

COPA Flight

The Journal of the
Canadian Owners and
Pilot's Association

MARCH 2018

More than
90
Classified Ads
(P.60)

Our First Annual Safety Issue

Experts Get You Ready for
the Flying Season (P.33)

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FEATURE

33 SAFETY FOCUS

Chances are your airplane is in great shape after its winter maintenance but are you ready for a safe and fun flying season. Experts from across Canada address some of the most common safety issues affecting Canadian pilots in a special section in this month's magazine. It's a great primer to get you into the safety mindset.

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SAFETY CAMPAIGN LEARNING FROM OTHERS

Over the past year, COPA has been working with Transport Canada (TC) on the General Aviation Safety Campaign (GASC), aimed at improving safety among GA pilots through accident data-driven new tools in areas of training, technology, and safety culture.

At Oshkosh in 2017, we met representatives from the Federal Aviation Administration (FAA) who, for the past 20 years, have collaborated with industry in a similar fashion through the General Aviation Joint Steering Committee. Through this government/industry partnership, stakeholders come up with new, innovative Safety Enhancements to address specific issues related to GA safety. Often, these are the result of data analysis from National Transportation Safety Board (US) reports and are adopted and promoted as voluntary means to ensure safer GA aircraft. The success of this model lies in the co-participation of government and industry and, supported by accident data, pursues its objectives with the goal of regulation as a last resort. We are encouraged at TC's willingness to adopt a similar model here in Canada, one that we hope will make it easier for GA pilots to be safer. Whether it is access to better training, easier routes to installing and using new technology in the cockpit, or better promote a safety culture amongst each other as GA pilots.

As part of the campaign, officials at TC have reviewed Canadian accident data from TSB (Can.) reports going back to 2014 and applied the standard classification categories adopted by

the Commercial Aviation Safety Team/ICAO Common Taxonomy Team, known as the CICTT. Their review of the data for fatal GA accidents in that period (42) shows us that, removing unknown causes or where causes could not be determined, the top five generators of fatal accidents are Loss of Control – Inflight (11), Low Altitude Operations (3), and “System/Component Failure of Malfunction [Powerplant]” (3), otherwise known as a non-fuel-related engine failure. This March issue, which we are establishing as our annual “Safety Edition”, will focus on some of the safety topics that arise from the GA Safety Campaign or our collaboration with our American counterparts but mostly, the articles in this year's safety edition are written by many of our Safety Campaign partners and reflect a variety of topics at the top of the priority list for the GASC across the country.

COPA'S BOARD OF DIRECTORS

We are also excited to present the biographies of the candidates who have put themselves forward for consideration in this year's elections for the Board of Directors. There are two spots in BC and Yukon, two in Quebec and three in Southern Ontario. Competing for those seven spots are 21 candidates – a record in our 66-year history. We sincerely thank those Board members not seeking re-election for their dedication and contributions to COPA, and we look forward to the new ideas and fresh perspectives the new members will bring to our organization.

CAMPAGNE DE SÉCURITÉ APPRENDRE DES AUTRES

Au cours de la dernière année, COPA a collaboré avec Transports Canada (TC) au travers une campagne de sécurité de l'aviation générale (CSAG), ciblant de nouveaux outils axés sur la formation, la technologie et une culture générale liée à la sécurité.

À Oshkosh en 2017, nous avons rencontré des représentants de la Federal Aviation Administration (FAA) qui, au cours des 20 dernières années, a collaboré d'une manière semblable avec l'industrie par l'intermédiaire du Comité directeur mixte de l'aviation générale (GAJSC). Grâce à ce partenariat entre le gouvernement et l'industrie, les intervenants ont pu proposer des améliorations de sécurité novatrices, adressant des problèmes précis liés à la sécurité de l'AG. Souvent, ces améliorations étaient le résultat d'analyses de données provenant de rapports du Bureau national de la sécurité des transports (NTSB-ÉU) qui ont été adoptées par des méthodes volontaires pour améliorer la sécurité de nos appareils. Le succès de l'approche est principalement dû à la collaboration entre le gouvernement et l'industrie qui, appuyée par des données factuelles, ne se tourne ultimement vers de la réglementation qu'en dernier recours. Nous sommes fiers de voir TC appliquer un modèle similaire ici au Canada, que ce soit par une formation plus pertinente, de nouveaux éléments technologiques dans le cockpit ou de pouvoir jeter un regard axé sur la sécurité sur nous-mêmes, avant chaque vol que nous entreprenons.

Dans le cadre de cette campagne, TC a examiné les données canadiennes sur les accidents du Bureau de la sécurité des transports (BST-Can.) depuis 2014 et appliqué les normes adoptées par l'Équipe de la sécurité de l'aviation

commerciale / OACI, connue sous le nom de CICTT. L'examen des données sur les accidents mortels survenus au cours de cette période (42) nous montre que, en supprimant les causes inconnues ou les causes impossibles à déterminer, les cinq principaux facteurs d'accidents mortels sont: « perte de maîtrise — en vol » (11), « opérations en basse altitude » (3), et « défaillance du système / défaillance d'une composante [moteur] » (3), également connue sous le nom de panne de moteur non liée au carburant. Notre édition du mois de mars du COPA Flight, qui de facto deviendra notre édition annuelle sur la sécurité, mettra l'accent sur certains sujets liés à la sécurité découlant de la CSGA ou de notre collaboration avec nos homologues américains mais aussi, sur les écrits de plusieurs de nos partenaires de la campagne reflétant une variété de sujets en provenance de partout au pays, liés aux priorités de la CSGA.

CONSEIL D'ADMINISTRATION COPA

Nous sommes également ravis de présenter les biographies des candidats qui se sont présentés aux élections du conseil d'administration. Il y a deux postes en Colombie-Britannique et au Yukon, deux au Québec et trois dans le sud de l'Ontario. En lice pour ces sept places se trouvent 21 candidats — un record pour nos 65 ans d'histoire. Nous remercions sincèrement pour leur dévouement et leurs contributions à COPA les membres du C.A. qui ne se représentent pas pour un nouveau mandat, tout en étant impatients d'accueillir les nouvelles idées et nouvelles approches que les nouveaux membres du C.A. apporteront à notre organisation. ✈️



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SEND US YOUR STORIES, LETTERS AND PHOTOS

COPA Flight is the outlet for COPA members to let others know what they're doing to advance, promote and preserve the Canadian freedom to fly and we're here to share your stories.

Our Regions section publishes news about the myriad activities undertaken by COPA Flights across the country, our News section is the forum for stories of national interest that may be happening in your back yard and if you have something to get off your chest, write us a letter to the editor. We always appreciate nice, high resolution photos, whether to accompany your submissions or as part of our photo contest.

To help us deliver your message effectively and efficiently we ask that contributors follow a few guidelines.

The new format lends itself to concise, punchy stories that get the message across clearly and economically. Please keep event reports and local news stories to 300-400 words. Send them in a Word document without any formatting or inserted graphics.

News stories should be 500-1,000 words and make sure facts are checked and the statements made in the article are factual. We will edit out any libelous or erroneous material.

Letters should be no more than 500 words and be civil and respectful.

Photos must be sent in high resolution or we can't use them. A good rule of thumb is that if the image is 1Mb or larger it's good to go.

Remember that this is your magazine and among its roles is to reflect the activities, goals and objectives of COPA and we're happy to help you make COPA even stronger through an open channel of communications.

Send your submissions to russ@copaflight.ca. by the first of the month for inclusion in the next magazine.



