteers, once again this year, organized an amazing event, with Maurice doing most of the sponsors solicitation and putting his shoulder to the wheel.

For the first time, the fly-in was not held on the Ottawa River in front of Maurice's residence, but rather on land at Pontiac Airpark. COPA's Facebook page invited members to the Flight 169led fly-in and it was a team effort.

The airport was sold a few years back and had largely been left untouched until autumn 2022. Nature had reclaimed much of the land and invaded the runways. Trees and shrubs had to be cleared and the runway surface was brought to acceptable conditions, including lateral clearance. The introduction of a dam built by a very resilient beaver had resulted in water flooding part of the runway at the crossing. This unique safety hazard was temporarily fixed at the last minute by the team. Richard Raymond, Vice President of Flight 169, as well as Pierre Duchaine, Louis Dufresne, Alain Goulet, Jean Robertson, and an strong group of volunteers, worked hard to make Mo's 33rd Fly-in a success.

COPA was a major contributor to the event and we were honoured to welcome Jim Ferrier. Interim President and Chief Executive Officer of COPA, as well as the association's Michèle Milotte, Executive Administrator and Office Manager, and Shara Fathima, Administrative and Membership Coordinator. Another special visitor, Rolly Armitage, who is a longtime friend of Maurice's and 98 years young, arrived by helicopter.



Rolly Armitage, age 98, friend and special guest of Maurice Prud'homme.

I hate having to keep mentioning weather when reporting on these winter fly-ins, but the day began with minus 19 degrees Celsius temperature early in the morning followed by snow flurries, which took their toll on the number of arriving aircraft (five planes and one helicopter, plus five more planes arriving late after the skies had cleared even if the fly-in was nearly over).

Still, there were plenty of visitors coming by road as many pilots and aviation aficionados wanted to be part of this famous event of Quebec aviation. Cars and pick-ups lined up to fill almost all of many parking spaces available. So, as far as planes go, it was not the best year, but attendance overall showed just how unmissable the event is for many. One pilot pointed to the pleasure of meeting other pilots and talking aviation.

But what's more important to me is knowing that there are people who want to continue Mo's winter fly-in effort and to ensure that it grows in the future.



Richard Raymond, VP of Flight 169, with Jim Ferrier, COPA Interim President & CEO, and Maurice Prud'homme, host and Flight 169 President.



The Precision Aviation Marshalling Team with Maurice Prud'homme.

# 33E RVA CHEZ MO'S

LE CLUB 169 ATTEND LES AVIATEURS DU QUÉBEC À PONTIAC

PAR JEAN-PIERRE BONIN

Je me demande combien de rendez-vous aériens (RVA) au Canada ont eu lieu 33 fois (en 35 hivers). Nul doute que Maurice Prud'homme est connu de nombreux pilotes et passionnés d'aviation à l'ouest du Québec comme à l'est de l'Ontario et au-delà! Une équipe de bénévoles a, cette année encore, organisé l'événement, Maurice faisant l'essentiel de la sollicitation des commandites et mettant l'épaule à la roue.

Pour la première fois, le RVA n'a pas eu lieu sur la rivière des Outaouais devant la résidence de Maurice mais plutôt sur terre, à l'aéroparc du Pontiac. La page Facebook de la COPA invitait les membres au « COPA Flight 169 Fly-in » et c'était en effet un effort d'équipe car Maurice ne rajeunit pas.

L'aéroport a été vendu il y a quelques années et laissé en friche. Les travaux sur le site ont commencé à l'automne 2022 alors que la nature avait repris possession des terres et envahi les pistes. Il a donc fallu éliminer les arbres et les arbustes et remettre la surface de la piste dans des conditions acceptables, y compris le dégagement latéral. Sans oublier un barrage construit par un castor très résilient, provoquant l'inondation d'une partie de la piste au croisement. Cela a finalement été temporairement corrigé à la dernière minute par l'équipe. Je pense donc que nous devons tous remercier Richard C. Raymond, vice-président du Club 169 et Pierre Duchaine, Louis Dufresne, Alain Goulet, Jean Robertson et tous ceux qui ont travaillé si fort pour faire du RVA de Maurice Prud'homme un succès.

La COPA a été un contributeur majeur et nous avons eu l'honneur d'accueillir James (Jim) Ferrier, Président et chef de la direction par intérim en compagnie de Michèle Milotte, administratrice exécutive et chef de bureau et Shara Fathima, administratirice et coordonnatrice du service aux membres. Autre visiteur spécial, un ami de longue date de Maurice, venu comme passager en hélicoptère : Rolly Armitage, 98 ans !

Je déteste devoir mentionner la météo, mais moins 19 degrés Celsius tôt le matin et les averses de neige le matin ont eu un impact sur le nombre d'avions sur place (5 avions et un hélicoptère plus 5 autres avions arrivant tard après que le ciel se soit dégagé alors que le RVA était presque terminé). Pourtant, les visiteurs furent nombreux à venir par la route car de nombreux pilotes et passionnés d'aviation souhaitaient participer à ce célèbre événement. Les voitures et les camionnettes remplirent presque toutes les nombreuses places de stationnement disponibles. Donc, en ce qui concerne les avions, ce n'était pas la meilleure des années, mais le nombre total de visiteurs a montré à quel point l'événement est incontournable pour beaucoup. Comme le disait un pilote « Le plaisir de rencontrer d'autres pilotes et de parler aviation. »

Mais ce qui est le plus important pour moi, c'est de savoir qu'il y a des gens qui veulent poursuivre l'effort du RVA hivernal Chez Mo et le voir grandir à l'avenir. A l'année prochaine j'espère.



