

# Flight



The Journal of the Canadian Owners and Pilots Association

DECEMBER 2020

More than  
**80**  
Classified Ads  
(p.30)



## BUILDING A GRAND CHAMPION

Scott McFadden describes his three decade odyssey to earn a Classic Gold Lindy

**BATTLING COMPLEX APPROACHES**  
*LESSONS FROM HAVRE ST-PIERRE*

**CONTROL IN FLIGHT**  
*PREPARING FOR SPINS AND STALLS*

**GIVE HOPE WINGS**  
*THE SAULT TO SAGUENAY EXPEDITION*

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**ON THE COVER:** Photographer Jessie McFadden captured her father's 1946 Taylorcraft BC12D over the Nor'Wester Escarpment. This was her first time taking air-to-air photos working from a Cessna 172M piloted by Jim Moshonsky.

# COPA Flight

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# COPA

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FROM THE TOP

PRESIDENT'S CORNER WITH CHRISTINE GERVAIS

## A HOLIDAY MESSAGE



**As this year winds to a close, most of you will be in the midst of preparations for this festive season. For some, rather than vacationing in various parts of the world or travelling to visit family members, this holiday season will be spent closer to home and celebrating in different ways. With regular life slowing down, many will take this time to reflect on this past year, myself included.**

Without a doubt, 2020 has been an unprecedented year. For me, not just due to COVID-19 but for being selected as the President and CEO of COPA. This is by far one of the highest honours of my professional career. At the same time, this year has been one of some desolation. While keeping with the spirit of this joyous time, it is equally important to take a few moments and recall these other events.

Despite the obstacles that this pandemic has thrown our way, COPA is proud to have been able to provide an unwavering level of service to members, all while navigating this storm. With this continued dedication, we are confident that the next 12 months will follow this trend, no matter what they hold.

COPA's focus for the upcoming year will be its renewed commitment to engaging with you, the members. We will work relentlessly to enrich already existing programs and develop

new and exciting ones to deepen our members' enthusiasm for their association. We are equally looking forward to greeting you in Saint-Jean-sur-Richelieu, Quebec, from June 24 to 27 at the COPA 2021 National Fly-In. For most, this will be the first event in well over a one-year period and we have every intention to make it worth your while.

*"We will work relentlessly to enrich already existing programs and develop new and exciting ones to deepen COPA members enthusiasm."*

I would like to take this opportunity to thank the COPA staff for the tremendous effort they put in day in and day out to make sure that our members are well looked after. Many of us do not see all the demands placed on them, but their work is greatly appreciated.

To the COPA Board members, I thank them for their dedication to the success of the Association and for their tremendous input to the proper governance. They commit endless hours of volunteer time to ensure our members are heard and provided with worthwhile opportunities.

Lastly, to you the members, my sincere appreciation for your continued support and the pride you demonstrate at being members of this elite aviation community. You are the source of the strength of COPA.

On behalf of the entire COPA staff and myself, we hope this holiday season is an exceptionally good and safe one and that the New Year brings you much health, happiness and prosperity as we continue to advance, promote and preserve our Canadian freedom to fly. 

# UN MESSAGE POUR LE TEMPS DES FÊTES

**Alors que cette année tire à sa fin, la plupart d'entre vous seront au milieu des préparatifs de cette saison festive. Pour certains, plutôt que de passer des vacances dans diverses parties du monde ou de voyager pour rendre visite à des membres de la famille, ce temps des fêtes se déroulera plus près de chez eux et sera célébré différemment. Avec le ralentissement de la vie « normale », la plupart d'entre vous prendrez ce temps pour réfléchir du déroulement de cette dernière année, incluant moi-même.**

Sans aucun doute, l'année 2020 a été une année sans précédent. Pour moi, non seulement à cause de la COVID-19, mais aussi pour avoir été sélectionnée comme Présidente et Chef de la direction de COPA. Ceci est sans doute l'un des plus grands honneurs de ma carrière professionnelle. En même temps, cette année a été une année d'amertume. Cependant, tout en restant dans l'esprit de cette période joyeuse, il est tout aussi important de prendre quelques instants afin de penser à ces autres événements. Malgré les obstacles que cette pandémie nous a lancé, la COPA est fière d'avoir été en mesure de fournir un niveau de service inébranlable aux membres, tout en traversant cette tempête. Avec ce dévouement continu, nous sommes convaincus que les douze prochains mois suivront cette tendance, peu importe ce qui nous attend.

L'objectif de la COPA pour la prochaine année sera un engagement réveillé envers vous, les membres. Nous travaillerons sans relâche afin d'enrichir nos programmes existants ainsi qu'à développer des nouveaux programmes excitants pour but d'approfondir l'enthousiasme des membres de la COPA. Nous sommes également ravis de vous accueillir à Saint-Jean-sur-Richelieu, au Québec, le 24 au 27 juin lors du

rendez-vous aérien national de la COPA 2021. Pour plusieurs, cet événement sera le premier depuis plus d'un an et nous avons l'intention de faire en sorte que cela en vaille la peine.

J'aimerais prendre cette occasion pour remercier le personnel de la COPA pour les efforts considérables qu'ils déploient jour après jour pour s'assurer que nos membres sont bien desservis. L'équipe travail vigoureusement pour assurer le bon fonctionnement de l'association et toutes leurs efforts sont grandement appréciés.

*« Nous travaillerons sans relâche afin d'enrichir nos programmes existants ainsi qu'à développer des nouveaux programmes excitants pour des membres. »*

Je remercie les membres du Conseil d'administration de la COPA pour leur dévouement au succès de l'Association et pour leur contribution à la bonne gouvernance. Ils consacrent plusieurs heures de bénévolat afin d'assurer que nos membres sont bien écoutés.

Enfin, à vous, les membres, je vous remercie sincèrement pour votre soutien continu et la fierté dont vous faites preuve d'être membres de cette communauté aéronautique élite. Vous êtes à la source de la force de la COPA.

Au nom de tout le personnel de la COPA et de moi-même, nous vous souhaitons un bon temps des fêtes et que la nouvelle année vous apportera santé, bonheur et prospérité alors que nous continuons à faire avancer, promouvoir et préserver la liberté de vol des Canadiens.



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# REMEMBERING WARD AND OLMSTEAD

## CANADIAN AVIATION LOSES TWO PIONEERS WHO BEGAN AS BUSH PILOTS

**Maxwell William Ward died on November 2 in Edmonton, Alberta, at age 98. Ward began his aviation career in 1940 when he joined the Royal Canadian Air Force, where he would eventually receive his wings and in 1941 begin training pilots during World War II at various bases across the country.**

After leaving the RCAF in 1946, Ward went on to fly bush planes in Canada's north, contributing to mapping the region. Ward received his Commercial Pilot's Licence in 1945 and began his flying career as a bush pilot for Northern Flights Ltd., operating from Peace River, Alta., to Yellowknife, NWT. In 1946, he organized his own air operation, Polaris Charter Company, based in Yellowknife, with a de Havilland Fox Moth, flying prospectors and supplies into the mining camps.

Ward then formed Wardair in May 1953 with this Class 4B Charter license and a brand new de Havilland Canada DHC-3 Otter single-engine prop aircraft. He grew the company into one of Canada's largest scheduled carriers over the next 25 years with a network of international and do-



▲ Max Ward at the Alberta Aviation Museum, January 2020.

mestic routes. It became the third major Canadian carrier to operate pure jet aircraft in 1966, with the purchase of a Boeing 727. With the addition of Boeing 707 and 747s through the 1970s and 1980s, Wardair would become Canada's largest international air charter carrier before being sold in 1989 to PWA International, which through other M&As formed Canadian Airlines.

Vaughn Olmstead passed away at age 89 on November 4 at home in Hawkesbury, Ontario. He was regarded as an avi-

ation legend among his peers after one of the most storied pilot careers in the history of Canadian aviation. Olmstead is as well regarded for a flying career spanning his work as bush pilot during the uranium rush to serving as a lead airline Captain as he is for decades of contributions made to the aviation industry. In 1957, he became one of the first members to help drive the growth of the Canadian Owners and Pilot Association, for which he remained an active member until his passing.

In 1956, Olmstead began flying for Mont Laurier Aviation and moved to Roberval, Quebec, later to Pointe Claire, and finally to Hawkesbury, Ontario. Mont Laurier Aviation became Nordair, which after many years became part of Canadian Airlines International Limited. Olmstead retired off the Boeing 767 on January 1, 1991. He had also flown the de Havilland Beaver, Canso, DC-3, DC-4, Curtis C-46, Lockheed Super Constellation, and stretch DC-8 among other aircraft – with what his family describes as a special liking for the Boeing 737. ☁

## SE SOUVENIR WARD AND OLMSTEAD

### L'AVIATION CANADIENNE PERD DEUX PIONNIERS QUI ONT COMMENCÉ COMME PILOTES DE BROUSSE

**Maxwell (William) Ward est décédé le 2 novembre à Edmonton en Alberta, à l'âge de 98 ans. Lauréat de nombreuses distinctions au cours de sa carrière, il a été l'un des premiers individus à être intronisé au Temple de la renommée de l'aviation canadienne.**

M. Ward a commencé sa carrière dans l'aviation en 1940 au sein de l'Aviation royale canadienne (ARC). En 1941, pendant la Seconde Guerre mondiale, il a commencé à former des pilotes dans

diverses bases à travers le pays. Après avoir quitté l'ARC en 1946, M. Ward a continué à piloter des avions de brousse dans le nord du Canada, témoignant d'un amour de longue date pour le vol, l'aventure, les affaires et l'Arctique, et contribuant à la cartographie du Nord canadien.

M. Ward a obtenu sa licence de pilote professionnel en 1945. Il a commencé sa carrière après avoir été embauché par Jack Moar comme pilote de brousse

pour Northern Flights Limited, couvrant le territoire s'étendant de Peace River en Alberta à Yellowknife dans les Territoires du Nord-Ouest. En 1946, il démarra sa propre exploitation aérienne – Polaris Charter Company Limited, basée à Yellowknife – avec un biplan de Havilland Fox Moth. Il assurait le transport de prospecteurs et de marchandises dans les camps d'exploration minière. Dans le livre Picking Up The Pieces, Denny McCartney explique que M. Ward a fondé

Wardair en mai 1953 avec un permis d'affrètement classe 4B et un tout nouvel appareil à hélice monomoteur : de Havilland Canada DHC-3, aussi appelé Otter.

Dans les 25 années qui ont suivi, Wardair est devenu l'un des plus importants transporteurs aériens réguliers du Canada, desservant une variété de destinations nationales et internationales. Il est ensuite devenu le troisième plus grand transporteur canadien à exploiter des avions à réaction directe en 1966, avec l'achat d'un Boeing 727. Avec l'ajout d'appareils Boeing 707 et 747 dans les années 1970 et 1980, Wardair est devenu la plus importante compagnie de vols nolisés au Canada, avant d'être vendue à PWA International en 1989, laquelle est ensuite devenue, après quelques fusions et acquisitions, la Canadian Airlines.

Ce 4 novembre à Hawkesbury en Ontario, la légende de l'aviation Vaughn Olmstead – tel que reconnu par ses pairs – a rendu l'âme à l'âge de 89 ans. Il a connu l'une des carrières de pilote les plus remplies de l'histoire de l'aviation canadienne.