✉ FLYING WITH HOPE

I have just returned from participating in the first leg of the Give Hope Wings journey, featured in the December edition of COPA Flight. Give Hope Wings' goal is to raise \$500,000 for the charity Hope Air. It was because of that article that I signed up and, three weeks later, I was on my way to Kelowna, B.C. I joined Dave McElroy, the creator of this adventure and its lead pilot, along with Russ Airey and Harold Fast, the team in the second RV, in time to pack and prepare for the adventure of a lifetime. We left on January 2 in two RV aircraft in light snow showers, and after a low pass down the runway, were on our way. My leg of this 60-day trip would end in San Diego, Calif. on January 6.

With low ceilings, we wound our way between the hills surrounding the Okanagan Valley until we reached Oroville, Wash. (K0S7) to clear customs. Although I am a licenced pilot, I was pleased that Dave took the time to challenge my flying skills, giving me several hours on the stick; he then often tested me with questions. The RV-6 we were in is quite a bit faster and more sensitive to control inputs than the Pipers and Cessnas I am more familiar with.

After leaving Oroville, we climbed to clear the clouds. I was then able to experience formation flying with our partners in Wings 2, both as lead aircraft and chase plane/wingman. Over the next five days we stopped at nine airports, either for fuel or to spend the night. The original plan had been to follow the coast, with stops in Portland, San Francisco and Los Angeles,

but due to rain along the route we diverted inland, stopping in Boise in Idaho, Salt Lake City in Utah and Las Vegas. Salt Lake City was a great stop as we were able to view and visit the Morman Temple and see where the Morman Tabernacle Choir performs. We flew over the Grand Canyon on our way to Los Angeles, where we did a 30-minute radio interview with Craig Ferguson. The next day we flew the short distance to San Diego and, sadly, I turned over my co-pilot duties to the next volunteer pilot, who went on to Panama City. I was fortunate to have had an uneventful journey, with fair weather, magnificent scenery passing below and gaining at least three new friends, as well as memories that will last a lifetime.

Peter Smith

✉ LONG EXPOSURE

I read the article on radioactive aircraft instruments (February 2018 Mailbox) and could only wonder if the resultant sickness from my generation of pilots had ever been measured.

My flying covers 65 years of exposure to these very good instruments and it seems that no disabilities have occurred.

I'm a proud member of the Octogenarian flying group and we are all just fine.

Nature has a wonderful and effective way of solving things.

Roger Hadfield

CANADIAN Aviator

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COPA BOARD ELECTIONS

PLENTY OF INTEREST IN YOUR FREEDOM TO FLY

The nomination period for COPA's 2018 Board of Directors elections in British Columbia, Ontario and Quebec closed on February 8, and we are now pleased to announce the list of nominees in each region. Voting began Wednesday, February 14 at 12 noon EST / 9 am PST and will end on Tuesday, April 2, at 12 noon EDT / 9 am PDT.

To cast your vote, go to copanational.org and log in using your membership number and password (usually your last name in all capital letters). Those wishing to vote by paper ballot can request one by contacting COPA at 613-236-4901 ext. 107.

La période de mises en candidature pour les postes au sein du conseil d'administration. 2018 de COPA pour les régions de la Colombie-Britannique, de l'Ontario et du Québec s'est conclue le 8 février.

Le scrutin débutera le mercredi 14 février à midi 12:00 HNE / 09:00 HNP et se terminera le lundi 2 avril à 12:00 HAE / 09:00 HAP. Pour voter, rendez-vous sur copanational.org/en/ login et connectez-vous en utilisant votre numéro de membre et votre mot de passe. Ceux qui désirent voter par bulletin papier peuvent en demander un en communiquant avec la COPA au 613-236-4901, poste 107.



BRITISH COLUMBIA AND YUKON (2 POSITIONS):



BLACK, DAVID NORTH VANCOUVER, B.C.

David has been an active participant in general aviation for over 35 years. He regularly flies with his pilot-wife throughout Canada and the U.S. and has flown general aviation aircraft in England, Germany, Israel and Jordan.

David is the current president of the Golden Ears Flying Club (at CYPK) (goldenearsflying.org) which operates two Cessna 172s for its 25 members. In that capacity, David also organizes

aviation presentations on topics ranging from Pilot Decision Making to Terminal Procedures to Travel Logs to Aviation Humour.

David and his wife are Restricted Operator Certificate-Aeronautical (ROC-A) examiners. They run a program that brings aviation into B.C. high school classrooms as a means of teaching Science, Technology, Engineering and Mathematics (STEM) subjects and aviation-related courses like Cockpit Math, Leadership Through CRM, Aviation Weather and Careers in Aviation.

Over 20 years ago, David founded the Air Time Canada Youth Aviation Program (airfun.org) which uses aviation to help young people develop self-esteem, confidence and leadership skills. In 2013, he received the Emilia Earhart Award of Merit from the Ninety-Nines at their annual convention in Montana for his work with troubled youth. Through the Air

Time Canada program, David has personally conducted over 1900 first-flights and has seen a significant percentage of those people go on to become private or commercial pilots.

David spent some years as an air traffic controller and has worked at Boundary Bay tower (ZBB), Vancouver Centre and Vancouver tower (YVR).

In his current professional life, David is the director of technology for a transportation security company in Metro Vancouver. In that role, David has had a lot of experience leading complex projects and communicating with management teams, corporate boards and government organizations.

David is a passionate supporter and advocate of general aviation and has an excellent understanding of flight safety and flight operations. He is an articulate communicator and well versed in digital media and communications.



**COCHRANE, PAT
COLDSTREAM, B.C.**

I am requesting your support in electing me one of the B.C./Yukon COPA directors.

I received my private pilot licence in 1990 and am current as of February 2018. I own a 1/4 share in a Piper Turbo Arrow III which is hangared at Vernon B.C. (YVK) and am a member of the Vernon Flying Club (COPA Flight 65).

I have extensive board and committee experience. I am in my 22nd year as a municipal councillor, having served 12 years at the City of Vernon and the remainder at the District of Coldstream, where I have chaired numerous committees as well as well as represented the community as acting mayor.

I find as a pilot that there is always more to learn, whether it is new upgrades in the airplane or changes to procedures. To help me be an effective board member, I will draw on the knowledge and experience of B.C. and Yukon COPA members.

COPA has an important role in protecting and improving general aviation in Canada. I will use my board and committee background to help COPA be successful.

As a COPA board member, I will work co-operatively with fellow board members and senior staff to make the best decisions possible on behalf of COPA members.

Please take a few minutes to vote and make Pat Cochrane one of your choices for B.C./Yukon director.



**LORING, ARTHUR
KAMLOOPS, B.C.**

I am an enthusiastic 42-year-old small-business owner from Kamloops, B.C. My private licence was obtained in 1998 and I have been active in general aviation ever since.