L'avion a priorité sur les motoneiges au croisement.



Un événement familial.



De nombreux visiteurs malgré la météo.



## **COPA** CORPORATE MEMBERS

#### 10G AEROSPORTS

519-873-0327 www.10gaerosports.com Airshows featuring high performance

#### **127793 ONTARIO** 705-864-0786

Airplane and hangar company in Chapleau,

604 'MOOSE' ROYAL CANADIAN AIR CADET SQUADRON SPONSORING COMMITTEE CALGARY, AB, 403-263-0300 www.604moose.ca

Providing familiarization flying for the cadets of 604 Moose RCACS.

#### ABBOTSFORD FLYING CLUB 30540 APPROACH DR.

ABBOTSFORD, BC, 604-854-0241 www.abbotsfordflyingclub.ca
The Abbotsford Flying Club is a non-profit organization that rents out aircraft for pilots that enjoy leisure and personal flying.

#### ACORN WELDING/SEAPLANES WEST

10916 - 119 ST., EDMONTON, AB, 780-447-5955

www.acornwelding.com One stop shop for aircraft exhaust & engine mounts.

#### ADVENTURE AVIATION

11021 123 ST., GRANDE PRAIRIE, AB, 780-296-5126 www.adventureaviation.ca PPL, CPL, Multi and IFR Flight Training; TC Approved AMO; and 703 Charter Operation.

# AERIAL EVOLUTION ASSOCIATION OF CANADA 2164 MONTREAL ROAD, UNIT 5, SUITE 8150, OTTAWA, ON, 613-526-5487

www.aerialevolution.ca Aerial Evolution Association of Canada is the national industry association representing entrepreneurs, businesses, students academia, industry, and government organizations working in the aerial, remotely piloted systems sector.

AERO-FORMATECH®
C.P. 56, SUCCURSALE PCD-STN,
DORVAL, QC, 1-844-615-4911
www.aero-formatech.com Aero-Formatech® offre des formations d'urgence spécialisées (théorique en elearning et pratique) depuis 1992 pour le personnel navigant en Combat de feu adapté à l'aviation avec Simulateur mobile non-polluant, Évacuation maritime en piscine et Évacuation subaquatique et ce. à Montréal, Toronto, Calgary et Vancouver.

#### **AIR-DALE FISHING & HUNTING** 1 WHITEFISH LAKE RD. WAWA, ON, 705-992-3903

www.air-dale.com Fishing and hunting drive-in lodge and fly-in outpost camps located in Algoma region.

#### **AIRBLE**

5360 AIRPORT RD. S, RICHMOND, BC, 604-279-8999 www.airble.com

Airble is an online marketplace connecting passengers directly to private aviation experiences through mobile phones or the internet.

#### AIRBLY

209 QUEEN ST, 2ND FLOOR, CHARLOTTETOWN, PE. 902-200-2510 airbly.com

Our products automatically create aircraft Journey Logs when you fly and simplify the management of those aircraft.

#### AIRCRAFT BLOCK TIME @ CZBB BOUNDARY BAY AIRPORT, DELTA, BC. 778-889-5022

www.yvrflyingclub.com The Vancouver Flying Club is located at CZBB, Delta, BC, in a private hangar. We have two Piper aircraft available for block time purchase. Join us to enjoy private flying at an affordable cost.

## ALBERTA AERIAL APPLICATORS ASSOCIATION

5405 99 ST - 202, EDMONTON, AB, 780-413-0079

www.albertaaerialapplicators.com The Alberta Aerial Applicators Association (AAAA) is a non-profit society working to promote the benefits of aerial application, in agriculture, forestry, industrial vegetation management, and mosquito control.

ANKEDOW REAL ESTATE CORP. 4881 FOUNTAIN ST N #1, BRESLAU, ON, 519-841-0496 Managing hangars at Waterloo Wellington Airport.

#### ATC QUALITY ENGINE OVERHAUL 6406 BLUEBIRD ST., ORILLIA, ON. 705-325-5515

Engine overhaul/repair, non-destructive testing, dynamic balancing, engine modifications, dynamometer testing.

#### AVENGE ENERGY SERVICES INC. BOX 6086, #21 CESSNA RD., HILL, PEACE RIVER, AB, 780-614-4032 www.avenge.ca

Established in 2005, Avenge Energy Services specializes in fluid management, energy services and industrial cleaning. Jeremy Hand, owner and CEO, has several personal aircraft, including a Citabria 7GCBC and Cessna 182, and just added a Cessna 340A to the fleet for company travel.

#### AVRO INSURANCE MANAGERS

LTD. 165 VIEWBANK CRESCENT, OAKVILLE, ON, 289-404-0849 www.avroinsurance.com Canadian MGA.

BELVEDERE FLYING CLUB WHITBY, ON, 289-404-0849 www.belvedereflyingclub.com Founded in 1964, the club is one of the oldest continually running flying clubs in Ontario, and one of the few that offers its members a float equipped aircraft.

**BIG LAKES COUNTY**BOX 239, 5305-56 ST.,
HIGH PRAIRIE, AB, 780-523-5955 www.biglakescounty.ca Big Lakes County manages two airports within our boundary near Swan Hills and High Prairie

## **BOISVERT & FILS AVIATION** 8295 GOUIN BLVD. E,

MONTREAL, QC, 514-648-1856 The only seaplane base on Montreal Island, providing seaplane maintenance, aviation oil and avgas.