Olmstead est réputé pour ses nombreuses contributions à l'industrie aéronautique à travers une vaste carrière dans l'aviation : de sa période pilote de brousse pendant la ruée vers l'uranium jusqu'à son implication en tant que capitaine en chef de compagnie aérienne pendant des décennies. En 1957, il est devenu l'un des premiers membres à contribuer à la croissance de l'Association canadienne des propriétaires et pilotes d'aéronefs (COPA) fondée en 1952, et dont il est resté membre actif jusqu'à son décès.

En 1956, il a commencé à voler pour Mont-Laurier Aviation au Québec (à Roberval au Lac Saint-Jean et à Pointe-Claire dans le Grand Montréal). Il déménagea enfin à Hawkesbury en Ontario. La compagnie Mont-Laurier Aviation est devenue Nordair, qui après de nombreuses années est elle-même devenue membre de Canadian Airlines International Ltée. M. Olmstead a pris sa retraite le 1er janvier 1991 au sortir d'un vol à bord d'un Boeing 767. Parmi les autres appareils qu'il a pilotés, mentionnons les de Havilland Beaver, Canso, DC-3, DC-4, Curtis C-46, Lockheed Super Constellation et DC-8 allongé. Sa famille souligne une certaine prédilection pour le Boeing 737. 

# 99S GOLD CUP AIR RALLY 2020

## 11 PLANES AND 23 PILOTS FACE UNIQUE CHALLENGES IN CROSS-COUNTRY FLIGHT BY ASTI LIVINGSTON

**The 20th year of the Gold Cup Air Rally occurred under the most unusual circumstance. Amidst the COVID-19 pandemic talks about the rally being cancelled were not too far from the truth. Yet, despite the challenges 11 planes and 23 women pilots braved to fly. Aside from the usual aircraft and pilot documents that had to be submitted to qualify, each pilot was required to complete a mandatory COVID-19 screening. All of the aircraft were flown by female aviators.**

This cross-country flight is the Canadian version of the Air Race that occurs in the U.S. However, unlike air races which mostly focus on speed to win, the GCAR challenged the pilots on each leg of the flight with a set of aviation-related trivia questions to answer. A scavenger hunt is often included, though it varies depending on who the organizers are. This year the GCAR 2020 was organized by pilots Susan Begg and Asti Livingston, who represented Canada in last year's Air Race Classic.

This year the GCAR 2020 winners included: Mary Norman and Akky Mansikka (1st Place), Rani Tolton and Laureen Nelson (2nd Place), Janet Chesterfield and Jocelyn Lecluse (3rd Place). Sophie Veilleux won the Best for Spot Landing.

Aside from being familiar with the capabilities of their aircraft, flight teams had to work together as they faced challenges throughout the duration of the air rally. Some of the challenges the pilots had to contend with included managing their aircraft engines/systems, performance, fuel planning, weight and balance



▲ Winners of the 2020 Gold Cup Air Rally, Akky Mansikka and Mary Norman.

(as they have added cargo), weather analysis and planning, navigation, communications, problem-solving and task management.

The ladies enjoyed a BBQ lunch at Gore Bay, then bonded by bonfire at Earlton as they tried to stay warm while camping at subzero temperatures. They made hot breakfasts, had fun doing the scavenger hunt, toured a bison farm, and shared endless stories and laughter as they roasted marshmallows. Fly high ladies!

Flight teams which flew in the GCAR 2020 also included: Suzanne Wiltshire and Lisa Bishop, Jessica Buscher and Cathy Boyko, Marilyn Dickson and Diane Stewart, Kerstin Kelly and Brenda Jolly, Sandrine Gressard and Anita Evans, Bonnie Whaley and Ocean Thomas, Sharron Lutman and Nicole Harris, who celebrated her birthday that weekend with her fellow female flyers. 

# AVIATION SAFETY LETTER SURVEY: TRANSPORT CANADA WANTS TO HEAR FROM YOU

One of COPA's prime directives is to improve our members awareness of safety issues that affect our freedom to fly as GA pilots. COPA will also endeavour to maintain an open dialogue with our regulatory partners at Transport Canada. As such, we encourage ALL COPA members to participate in the TC Aviation Safety Letter (ASL) Survey in the coming weeks so that they get the broadest possible input from our aviation community. Please use the provided web link below to access and complete the ASL Survey before it closes in early March 2021.

TC is looking for your feedback as an ASL reader about whether the content is relevant, useful, and meets safety awareness expectations. Your input is important to them so that they can continue to improve the ASL. All responses are anonymous, and data is aggregated for reporting purposes. The survey will take five minutes to complete: <https://www.surveymonkey.ca/r/9LSQ3ZD>.

For more information or to sign-up to the ASL, please visit: [www.tc.canada.ca/ASL](http://www.tc.canada.ca/ASL). 



## SONDAGE DE SÉCURITÉ AÉRIENNE – NOUVELLES : TRANSPORTS CANADA VEUT VOTRE OPINION

**L'une des principales directives de la COPA est d'améliorer la sensibilisation de nos membres aux problèmes de sécurité qui affectent notre liberté de voler en tant que pilotes AG. La COPA s'efforcera également de maintenir un dialogue ouvert avec nos partenaires de réglementation à Transports Canada. À ce titre, nous encourageons TOUS les membres de la COPA à participer au sondage TC Sécurité aérienne - Nouvelles (SA**

**- N) dans les semaines à venir afin qu'ils obtiennent la plus large contribution possible de notre communauté aéronautique. Veuillez utiliser le lien Web fourni pour accéder au sondage SA-N et le remplir avant sa clôture au début de mars 2021.**

TC aimerait connaître votre opinion en tant que lecteur de SA – N pour savoir si le contenu est pertinent, utile et conforme aux attentes en matière de sensibilisation à la sécu-

rité. Votre avis est important pour eux. Il leur permettra de continuer à améliorer le SA – N.

Toutes les réponses sont anonymes, et les données sont compilées pour fins de rapports. Il faut cinq minutes pour remplir le sondage : <https://www.surveymonkey.ca/r/9LSQ3ZD?lang=fr>.

Pour plus d'informations ou vous inscrire à SA – N, veuillez visiter : [www.tc.canada.ca/SAN](http://www.tc.canada.ca/SAN). 

# INCIDENTS + ACCIDENTS

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

## ONTARIO REGION

**A privately registered Piper PA-32-300** from Toronto/Markham, ON (CNU8) to Kingston, ON (CYGK) reported a near miss with a black, medium sized remotely piloted aircraft system (RPAS), 20 miles to the West Northwest (WNW) of CYGK, just south of Highway 401, at 2000' above sea level (ASL).

**Upon departure, a Piper PA-28-140** (C-FULZ) from Quebec/Neuville (CNV9) to Ottawa/Carp (CYRP) was sighted twice (at 2228Z and 2233Z) in the Class C airspace of the Quebec/Jean Lesage (CYQB) tower, without having received prior authorization.

## PACIFIC REGION

**A Cessna A152 (C-GMAX)** from Pitt Meadows, BC (CYPK) to Pitt Meadows, BC (CYPK) (transponder 2401) entered the Abbotsford, BC (CYXX) control zone from the northwest, at 1200ft, without contacting air traffic control (ATC), and came within 2NM of the airport. A helicopter northwest bound was instructed to descend in order to avoid C-GMAX.

## RÉGION DE L'ONTARIO

**Un Piper PA-32-300, d'immatriculation privée,** de Toronto/Markham (CNU8), ON, à Kingston (CYGK), ON, a signalé un quasi-abordage avec un système d'aéronef télépiloté (SATP) noir, de taille moyenne, à 20 NM à l'ouest-nord-ouest de CYGK, à 2 000 pi au-dessus du niveau de la mer (ASL).

**Au départ, un Piper PA-28-140 (C-FULZ),** exploité par 12084546 Canada Inc., de Québec/Neuville (CNV9), QC, à Ottawa/Carp (CYRP), ON, a été aperçu à deux reprises (à 2228Z et à 2233Z) dans l'espace aérien de classe C de la tour de Québec/Jean-Lesage (CYQB), QC, sans avoir reçu d'autorisation au préalable.

## RÉGION DU PACIFIQUE

**Un Cessna A152 (C-GMAX),** de Pitt Meadows (CYPK), BC, à Pitt Meadows (CYPK), BC, est entré dans la zone de contrôle d'Abbotsford (CYXX), BC, depuis le nord-ouest, à 1 200 pi, sans contacter le contrôle de la circulation aérienne (ATC), et s'est retrouvé à 2 NM de l'aéroport. Un hélicoptère qui volait en direction ouest a reçu l'instruction de descendre pour éviter C-GMAX. 

**Commercial UAV operators go above and beyond. Your insurance should too.**

**Les opérateurs de UAV commerciaux vont au-delà des choses, votre assurance le devrait aussi.**



### Liability Insurance for COPA Members!

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# GIVE HOPE WINGS

## INSIDE THE SAULT TO SAGUENAY EXPEDITION FOR HOPE AIR

The fall colours were at their peak as the flight made its way across Ontario into Quebec. A sightseeing mission with purpose, nine pilots and six aircraft would travel from Burlington through to Sault Ste. Marie before making their way across the province to Trois Rivieres. The goal of the expedition was to reach the Saguenay River, all while promoting a charity called Hope Air and fundraising for its cause. Every year, Give Hope Wings, a volunteer-led fundraiser, organizes an expedition to raise money in support of Hope Air's efforts; providing transport and accommodation for people travelling to medical appointments far from home. The first ever expedition, lead by Dave McElroy, circumnavigated South America and raised \$500,000. The second, circumnavigated Alaska raising \$250,000 and this year's expedition had a \$100,000 goal.

Planning this mission during a global pandemic presented many challenges, particularly in relation to volunteer flight crew members. In the past, supporters of the charity could join a leg of the expedition and take part in a once in a lifetime journey in exchange for a donation. Planning continued with the understanding that the expeditions success would rely heavily on sponsorships and private donations. Taking part in this year's Give Hope Wings expedition were lead organizers Lee Arsenault and Marilyn Staig in their DA-40, Jamie and Karen McCague in their Cessna 182, Ivan Kristensen in his RV-10, Burt and Maria Hodgins in their Lancair, Brian and Kathy Huston in a Cessna 182, Steve Greenwell and John MacPherson in a Baron. Pilot Lise Ash, long-time supporter of Hope Air, was also involved in this year's expedition.

Departing Burlington, the team experienced strong winds and low cloud ceilings, however, it was just enough so that a majority of the aircraft could make it to Lake Huron where the skies opened up. We followed the Manitoulin Islands Northwest of Georgian Bay all the way to Sault Ste. Marie. The next morning, a press conference was held at the airport where local Shawna Atkinson, a patient who used Hope Air's services to reach medical care in Hamilton, shared her experiences and talked about the struggles of funding her frequent travel to get medical treatments. "I would not be here today if it were not for Hope Air," Atkinson says, her words settling on the hearts of the pilots taking part in the expedition.

After waiting out some challenging weather, the flight departed for Sault Ste. Marie and made its way toward the Agawa Canyon — a shallow canyon located along the northeast corner of Lake Superior known for the beautiful river that runs through it. Enjoying the beautiful Canadian wilderness was easy as each aircraft made its way toward the next destination.