In the past three years, I have significantly increased my activity by purchasing a Diamond DA20, which has allowed me a great opportunity to do more flying both locally and cross-country (my most recent trip being to Nevada). With becoming

more active again, I have also recently obtained my night rating and hope to pursue additional learning opportunities soon. In 2017, I was elected as the vice president of the Kamloops Flying Club (COPA Flight 82), where we have faced similar challenges of other clubs such as declining and aging membership, and are in the ongoing process of addressing those challenges to create a more vibrant and relevant club. I was re-elected to hold the same position for 2018. My main reason for wanting to become a COPA director

is to try to bring a fresh, more youthful perspective from the members at large about how to make COPA a more relevant organization to young and experienced aviators alike. As a COPA member, in addition to its important role as preserving our freedom to fly, I personally believe that COPA should also be the hub for everything aviation, including the social hub for participation, knowledge and events. I want to help achieve this. Additionally, I hope to use this experience to increase my profile within the COPA organization to become a more knowledgeable general aviation advocate. The biggest skill I can bring to the board is my 20+ years of business management experience by delivering a calm, level-headed approach and willingness to listen and consider all perspectives of issues. I am progressive and embrace new thoughts and ways of doing things. I may not have a significant amount of professional aviation experience behind me, but I have the passion, enthusiasm and dedication to represent B.C. & the Yukon, and to do my best to ensure our members' voices are heard as well as to guide future progressive changes to make this great organization one that reflects the beliefs of pilots in Canada.

**LYTHALL, PETER
FORT ST. JOHN, B.C.**

I have been active in aviation for most of my adult life. As a youngster, I was introduced to general aviation flying with the grandfather of one of my childhood friends. Grandpa was a back-country outfitter and my first experience flying with him was memorable, sitting on freshly oiled yet well-worn saddles and salt blocks in the rear of a rough 172 without any seatbelt; when the baggage door opened in flight, he shouted at me to not fall out. And so it began; I started flying lessons when I was able to drive myself to the local airport.

I have been involved in both the experimental and certified areas of aviation, having built a Vans RV-7 kit-plane several years ago. I have had the opportunity to own several certified aircraft and to use these aircraft as tools for business as well as recreation. Whether it was used to attend to client meetings in remote areas or to enjoy the Canadian backcountry on a weekend camping trip, I have embraced aviation as part of a successful business and rewarding personal lifestyle. I have logged over 2500 hrs



of flight time in a variety of different aircraft as I pursued and completed my various ratings that have culminated in a Single/Multi Engine Land and Sea with a Group 1 IFR rating.

As a member of COPA Flight 180 I assisted with bringing a successful COPA for Kids event to Fort St. John in 2017, and I previously volun-

teered as a pilot with COPA for Kids in Alberta. I believe I can bring a fresh voice and a well-rounded GA perspective to issues facing the membership in western Canada. I am committed to ensuring that our rights and freedoms as a community are maintained for the current and future generations of aviators.

**MCELROY, DAVID
KELOWNA, B.C.**

Flying: 3500 hrs current SE/ME/IFR
Ownership — about 8 aircraft, both solely & in partnerships, including a C-140, Harvard, BE23, PA-24-250 and an RV-6.

- COPA — member since 1967 except the 15 years I spent in the UK between 2000-2014
- Past chairman, Scottish Aero Club, Perth, UK
- Current president, Kelowna Flying Club/COPA Flight 36
- Current director, B.C. General Aviation Association
- Reason for interest: my broad experience, well-suited to make a contribution to COPA members and members-to-be.
- Single most important skill: Leadership.



My bio speaks for itself. Lifelong passion for aviation which has included many multi-country expeditions including a round-the-world

flight. I want to share this passion with younger people and bring them into aviation. I am well-equipped to do so.

WELTE, KEN NANAIMO, B.C.

I hold a Cat-3 medical, with a night VFR rating, with 800 hours on type total PIC time of 900 hours. I am competent at flying from both left and right seats of a Cessna, an Arrow and a Comanche. I have around 300 off-airport landings under my belt. Nanaimo grass, Vargas Island and Nootka Island beaches, Dog Creek, etc. (again, landing from both left and right side of the aircraft). I have flown most of British Columbia, big chunks of Yukon, Alaska, Alberta and Washington state.

I own a Cessna 172, and am with the Nanaimo Flying Club and Nanaimo Air Cadets. I have supported the local COPA for Kids events at the Nanaimo chapter, and I have in the past been a Cadet Familiarization Pilot. I run the Flying Scholarship program at my Air Cadet squadron.

I believe that recruitment of new members is the biggest requirement for COPA over the next few years. With the drastic requirements for pilots in commercial aviation, our COPA voice needs to be strong to advocate



for access to airports and airspace. As costs, soar, we need a strong voice to support general aviation.

My single most important skill is being a comfortable and an effective public speaker in front of any size of group. My second-most important skill is that I have a passion for mentoring leadership in youth.

I was born in Campbell River, B.C. and graduated from Nanaimo District Secondary High School. I attended Malaspina College and studied science and social sciences.

As a teenager, I was an air cadet. I

received my private pilot licence while in college. I am a civilian instructor with the air cadets and run the flying program. I mentor young cadets on career planning and life skills. I complete one big flying trip every year.

I am a pragmatic and professional negotiator, I own my own business and understand how to keep costs in check. I understand that costs are our biggest barrier to enjoying general aviation. As commercial aviation grows at an unprecedented pace, we need a strong voice advocating for general aviation, from the local airports to the Federal government.

WHITTEMORE, MARC KELOWNA, B.C.

My spouse Susanne and I are passionate aviators, flying for pure joy and fun. Living in B.C. affords us the opportunity to go to see places we would not get to as often otherwise, with our busy work schedules.

My flying dream got real at around 1995 and have about 1100 hours to date. I hold a private licence with instrument rating, and have owned eight beautiful single-engine birds over the years; currently flying a Mooney Rocket and a Maule. We are proud members of the Kelowna and Nanaimo Flying Clubs and our informal Nakusp Flyers Group. Why a COPA director? Our mission statement centres on freedom to fly. This freedom is always under threat from a variety of sources, and my main reason to stand for election is to help continue the work to preserve

this great freedom which I cherish. There are two other related reasons which indirectly contribute to preserving and enhancing the freedom. Firstly, it would be so helpful to establish some type of pilot support program. Many new pilots are too intimidated to fly to destinations they would like to. The system appears at first to be overwhelming; one or two flights with a fellow pilot on board is all it takes. Kelowna to Victoria is an example — a bit daunting but a conversation and ride with someone familiar is all that's needed; fellow pilots helped me long ago and I've helped others over the years. A structured program would help pilots overcome these intimidations. Secondly, ATC has different criteria for control in mountainous regions driven by safety. I advocate for extra training and knowledge to be built into our private licensing for



those training in mountainous regions to help pilots avoid the various insidious risks associated with mountain flying, and at the same time increase the freedom to fly by equipping pilots with more knowledge. As a practicing lawyer in Kelowna for 30+ years, I bring knowledge of legislative and regulatory schemes and a healthy wariness of the agendas of government and lobby groups. If elected a COPA director, I will serve faithfully and diligently.

SOUTHERN ONTARIO (3 POSITIONS)

ABLEY, JOE LONDON, ONT.

I learned to fly in the late '80s at the Cranfield airport in the U.K. (EGTC), in Cessna 150s and 152s. After getting my PPL at age seventeen, I spent the better part of three decades first at university where I had no money to fly, and later working in the tech industry in Europe, New Zealand and Canada when I had no time.

It took me until 2015 to get my priorities straight in the form of a Canadian licence. I now have a couple of hundred hours logged and hope to complete my instrument rating and commercial licence this summer. It turns out, despite all that time not flying, I still get the same giant smile every time I sit in the left seat or open a hangar door to the delicious aroma of

oil and avgas. I own a 1992 Grumman AG 5B Tiger (FBLY), which I bought in Kamloops, B.C. in January 2017 and flew back across the country to London airport (YXU), where it is now hangared. I am a member of Aviateurs. Quebec, COPA and COPA Flight 75, based in St. Thomas, Ont. (YQS), which is where I am doing my Instrument and CPL training. I'm also a current member of AOPA and the AYA (a Grumman type organization). I would like to be a COPA director because it seems like a great way to contribute back to the Canadian general aviation community whilst also getting a better insight into aviation in Canada in general. I have not-for-profit board and governance experience in a consensus/community context through my work designing and operating



global Internet infrastructure. However, I think the most useful skill I can contribute is the desire to focus on pragmatic, real-world answers to real-world problems.