**BORDEN FLYING CLUB** 5195 ON-26, STAYNER, ON 705-791-0269

www.bordenflyingclub.com
The Borden Flying Club, COPA Flight 84, is a non-profit corporation based at the Edenvale Aerodrome, CNV8

#### BRAMPTON FLYING CLUB 13691 MCLAUGHLIN RD,

CALEDON, ON, 905-838-1400 www.flybrampton.com Flight school, flight college, aircraft rental, aircraft maintenance, Cessna parts sales, fuel sales, Humphrey's Pilot Shop, BFC

BURLINGTON FLYING CLUB 2446 WOBURN CRES., OAKVILLE, ON

Restaurant-Café

## **CAMPBELL RIVER AIRPORT**

1-2000 JUBILEE PKWY, CAMPBELL RIVER. BC. 250-923-5012

www.crairport.ca

With frequent direct service to Vancouver International, Campbell River Airport (CRA) provides your quickest connections to the world. CRA is your gateway to the Strathcona and Discovery Islands region of Northern Vancouver Island.

#### CAMPBELL RIVER SKYDIVING

CENTRE
870 WADDINGTON CRESCENT,
COURTENAY, BC, 250-923-2424 www.capitalcityskydiving.ca Campbell River Skydiving Centre provides safe, exhilarating experiences for both first time tandems as well as those who wish to become a certified skydiver themselves

#### CANADA TRAINING SOLUTIONS 343-204-8826

www.ctsaero.com

Canada Training Solutions Inc. provides sales and leasing of aircraft, simulators and curriculum to flight training organizations.

#### **CANADIAN AERIAL APPLICATORS**

780-413-0078

www.canadianaerialapplicators.com Education and training of members is high on the CAAA's priorities. Training programs, for office staff right up to the pilot, are designed by members to ensure pesticides are safely applied.

CANADIAN BUSHPLANE HERITAGE CENTRE 50 PIM ST., SAULT STE MARIE, ON, 705-945-6242 www.bushplane.com

The CBHC preserves and presents exhibits, artifacts and educational programs about Bush Planes, Bush Flying and Forest

#### **CANADIAN HARVARD AIRCRAFT** ASSOCIATION TILLSONBURG, ON, 519-842-9922

www.harvards.com

Demonstration, restoration and maintenance of Harvard aircraft. Formation displays for air shows, memorial and special occasions.

**CANADIAN PROPELLER**462 BROOKLYN ST., WINNIPEG,
MB, 204-832-8679/1-800-773-6853 Canadian Propeller Ltd., provides aircraft propeller, governor +NDT services. We are an authorized Hartzell & McCauley service centre.

#### **CARDINAL AVIATION CENTRE**

780-459-0952 FBO Services at Edmonton Villeneuve

CBR TECHNOLOGY 92 LAKE CRIMSON CLOSE SE, CALGARY, AB, 403-285-6432 www.cbrtech.ca

Remote airfield services include - Runway firmness testing, Survey of threshold, runway profile, & obstacles, Full to partial AWOS installation & servicing, Dual Aircraft Altimeter & on-site personnel Certification, Industry Canada Licensing for personnel & base stations, Flight Check Instrument

CDN AVIATION 4631 RUE GARNIER, MONTREAL, QC, 800-980-9430 www.cdnaviation.com

Assist aircraft owners to ferry their aircraft from one place to another in North America.

#### CHARLO REGIONAL AIRPORT

AUTHORITY 291 MORRIS ST., UNIT 101 CHARLO, NB, 506-684-5507 www.charloairport.ca

Charlo Regional Airport (YCL) is located in Charlo, New Brunswick, and serves a large region of northern New Brunswick as well as the Gaspé Peninsula. Under the direction of a 15-member Board of Directors, the YCL Authority is the not-for-profit owner and operator of the Charlo Regional Airport, and is an important catalyst linking the economic needs and growth opportunities of the region.

## CIVIL AIR SEARCH AND RESCUE

ASSOCIATION (CASARA) UNIT C 3025, NESS AVE., WINNIPEG, MB, 204-953-2290 www.casara.ca

We are a Canada-wide volunteer nonprofit aviation association dedicated to the promotion of Search and Rescue awareness and to the provision of trained and effective air search support services to supplement our National Search and Rescue program.

# COLLINGWOOD FLYING CLUB HANGAR 9A, PO BOX 8, 1969 CONCESSION 6 NORTH,

COLLINGWOOD, ON, 705-445-7678 www.collingwoodflyingclub.com The Collingwood Flying Club is based in Collingwood, Ontario, and provides club members the ability to enjoy the shared ownership of a Cessna Cardinal 177.

#### **COOPER AVIATION**

1700 STE-ANGÉLIQUE, ST-LAZARE, QC, 450-455-3566 A friendly country airport, CST3 located in downtown St. Lazare and home to COPA Flight 43. We sell 100LL AvGas and have toilet facilities on site. A five-minute walk to restaurants, grocery and hardware stores and the post office

# L'AÉROPORT GILLES-BEAUDET DE SAINT-MATHIEU-DE-BELOEIL (CSB3)

2029 RUE DE L'AEROPORT, ST MATHIEU-DE-BELOEIL, QC, 450-446-5931

www.csb3.ca

A quinze minutes du pont-tunnel Louis Hyppolyte Lafontaine, le long de l'autoroute 20, juste à l'extérieur de la zone de contrôle de Saint-Hubert, l'aéroport Gilles-Beaudet de Saint-Mathieu-de-Beloeil (CSB3) vous attend avec sa piste asphaltée ouverte à l'année, son ambiance accueillante et un environnement sécuritaire pour votre aéronef et votre entreprise en aéronautique.