▲ One of the expedition's Cessna 182s flies along Lake Huron en route to Sault Ste. Marie via the Manitoulin Islands.

nation, Pembroke. The flight followed the Ottawa River most of the way to its next overnight stay. The next morning, they would depart for Trois Rivieres and have their biggest day of flying yet. With favourable weather and winds, the expedition made its way to Trois Rivieres without any trouble. After an incredible lunch at Trois Rivieres Airport the gaggle of airplanes set off for the Saguenay River. As the aircraft departed, the sun peaked out and shone down on the valley sides along the St. Lawrence River, illuminating the red and orange colours of the maple trees down below. It was an hour-long flight to the river mouth where the Saguenay River national conservation area begins and just before the aircraft dipped their wings left into the river valley beluga whales were spotted down below, showing off their white tails to the pilots above.

The Saguenay River is wide and the hillsides along both sides of the river drop off into the royal blue waters mixed with turquoise splashes of colour. As you continue along the river you reach the Saguenay Fjords National Park, with dramatic cliff drops of 150 to 300 meters and the landscape changing so drastically, it's hard to believe you are still in the Laurentians. Each plane landed back safely at Trois Rivieres and could rest easy knowing they had achieved the goal of the expedition. The five-day mission raised \$122,056, exceeding its original goal, which will allow Hope Air to provide 488 flights for patients in financial need. 

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# BATTLING COMPLEX APPROACH RULES

PILOTS CANNOT JUST 'GO HAVE A LOOK' TO SEE IF THEY CAN FIGURE OUT WHERE THE RUNWAY IS



**O**n February 26, 2018, a Beechcraft King Air A100 was conducting a charter flight under instrument flight rules from the Sept-Îles Airport, Quebec, to the Havre St-Pierre Airport, Quebec (CYGV). On board were two crew-members and six passengers. Prior to takeoff, the weather at CYGV indicated light snow and visibility of 3/4 of a (statute) mile, which, although below the one-mile visibility published on the approach chart, was at the minimum limit permitted for the flight. Updated weather however, obtained as the crew began their descent, indicated that visibility had deteriorated to just 1/4 mile in heavy snow - well below the minimum allowed to conduct the approach.

Although the pilot knew the visibility was below the published minimum, according to his interpretation of Canada's complex approach-ban regulations, he could still conduct the approach. So he descended to the Minimum Descent Altitude and perceived a single visual cue, then decided he could continue the approach safely. But when the aircraft reached the runway, the pilot did not see it. A few seconds later, he saw a small patch of runway, lined up on it, and continued the landing. However, the touchdown point ended up being just 700 feet before the end of the runway and, without enough room to slow down, the aircraft came to a stop in a large snowbank, 220 feet past the end of the runway.

Although there were no serious in-

▲ TSB is making two recommendations as a result of its investigation into the 2018 Havre-Saint-Pierre February runway overrun.

juries, the aircraft suffered substantial damage.

Runway overruns, in one form or other, have been on the TSB's Watchlist of key safety issues since 2010, and the causes and contributing factors of each occurrence vary widely. In this case, the question of "what happened" - an aircraft that landed long in low visibility - was relatively easy to establish. The bigger question - why - is where TSB investigators learned the real safety lesson.

Pilots are trained to be ready with their go/no-go decision once an aircraft reaches the published Minimum

Descent Altitude or Decision Height. If they don't have the required visual reference they conduct a missed approach: climbing to regain altitude and deciding what to do next.

But as we saw in this investigation, that doesn't always happen.

Elsewhere in the world, aerodromes use the visibility that is published on the approach chart as the minimum limit to determine if an approach is authorized. If the reported visibility is lower than what is published, Air Traffic Control (ATC) will not let an aircraft carry out the approach. In Canada, however, the published visibility is not the limit – and so flight crews are allowed to conduct approaches in visibility conditions below what is published.

What's more, the rules that govern landing in Canada are complex – too complex for ATC to be able to identify which aircraft are not permitted to conduct an approach. Accurately determining if an approach is allowed in Canada involves consulting multiple reference documents and considering a variety of factors. These include an aerodrome's operational restrictions, which may feature a specific or general visibility limit; and the type of operation being conducted – including, for instance, commercial, commercial with a particular Operations Specification, or private.

The interpretation of these complex landing minima in Canada can, and sometimes does, lead to confusion, with – as we saw in this occurrence – flight crews concluding that they can conduct an approach, when in reality it is prohibited.

To reduce the chances of this type of accident happening again, there need to be safeguards in place. And right now there aren't enough. In fact, ATC in Canada will clear an aircraft for an approach regardless of the published minima, since the pilot has the sole responsibility for deciding whether to conduct an approach in poor weather.

That's why the TSB issued two recommendations as part of its investigation report (A18Q0030) into the overrun at CYGV. The first of these, Recommendation A20-01, calls for Transport Canada "to review and simplify operating minima for approaches and landings at Canadian aerodromes." The second, A20-02, is for Transport Canada "to introduce a mechanism to stop approaches and landings that are actually banned."

Put another way, the rules have to be simple and clear to everyone. We can't let pilots "go have a look" and see if they can figure out where the runway is. These approaches must be stopped before they even begin. 



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# LUTTER CONTRE LES RÈGLES D'APPROCHE COMPLEXES

**L**e 26 février 2018, un Beechcraft King Air A100 effectuait un vol nolisé selon les règles de vol aux instruments de l'aéroport de Sept-Îles à l'aéroport de Havre-Saint-Pierre au Québec (CYGV). À son bord se trouvaient six passagers et deux membres d'équipage. Avant le décollage, les conditions météorologiques à CYGV indiquaient de la neige légère et une visibilité de 3/4 de mille (terrestre) – ce qui, bien qu'inférieure à la visibilité d'un mille publiée sur la carte d'approche – se situait à la limite

minimale permise pour le vol. Cependant, les conditions météorologiques se sont détériorées au cours du vol, de sorte qu'au moment de la descente de l'appareil la visibilité était rendue à seulement 1/4 de mille, dans des conditions de neige abondante : des conditions cette fois bien en dessous du minimum autorisé pour effectuer l'approche.

Même si le pilote savait que la visibilité était inférieure au minimum prescrit, selon son interprétation des règlements complexes d'interdiction d'approche du Canada, il pouvait tout de même poursuivre son approche. Il est donc descendu à l'altitude minimale de descente, et il a aperçu un seul repère visuel. Il a alors décidé qu'il pouvait continuer son approche en toute sécurité. Mais lorsque l'avion a atteint la piste, le pilote ne l'a pas vue. Quelques secondes plus tard, il a vu un petit tronçon de piste, sur lequel il était aligné. Il a donc poursuivi sa manœuvre d'atterrissage. Cependant, les roues ont touché le sol alors qu'il ne restait que 700 pieds de piste. Sans suffisamment d'espace pour ralentir, l'avion s'est immobilisé dans un grand banc de neige, 220 pieds au-delà de l'extrémité de la piste.

Bien qu'il n'y ait pas eu de blessés graves, l'avion a subi des dommages importants. Les dépassements de piste, sous une forme ou une autre, figurent sur la Liste de surveillance du Bureau de la sécurité des transports (BST) parmi les problèmes de sécurité majeurs depuis 2010. Les causes et facteurs contributifs de chaque événement varient considérablement. Dans le cas qui nous occupe, la ques-



▲ Le BST a fait deux recommandations à l'organisme de réglementation à la suite de le dépassement de piste qui a eu lieu à Havre-St-Pierre.

tion de « savoir ce qui s'est passé » – un avion qui a fini sa course après la fin de la piste – était relativement facile à établir. La grande question qui se demeure toutefois est dans quelle mesure les enquêteurs du BST ont mis le doigt sur le véritable problème de sécurité. Les pilotes sont formés pour être prêts à prendre la décision de poursuivre ou d'interrompre la descente d'un aéronef lorsqu'ils atteignent l'altitude minimale de descente ou la hauteur de décision publiée. S'ils ne voient pas la référence visuelle, ils effectuent alors une approche interrompue, à savoir qu'ils regagnent de l'altitude et ils décident de la marche à suivre. Mais comme nous l'avons vu dans cette enquête, ce n'est pas toujours ce qui se produit.

Ailleurs dans le monde, les aérodromes utilisent la visibilité publiée sur la carte d'approche comme limite minimale pour déterminer si une approche est autorisée. Si la visibilité signalée

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se révèle inférieure à ce qui est publié, le contrôle de la circulation aérienne (ATC) ne laisse pas un aéronef effectuer une approche. Au Canada, cependant, la visibilité publiée n'est pas la limite. Conséquemment, les équipages de conduite sont autorisés à effectuer des approches dans des conditions de visibilité inférieures à ce qui est publié.

De plus, les règles qui régissent l'atterrissement au Canada sont complexes. Trop complexes, en fait, pour que l'ATC puisse déterminer quels aéronefs ne sont pas autorisés à effectuer une approche. Pour déterminer avec précision si une approche est autorisée au Canada, il faut consulter plusieurs documents de référence et tenir compte de divers facteurs tels que les restrictions opérationnelles d'un aérodrome. Ces restrictions peuvent inclure une limite de visibilité précise ou générale, ainsi que le type d'opération en cours : commerciale, commerciale avec spécification d'exploitation particulière ou privée.

## « AU CANADA... LES ÉQUIPAGES DE CONDUITE SONT AUTORISÉS À EFFECTUER DES APPROCHES DANS DES CONDITIONS DE VISIBILITÉ INFÉRIEURES À CE QUI EST PUBLIÉ. »

L'interprétation des limites minimales d'atterrissement complexes au Canada peut prêter à confusion – comme ce fut le cas dans l'événement en cause – et suggérer aux équipages de conduite qu'ils peuvent poursuivre leur approche, alors qu'elle est en réalité interdite.

Pour réduire les risques que ce type d'accident se reproduise, des dispositifs de sécurité doivent être mis en place. Pour l'instant, il n'y en a pas assez.

Dans les faits, l'ATC au Canada autorise un aéronef à effectuer une approche, quels que soient les minimums publiés, puisqu'il incombe au pilote de décider s'il est convenable d'effectuer une approche par mauvais temps.

C'est pourquoi le BST a émis deux recommandations dans son rapport d'enquête (A18Q0030) sur ce dérapage de piste survenu à CYGV. La première recommandation (A20-01) demande à Transports Canada « de revoir et de simplifier les minimums opérationnels pour les approches et les atterrissages dans les aérodromes canadiens ». La deuxième recommandation (A20-02) demande à Transports Canada « d'instaurer un mécanisme pour arrêter les approches et les atterrissages interdits ».

Nous ne pouvons pas laisser les pilotes « jeter un coup d'œil » pour voir où se trouve la piste. Ces approches doivent être arrêtées avant même qu'elles ne commencent. 



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# TOP 10 PILOT TOOLS

**Many pilot's flight bags, aircraft and homes are treasure chests of pilot tools and gadgets. Although piloting an aircraft can be as simple as old school stick and rudder skills, technology advancements have opened a Pandora's box of products, some life-saving, some adding safety and some, well just fun. Here is a look at my Top 10 pilot tools for the year ahead.**

## FOLDING BIKES

A folding lightweight bicycle provides flexibility for off airport excursions. Jupiter Bikes has been designing and manufacturing folding e-bikes since 2016, with models ranging from 20 to 55 lbs and prices starting from US\$395. Built from aluminum or magnesium, its e-bikes are rugged and light weight. Their new model, Discovery X5 weights 40 lbs, has 16-inch tires, a 350 watt motor, 30 mile range, folds to 30 (L) x 15 (W) x 21 inches (H) and costs US\$795. For those who prefer a traditional bike, Montague Corporation has been manufacturing folding bikes since 1987. With 26- or 27.5-inch wheels and a sturdy light weight frame, they provide a similar riding experience to a traditional full-sized bike.