ARMSTRONG, PAUL TORONTO, ONT.

I gained my interest in flying through my father, who was an R.C.A.F. fighter pilot who learned to fly in the British Commonwealth Air Training Plan. I joined COPA before I started flight training in 1975.

I have a commercial licence and currently fly 250 to 300 hours per

year, with most of my flying done on floats or amphibious floats conducting initial or recurrency training, insurance checkouts and aircraft ferrying. I am a Transport Canada Authorized Person. I was a partner for many years in a Part 703 Air Taxi operation that primarily did seaplane training under contract to a community college. I currently do not own an aircraft,

however I have access to a number of float and amphibious aircraft as I require. In addition to my flying background, I have considerable experience in the insurance field, at both the company and broker sides of the business. I am a member of the Ontario Seaplane Association and reside in Toronto. My main interest in becoming a director is to give back to aviation some of the skills and use the relationships I have developed in my varied tenure in aviation. Aviation in Canada has become increasingly costly and complex, and governments at all levels have become increasingly aviation-adverse at best, with it being viewed as a tax generation opportunity at both the federal and, even more, provincial level in Ontario. The biggest skill I can offer the board is my persistence, whether it is through motivating for a more engaged membership that will encourage COPA to be more than a \$200 hamburger club, or through helping an engaged board and executive to become a more active lobbying force.

ELWOOD, KEVIN STAYNER, ONT.

I am a husband, father, commercial pilot, business owner, landowner and elected municipal councillor in Stayner, Ontario. I have had a long-time love of flying, beginning flight training in 1986 and now carrying an ATPL licence, having flown 25 aircraft types. I have a network of industry relationships, from recreational pilots through to professional pilots, maintenance engineers and airport operators. I have owned several planes during my 32 years as a pilot, including ultra-lights, a Cessna 150, a Cessna 185, a Cessna 206 and a Piper PA11-S.

While flying is my passion, it is also my business and supports my family. I am a professional contract pilot flying the de Havilland Turbo Beaver. Prior to this, I was a corporate pilot from 1997 to 2006. I have 5650 hours flying, in every province and territory in Canada, and most of the continental U.S. and Europe. Our 100-acre farm is the home of Clearview Field (LV2), supported by RCAP IFR approaches. In 2009, I became aware of a proposed wind turbine project on land adjacent



to Clearview Field and close to Collingwood airport (NY3). I researched to understand how a dangerous proposal could be founded in government policy. To my dismay I learned that aviation facilities and procedures had been ignored by the provincial government even after COPA testified and submitted comments during the drafting of energy legislation. This gap in legislation resulted a project being approved by the province whereupon the onus was on the aviation community to appeal and prove it would result in harm to human health. With

much personal sacrifice, community support and COPA support the approval was revoked. I developed a knowledge of how aviation's community benefits are overlooked by both government and policy advisors. COPA has made it a priority to ensure general aviation is recognized for its contribution to society, be it economic or social. This aviation knowledge and government experience can assist COPA in protecting personal aviation and promote it as a valued, integral and sustainable part of the Canadian community, now and into the future.



HATCHER, CONRAD ST. CATHARINES, ONT.

My flying career began when I took my first lesson in 1975, in a Piper Cherokee, at the St. Catharines Flying Club. Since that time, I have amassed over 20,000 flying hours in a variety of aircraft as an instructor, charter, airline and corporate pilot.

Currently I work as a Class 1 Flight Instructor at the St. Catharines Flying Club, to which I returned after spending 14 years as an inspector at Transport Canada. I enjoy teaching both new pilots and those who are pursuing advanced ratings or learning to fly a different aircraft. I am also an active Pilot Examiner which affords me the opportunity to travel regularly around southern Ontario to a variety of airports and flying operations. I am able to get to know many more enthusiastic

pilots who I would otherwise not get to meet. My single most important reason for becoming a COPA director is that I am concerned for the future of personal aviation and I want to contribute to ensuring that it continues and thrives. I want to promote our segment of the aviation community and ensure that we expose as many new people as possible to the world of general aviation. I believe that the most important skill I can bring to the COPA board is that of a communicator. I want to tell our story and articulate our vision and values to the general public and the aviation community. If we fail to articulate our view of the world of aviation effectively, others will do it for us and it may not be accurate or favourable. I believe that I can use my experience, skills and talents to assist the board in achieving all of our mutual goals.

**JAVANPOUR, OLIVER
OTTAWA, ONT.**

Oliver is an avid pilot and has been flying since 2001. Among his flying adventures, he has flown his vintage aircraft from the west coast to the east coast. He has been a member of Rockcliffe and Ottawa flying clubs at various intervals. He is an instrument-rated (IFR) multi-engine pilot who has interests in regulatory topics and concerns around general aviation and economic development issues related to local airports in his town and province.

During the past year he has been closely involved in the upgrade and restoration of his vintage (1946) tail dragger. Oliver is a senior consultant working and writing extensively in the area of public policy, including privacy, governance, strategic planning and global affairs. Since 1996 he has worked closely within the public sector in Canada and the U.S. to develop public, business and operational policies that address the changing needs of governments. His insight into technology, legislative and legal nuances and operational mechanics have enabled

him to offer comprehensive and integrated strategic solutions to his clients. During the 1980s and 1990s Oliver was an active team member of several high technology firms in Ottawa. Oliver worked in various capacities, from highly technical positions to managing marketing and client relationships on an international scale. Oliver is a dedicated volunteer in the field of non-profit organizations and a supporter of health, education, arts and culture in Ottawa. For the past 25 years he has assisted non-profit organizations with community / government relations and organizational sustainability through his role as a board member, fundraiser and committee chair. Oliver is currently serving on the board of governors of Carleton University. He is the vice-chair of the governance committee. Oliver is encouraged to see COPA's recent direction in working collaboratively with various governmental organizations to protect and promote general aviation in Canada, and conduct studies in areas of aviation and economic development. To this end, as a member of COPA, he feels that his extensive



non-profit volunteer board experience could be used to assist COPA in planning general aviation sustainability and future planning. Oliver feels he may be able to share some lessons learned and experiences with COPA board and organization.

**LIGHTSTONE, PHIL
RICHMOND HILL, ONT.**

Phil is a licenced pilot with over 1700 hours, holding Night and VFR OTT ratings. He has volunteered with a number of aviation organizations, including Young Eagles, COPA for Kids, Hope Air, Canadian Air & Space Museum, Pickering Airpark, and is a member of the Buttonville Flying Club (COPA Flight 44). He is a partner in a Commander 114B. Aviation is part of his DNA; at an early age, he was building and flying balsa model airplanes, rockets, radio-controlled models and full-scale aircraft. He has been or is a member in the Academy of Model Aeronautics, Model Aeronautics Association of Canada, Kingston R/C Modellers (past director), Richmond Hill Model Airplane Club (past director), AOPA and COPA.