#### **CP KNIGHT PROFESSIONAL LAW** 403-923-2506

www.generalaviation.law Law practice focusing on general aviation

CRYSTAL LODGE CREE LAKE 115 BOXELL STREET, UNITY, SK 639-394-0125 (JUNE 1 – SEPT 30) www.creelake.fishing Remote fishing camp with clay capped

runway (CKS8) and protected bay for floats.

#### DEVENIR PILOTS GBSN S.E.C. 22, CHEMIN DE L'AÉROPORT, SAINT-JEAN-SUR-RICHELIEU, QC, 450 346-0188

www.devenirpilote.com Airplane shares available at a fraction of the cost. Professional aviation administration of your asset.

EAGLE AIRCRAFT HANGAR 3, TAXIWAY, C SEGUIN PARRY SOUND AREA MUNICIPAL AIRPORT, ON, 705-378-4728 www.eagleaircraftinc.com
Based at Toronto Island CYTZ and Parry Sound CNK4. Piston, turbine, fixed, rotary wing and float aircraft maintenance. Garmin Distributor and Service Centre. Avionics and structures



EDSON FLYING CLUB 780-725-3008 Facebook: @edsonflyingclub A non-profit group promoting aviation interests through safe & fun experiences.

FLIGHT FUELS 3515 76 AVE, EDMONTON, AB, 1-800-607-4355 www.flightfuels.com Distributer of aviation fuels and lubricants.

#### GLOBAL AIRCRAFT INDUSTRIES 2335 HWY 33, KELOWNA, BC,

780-458-2801 www.globalparts.com Over 30 years of experience in recovering aircraft and transporting parts around the

## GLOBALSTAR CANADA SATELLITE 115 MATHESON BLVD. W., SUITE 100, MISSISSAUGA, ON, 905-712-7128

Globalstar is a leading provider of mobile satellite voice and data services. Customers across Canada and the world rely on Glo-balstar and SPOT for emergency and redundancy communications, access to emergency personnel and to manage valued assets even when cellular services are unavailable.

GOLDEN EARS FLYING CLUB PO BOX 31524, PITT MEADOWS, BC, 778-834-2103 goldenearsflying.org The Golden Ears Flying Club was established in 1959 and is one of the oldest flying clubs operating in British Columbia. Its fleet currentconsists of two Cessna 172 aircraft: a 172E C-FHTI and a 172M C-GJYY

GROUPE AGRISTRATÉGIES
91, RUE PEEL, BUREAU 200,
SHERBROOKE, QC, 1-855-575-7025
www.agristrategies.ca Entreprise qui possède un avion et un hangar.

IMPEL TRANSPORT PO BOX 895, WINKLER, MB, 204-331-9313 www.impeltransport.com

#### ING ROBOTIC AVIONICS 613-482-9412

www.ingrobotic.com ING Robotic is a design and manufacturer of advanced unmanned autonomous aircraft systems and military technology.

#### KINDERSLEY PLANE OWNERS

PO BOX 1555, KINDERSLEY, SK

KOPTR IMAGE 2440 RUE MORLAIX, LAVAL, QC, 450-813-7733 www.koptr.ca KoptR Image est la première école de

télépilotage de drone au Québec et au Canada. Fondée en 2005, elle possède une expertise inégalée dans le domaine du drone. En plus de la formation, KoptR Image offre des services de consultation, de photogrammétrie et de maintenance.

#### LEVEL FLIGHT 403-483-2880

www.levelflight.ca Level Flight provides Online Ground School and virtual Flight Training solutions to aspiring aviators, seasoned aviators, and flight schools.

MAGNES GROUP 7030 WOODBINE AVE, SUITE 801, MARKHAM, ON, 888-772-4672 www.magnesgroup.com

Providing value and protection to Canadian aircraft owners, pilots, operators and manufacturers for over 50 years.

## MANITOBA BLUE SKIES FLYING CLUB

204-771-5583

Flying club based at Lyncrest Airport, near Winnipeg, Manitoba, providing new pilots with an affordable aircraft to stay current and build hours

#### MANITOULIN EAST FLYING CLUB 705-368-0092

MAXCRAFT AVIONICS 250 - 18799 AIRPORT WAY, PITT MEADOWS, BC, 604-465-3080 Maxcraft Avionics Ltd. provides professional avionics services to all types of private and commercial aircraft including helicopters and fixed wing aircraft.

#### MCLARENS INTERNATIONAL

450-672-6090 www.mclarens.com McLarens is a global claims service provider that helps our clients achieve timely and equitable claims resolution.

#### MCMILLAN LLP

BROOKFIELD PLACE, 181 BAY ST., SUITE 4400, TORONTO, ON 416-307-4005

www.mcmillan.ca A national, full-service law firm located in Vancouver, Calgary, Toronto, Ottawa, Montreal and Hong Kong with a dedicated Aviation Law Department

**MIRAJET (2015) INC.** 2540 BD DANIEL-JOHNSON #212, LAVAL, QC, 514-825-0365 www.mirajet.com Copropriété corporative active dans le développement de l'aviation générale sur le

#### site de l'aéroport de mirabel. MISSION AVIATION FELLOWSHIP

OF CANADA 102-195 HANLON CREEK BLVD., GUELPH, ON, 877-351-9344 www.mafc.org MAF is an international. Christian,

humanitarian organization working to meet the transportation and communications needs of those living and serving in the poorest and most remote parts of the world.