## SURVIVAL KNIVES

Every pilot needs a dependable survival knife in their flight bag or on their person. Flight Outfitter's Pilot Survival knife retails for US\$29.95 and has a small detachable LED light, magnesium fire starter, seatbelt cutter, window breaker hard point and a sharp folding serrated 440 stainless steel blade. The blade is 3.5 inches long with the knife folding down to five inches size, includes a belt clip and sheath. The LED light is powered by four LR621 batteries, which will last up to 20 hours.

## FLASHLIGHTS

Most pilots have at least two flashlights



in their flight bag. Some collect flashlights and stow them in our cars, aircraft and homes for that power outage or night flight. A few dependable, compact and bright flashlights are an integral part of every night preflight and as a back-up to the aircraft's panel lights. Flight Outfitter's Bush Pilot LED Flashlight is built from aircraft grade aluminum and features a rechargeable 2,600 mAh Lithium Ion battery which acts as a power vault suitable for charging your smartphone or tablet. With a Type A USB port, you can use your existing cables. A full charge will deliver between 2.5 and 120 hours of hours of light, depending upon the light intensity.

## EMERGENCY SURVIVAL KIT

Every pilot/owner and renter should have an emergency survival kit to help deal with an off-airport landing while awaiting Search and Rescue. The Combat Survival Tin, contains the minimum items to help in your unplanned camping vacation in the bush. Built to British SAS standards, it is an affordable compact kit which provides the bare essentials and is priced at US\$29.75. For those flying over more remote areas of Canada, the Crashkit Charlie, from Crashkit International meets the minimum Transport Canada requirements. It contains 106 items, including Aquatabs Water Purification, Spark-Lite Flint/Tinder kit, to name a few. It is priced at US\$319.98,

but for COPA members, Crashkit offers COPA members a 10% discount.

## FLIGHT VEST

The military takes the view that aircrew should carry on their person the survival essentials. Some of my pilot friends use fishing vests, equipped with 15 or more pockets. Mark Brooks, an instructor at Toronto's Buttonville Municipal Airport (CYKZ), wears the SCOTTeVEST on every flight, which has 19 pockets. Their jackets have removable sleeves providing a three-season solution. Designed to accommodate electronics, it's perfect for sunglasses, reading glasses, smartphone, tablet, PLB, PLD, survival tin, knife and much more. Prices start at US\$99.

## HEADSET RETROFIT

I still use my David Clark H10-13.4 headset from my training days. It's a pretty basic headset, designed to last. Faro Stealth's Audio Link (a Sporty's exclusive) is a plug and play device which adds Bluetooth to your headset integrating audio from your smartphone and tablet. Priced at US\$139.95, it's an affordable, easy to use device, bringing your headset into the 21st century. Audio Link is powered by two "AA" batteries or a USB-C power vault and has a 3.5 mm audio jack for wired integration from your smartphone or tablet.

## HEADS UP DISPLAY

A neat addition to any cockpit is Dual Electronic's XHUD1000 heads up display (HUD). Priced at US\$499, the XHUD1000 is portable and designed to display essential flight information directly in the pilot's line of sight, while keeping your eyes out of the cockpit. USB powered with a rubber mount, it is easily placed on the glare shield and adjusted to your line of sight. When paired with an ADS-B IN receiver, like Dual's



▲ SCOTTeVEST multi-pocket

XGPS190, the XHUD1000's traffic page will display TIS-B traffic.

## PILOT SHOES

Most pilots use their everyday shoes when in the aircraft. Lift Aviation's pilot shoes are designed specifically for the airport and aircraft environment. They're standard fare for aerobatic pilots, but for the average GA pilot, really changes the way you feel the aircraft rudders. Lift Aviation's shoes are form fitting, with embedded nylon cleats in the heals, designed to provide more tactical feel between your feet and rudders. New for December 2020, their Ultraknit shoe

features a comfortable knit construction and their heel slider technology. Starting at US\$79, they're not only comfortable, affordable, but also look good.

## SMART WATCH

Garmin's D2 Air GPS Smartwatch, released in September 2020, delivers integration into Garmin Pilot and your Garmin stack. The Smartwatch downloads flight plans, METARs and TAFs, giving you access to valuable flight information. With nine sensors, a 42mm screen and a (up to) five day battery, the D2 Air is packed with aviator features, including Garmin's world wide airport, nav aid and intersection databases, HSI, altimeter and SPO2 pulse oximeter. This smartwatch is 43.2 mm (wrist sizes 125 to 190 mm), weights 46.3 g and includes a silicon/leather wristband. Built for pilots, it's ideal in the bright cockpit environment. At US\$499.00 it includes a 1-year warranty.

## MAPS

In 2017, Richard Freilich of METARmaps created innovative and functional aviation art. METARmaps is a two by three foot framed image of an aviation chart, powered by a Raspberry Pi computer. It generates Flight Category colours on LEDs at each airport, through Wi-Fi connectivity to the FAA's weather database. Art turned functional provides the viewer with a big picture of the weather by simply looking at it. The Great Lakes map features almost 230 METAR reporting airports of which 40 are in Ontario and Quebec. METARmaps has a three frame product designed to create a country view. There are three framing styles starting from US\$485. METARmaps is a wonderful addition to your home office or hanger; and an interesting conversation piece for friends and family.

The best addition to any flight bag is good judgement, which is learned over time, experience and is priceless. 

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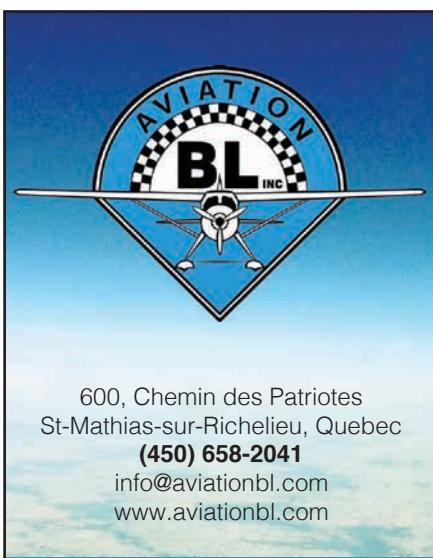
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# LOSS OF CONTROL IN FLIGHT

EXAMINING HOW TO SAFELY  
ADDRESS STALLS AND SPINS

BY PERRY WILSON

**In the first installment of this three-part series on flight control safety, we focused on spirals. Now let's examine stalls and spins.**

Fatal Training Error — An instructor chooses to teach departure and accelerated stalls. A lot of altitude is needed for unexpected spin recovery from power-on stalls with P-factor (singles), asymmetric thrust (twins), maybe more than the instructor allowed. Singles can easily spin/descend 6000' to 10,000'/minute. Twins are unrecoverable from their flat spins due to gyroscopic effect of engines and fuel tanks located outboard from the longitudinal axis.

Tell your instructor you want more altitude in case an inadvertent spin occurs. In February 2017, a LOC-I accident killed a trainee and instructor when they stalled Tecnam twin C-GRDV at 2800' AGL near Springbank, Albt. (CYBW); it spun left and went inverted. From stall to impact was 10 to 15 seconds, descending 11,200' to 14,000'/minute. See

TSB Report A17W0024 and YouTube: "Perry Wilson LOC-I #3."

Moose Turns claim lives with low altitude stalls-spins. A photo-flight of wildlife or a friend's cottage becomes a tight/steep turn at low altitude/slow speed. The higher wing-loading due to the steep turn makes the aircraft exceed its critical Angle Of Attack (AOA). The loss of lift occurs first on the low/slower wing, and the resulting stall-spin is unrecoverable at low altitude. A 75° bank while holding altitude makes wing loading 4G so the wings must provide 4x normal lift, and Vs1 becomes double (e.g. Vs1 is 62, but with 4G wing loading becomes 124kias). Check POH for clean stall speeds at bank angles. I've done a fatal moose turn in a simulator — YouTube: "Perry Wilson LOC-I #4."

Departure Stalls-Spins can happen when doing go-arounds if trim isn't changed from final approach speed to climb speed. The power change from idle to full causes pitch-up and a rapid

▲ The higher wing-loading due to a steep turn makes the aircraft exceed its critical Angle Of Attack.

increase of AOA beyond critical. P-factor can cause a spin. Go-around transitions should be practised at safe altitudes, so that when it's for real, you quickly trim down enough to counteract the excessive nose-up pitch. During all climb-outs, maintain Vdmm (Defined Minimum Manoeuvring Speed)=1.404 x clean stall speed (Vs1) and keep bank angles <30°. If in a spin, the turn indicator shows direction of rotation; ignore the ball; power off, ailerons neutral, rudder full opposite the spin, and hold it until rotation stops; then elevator briskly forward, rudder neutral, gently pull out of dive. Recovery is possible only from adequate altitude. See COPA Flight June/2020 "Go-Around", JC Audet; and YouTube: "Dan Gryder dmms Fatal Loss of Control Plane Crash".

Stalls/Spins During Base-To-Final

Turn typically occur due to tailwind on base leg, pushing aircraft through final. The pilot then tries to get onto final with two steep turns, one to aim for the final course, and another to intercept. Eighty per cent of base-to-final stall-spins are fatal, similar to moose turns — low speed/low altitude manoeuvring in steep, uncoordinated turns. In circuit, keep banks <30°, speed > $V_{dmm}$ , and keep verifying approach is stabilized. If not, climb straight and re-join circuit. Next time you'll turn final earlier.

**IFR Approach with Circle-To-Land:** After doing the instrument approach to minimum descent altitude (MDA), the pilot flies level to the missed approach point (MAP) and goes visual if airport is in sight, manoeuvres around the airport perimeter to get into position for a runway that isn't in line with the final approach course. The pilot must maintain MDA (eg. 500' AGL), keep the airport in sight, not stray more than a certain distance from the airport (eg. 1.5 nm) while avoiding obstacles that emerge from the white-out, and perform non-specified turns to get on short final for the chosen runway. Meanwhile, low clouds continue to disgorge snow, restricting visibility (it's as dangerous as VFR scud-running). With the urgent need to keep track of the airport and the aircraft's position relative to it, there is little time to monitor attitude, airspeed, heading and altitude. Too often it's LOC-I, unrecoverable.

Circling approaches to minima are legal but unsafe. In December 1979, I flew my wife and two of my brothers in a Mooney from CYYZ to CYZE and did the NDB approach to circling minimum (there was no straight-in approach). I didn't see the airport, so I did the miss back to the NDB for another try. I made extra sure that I was accurate on my course and altitude, and saw the airport. The ceiling was right at circling minimum and there was fog that made the circling a challenge. I was acutely aware that our dad was waiting at the airport, and I'd better not lose control. Dad wouldn't approve, especially at Christmas. It worked, but made me a non-fan of circle-to-land approaches.

If weather or surface winds dictate a circle-to-land procedure, I suggest doubling the published minima, or preferably going to an alternate airport. An experienced instructor/charter pilot friend of mine was killed doing an IFR circle-to-land in a jet. Hopefully, RNAV/GNS straight-in approaches to all runways will soon eliminate circling approaches.