Phil is the past president and director of the Local Area Network Dealers Association (LANDA), representing the network industry in Canada. LANDA's focus included education, mentorship, collaboration, social and end user awareness. He has sat on numerous North American IT Industry advisory boards. He is the former marketing director of the Office Automation Professionals of Canada. Phil has written articles appearing in Canadian Jeweller Magazine, Computing Canada, COPA Flight and LinkedIn, and endeavors to educate and share his knowledge. Phil's interest is to help COPA execute meaningful change to impact the day-to-day flight and aviation experiences for COPA's membership, the aviation industry and the general public. As a technology professional and general aviation pilot, he brings the skills to



help COPA transition into the digital era and grow COPA's membership, including attracting new student pilots. Phil's DNA is about insightful execution and delivery.

**MARTINS, ALEXANDER
TORONTO, ONT.**

COPA is an organization that has made a significant contribution to Canadian culture, history and identity. Growing up in a generation where many are tied to their electronic devices, general aviation and COPA has been a source of meaningful personal interactions, friendships, once-in-a-lifetime experiences and lifelong memories. This, unfortunately, is not the experience of many of my peers, which is why I would like to take on the task, as a director of COPA, to recruit young members. This would be best achieved by attending flying schools, colleges and universities to give a worthy pitch on the benefits and possibilities as a member of COPA. My single greatest advantage is being a member of my target audience, bringing a fresh viewpoint and vision for the future of COPA.

I fell in love with airplanes at the age of 10 at Ontario Place, sitting in an Air Cadet glider that was on display. I later joined Air Cadets, and years later finished with a glider and private pilot licence. Since then, I have become a member of the Brampton Flying Club,



flying the Cessna 152, 172 and learning tailwheel in a Bellanca Citabria. I am also a member of the York Soaring Association, where I flew two glider types and towed gliders in the club's towing aircraft. As a COPA director, experiences like these are what I hope to grow for today's youth. Currently,

I study Commercial Aviation Management at the University of Western Ontario, where I hope to open a university-based COPA Flight for aviation students. Given the opportunity, I hope to grow COPA's membership everywhere possible, so that it will be sustainable going into the future.

**MORAWETZ, CLARK
TORONTO, ONT.**

I have been flying my entire life. I don't know when my first flight was. I grew up in general aviation, flying with my father and his friends for breakfast every Sunday morning. Flying is in my blood. I obtained my Glider and Private Pilot Licences as a member of the Air Cadets.

Since then, I have accumulated over 5000 hours of flying in everything from homebuilts to the Q400. Today, I work as a captain at Porter Airlines. While being a pilot is my profession, it is also my passion. Since I learned to fly, I have volunteered at COPA, Young Eagles and Women in Aviation events. In 2010, I helped Oshawa airport become the Most Female-Friendly Airport in the

World by flying more women in general aviation aircraft than anywhere else on earth. In 2011, Women of Aviation Week awarded me the Most Unusual Introductory Flight top prize. In 2017, I was given the President's Award by COPA for my work on COPA's Strategic Planning Committee. I am currently a member of COPA Flight 32, based out of Billy Bishop Toronto City Airport. For as long as I can remember, I couldn't wait for the next edition of COPA Flight to show up in the mail so I could check out the classifieds and dream about owning my own airplane. In 2017, my girlfriend and I purchased our first airplane, a 1971 Cessna 172L, through COPA Flight. I want to be your next director for Southern Ontario because I feel I have the ability to



bridge the gap between the general aviation community we have now, and the community that we need to have in the future.

PECKHAM, RANDY OTTAWA, ONT.

Randy has been a pilot since 1985, holding Glider, Private and Commercial pilot licences. He is qualified for single- and multi-engine land aircraft, with a Group 1 IFR rating. He currently owns and flies a Cessna 340A and flies around 300 hrs per year for business and personal use. Previous aircraft ownership includes a Diamond DA40, Cessna T310R and a Piper Cherokee PA28. He has been a member of COPA since 2008 and an AOPA member since 2011.

Randy is an active member of the aviation community, with a passion for promoting general aviation. It is his belief that, as a COPA director, additional visibility can be brought to the aviation community with a goal to further highlight and validate its importance in Canada. Enabling and empowering general aviation while protecting and enhancing the availability and accessibility of aviation resources is his primary goal. Additionally, promoting the accessibility of aviation to the general Canadian population, and facilitating modernization of aviation, will be beneficial to aviators and passengers alike.



Randy has been involved in running numerous businesses, as well as working in the federal sector at the senior administrator level. He has served as an officer in the Canadian Forces. He

is versed in the functions of a board of directors, and understands the efforts and processes required to effect change and to influence decision-making.

RONAN, DOUG BRECHIN, ONT.

I started flying at 14 with a good friend of my father, George Trelford, who had a Cessna 180 on floats. He taught me how to fly on many bush-flying adventures throughout Canada and the U.S. From then on, flying has been my life. During high school I worked at Markham airport as assistant manager. I was an apprentice AME at Markham and at Ken Wilson Aircraft. In 1988, I bought my first airplane — a 1964 Cessna 150; since then, I have owned over 125 airplanes and have accumulated approximately 6000 hours.

In 1990, I started my business, Doug Ronan Aircraft Sales, selling aircraft, doing restorations, operating a structures AMO, and salvaging aircraft. We

operate from our 150-acre private airport with two intersecting 2000-ft grass strips and a 2000-ft water runway near the northeast corner of Lake Simcoe. I have extensive experience dealing with all aspects of both certified and homebuilt aircraft.

In March 2004 I formed the Ontario Seaplane Association (COPA Flight 110). In 2004, I was appointed to COPA's six-member National Seaplane Advisory Committee to deal with seaplane issues across the country. I was invited by Transport Canada to take part in the Responsible Aerodrome Development focus group in 2015/2016. I am currently a field director for the Seaplane Pilots Association and a director for the International 180/185 Club. I was a COPA director for seven-and-a-half years, and fought



and won many battles on behalf of general aviation in Canada. I look forward to your support in the upcoming election as a COPA director for Southern Ontario for a third term.

QUEBEC (2 POSITIONS)

BEAUCHESNE, JONATHAN MONTRÉAL, QUE.

Originaire de Montréal, Jonathan Beauchesne est pilote depuis près de 17 ans et détient sa licence de pilote commercial (canadien et américain) depuis 2010. Il possède également ses annotations multi-IFR, nuit et hydravion.

Jonathan siège au conseil d'administration de COPA depuis 2014. Il a défendu plusieurs aéroports, dont St-Hubert, Mascouche et Neuville. Il a rencontré de nombreux membres au cours des dernières années afin de faire rayonner COPA et permis la création de trois nouveaux Clubs COPA au Québec. Il souhaite



continuer de défendre les intérêts des aviateurs canadiens et trouver des opportunités qui permettront de faire croître le monde de l'aviation générale à l'échelle nationale.

Living in Montreal, Jonathan Beauchesne is a pilot for almost 17 years and holds a commercial pilot licence (Canadian and U.S.) since 2010. He also has multi-IFR, night and seaplane ratings.

Jonathan sits on the COPA board of directors since 2014. He defended several airports, including St. Hubert, Mascouche and Neuville. He has met many members over the past years in order to promote COPA, and helped to establish three new COPA Flights in the province of Québec. Jonathan wants to continue to defend the interests of Canadian pilots and find opportunities that will help the world of general aviation to grow countrywide.



MAJOR, PAUL-MARC GATINEAU, QUE.