#### MOUNT ROYAL UNIVERSITY 143 MACLAURIN DRIVE CALGARY, AB, 403-288-9551 **CYBW**

www.mtroyal.ca University in Calgary, Alberta with Aviation

# THE NINETY-NINES, MANITOBA HANGAR 24A LYNECREST AVE., 57119 MURDOCK RD., WINNIPEG, MB, 204-261-1007 The Manitoba Chapter of the Ninety-Nines

is a non-profit organization with charitable CRA status. It was first chanter worldwide to gain approval to own a club plane

# NORTHWESTERN ONTARIO AIR SEARCH AND RESCUE ASSOCIATION 807-622-2113

www.noasara.ca NOASARA is groups of professionally trained volunteers, who conduct aerial searches for downed aircraft, missing/ in-distress watercraft, and missing/lost

#### persons, on a quick response basis NOTCH1 MANAGEMENT LTD.

HANGAR B3, CAT4 – QUALICUM BEACH, BC, 1-833-814-8589 www.notch1.com Pre-engineered steel buildings of all shapes

and sizes, including hangars

OCTANT AVIATION 4501 RUE BISHOP, BUREAU 202, LONGUEUIL, QC, 450-678-4884 www.octantaviation.ca Experts en solutions pour l'aviation/ Experts

in aviation solutions.

#### **OUTAOUAIS FLYING CLUB** 21 DU TAMARAC, GATINEAU, QC, 613-297-6484

#### **OWEN SOUND FLIGHT SERVICES**

203807 HWY 26, OWEN SOUND, ON, 519-372-1259 www.flyos.ca
An aviation service provider based at

CYOS, Owen Sound Billy Bishop Regional Airport. Established in 2004, Owen Sound Flight Services provides Flight Training, Sightseeing and Charter.

#### PASSPORT HÉLICO

10-3320 AVENUE DE LA GARE, MASCOUCHE, QC, 450-474-4888 www.passport-helico.com Founded in 1989, Passport Helicopters in recognized for the quality of its services which are: Flight training, chartering, sales and servicing, hangaring of helicopters.

#### PAUL CABAN

514-337-7588 paulcaban@gmail.com wingxstol.com Manufacturer and supplier of Wing Extension STOL kit for Cessna aircraft.

#### PONTING CONTRACTING 250-334-6768

Specializing in building logging roads, drilling, blasting, land clearing, culvert and bridge installation. Find us on Facebook.

#### PRAIRIE FLYING SERVICE 800-667-8140

www.prairieflying.com Prairie Flying Service is a Cessna and Piper Authorized Service Facility supporting the General Aviation community throughout Saskatchewan and across Canada.

#### REPOLOGIX

225 THE EAST MALL, SUITE 1662, TORONTO, ON, 416-248-1229 www.repologix.com REPOLOGIX Inc. is Canada's leading aircraft repossession company.

#### **RICHARDSON BROS (OLDS)** RR 3 SITE 11 BOX 19, OLDS, AB, 403-556-4466

#### RIVERBEND ROCK PRODUCTS

403-223-4533 www.riverbendrock.ca Ready mix Concrete, Sand and Gravel in Taber, Alberta.

# ROTECH MOTOR LTD (ADVENTURES CANADA, AC ULTRA) 6235 OKANAGAN LANDING RD,

VERNON, BC, 250-308-0079 www.flyrotax.com/dis/rotechmotor Exclusive Canadian distributor for Rotax aircraft engines, parts, accessories

#### ST. ANDREWS AIRPORT

202 - 705 SOUTH GATE RD., ST. ANDREWS, MB, 204-336-3250 www.standrewsairport.ca General Aviation Airport. Flight training and aircraft maintenance. Both airside and groundside commercial. Lots available for development. Common language and nonvesting leases.

SMITHVILLE FLYING CLUB 8088 TWENTY RD., SMITHVILLE, ON, 647-522-4645 www.smithvilleflyingclub.com Operator of the Smithville Aerodrome in Ontario.

#### STAMPEDE AVIATION INC.

CHATHAM-KENT, ON 403-978-2780

www.stampedeaviation.ca Aircraft Management and Warbird Brokerina

STUDENT AVIATION FINANCIAL ENTERPRISES 80 BLAZER ESTATES RIDGE, CALGARY, AB, 403-397-6107 www.studentaviationfinancial.ca Providing financial assistants across Canada to all inspiring students wanting to obtain the PPL and CPL license, muti, IFR, float, instructor rating.

#### TANIS AIRCRAFT PRODUCTS

952-224-4425 www.tanisaircraft.com Tanis Aircract Products produces the most tehnologically advanced and only FAA, TCCA, & EASA certified preheat systems, products, and insulated engine covers for the aviation industry

#### THE GUELPH FLYING CLUB

GUELPH AIRPARK, ON, 647-624-7824 Group of pilots who share an aircraft located

at the Guelph Airpark.

#### THE HUDSON AERONAUTICAL GROUP

PO BOX 30043 RIDLEY SQUARE, ST. CATHARINES, ON, 905-328-3611 www.hudson.aero

The Hudson Aeronautical Group and the Kennedy School of Aviation offer training courses, auditing, appraisals and certification, aircraft, parts, tools and more.