## TRAINING TO PREVENT LOC-I ACCIDENTS

1. Pilot Proficiency Check (PPC) each 6 mo. with pilot; switch places for his/her PPC (I'll provide my list of procedures for PPC and sim work; email drperry.wilson@gmail.com).
2. Two simulator sessions per year, half way between PPCs: See YouTube: "Perry Wilson LOC-I #2".
3. IFR pilots: file IFR always, do approach every time — no visuals, especially at night.
4. VFR pilots: practise 180 turns under the hood, using rudder/not ailerons every two months (with full panel, then partial); safety pilot makes you do it until three successes in a row; if night-rated, hand-fly over dark area using instruments mostly, with safety pilot, every two months.
5. All pilots: if you haven't flown in three weeks, do a local practice flight 1-3 days before a trip.
6. Hand-flying in simulated and actual IMC for half your air time, year after year, will make you trust the instruments fully, even when body senses (vestibular/somatogravice, proprioceptive) are giving erroneous information as to which way is up. The ability to completely ignore those innate body senses is life-saving.
7. Study risk reduction: [tinyurl.com/NBAA-FRAT](http://tinyurl.com/NBAA-FRAT); Study LOC-I: [www.gajsc.org/loss-of-control](http://www.gajsc.org/loss-of-control).
8. If you're planning to get your IFR, choose an instructor who has flown in IMC (not all have it!). And ask if your training will be in actual IMC (no icing or T-storms). File IFR always, even for 10-minute flights (I still do, after 50 years of IFR) — keeps you skilled and IFR-ready.



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# HELP COPA AND PAY LESS TAX

BY JONATHAN BEAUCHESNE, COPA DIRECTOR FOR QUEBEC

**The end of 2020 is fast approaching after a very challenging year, needless to say. One aspect that remains the same, however, is the fiscal reality that surrounds us and the needs of COPA, your favorite association.**

Did you know that you can pay less tax by donating to COPA? Better yet, that this donation can be multiplied several times using different donation models approved by tax authorities? These donations can be made personally or through your company, or a combination of the two, depending on your situation. Why not enjoy it?

COPA holds an entity, called the Flight Safety Foundation (COPA-FSF), that is recognized as a charitable organization. This entity contributes, for example, to the General Aviation Safety Program on which COPA is working jointly with Transport Canada.

Your donation to COPA-FSF gives you a personal tax credit of approximately 50%, with minor adjustments depending on your income level and province/territory of residence. If the donation comes from your company, it will be entitled, among other things, to



a deduction in its corporate taxable income — great tax savings. Now what are some examples of optimal tax strategies to use other than donating a cash sum?

### MULTIPLY THE EFFECT OF YOUR DONATION

When you want to give an amount of money, say \$10,000, ask yourself the question: Do I want to give \$10,000 or do I want the donation to cost me \$10,000? You will find that your answer to this question completely changes the perspective of the gift and the strategy

to be used. Let's go beyond the simple monetary donation to see what Canadian taxation allows you to do to support more, and at reasonable cost, COPA-FSF.

### DONATIONS OF SECURITIES WITH UNREALIZED GAIN

If you have an investment portfolio in an unregistered personal account on which you have unrealized gains, you can reduce your taxes in an attractive way. Suppose you bought a financial security for \$10 and it is now worth \$100. You

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donate this amount to COPA-FSF. By doing this, your unrealized gain of \$90 is not taxable for you and allows you to benefit from a personal tax credit of approximately \$50 ( $\$100 \times 50\%$ ) for a security that cost you \$10. For its part, COPA-FSF adds \$100 to its assets for the benefit of members (of which you are a part).

If these investments are held in your company, the tax impacts of your donation to COPA-FSF are just as interesting. Based on the previous example, on the one hand, the gain of \$90 is not taxable for the company and the donation of \$100 is deductible from taxable income, up to 75% of the net income of your company. But there's more: the tax-exempt capital gain is added to your corporation's capital dividend account, meaning \$90 can now be paid to you personally, tax-free, from cash on hand or otherwise company assets. This is definitely a very interesting corporate donation tax strategy.

### GIFT OF LIFE INSURANCE

Life insurance is, for many, a mystery. However, this type of often unrecognized financial product offers significant financial and fiscal leverage for people wishing to achieve philanthropic goals. Let's focus on the most common strategies you can use to benefit COPA-FSF.

The first and simplest strategy is to purchase a new permanent life insurance policy and designate COPA-FSF

as the beneficiary of the death benefit. Upon death, COPA-FSF will collect the benefit and the estate will obtain a receipt equivalent to the death benefit, which, in the vast majority of cases, will significantly exceed the cumulative premiums paid by the owner. Consider, for example, a 60-year-old, non-smoking male with \$1,000,000 in permanent life insurance payable in 10 annual premiums of \$50,518. Assuming death at age 85, COPA-FSF will collect \$1,000,000 in death benefit and issue a charitable donation receipt to the estate, which will entitle them to a tax credit of approximately \$500,000. Even taking into account the time factor between paying premiums and collecting the death benefit, the net cost of giving is very low.

The second strategy is to purchase a new permanent life insurance policy and appoint COPA-FSF as the owner. Each year, the premiums provided for in the contract will be paid by the donor and will give the right to a tax credit equivalent to the annual premium. However, upon death, the death benefit collected by COPA-FSF will not be eligible for a charitable donation receipt. Unlike the first strategy, it will not be possible to change organizations along the way since the contract does not belong to you. Using the data from the example of the first strategy, the donor will be entitled, in this case, to an annual personal tax credit on the payment of his premium, in other words a tax saving

of approximately \$25,000 per year for 10 years; and COPA-FSF will receive the same benefit of \$1,000,000 upon the death of the donor. The choice of one of these strategies will depend, among other things, on the tax burden expected upon death. In short, you need to be sure to have enough taxes to pay when the charitable donation receipt is issued when deciding which strategy to use.

The third strategy is to donate existing life insurance to COPA-FSF. In this case, a charitable donation receipt equivalent to the fair-market value of the contract will be issued. There will also be a deemed disposition of your life insurance policy, which may result in tax impacts depending on the tax characteristics of your contract at the time of transfer, generally offset in whole or in part by the donation tax credit.

### CHARITY

If you continue to pay premiums after the transfer, you will be entitled to a charitable donation credit equal to your premiums, similar to the second strategy. Note that if you have permanent life insurance that you have been paying for a long time, and for which you are wondering whether it is still appropriate to pay it because your situation has changed, consider contacting COPA. Depending on the case, the association may be able to pay the remaining premiums in exchange for the capital provided on your death. 



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# AIDEZ COPA ET PAYEZ MOINS D'IMPÔTS !

PAR JONATHAN BEAUCHESNE, DIRECTEUR COPA POUR LE QUÉBEC



**La fin d'année 2020 approche à grands pas et celle-ci aura été différente, il va sans dire. Un aspect qui demeure cependant le même est la réalité fiscale qui nous entoure et les besoins de COPA, votre association préférée.**

Saviez-vous que vous pouvez payer moins d'impôts en donnant à COPA ? Mieux encore, que ce don peut être multiplié plusieurs fois en utilisant différents modèles de donation approuvés par les autorités fiscales ? Ces dons peuvent être effectués à titre personnel ou par l'entremise de votre société, ou une combinaison des deux, selon votre situation. Pourquoi ne pas en profiter ?

COPA dispose d'une entité qui est reconnue comme un organisme de bienfaisance, soit la Flight Safety Foundation (COPA-FSF). Cette entité contribue, par exemple, au Programme de sécurité de l'aviation générale sur lequel COPA travaille conjointement avec Transports Canada.

Votre don à COPA-FSF vous offre un crédit d'impôt personnel d'environ 50 %, avec ajustements mineurs selon votre niveau de revenu et votre province/territoire de résidence. Si le don

provient de votre société, celle-ci aura droit, entre autres, à une déduction dans son revenu imposable corporatif. De belles économies d'impôts !

Maintenant, quels sont les exemples de stratégies fiscales optimales à utiliser autres que le don d'une somme monétaire ?

### MULTIPLIEZ L'EFFET DE VOTRE DON

Lorsque vous souhaitez donner un montant d'argent, supposons 10 000 \$, posez-vous la question : voulez-vous donner 10 000 \$ ou voulez-vous que le don vous coûte 10 000 \$ ? Vous constatez que votre réponse à cette question change complètement la perspective du don et de la stratégie à utiliser. Allons plus loin que le simple don monétaire pour voir ce que la fiscalité canadienne vous permet de faire pour supporter davantage, et à coût raisonnable, COPA-FSF.

### DONS DE TITRES À GAIN LATENT

Si vous disposez d'un portefeuille de placements dans un compte person-

nel non enregistré sur lequel vous avez des gains latents, vous pouvez réduire vos impôts de façon intéressante. Supposons que vous avez acheté un titre financier à 10 \$ et que celui-ci vaut désormais 100 \$. Vous faites don de ce titre à COPA-FSF. Ce faisant, votre gain latent de 90 \$ n'est pas imposable pour vous et vous permet de bénéficier d'un crédit d'impôt personnel d'environ 50 \$ (100 \$ x 50 %) pour un titre qui vous a couté 10 \$. De son côté, COPA-FSF ajoute 100 \$ à ses actifs au bénéfice des membres (dont vous faites partie). Intéressant, non ?

Si ces investissements sont détenus dans votre société, les impacts fiscaux de votre don à COPA-FSF sont tout aussi intéressants. Basé sur l'exemple précédent, d'une part, le gain de 90 \$ n'est pas imposable pour la société et le don de 100 \$ est déductible du revenu imposable, jusqu'à concurrence de 75 % du revenu net de votre société. Mais il y a plus : le gain en capital exempté d'impôt s'ajoute au compte de dividendes en capital de votre société, ce qui veut dire que 90 \$ peuvent vous être désormais versés personnellement sans impôts à partir de

l'encaisse ou autre actif de la société. Il s'agit assurément d'une stratégie fiscale de don corporatif très intéressante !

## DON D'ASSURANCE-VIE

L'assurance-vie constitue, pour plusieurs, un mystère. Pourtant, ce type de produit financier souvent méconnu offre un levier financier et fiscal important pour les personnes désirant réaliser des objectifs philanthropiques. Concentrons-nous sur les stratégies les plus communes que vous pouvez utiliser au bénéfice de COPA-FSF.

La première stratégie, qui est la plus simple, consiste à souscrire à une nouvelle police d'assurance-vie permanente et de désigner COPA-FSF à titre de bénéficiaire du capital-décès. Lors du décès, COPA-FSF encaissera la prestation et la succession obtiendra un reçu équivalent au capital-décès qui, dans la grande majorité des cas, excédera de façon importante les primes cumulatives payées par le titulaire. Supposons, par exemple, un homme non-fumeur de 60 ans souscrivant à une assurance-vie permanente de 1 000 000 \$ payable en 10 primes annuelles de 50 518 \$. En supposant un décès à 85 ans, COPA-FSF encaissera 1 000 000 \$ de capital-décès et émettra un reçu pour don de bienfaisance à la succession, ce qui lui donnera droit à un crédit d'impôt d'environ 500 000 \$. Même en tenant compte du facteur temps entre le paiement des primes et l'encaissement du capital-décès, le coût net du don se révèle très faible.