Je me présente en tant que candidat au poste de directeur dans la province de Québec au sein de la COPA. Pilote privé avec une annotation VFR-OTT et vol de nuit ainsi que membre de la COPA depuis 1999, je suis propriétaire-partenaire d'un avion de type Cessna 172. Je suis membre du Ottawa Rockcliffe Flying Club, de l'Association des gens de l'avion de Gatineau et membre d'Aviateur.Québec.

J'ai vendu mon commerce, il y a près de 2 ans, je suis donc jeune retraité, ayant maintenant beaucoup plus de temps à vaquer à mon vif intérêt pour l'aviation qui est ma principale passion. Ma grande disponibilité et mon enthousiasme à occuper ces fonctions sont des motivations supplémentaires à travailler et faire avancer des dossiers difficiles afin de les mener à terme avec soin et de façon méticuleuse dans le domaine. Ces nombreuses expériences acquises dans mes occupations des 25 dernières années seront assurément un atout dans l'exercice de ces fonctions. Mon but est d'offrir mon temps et mon savoir au service de l'équipe en place en joignant le conseil d'administration de la COPA et ainsi continuer au sein de cette équipe d'atteindre les buts et les objectifs de l'organisme et ainsi continuer avec vous de mieux servir le domaine de l'aviation. En résumé, ma grande disponibilité, mon vif intérêt dans le domaine, ma rigueur et mon efficacité sont mes meilleurs atouts à joindre votre équipe pour ce poste.

I hold a private pilot licence with night and VFR-OTT ratings. I've been a member of COPA since 1999. I am the co-owner of a Cessna 172, a member of the Ottawa Rockcliffe Flying Club, as well as of the AGAG (Association des Gens de l'Aviation de Gatineau) and Aviateur.Québec.

I sold my business about two years ago, so I can now say I am a rather young retiree with much time to spend on what has been a lifetime passion. Being both readily available and keen at undertaking such a role, I bring motivation that will most certainly help me move forward with a number of difficult issues still at task. The vast experience I have acquired during the past 25 years will help me perform efficiently as I sit on the board of COPA. My aim is to make my time, my drive and my knowledge fully available to the management team of COPA so it can pursue its mission to promote and preserve the best interests of aviators. To sum it up, my availability, my sharp interest for aviation, my thoroughness and my efficiency remain my best assets as a future member of your team.



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DELORME, MATTHIEU LONGUEIL, QUE.

Membre de la COPA depuis 1999, je suis un passionné de l'aviation. Je suis propriétaire d'un Cirrus SR22 (GNTU), j'ai construit un S45 Mystère (GPMD) et je suis membre du conseil d'administration de l'aéroport de St-Mathieu-de-Beloeil (SB3). J'ai ma licence Privé IFR/Nuit depuis plus de 40 ans.

Au niveau professionnel, je suis premier vice-président du groupe Canam au niveau de la technologie et j'ai toujours été très actif au niveau de l'innovation (voir mon C.V.). J'ai cinq enfants, toutes des filles, de 23 à 33 ans. Ma plus vieille est contrôleur aérien chez Nav Canada et j'ai un gendre pilote à Air Canada. Je désire joindre la COPA afin de m'impliquer encore plus dans le développement de l'aviation générale afin d'en assurer la pérennité et d'en faire la promotion chez nos jeunes. Avec l'expérience acquise dans la gestion d'un petit aéroport et mon expérience en entreprise, je pense que je peux apporter à la COPA des conseils judicieux et des idées d'évolution novatrices. Ayant à voyager beaucoup en région, je réalise l'importance de garder les accès aux aéroports de ces régions, je connais plusieurs entrepreneurs dont le choix des emplacements en région est basé sur la proximité d'un aéroport.

A COPA member since 1999, I am an aviation enthusiast. I own a Cirrus SR22 (GNTU), I built a S45 Mystere (GPMD) and I am a member of the board of directors of St-Mathieu-de-Beloeil airport (SB3). I have had my private licence (IFR/Night) for over 40 years.

At the professional level, I am senior vice-president of technology for the Canam Group (CIO,) and I have always been very active in terms of innovation (see my resumé). I have five children, all girls, from 23 to 33 years old. My oldest is an air traffic controller at Nav Canada and I have a son-in-law who is an Air Canada pilot. I wish to join COPA to become even more involved in the development of general aviation to ensure its sustainability and to promote it among our youth. With the experience gained in managing a small airport and my experience in business, I think that I can provide COPA with sound advice and innovative ideas for change. Having to travel a lot around the region, I realize the importance of keeping access to regional airports. I know several entrepreneurs whose choice of locations in the region is based on the proximity of an airport.

**MESSIER, JEAN
MONT-SAINT-HILAIRE, QUE.**

Pilote depuis 1979, avec un peu plus de 3.000 heures de vol, détenteur d'une licence de pilote de ligne avion (ATPL) et d'une annotation flotteurs.

Au fil des ans j'ai eu le privilège de parcourir l'Amérique du Nord à bord de mon Mooney. J'ai fait carrière dans le domaine de la transformation et de la distribution de produits alimentaires jusqu'en 2010. En 2013, suite à la démission d'un directeur du Québec, on m'a demandé de me joindre au conseil de la COPA. J'avais du temps de disponible, le domaine de l'aviation me passionnait et j'ai pensé que mon expérience passée pouvait être utile, j'ai donc accepté. Les défis rencontrés m'ont plu et m'ont ainsi motivé à présenter ma candidature aux élections de 2014. Au cours des cinq dernières années j'ai participé à toutes les réunions du conseil d'administration et contribué sur plusieurs comités. J'ai occupé la fonction de vice-président de l'Est de 2014 à 2016 et depuis celle de président du conseil, ce dernier mandat se terminant en juin 2018. Je crois fermement que nous les pilotes et propriétaires d'avions avons besoin d'une association forte et dynamique pour nous représenter, pour défendre notre liberté de voler et surtout pour partager notre passion. Je sollicite un dernier mandat comme administrateur pour entre autres continuer à appuyer l'exécution du plan stratégique et mener à terme les travaux amorcés sur le rajeunissement de nos règles de gouvernance. Je crois sincèrement que ces changements permettront d'optimiser notre efficacité et rendront notre association plus attrayante aux nouvelles générations de pilotes pour en assurer ainsi sa pérennité. Je vous remercie à l'avance pour votre appui et j'espère avoir le plaisir de vous rencontrer dans un rendez-vous aérien ou tout autre événement aéronautique quelque part au Canada.



I've been a pilot since 1979. With slightly over 3000 hours in my logbook, I hold an Airline Transport Pilot Licence and a float endorsement.

Over the years I've been flying all over North America in my Mooney. I had a career in food production and distribution up until 2010. In 2013, in the wake of the resignation of a Québec director, I was asked to join the COPA board. Since I had time available and remained genuinely fascinated by all things flying, I felt the organization could benefit from my lifetime experience. Thus, I accepted the challenge and quickly started loving what I was doing to the point of no return: this is why, mainly, I became a candidate in the 2014 election. In the last five years, I've attended all board meetings and was also immersed in quite a few committees. From 2014 to 2016, I was vice-chair for the Eastern Region. Later on, I became chairman of the board. My term of office will lapse in June 2018. As a pilot and aircraft owner, it is my firm belief our kind needs a strong and dynamic organization to let us share our passion while representing us and preserving our freedom to fly. I hereby seek one last mandate as a director, so I can further support the ongoing implementation of the strategic plan and the rejuvenation work of our governance. I sincerely believe the forthcoming changes will let us optimize our efficiency while making our association more attractive to the coming generations of pilots, ensuring its viability in the long term. I wish to thank you well in advance for your support.