# VANCOUVER FLYING CLUB

WANCOUVER FLYING CLUB BOUNDARY BAY AIRPORT, DELTA, BC, 778-889-5022 www.yvrfflyingclub.com The Vancouver Flying Club is located at CZBB, Delta, BC in a private hangar. We have 2 Piper aircraft available for block time purchase. Join us to enjoy private flying at an affordable cost

#### VERITABLE WEALTH ADVISORY 416-904-0393

veritablewealthadvisory.com Investment management with providing specialists in tax, investment, riskprotection, and estate planning

#### WHISTLER SKYDIVING

604-698-7120 www.whistlerskydiving.ca Skydiving operation

## YORK DEVELOPMENTS MANAGEMENT SERVICES

519-433-7587 www.yorkdev.ca
Family operated development company out of London, Ontario.

#### YORKTON AIRCRAFT SERVICE

BOX 1604, YORKTON, SK, 306-786-7007 AMO # 125-90 "We're there to keep you in the Air".

#### ZWEVEN AVIATION INC.

519-328-6107 johnmoraal@lamsar.com Helicopter operations

www.canadianplanetrade.ca

#### FEATURED LISTINGS FOR MARCH/APRIL 2023



1972 CESSA 185 W/WHIP 3730 Amphib Floats, 4759 TT/ 1992 SFRM (Continental), MT Reversing Prop (June/2020). RSTOL, VG's, EDM830 and Gami-Jectors, Aspen EFD1000 MFD, Garmin GNS530W! \$269,900 USD. Apex Aircraft Sales Ltd. 416-948-2973



1972 PIPER CHEROKEE 140, 4065 TT, 2090 SM 'On Condition', Beautiful Blue on White Paint, Hangared, NDH, Top Overhaul in 1986 and Prop Overhaul Feb/21, Thorough Annual Nov/22! Apex Aircraft Sales Ltd. 416-948-2973.



MURPHY RENEGADE BIPLANE 237tt, 6 hours on Rotax 670, by Rotax Rick. Single seat, an amateur build could also be registered as basic, or advanced Ultralight. Flys great, just not using it enough. Asking \$10500. Contact 647-833-0331.



1978 CESSNA 172N FLOAT PLANE. 78 Cessna 172N Skyhawk, TTAF 8852.3, SMOH 1038, PK 2300 floats, 180 HP Penn Yan, fresh annual Oct/22, contact 705-282-4710, \$150,000, hangared at CYZE (Gore Bay) Airport. Call 705-282-4710.



2500FT. PRIVATE AIRSTRIP acres 100 km west of Sudbury ON. 2500ft x 150ft grass airstrip Massey Ontario. Excellent all season (wheels & skis) flying. A private aviation recreational destination or build a permanent residence. Plenty of deer and moose evidence and other wildlife on the property. Includes 100 feet frontage on the Trans Canada Highway (#17) with access installed. Note - the airstrip has not been used or maintained for several years. \$249.000 Phil ChandlerBroker John E Smith Realty Sudbury Limited 705 583 2015 1958chandler@gmail.com



AMAZING 1965 C172. Amazing value in a 1965 C172. Must be seen and flown, beautiful condition paint and interior and glass, modern avionics for trouble free advanced training or travel, 2 Garmin G5, GNC355 nav/com, GTX327 xpdr, GFC500 autopilot, GEM, PS1000 intercom, airframe about 6900 hours, engine has fresh complete rebuild new cam, flown regularly, seller is motivated with an upgrade happening. \$89,000USD, can deliver, Contact Dave Fisher 416-578-1303, fishayr@gmail.com.



FOR SALE OR LEASE OLIVER BC. 1200 sq ft 40\*30 Hangar (not a T hangar) Oliver airport. Fully finished, painted white with white floors, insulated heated, wired 100 amp service, 40 ft of over head storage, alarm system. Nicest finished hangar this size any where in the South Okanagan. Tim @ 780 913 1869. perudrilling@gmail.com.



**BEACHCRAFT SUNDOWNER C23** 1976, O-360 180hp, 5821.7 TTSN, 515 SMOH, propeller 41.9 TTOH, Garmin GTX 330 transponder, GDL 51 portable satellite link, Garmin Aera 760 GPS 7" display, Dual Narco MK12D Nav/Com, Dual glide slope, Auto pilot, Very well maintained, Inside hangar at CYXX, Call Evan 250-826-3353.



SONEX - JABIRU 2200. 238TTSN, dual stick, Sensenich prop, Dynon D-10A EFIS, GRT EIS, FL-60A Com, Microair T-2000 ModeC xpdr, ACK E-04 406ELT, hydraulic brakes, NDH. Located CNC3 \$28,000 Brian Heinmiller 647-204-7947 or aexi328@ vahoo.ca