La deuxième stratégie est de souscrire à une nouvelle police d'assurance-vie permanente et de nommer COPA-FSF comme titulaire. Chaque année, les primes prévues au contrat seront payées par le donneur et donneront droit à un crédit d'impôt équivalent à la prime annuelle. Cependant, lors du décès, la prestation de décès encaissée par COPA-FSF ne donnera pas droit à un reçu de don de bienfaisance. Contrairement à la première stratégie, il ne sera pas possible de changer d'organisme en cours de route puisque le contrat ne vous ap-

partient pas. En reprenant les données de l'exemple de la première stratégie, le donneur aura droit, dans ce cas-ci, à un crédit d'impôt personnel annuel sur le paiement de sa prime, soit une économie d'impôts d'environ 25 000 \$ par année pendant 10 ans et COPA-FSF bénéficiera de la même prestation de 1 000 000 \$ au décès du donneur. Le choix d'une de ces stratégies dépendra entre autres de la charge d'impôts prévue au décès. En résumé, il faut être certain d'avoir suffisamment d'impôts à payer au moment où le reçu de don de bienfaisance sera émis lors du choix de la stratégie à privilégier.

La troisième stratégie consiste à faire don d'une assurance-vie existante à COPA-FSF. Dans ce cas, un reçu de don de bienfaisance équivalent à la juste valeur marchande du contrat sera émis. Il y aura également une disposition réputée de votre police d'assurance-vie, pouvant entraîner des impacts fiscaux en fonction des caractéristiques fiscales de votre contrat au moment du transfert, généralement compensés en tout ou en partie par le crédit d'impôt pour don de bienfaisance. Si vous continuez de payer des primes après le transfert, vous aurez droit à un crédit pour don de bienfaisance équivalent à vos primes, comme pour la deuxième stratégie. À noter que si vous avez une assurance-vie permanente que vous payez depuis longtemps et pour laquelle vous vous demandez s'il est toujours pertinent de la payer parce que votre situation a changé, songez à

contacter COPA. Selon le cas, l'association pourra peut-être prendre les primes restantes à sa charge en échange du capital prévu à votre décès.

## MISES EN GARDE

Il est à noter que des stratégies de dons fiscalement non efficaces pour vous sont à éviter. La première comprend le don d'actions accréditives. Plusieurs promoteurs financiers font de la prospection depuis plusieurs années avec ce type de produits. Bien que ces stratégies soient fiscalement permises, elles n'offrent pas les avantages fiscaux supplémentaires présentés. Les montants indiqués permettent de réduire apparemment le coût de votre don combinant souvent faussement des avantages fiscaux dont vous auriez bénéficiés de toute façon sans faire le don. Vous n'y gagnez à peu près rien.

La seconde stratégie inclut votre succession. En résumé, il faut idéalement s'assurer que le don soit effectué dans les trois premières années suivant votre décès pour conserver le maximum de flexibilité fiscale. Bien que ce délai soit suffisant pour la plupart des successions, cette réalité est parfois différente pour les patrimoines plus complexes.

Comme vous le voyez, vous pouvez donner immédiatement et/ou à votre décès à COPA tout en réduisant vos impôts à payer. L'association dispose de tous les outils en place pour vous aider à compléter votre don facilement. Contactez COPA rapidement pour finaliser votre fiscalité de fin d'année. 



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# Building a GRAND CHAMPION CLASSIC AIRCRAFT

RESTORATING AND FLYING MY 1946 TAYLORCRAFT BC12D

BY SCOTT MCFADDEN

**C**anadian owners, pilots and restorers are always well represented at EAA AirVenture, arguably the world's most significant annual aviation event.

The year 2019 in particular was a banner year with Canadians winning awards in several categories. Congratulations to Buck Koral of High River Alta., Dan Garyfalakis of Mono, Ont., Ron Bekkers of Oakville, Ont., and Paul Wild of Sault St. Marie, Ont., for their hard earned achievements.

I was surprised — deer-in-the-headlights stunned, actually — to receive a Gold Lindy Grand Champion Classic Aircraft for my 1946 Taylorcraft BC12D. My restoration philosophy for the airplane was "in the spirit of original," but I had no plans to show CF-CLR until after its first visit to Oshkosh in 2018. It is impossible to adequately summarize this odyssey of restoration project that started in 1989, so with the benefit of 14 months of frequently asked questions, I thought I'd tell a story that weaves in the answers.

I purchased CF-CLR (then CF-DEP) over the phone sight unseen in 1985. The aircraft was not airworthy and the wings had been removed for storage in the seller's basement. I trailered it home (then St. Lazare, Quebec) and although purchased as a project, realized it was actually in reasonable shape. I replaced the windshield, checked conformance on ADs, etc., did a few fabric repairs, put on



▲ McFadden started restoring CF-CLR (then CF-DEP) in 1989, but would restart in 1997 and again in 2013.

new tires and flew it on wheels and skis until 1989 (about 150 hours). I had too much fun (without parting with a lot of money), but, knowing what I know now, I'm glad I stopped flying it in 1989! I started the restoration that year, but career changes, a sailing adventure, kids and moves back and forth across the country, meant the airplane remained in boxes. In 1997, the bare fuselage frame was sitting in our garage so my young family walked past it every day.

One day, my four-year-old daughter Niki asked me what it was. I said, "It's an airplane" and dug out some old photos (of which we have very few) to prove it.

Next thing I knew she was in the garage, rag in hand, cleaning the dust off the frame with words to the effect "Daddy, we need to make it fly again." I like to think that was the official start of the restoration, possibly because it created an obligation I couldn't ignore, but it was another 17 years before I continued the restoration in earnest.

Fall 2013 with daughters Niki away at university and Jessie about to follow, I started working on CF-CLR on a daily

basis. I worked on the project every day, some days longer than others. My original goal was July 2016 (ha!), but eventually concluded it would be finished when there was nothing left to do — and not a day later!

On July 19, 2018, I picked up the C of A from Transport Canada, flew it for the first time since 1989 on Friday (a day later), did a few circuits, adjustments, and a very short cross-country over the weekend, and Monday morning loaded up the sleeping bag and headed for Oshkosh. CF-CLR was well received and I was inspired to spend another (less intensive) year making refinements before returning to AirVenture 2019.

From 2014, I kept a blog of my progress and one day received a call from Glen Mast in the U.S. He had purchased the airplane, then N96586, in Denver Co in 1966 for \$350. His brother John Mast imported it to Red Lake, Ont., as CF-DEP in 1973. It was fun to learn more about the history of the aircraft and so my wife, Claire, and I did some more sleuthing. We were able to create a chronology of ownership (including a copy of the original Bill of Sale), and events from its first flight June 26, 1946, in the hands of test pilot Bill Ward. After leaving the factory in Ohio; Texas, Oklahoma, Kansas, Colorado, Red Lake, Amos, Quebec, Green Bank, Markham, Montreal and now Thunder Bay have all been home bases.

The most challenging parts of the restoration were: a) motivation (often you work your butt off for weeks, months even, and cannot see progress), b) lack of parts availability, and c) the sparsely populated technical manuals and drawings (if available). Parts on the used market are just that, used, so the only alternative is fabrication, usually involving making tooling first.

In the 1980s in Montreal, I had the good fortune to work with a gentleman by the name of Angelo Perin, an extraordinarily talented individual. I paid attention and learned a whole lot about sheet metal work — and life. Angelo once told me, “It’s okay to dump a rivet... it’s not okay to leave it [dumped].” People comment on my skills and my answer is always the

same: I just keep doing things over and over again until I get an acceptable result! (It took seven attempts to make the bungee covers, for example.)

This strategy means it took an awful long time, but I fabricated from scratch: wing spars, aileron spars, cabin and fuselage stringers, the upper and lower cowlings, carb air intake, exhaust heat shroud, all engine baffles, belly panel and bungee covers, lower boot cowl, gear and wing root fairings, window sliders, right door skin, hat shelf, windshield door post trims, outboard aileron coves, half a dozen wing forward ribs, radio/transponder box, and map box doors. In addition, extensive repairs to the nose bowl, wheel pants (no bondo), carb air box and more. Oh — and the headliner, installed, pinned, trimmed, stitched, removed, repeat four times to get it right.

Making the forms for the components was sometimes most of the work. Trimming and fitting took a lot of time and is a high consequence activity. One slip and a week or month of work can be toast. In 2014, I made an apple press. It makes good cider, but mostly it was used to make Taylorcraft parts.

My daughter Jessie helped to rib stitch the wings and Nigel Jackson of Avtech in Thunder Bay did a fantastic job on the wool/leather seats and door cards. Great help from Hualdo Mendosa on the phone from Polyfiber and thanks to Matt Bunn for doing the dual inspection on the controls. The rest of the work, I did myself, with moral support and patience from friends and family. My friend and former airport colleague Bill Britt was a frequent project visitor. I once met him at a retirement celebration and he quipped “Good to see you out of the hangar!” The dangers of becoming a hangar hermit were real.

I should note that even with my sweat equity accounting for most of the labour, over 40 local businesses, another half dozen Canadian and about 20 U.S. entities derived direct economic benefit from CF-CLR’s restoration — GA economics in action!

The airplane itself is just a lot of fun to fly. One unseen upgrade was to replace



▲ Scott and Jessie McFadden rib stitching wings of the eventual Gold Lindy-winning Taylorcraft.

the original control cable pulleys with ball bearing versions. A peculiarity of the BC12D is that, because of the design of the control system, elevator and aileron cable tensions change depending on the position of the controls. So cable tensions are set at about 5lbs at the “slack spots”. Anyway, the new cables, pulleys and rigging resulted in controls that are light and smooth. Like many aircraft of the era, you need to be on your toes, you can fly hands off but not feet off.

The 65HP Continental of course has no electrical system so starting involves the armstrong method. By the book, cruise power is set by adjusting RPM to 2,150. On a typical summer day, this results in true airspeed of 90MPH and 4.2GPH (I resurrected the Stromberg carb mixture control), a little over 4 hours endurance.

Taylor used a NACA 23012 airfoil, a semi-symmetrical airfoil. This, plus tight cowlings and cabin means the Taylorcraft is a little faster compared with others in its class. A relatively low stall speed was maintained by a relatively large wing area. Stall is under 40MPH and I find the biggest challenge is getting the aircraft to stop flying! No flaps, so side slipping is a must especially when you’ve tried to “keep the speed up” in our Class D airspace at CYQT. Over the fence with the power off under 55 and round out to three points. Then I often need to speed up again to exit. The only way to do this is lift the tail otherwise you’re airborne again. When conditions are less than ideal, wheel landings are preferable. In any case much more fun on grass! ☺

## GIVE HOPE WINGS RENDEZVOUS AT KAWARTHA LAKES/LINDSAY AIRPORT

RAISING MORE THAN \$121,000 TO SUPPORT 485 FLIGHTS FOR THOSE IN NEED

Lee Arsenault and Marilyn Staig were the primary organizers of the recent Hope Air fundraiser, Give Hope Wings, Sault to Saguenay Expedition. In their Diamond DA40, they recently got together in Lindsay, Ont., with the enthusiastic and supporting team of Baxter Crann and fellow pilot Don Hancock in Crann's Piper Cherokee 180. The original 5-day Sault to Saguenay expedition, from Sept. 30 to Oct. 4, encountered challenging weather, forcing a few pilots to remain on the ground for the majority of the flight.

Arsenault and Crann agreed to rendezvous in Lindsay on Oct. 15 to continue some of the Give Hope Wings flying for this great cause and to acknowledge their many generous donors (See page 10 for more on the 2020 Give Hope Wings program). The original fundraising venture was very successful generating more than \$121,000 in donations, which will now provide 485 flights for patients across Canada in financial need, who must travel far from home to receive specialized medical care. 