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shooting. There are many instrument and avionics shops with the experience and tools to overhaul steam gauges as well as do circuit board level repairs of avionics, autopilots and fight directors, thereby extending their useful life. Circuit board level repairs to Garmin and Avidyne technologies are the domain of the manufacturer, while older avionics can be repaired in-house by avionics shops. Certain Garmin 530/430 non-WAAS models are now at the end of their useful life, creating a TPP when the device requires repair. Upgrading to a WAAS device eliminates that problem.

Dan Schwinn has found that the major upgrade approach is more cost-effective than a progressive upgrade. Technology obsolescence should be thought of as the value of the current technology versus the replacement cost. The functional gap between a Garmin GNS 530W and GTN 750 falls into a few buckets: touch screen, audio command control, and way point auto population, to name a few. A comparison of features can be found at garmin.com/aviation/pdfs/GTN-GNScomp_7xx.pdf. Wade Hopcroft of Kitchener Aero states that for older pilots the transition to touch screen requires a few hours of hands-on training, while younger pilots embrace the technology faster. Avidyne's products support both knobs/buttons and touch screens. Dan Schwinn believes that the hybrid design will be the long-term ergonomic winner. Many avionics manufacturers and shops have demonstrators and simulators to aid in the selection and training process. These are great tools to help gauge your comfort level with the new technology.

General aviation has seen a revolution in avionics, engine management systems and wireless connectivity. Purchasing a brand-new aircraft postpones the panel upgrade decision process. Upgrading an older aircraft, however, opens a Pandora's box of technology, complexity, manufacturer selection and intrinsic value versus investment considerations. Consider developing a long-term upgrade plan balancing function, form, time to obsolescence (TTO) and investment. There are the obvious safety and regulatory mandates, e.g. 406-ELT and ADS-B. Technology tipping points (TTP) and TTO add a time-sensitive aspect to the decision process. A TTP for the upgrade from 121.5- to 406-ELTs was battery age. Many 121.5-ELTs require that their battery be replaced every five years

at a typical cost of \$210 plus shipping and installation. It makes more sense to invest the \$210 into a new 406-ELT. Aaron Woeller of Kitchener Aero Avionics (kitcheneraero.com) reports that roughly half of their customers who are implementing ADS-B have extended the upgrade to NAV/COMs and glass panels. Dan Schwinn of Avidyne projects that only about 40% of the US fleet ADS-B installations will be completed by 2020. He emphasizes the increasing lead time at avionics installation shops and recommends that aircraft owners not wait to schedule an ADS-B upgrade.

Interoperability of analog-to-digital components is another consideration. Existing analog flight directors and autopilots add complexity during the installation process of a glass flight deck. Complexity adds cost during installation, maintenance and trouble-


Used green-tagged avionics are a cost-effective approach to adding new functionality to an older aircraft. Garmin stopped accepting orders for their GNS 530W in 2011, which had a list price of \$12,500 USD, while today a used model is now roughly \$8400 USD. A new GTN 750 has a list price of \$17,200 USD, with an upgrade credit of \$3000 for a GNS 530. Installation costs of new current models will be the same as a reconditioned device. Avidyne's technologies are a direct replacement for the GNS 530/430, reportedly requiring a small amount of installation time. Avidyne offers trade-in credits for GNS 530W/430W of up to \$8500 and \$5000 USD respectively. Installation costs can be impacted based upon the GPS antenna and cabling.

The components of your digital flight bag become part of your up-

grade strategy. A tablet, portable GPS puck, electronic flight bag app, noise-cancelling headset, personal locator beacon, ADS-B receiver and handheld transceiver provide the technologies to equip a pilot for VFR flight. There are many cost-effective component upgrades which improve safety, add value and convenience. Certified panel-mounted USB charging ports add functionality. With the proliferation of battery-operated devices, power management is becoming critical to long cross-country trips.

Graphic engine monitors (GEMs) from the 1980s had limited capabilities outside of EGT, CHT and TIT. Sensors can be added to present-day GEMs to monitor and record many more engine parameters, as well as flight and air data. Insight Industries' (insightavionics.com) approach to upgrading a legacy GEM 610 to a G1/G2/G3/G4

reuses the existing cabling and EGT/CHT/TIT probes. A second connector on the instrument connects the new probes. Fuel totalization is an essential instrument (or option, with a GEM) for managing fuel limits. Reusability reduces total installation cost while delivering new capabilities.

Aircraft upgrades are not limited to avionics. Speed modifications, such as vortex generators, flap gap seals, wing root fairings and NACA inlets each deliver a few more knots. Increasing the aircraft's performance by seven or 10 knots reduces the operating cost per mile, while impacting pilot ego, which in itself is priceless. With a multitude of technology manufacturers and aircraft components, the upgrade budget can get out of control. Balancing value, age and safety delivers well-informed and wise choices, supporting a well-conceived upgrade blueprint. 

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Pour de plus amples renseignements, contactez le Groupe Magnes au numéro de téléphone 1-855-VIP-COPA ou visitez le site internet uavinsurance.ca.

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HANGAR INSURANCE

HOW TO AVOID UNDERINSURING

One of the best forms of protection for your aircraft is a hangar. However, it seems that every year there is a major hangar fire. Once a fire starts, it is easy to understand how quickly it can spread to neighbouring buildings and how much damage it can do. A point in fact, this past winter several millions of dollars of damage in buildings, aircraft and equipment resulted allegedly from a single snowmobile catching fire in a newer frame hangar at an airport in Ontario. Even as an insurance specialist and despite insuring hundreds of them, I personally find hangar insurance to be more complicated than aircraft insurance, with several conditions and loopholes which need to be understood and considered when buying insurance.

As with any asset you own or rent, there are two main exposures you need to be concerned with: liability and physical damage. With respect to liability, your main exposure as a hangar owner or tenant is slips and falls in and around your hangar. However, as pointed out above, you could also be found liable if a fire starts in your hangar and spreads to other buildings and/or damages aircraft or property in the hangars that belong to others. The most important thing to know when insuring a hangar is that the liability portion of a standard property policy will generally exclude anything to do with an airport or aircraft. This is important because, while you need the property policy to insure your hangar, the general liability afforded by most property policies will more often than not be useless to you and a waste of premium dollars. However, we can thank the various aircraft underwriters out there who have backstopped this gap by including airport premises liability as part of your aircraft

insurance policy. Unfortunately, if you own a hangar but don't own an aircraft, you will have to spend some money to buy a standalone liability policy.

As I've pointed out before, no insurance policy is the same, so you need to be aware of what kind of airport premises liability you have under your current aircraft policy. For example, some companies only include liability for hangars that are rented, and you must advise them if you actually own the building so it can be endorsed accordingly. Other insurance companies exclude any hangars that are on a private airstrip because they want to avoid any liability with respect to the runway itself. And in all cases, the airport premises liability extension on your aircraft insurance policy will exclude any damage to third-party aircraft that are renting space from you and that you may be liable for. Therefore, if you do choose to rent out space in your hangar, make sure you discuss this with your broker. They can provide you with the proper advice on how to manage this exposure, whether through added insurance protection, waivers, or both.