# Leggat Aviation Ltd. YOUR EASTERN CANADA **CESSNA DEALER**

The New C-172s • C-182s • C-206s



## **CALL US ABOUT THE NEW CESSNA 182 SKYLANE!**

2020 Tecnam P2006T 14 Hours Since New!	1976, 1972 & 1969 C172's, 74,500US, 114,900US & 107,500US
2001 Mooney M20R Ovation, 1382 TTAE, G530W/430W, LRF!	1976 Bonanza V35B, 3406TT,1546SM,GNS430 GPS, KFC200 AP
2000 C182S 2271TT, 575 SM King KLN94 GPS, KAP140 AP w/ALT Preselect \$292,500 USD	1976 C172M, 900 TTSN! Upgraded Avionics incl GFC500 AP \$165,000 USD
1991 Mooney M20J, 10054TT, 801SFRM, GNS530GPS, King Digital! \$ 110,000 USD	1974 Cherokee 140, 6324TT, 1756SM
1985 P210R, 3105TT, 1145 SM, 530W/430W/EX500MFD!\$390,000 USD	1972 C185 Amphib 4759 TT 1992 SM 10550!
1983 C152, 16285TT, 1340SM, KX155A N/C, G327 TSPDR\$55,000.00 USD	1970 Mooney M20C 4055TT 270SM, 1PC W/Shield, GAP Seals! \$79,900 USD
1981 P210N, 3460TT, 300SM, G530/G430,2XG5! \$300,000 USD	1969 C150, 8217TT, 580SM, Hangared. NDH!
1981 T182RG,4497TT,819SFRM,G530W,G430W,GTX345w/ADS-B IN/OUT!	1966 TwinComanche CR, 7816TT, 1446/0 SMOH, G430, Many Mods!\$99,500 USD
1979 C182Q,2542TT,1104SM,GTN65O,GNS430W,GTX345 w/ADS-B IN/OUT!\$205,000 USD	1963 Comanche 250, 5435TT, 1718SM, G5/GTN650/GTX345!
1978 SchleicherASW19 Glider w/Trailer\$25,000 USD	1952 Dehavilland DHC-2 16578TT,1322SM,Amphib,GTN750 Upgrade\$ CALL

Call Bruce Musgrave (416) 948-2973 for Complimentary Bluebook Appraisal!

#### FEATURED LISTINGS FOR MARCH/APRIL 2023









Airframe - New parts for most light singles to coporate and commuter aircraft, including ag, warbirds and experimental. Cessna twins are our specialty. Also parts for many others in general aviation.

- Engine 50% discount on most new Continental and Lycoming parts in stock, and a growing inventory of P&W and Allison turbine and jet engine parts.
- · Propellers & Blades McCauley, Hartzell, Hamilton Standard. www.preferredairparts.com/props.htm
- Accessories & Parts 100's of new, and OHC accessories. Check with us for all accessory parts!
- Hardware 12,000+ part numbers, 40% discount!
- Consumables Spark plugs, ignighters, air and fluid, brake lining, and more.
- · Wheels, Brakes & Parts for all makes, including tailwheel.
- Lighting Strobes, beacons, bulbs, lenses, parts for all makes. 10,000 GE bulbs @ 85% off!

#### www.preferredairparts.com

Free Inventory Search!

Preferred Airparts, LLC

Contact us:

800-433-0814

Tel. 330-698-0280 Fax. 330-698-3164

sales2@preferredairparts.com

We are *Cash* 

We buy inventories of new surplus parts for nearly anything that flies. Also tired or damaged Cessna twins, Caravans, Citations. engines and propellers.

We Buy Worldwide

Gene Hembree is our buyer. Please contact him at 330-698-0280 ext.224 gene@preferredairparts.com



#### **CLASSIFIED AD DEADLINES**

- May Issue Closes April 28, 2023
- June Issue Closes June 2, 2023

Post online anytime at canadianplanetrade.ca



sates@csplane.com





#### **AIRCRAFT**

WORK HORSE C 182. Ready to go with no snags. Fast, carries a load and great to fly. pcollard6@gmail.com.

1967 C-150G COMMUTER, \$35000.00 Can, TTA 4072, TTE 2116, TTESBO 1201, TTSTO 2, 406ELT (ACK), new Skytech starter conversion, shoulder harness, oil filter adapter, put on owner maintenance. call or text Jim at 1-306-228-7337

TWO DIAMOND DA42'S AVAILABLE. 2004 DA42~2116 Hrs~Continental Engine with 661 hrs Since overhaul~G1000~Autopilot~TAS Tanks. Fuel 2005 DA42NG~1638 Hrs~Austro AE 300 Engine~G1000~Autopilot~SVS~Aux Fuel Tanks, for further information call or email 403-291-9027 sales@ hopkinson.aero.

1960 PIPER PA 22 PACER, 2840 TT, 345 SMOH, seaplane doors, float fittings. Owner maintenance. 900 LB useful load. Price 55,000.00. Call 519-369-4976 or grrobinson555@gmail.

#### **HANGARS**

HANGAR SPACE for 1 year term. Heated to 5c, 42x13 door, WiFi. Your plane will love it!! Please contact by email - hangar@cse4.ca.

**PARTS** 

## **MGK AERO**

PARTS - PROJECTS **ENGINES - FLYING** 

204-324-6088

#### **AEROFAIRINGS**

450+ new aircraft exterior Vinylester fairings available on the WEB at:

www.aerofairings.ca 819-375-1250

Ask for a quote by email at: info@aerofairings.ca

#### **PISTON SINGLE**

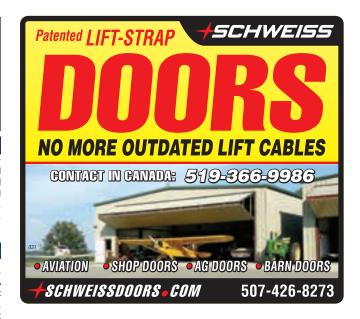
BEAGLE-AUSTER A61 C-FNQC \$42,900 • FOR SALE • Museum Owned Aircraft. valid C of A. Always stored inside and low time. Bought to build Tail Wheel time for our Tiger Moth pilots. 306-341-4973 or beikel@saskaviation.