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## LE PLUS GRAND RASSEMBLEMENT DE MONTGOLFIERES AU CANADA, UNE BELLE HISTOIRE

PAR NORMAND PRENOVEAU | PHOTOS JEAN-PIERRE BONIN

**Chaque été, pendant neuf jours vers le milieu du mois d'août, l'aéroport de Saint-sur-Richelieu est envahi par plus de 100 montgolfières de l'International de montgolfières de Saint-Jean-sur-Richelieu. Lauréat d'Or des Grands Prix du tourisme québécois en 2010, le Festival est devenu le plus grand rassemblement de montgolfières au Canada. Les 1 000 000 pieds carrés d'aire d'activité pour toute la famille attirent, bon an mal an, près de 500,000 personnes sur l'aéroport. C'est un rendez-vous incontournable pour les amateurs de ballons et de concerts de grande envergure.**

Tout a commencé avec Bob Burch et Dave McLeod, deux amateurs de montgolfières résidant à Montréal, qui ont eu l'idée de proposer un festival de montgolfières dans le but de promouvoir le tourisme à Saint-Jean-sur-Richelieu. Le micro-climat de Saint-Jean rendait la région exceptionnelle pour la pratique de ce sport. La première édition du « Festival de montgolfières du Haut-Richelieu » fut une réussite. Pendant les quatre jours du 20 au 26 août 1984, 60 000 visiteurs ont pu admirer l'envolée de 20 montgolfières.

L'année suivante, le festival se dote d'une structure permanente pour assurer sa pérennité. Et 1987, le conseil municipal de Saint-Jean-sur-Richelieu se proclame alors officiellement la ville « Capitale des montgolfières ». Une compétition internationale présentée pour la première fois au Canada en 1991 et regroupant les 100 meilleurs aérostiers du monde provenant de 30 pays.

En 1992, l'événement change de nom et devient le Festival de montgolfières de Saint-Jean-sur-Richelieu et adopte une orientation familiale. Une nouvelle équipe prend la barre et commence à présenter des grands spectacles sur une scène principale tous les soirs.

En 1998 naît Piko, le premier ballon emblème du Festival, le ballon ailé bleu au large sourire, une image réalisée par l'affichiste de renommée internationale Vittorio. Ce ballon deviendra l'image de marque du Festival partout au monde.

La notoriété du festival sur la scène internationale se consolide fortement. Pour mieux marquer sa dimension internationale, le Festival change de nom et adopte l'appellation d'International de montgolfières de Saint-Jean-sur-Richelieu.

En 2009, l'événement allait connaître sa meilleure édition depuis sa création, accueillant une foule record de près de 400 000 festivaliers. Autre marque record : le beau temps qui permet aux 115 montgolfières de s'envoler à 13 reprises, dont 9 envolées consécutives. Cette année-là, le public découvre aussi pour la première fois « Planète Ballon », le plus grand parc thématique de structures et de jeux gonflés



au monde, d'une superficie de plus de 500 000 pieds carrés, ainsi qu'un tout nouveau centre d'interprétation de la montgolfière interactif et animé.

En 2012, pour la 29e édition de l'International de montgolfières, le nouveau spectacle Les Soleils de Nuit a littéralement ébloui les visiteurs! La performance alliant des éléments de feu, de danse, de musique et de pyrotechnie a permis aux festivaliers de vivre une expérience immersive spectaculaire où la montgolfière et le désir de l'homme de voler étaient à l'honneur.

### LE SOLEIL DE NUIT

Après 30 ans de vie et de plaisir, en 2013 l'International de montgolfières dévoilait une programmation flamboyante à l'image de ce qu'est devenu l'évènement. Des artistes tels que Charles Aznavour, Éric Lapointe, Marjo, Les Cowboys Fringants, Owl City, Taio Cruz, Stéphane Rousseau et Roger Hodgson, membre fondateur de Supertramp, embrasèrent la Scène Loto-Québec. C'est sous un ciel coloré de 125 montgolfières que des centaines de milliers de visiteurs foulèrent le site de l'International et purent admirer le tout nouveau spectacle Les Nuits Magiques, une expérience Banque Laurentienne.

### NUIT MAGIQUE

Depuis le Festival n'a cessé de s'améliorer. Par exemple en 2019, on y a ajouté en autre une tyrolienne de 400' qui survole le site. Et l'été dernier, le festival comptait accueillir un artiste d'envergure : Brian Adams. Malheureusement la COVID a tout gâché et la saison 2020 a dû être annulée.

Le Festival des montgolfières est le 5ième festival en importance au Québec même si ça n'a pas lieu dans une des deux grandes villes que sont Montréal et Québec.

# REGIONS PRAIRIES + THE NORTH

## TILROE FLYS OUT TO WELCOME NEW COPA DIRECTORS AND VISIT LOCAL CLUBS

TEXT AND PHOTOS PROVIDED BY HENRY VOS AND KEN ZACHKEWICH

COPA elected two new directors in Alberta and the Northwest Territories in 2020 elections. Past director Bram Tilroe made a point of flying out to visit the new directors and delivering his collection of COPA materials and displays to the new directors for their use. Tilroe served several terms with COPA and was a great technical advisor having formerly served with Transport Canada, NAV CANADA and WARD Aviation; now with Aviation Alberta Council.

Tilroe visited with Don Wieben, COPA Flight #174, and head instigator of the [SaveTheCanso.com](http://SaveTheCanso.com) project and a member of FARS (Fairview Aircraft Restoration Society). This was part of his trip to Fairview (CEB5), after providing insights and thoughts on COPA with new director Henry Vos. This Canadian-built airplane has a long Canadian history and was rescued from the edge of Sitigie Lake near Inuvik, hauled to Fairview, Albt., and, over a period of eight years, restored to airworthy condition. The objective of the group is to hold it as a flying museum of Canadian Aviation history.

Tilroe had previously made a trip to visit with new director Ken Zachkewich. In addition to briefing Zachkewich and giving him some materials, Tilroe also spoke at the Lac La Biche Flying Club. He discussed his past term as a Director and the Western Vice Chair for COPA. He also presented Zachkewich with a Director's Award for his efforts and the local Club's work in putting on Canada's largest winter fly-in on the frozen surface of Lac La Biche during the last weekend of February 2020. 



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## BUILDING BY THE BAY OF FUNDY AT KINGS AERODROME, CHL2 HILATON

PHOTOS BY JEREMY DANN

Ron Testroete is captured flying his Enstrom 280c through the gate into Freedom Aviation at YZX, CFB Greenwood, in Nova Scotia. KingsAero Tech at CHL2 Hilaton had just completed a major overhaul on the airframe and interior of the helicopter.

In addition to the Enstrom, Testroete, who has been flying for about a decade, also owns a Grumman Tiger and a Challenger Ultralight. He is currently working on his IFR rating.

Testroete is President of the Kings Aerodrome, CHL2, which he founded and began building about four years ago, continuing as its largest stakeholder. Overlooking the Bay of Fundy and minutes from Cape Split, Kings Aerodrome is an ideal location for breathtaking flights. It is member owned and operated, serving pilots, housing aircraft hangars and maintenance facilities — KingsAero Tech, led by AME and partner Karl Deter.

CHL2 is also home to the Kings Aviation Society, a not-for-profit organization focusing on advancing activity at the aerodrome to benefit general aviation in eastern Kings County. The KingsAero Tech facility specializes in light aircraft maintenance and repair. 



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FEATURED LISTINGS FOR DECEMBER 2020



**2007 CTSW FLIGHT DESIGN** One owner, fully loaded with: Dynon panel (EFIS-D100, EFIS-D120), GPS (AvMap EXP-1V), BRS parachute, xpdr (Garmin GTX 327), radio (Garmin SL40), autopilot, ZAON portable collision avoidance system, 3-axes adjustable trim, Rotax 912 ULS, 818 TT, engine soft-start module, Tundra tires, inflight adjustable prop. Complete set of Bruce's custom covers, 2 headsets. Annual completed September 2020 at Rotax Aircraft Engines Vernon. \$98,000. Email: gramlays@gmail.com.



**1999 A36 BONANZA** 2425 TT, 500 SMOH by Powermaster, Tornado Alley TN system, A/C, 20G Tips, TKS de-ice, built-in oxygen, useful load 1210 lbs. Always hangered, NDH. Complete logs. KFC 225 AP w/alt pre-select, G530W, GTX 345 xpdr, ADS-B in/out, GMA 345 audio, Flightstream 210, JPI 730/FF, B & C, HSI, dual G/S, 497 Skywatch TCAS, WX 500 Stormscope, 2 gear up warning systems, GDL 69 weather, 406 ELT, Tanis pre-heat. \$360,000US Contact: 604-377-0901.



**2010 BUSHCADDY R80** On Full Lotus 1650 amphibious floats. Rotax 912 ULS. 425 TTSN. Taildragger wheels, mounts and brakes included. \$65,000. Contact: 613-281-0134 or jrenaud@eddyfi.com.



**1978 CESSNA 414A,** 6192TT, 10/990 Since RAM1V (325HP), Garmin GTN750 WAAS GPS, ADS-B Out! RAM Winglet! Known Ice! 2047# Useful Load! \$320,000 USD. Contact Apex Aircraft, [www.apexaircraft.com](http://www.apexaircraft.com) or (905) 477-7900.



**PIPER PA-18** 160 HP Super Cub A/C TT 65 hrs new airframe, fabric, engine overhauled, Borer prop, Vortex generator. One long range tank. New extended fuselage \$119,500 USD. Contact Walter Di Genova 450-512-7273.



**1967 CESSNA 172** H O-300 Continental 451 SMOH, 2598 TTSN. PMA audio panel, Garmin GNC 250, ADF. Narco AT 150 xpdr. New tires and tubes, new SCS interior 2018. \$69,000. 250-492-0810 or maranda.rdv@gmail.com.



**2008 MOONEY ACCLAIM,** 1069 TTAE, TKS (FIKI), 102 USG, Speed Brakes, G1000 WAAS w/SVT, Traffic, GFC700 AP/FD, GTX345 Transponder ADS-B Out! \$ 435,000 USD. Contact Apex Aircraft, [www.apexaircraft.com](http://www.apexaircraft.com) or (905) 477-7900.



**1973 CESSNA 150** 54 SMOH completed 2019, 5390 TTSN. New mags, harness, starter, hoses, throttle, carb heat, cables. Strobes, Horton STOL, new xpdr mode C. NDH. Always hangered. Fresh annual June. \$44,900 obo. Port Perry. [stritsa@gmail.com](mailto:stritsa@gmail.com) 905-429-1029.



**1975 PA-28-151 PIPER WARRIOR FOR SALE.** C-GYGS. 3030 TT, 20 SMOH. Extensive annual completed Mar/2020. \$89,000 CAD. Call Ken Smith 604-991-4300.

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2003 SR22, 1750 TTAE, Dual G430's, STEC 55X, Stormscope, Skywatch! .....	\$220,000 USD	1977 Bonanza A36, 2919TT, 88SMOH, Garmin G5, LRF(104USG), Club/Desk! .....	\$199,900 USD
2002 DA20 C, 352GTT, '0' SMOH, FreshAnnual! .....	\$200,000 USD	1974 Navajo Panther, 8360TT/5752SM, GTN750/650, STEC8/P, ADSB .....	\$275,000 USD
1998 Commander 114B, 1626 TTSN/1200 SMOH Garmin 530/430/KFC200 IFC! .....	\$200,000 USD	1974 172M, 157TT, 733sinceThielertConv/DieselEngine! .....	\$100,000 USD
1996 Diamond DA 20-A1 100HP Mod! Recent Annual! 426 TT, 845 SM, .....	\$45,000 USD	1973 C150L, 20583TTSN/2484SMOH Trainer/Well Maintained/Partial Repaint! .....	\$25,000 CAD
1981 C206 Amph, 1468TT, 145SNEW Engine! G430W, 3730's, Exc P&I! .....	CALL	1972 C421B, 7095TT, LowEngineTimes, OProps, G530WAAS/P8/2004! .....	\$159,000 USD
1981 Cessna 414A, 4925TT, 1204 SM, RAMVII, Garmin 530/430! .....	\$399,000 USD	1971 Beech Sierra, 2627TT, 12SM, 3BL Prop, GNS430, Strikefinder! .....	\$49,900 USD
1981 Duke B60, 4507TT, 1092 L8R, G530W, KFC-250 IFCS, Winglets! .....	\$218,000 USD	1968 Nanchang CJ-6A, Feature Many Spares/Tools! .....	\$74,500 USD
1981 Mooney 201, 2655 TTSN/1300 SMOH New Hartzell 3Blade Prop! Tanish! Leather!, .....	\$77,000 USD	1968 C185 Amph, 1696TT, 637SM, G500/GTN750/GTS800Traffic, Whip3730's! .....	CALL!
1980 Cessna 185F Amphib/3730Whipline, 1433TTAE, Horton&ARTExtensions! .....	\$199,500 USD	1946 J3 CUB, w/PAII STC's, 5450TT, 550SMOH, .....	\$53,000 CAD
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**1977 MAULE M5-235C TTAF 2005.** Restored 2008. Lyco O-540, TTSN 2005 TSMOH 997. 3-blade McCauley TSMOH 101.7, 66 USG fuel, VGs, JPI 700 engine monitor, STEC 30 autopilot, 4-place intercom, Based CST3 St-Lazare \$122,000 CDN Contact: georges\_bertrand@hotmail.com or 438-368-9442.



**1994 DIAMOND HK36R Super Dimona C-GBPA Serial #36.339 Powered glider.** Reliable Rotax engine 912-A2 80 HP (2009). 244 SMOH. Electric variable prop (2017). 28.9 SOH, LR tank (80 ltrs), Glider 28:1. Regularly flown. All ADs completed and up-to-date. Always hangared. Like new. Annual due May 8. 2020. Long equipment list. 9.7/10 in and out. To be seen. Only \$136,000 CDN. Contact: Guy Lapierre 418-655-8864, lapierre.guy@videotron.ca or Simon Paquet, info@simonpaquet.ca or 418-208-8596.



**BRAND NEW HIGHLANDER XL** If you like this photo you will love the new larger Highlander currently under construction. The paint design is like the photo but the Lycoming engine has 160 HP w/dual electronic ignition, ADS-B Out and partial glass panel. This plane loves small runways. Priced in the \$200,000 CDN range. John at jbrewer@eastlink.ca or 902-626-5262.



**1980 PEZETEL M18 DROMADER TT 982, 1st run engine. Annual Nov 2018. Pezetel prop TTSO 0 April 2018. Based in St Thomas ON \$60,000 USD Ph: BC 250-738-0056.**



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**1946 CHAMP** 65hp, no electrics. TT 4512, zero-time engine w/58 hrs. Wheels and skis. Annual completed July 2020. Minor paint flaking on fuselage. Always hangared. Kars airfield. \$24,000 Cdn. Peter Cameron 613-832-0282 or peterc@istar.ca.



**2006 CESSNA TURBO 206H** 1350 TSN airframe and engine, G1000 avionics, GTS 800 Traffic. Heated propeller w/537 TSPOH, Flint tip tanks, VG kit, Slick Start, TC approved AoA, oversize wheels. One Owner \$435,000 USD 250-554-2616.

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1974 CESSNA 185, 4892 TT, 1540 SMOH, AEROSETS 3400, RSTOL, WING X, HIGH GROSS, LR FUEL, HANGARED, TWO OWNERS SINCE NEW.



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**1974 BEECHCRAFT DUKE**, 2356 total hrs, 1155 SMOH on engines, 10 hours since new cylinders, clean low time Duke with avionics updates. Asking \$195,000 USD. Contact [clydedhillier@rogers.com](mailto:clydedhillier@rogers.com) or 519-476-4929.



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### **1977 ROCKWELL COMMANDER**

114 (Lost Medical) TT= 2325 / SMOH = 626 / Prop SOH= 143 / Lycoming IO-540, 260 HP/ Annual done Sept. 2020. Same owner more than 20 years. Southern Alberta based. Always Hangared. Original Paint and Interior. Paint 7/10, Leather Interior 6/10 Collins Microline Nav-Coms / HSI / Century III Autopilot/ Four Place Intercom/, External power receptacle, Vortex Generators/Winter Covers (wings and insulated cowling blanket) 120,000 CAD. Contact 403-362-3170 or [iwasyl@hotmail.com](mailto:iwasyl@hotmail.com).



**2013 MAGNI M24 ORION VIP GYROCOPTER TTSN** 225 hrs, Rotax 914 Turbo, 115 hp, cabin heat kit, seatbelts 4 points, Carbon propeller cone, Mast fairing, 2 sets of wheels (Original & tundra), protection cover (New), EMS fuel sensors, Tanis preheat system, strobe/nav lights each side & behind mast, landing light, dynon skyview, XPDR mode S, VHF Funkwerk ATR833 OLED with dual watch, backup ALT & ASI, Compass, Locking gas cap AND MORE. Always hangared, NDH, \$129900 Roger 514-647-6033 or [rodg1927@hotmail.com](mailto:rodg1927@hotmail.com).



### **2021 BRAND NEW DIAMOND DA62**

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50hp, oil injection, cabin heat kit, brand new skis never installed, XPDR mode C, ASI (mph/kts), ALT, VSI, Precision compass, CHT, EGT, TBI. Complete interior finish (wall, floor, seats) new never installed, full covers of ultralight, 15 gal gas tank, strobes, Nav & landing lights, 2 sets of wheels (original & tundra), professionally painted aerotex paint, always hangared during winter, NDH \$29000 neg. Roger 514-647-6033 or [rodg1927@hotmail.com](mailto:rodg1927@hotmail.com).



### **1948 AERONCA SUPER CHAMP 7DC**

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## 010 – AERONCA

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## 030 – BELLANCA

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## 040 – CESSNA

**1/6 SHARE IN 1963 CESSNA 172** Share in a C172D based in Oshawa ON. Great way to get into ownership. \$8500CDN. Email/call 905-621-0939 or bryanbagi@trentu.ca.

**1956 CESSNA 172** 4991.6 TT, 335 SMOH, King KX 170-B, Garmin 250 XL, S-Tec autopilot, xpdr/enc. In annual, ready to go. \$39,900. 604-991-4300 or saleuva@telus.net.

**1976 C182P**, SIDs completed, engine 0 TSOH, new VFR avionics, new autopilot, new paint, CoFA April 2020. Beautifully restored Cessna 182P for sale. ADS-B out. Brand new engine OH. Call for pricing 604-991-4300.

**CESSNA 172M** 1974 Moteur 980h, cellule 5790h. autopilot stec 50, GPS intégré Garmin gns 430W, Garmin ads-b pour USA, essence 5h autonomie, certification IFR, météo aviation avec XM, Garmin 496 Half-part 35k\$ Joliette QC. 450-471-8371 therrien1957@outlook.com.

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## 045 – CITABRIA

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## 370 – SHARE OR PARTNER



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The following are common abbreviations used in Canadian Plane Trade classified advertising. When counting an ad for insertion charges, each abbreviation is one word. When more than one abbreviation is shown, first given is preferred.



AC	..... air condition
A/C	..... aircraft
AD	..... Airworthiness Directive
ADF	..... automatic direction finder
A&E	..... airframe & engine
alc.	..... alcohol (as in alc. prop)
AP	..... auto(matic) pilot
ATS	..... automatic throttle system
ASI	..... airspeed indicator
360CH	..... 360 channel radio
720CH	..... 720 channel radio
CG	..... centre of gravity
CHT	..... cylinder head temperature
Comm/com	..... communications
Cont	..... Continental (engine)
CS	..... constant speed propeller
DG	..... directional gyro
DME	..... distance measuring equipment
EGT	..... exhaust gas temperature
ELT	..... emergency locator transmitter
Enc Alt	..... encoding altimeter
FBO	..... fixed base operation
FD	..... flight director
FREMAN,	
FREM	..... factory remanufacture
GEM	..... graphic engine monitoring
GPH	..... gallons per hour
GR	..... glide ratio
GS	..... Glideslope
HP	..... horsepower
HSI	..... horizontal situation indicator
IFR	..... instrument flight rules
ILS	..... instrument landing system
3LMB/MB	..... 3 light marker beacon
LOC	..... localizer
LRF	..... long range fuel (capacity)
Lyc	..... Lycoming (engine)
MB	..... See 3LMB
MK	..... Mark (model of equipment)
MPH	..... miles per hour
NAV	..... navigation
NAV/COM	..... navigation/communications
NDB	..... non-directional beacon
NDH	..... no damage history
OAT	..... outside air temperature
OBO	..... or best offer
O/Oxy	..... oxygen
P&W	..... Pratt & Whitney (engine)
RMI	..... radio magnetic indicator
RNAV	..... area navigation
SCTOH	..... since chrome top overhaul
SCMOH	..... since chrome major overhaul
SFREMAN/	
SFRM	..... since factory remanufacture
SMOH	..... since major overhaul
SPOH	..... since prop overhaul
STC	..... supplemental type certificate
STOH	..... since top overhaul
STOL	..... short take off & landing
T&B	..... turn & bank
TBI	..... turn & bank indicator
TBO	..... time between overhauls
TT	..... total time
TTAE or	
TTE	..... total time aircraft engine
TTAF or	
TTA	..... total time aircraft frame
TTSN	..... total time since new
VFR	..... visual flight rules
VHF	..... very high frequency
VOR	..... very high frequency Omni-Range
xpdr	..... transponder

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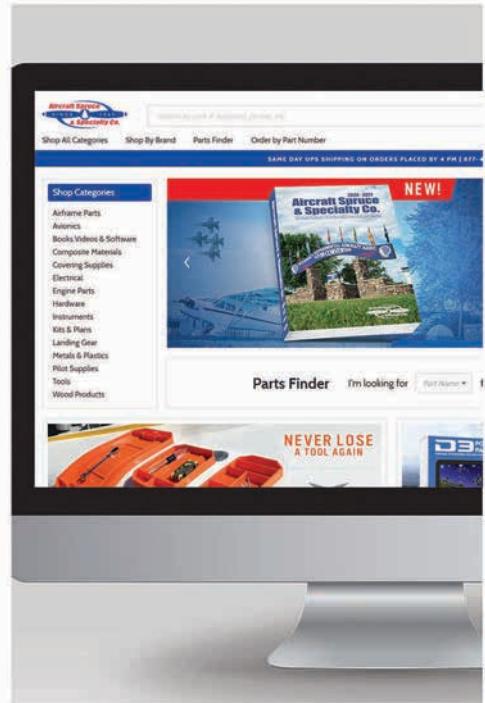
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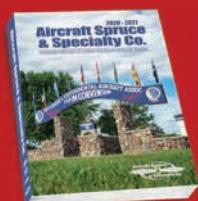
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