#### PROFESSIONAL SERVICE

SAFETY PILOT/COACH - Enjoy safe, practical real world flying in the GA system. Experienced pilot to ride R seat with you. IFR practice, cross country, travel, cross-border and large airport operations. Southern Ont. departures. Safely gain confidence, experience and knowledge on your schedule. Dave Fisher, Commercial, instrument, seaplane with over 5000 cross country hours in the GA system. Training IFR, LA4 checkout. P210 checkout. FERRY SERVICE. 416-578-1303, fishayr@ gmail.com.

#### **TRAINING**

PILOTS WANTED! To fly Cessna 182s and/or Caravan at Ontario's largest parachute centre. Parapilot Program to develop paradrop skills experience, airmanship, and maintain currency. Contact Joe - joe@skydivetoronto.com or 705-331-6509.

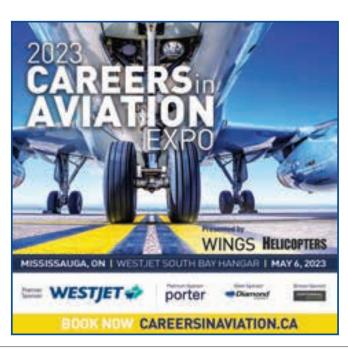






markperron@sympatico.ca

514-923-6275







# LONG LIVE THE QUEEN

#### THE BOEING 747 AND HER ROLE IN TRANSFORMING AVIATION

BY DAVID CARR

Boeing's magnificent 747 jumbo jet has always been a majestic beast. But the Queen's entry-into-service was far from smooth.

It has sometimes been characterized as the 'glorious summer'. A few days in early June 1969 at France's Le Bourget Airport when development versions of the Anglo-French supersonic Concorde and Boeing 747-100 shared a stage for the first time at the 28th edition of the storied Paris Air Show. It was a time when the future was bright and all was possible. Man would step foot on the Moon a few weeks later.

The 747 entered airline service with Pan American World Airways (Pan Am) in January 1970 and would revolutionize international air travel. This was far from clear that summer in Paris, despite an enthusiastic reception and massive crowds gathering on the rain swept tarmac waiting to get a glimpse inside the world's largest passenger jet. The 747 was seen then as a lumbering stop gap between the dawn of the jet age and the arrival of supersonic air travel. Not necessarily the ground-breaking Concorde that was already considered too small and expensive for purpose, but by the 250 to 300 passenger Boeing 2707, travelling at three times the speed of sound, or 1,500 kilometres an hour faster than Concorde.

As international airlines bulked up on sleek SSTs, more 747s would be redeployed as flying cargo ships. The jumbo's distinct hump and upper deck cockpit designed to support front door loading of large freight. The dream of supersonic transport soon flamed out. Unlike the 747, where Boeing literally bet the company (or "sold the family jewels" as William Allen, the chief executive, said at the time), the 2707 was a government contract that was cancelled in 1971 when the money dried up.

1,574 ships after the first 747 was delivered to Pan Am, Boeing handed over the final 747-8 to Atlas Air, a cargo airline on January 31. (The last passenger version, the 747-8 Intercontinental, was delivered to Korean Air Lines in July 2017.) Attending the ceremony were remaining members of The Incredibles, the first employees to design and build the airplane, sometimes against steep odds. The Atlas livery included a tribute to Joe Sutter, an aeronautical engineer and father of the 747, who passed away in 2016.

Air Canada, an early customer, brought the 747 to this country in spring 1971. Like Paris in '69, crowds flocked to the Air Canada maintenance hangar in Montréal to preview a piece of aviation future before the airplane was placed on the Montréal-Toronto-Vancouver route in April. CP Air and Wardair would add 747-100s to their fleets in 1973. By the time Air Can-



Boeing and Atlas Air Worldwide were joined by thousands of people to celebrate the delivery of the final 747 to Atlas, bringing to a close more than a half century of production.

ada retired the last of its larger series 400 aircraft in 2003, 32 747s of various models had been flown by four Canadian airlines, including Nationair, a short-lived, Mirabel-based leisure and scheduled airline.

Early 747s were plagued with engine reliability and performance issues, and for some airlines, especially U.S. domestic giants such as American, Delta and United, it was too much airplane for the market and would be replaced with smaller Mc-Donnell Douglas DC10 and Lockheed L1011 wide-bodied trijets. Launch customer Pan Am's rush to market itself as the 747 airline ahead of the competition resulted in it taking delivery of too many airplanes upfront, making filling the seats a tougher sell. Still, the die was cast. The 747 was popular with the public, making flying more accessible and offering unprecedented space and levels of comfort. By the time the 747-400 arrived on the scene in 1989 with a stretched upper deck, lower operating costs and ability to carry more passengers over longer distances, the Queen of the Skies had hit her stride. Exactly 724 of all 747s sold would be the 400 series.

The Boeing 747 has had an unparalleled run, but she is now deep into the twilight, with Covid having accelerated the permanent grounding of much of what was left of the shrinking passenger fleet. Today the 747 accounts for approximately two per cent of all passenger aircraft, including the 747-8 Intercontinental, an unnecessary response to the Airbus A380, flown by Lufthansa, Korean and Air China. Even the jumbo's use as a freighter has dwindled from 71 per cent in 1990 to 21 per cent today, according to CAPA, a market intelligence gathering firm. Boeing continues to work on two V25-B aircraft, heavy modified versions of twin undelivered 747-8 passenger jets, for the U.S. Air Force as replacements for Air Force One, ensuring the 747 will be transporting freight and the President of the United States for decades to come. Long live the Queen.