With respect to protecting your hangar from physical damage from perils such as wind or fire, the first thing you will be asked for is the replacement cost of the hangar. Replacement cost is defined as the cost of buying (or rebuilding) the same hangar, of similar kind or quality; there is no deduction for depreciation. Market value is not used so, in the case of a hangar, do not be surprised if the replacement cost is much higher than the market value (unlike your home). Obviously, replacement cost is easily determined when your building is brand new by adding up the actual cost of the materials plus the labour needed to build the hangar. However, for an older hangar, we are

forced to rely on appraisers and/or commercial estimators. At Magnes we use the Marshall Swift Boeckh Calculator. It uses a variety of factors such as location, type of construction, year of building, usage and square footage to determine an approximate replacement cost for your building. The age-old challenge that insurance companies face, of course, is making sure that their customers are insuring their buildings at the true replacement cost and that they are therefore collecting the proper amount of premium. And so they rely on the enigmatic co-insurance clause that was created back in the late 1800s. On the front page of most insurance policies, you'll see a column for co-insurance where you'll also see the numbers 80, 90, or even 100 percent. It may not grab your attention, but they are important numbers nonetheless. This means that you actually have to insure to that percentage of your total values in order to qualify for a full claim payment. Here's an example: let's say you have a \$500,000 building and you have a 90 percent co-insurance clause. In order to qualify for a full claim payment, you would have to insure it for at least 90 percent of \$500,000 which is \$450,000. If you insure your building for \$300,000 because that's the amount you bought it for, and disaster strikes and a fire wipes out half the building, your 90 percent co-insurance policy would pay what you actually insured (\$300,000) divided by the amount you should have insured (\$450,000) times the amount of the loss (\$250,000). In other words, your claim payment would amount to \$166,667 (rather than the full loss of \$250,000). Thus the term co-insurance. You'll notice through this little exercise that you become the co-insurer and take on the portion

of the loss that isn't covered by the insurance company. If it sounds a bit nasty, the reason is simple; Insurance companies will guarantee the best rates only when the full values are insured. They're also saying that they'll provide a margin of error by paying a full claim if you insure for at least 80 or 90 percent of the value — whichever is stated on the policy. Remember, you will never receive more than the amount you have insured.

Based on our experience, we think the system is fair. However, in cases where clients with substantial values face possible risk, we've asked the insurance company for a "stated amount" clause which eliminates the co-insurance penalty. The insurance company will usually agree to drop the co-insurance clause if the insured signs a statement indicating their values to be the full replacement cost, and if the insured party purchases coverages for

those full values. In addition to insuring building itself, a good practice is to have an asset list of all your contents, equipment and tools to make sure they are also properly insured as the same co-insurance rules will typically apply.

As far as the premium, pricing can vary according to the type of construction. For example, steel on steel is less combustible than wood frame and often will generate a lower rate per \$100 value. The year built, usage, location, amount of fire protection and prior loss history can also impact the rate. Another important consideration when insuring a hangar is the oft-misunderstood coverage for equipment breakdown (also known as Boiler and Machinery). For most private hangar owners, this will be important if you have a boiler or pressure vessel over 15 psi. If you are operating a maintenance or manufacturing business out of the hangar, this coverage will have an even greater

relevance because of the type of equipment and machinery you are operating. Additionally, landlords and businesses need to consider coverage for downtime and extra expenses if a loss puts your business on hold for an extended period of time. For example, the closing of Fort McMurray's airport during the wildfires resulted in a seven-figure business interruption loss for the airport.

And finally, for certain geographical areas in British Columbia and Quebec, it is not uncommon to see an earthquake exclusion or additional premium charged for including it in the policy. Take the time to understand what you are buying, or call us for advice at 1-888-772-4672. Also ask us about our exclusive hangar pricing for COPA members. The Magnes Group is a proud partner of COPA and available to answer your insurance questions, offer sound advice and negotiate competitive, value-based insurance solutions. ✈️

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ou écrivez nous à: reception@copanational.org



ASSURANCE DU HANGAR

COMMENT ÉVITER LA SOUS-ASSURANCE

L'une des meilleures formes de protection pour votre avion est un hangar. Cependant, il semble que chaque année nous soyons témoin d'incendie majeur de hangar. Une fois qu'un incendie a débuté, il est facile de comprendre à quelle vitesse il peut se propager aux bâtiments avoisinants et quel dommage il peut causer. En fait, plusieurs millions de dollars de dommages à des bâtiments, à des avions et à de l'équipement ont été causés par une seule motoneige qui aurait pris feu l'hiver dernier dans un hangar à charpente de bois de construction récente, dans un aéroport de l'Ontario.

Même en tant que spécialiste de l'assurance et malgré l'assurance de centaines d'entre eux, je trouve personnellement que l'assurance des hangars est plus compliquée que l'assurance des avions avec plusieurs conditions et lacunes qui doivent être comprises et prises en compte lors de l'achat d'assurance.

Comme tout bien que vous possédez ou louez, il y a deux expositions principales dont vous devez vous préoccuper: la responsabilité et les dommages physiques.

En ce qui concerne la responsabilité, votre principale exposition en tant que propriétaire ou locataire de hangar, est une tierce partie qui glisse et tombe (« slip and fall ») dans et autour de votre hangar. Cependant, comme indiqué ci-dessus, vous pourriez également être tenu responsable si un incendie commence dans votre hangar et se propage à d'autres bâtiments et/ou endommage des avions ou des biens dans les hangars qui appartiennent à d'autres.

La chose la plus importante à savoir lors de l'achat d'un contrat d'assurance hangar, c'est que la responsabilité civile incluse dans tout contrat d'assurance de biens/propriétés standard exclura généralement



tout ce qui a trait à un aéroport ou un avion. Ceci est important parce que pendant que vous avez besoin d'un contrat d'assurance de propriété pour assurer votre hangar, la responsabilité générale permise par la plupart des contrats d'assurance de propriété sera le plus souvent inutile pour vous et un gaspillage d'argent.

Cependant, nous pouvons remercier les divers souscripteurs d'aéronefs qui ont déjà comblé cet écart en incluant la responsabilité des installations aéroportuaires dans le cadre de votre police d'assurance d'aéronef. Malheureusement, si vous possédez un hangar, mais que vous ne possédez pas d'avion, vous devrez assumer une dépense supplémentaire pour acheter une police de responsabilité civile.

Comme je l'ai déjà souligné, aucun contrat d'assurance n'est le même, vous devez donc connaître le type de responsabilité que vous avez en vertu de votre police actuelle. Par exemple, certaines entreprises n'incluent que la responsabilité pour les hangars qui sont loués et vous devez les informer si vous possédez réellement le bâtiment afin qu'il puisse être assuré en conséquence.

D'autres compagnies d'assurance excluent les hangars qui sont sur une piste privée parce qu'ils veulent éviter toute responsabilité en ce qui concerne la piste elle-même.

Et dans tous les cas, l'extension de la responsabilité des lieux de l'aéroport sur votre police d'assurance d'aéronef exclura tout dommage pour lesquels vous pourriez être tenu responsable pour les aéronefs de tiers qui louent des espaces de votre part.

Donc, si vous choisissez de louer des espaces dans votre hangar, assurez-vous d'en discuter avec votre courtier. Ils peuvent vous fournir des conseils appropriés sur la façon de gérer cette exposition, que ce soit par l'ajout d'une protection d'assurance, de renonciations ou les deux.

En ce qui concerne la protection de votre hangar contre les dommages physiques causés par des risques tels que le vent ou le feu, la première chose qui vous sera demandée est de savoir quel est le « coût de remplacement » du hangar.

Le coût de remplacement est défini comme le coût d'achat (ou de reconstruction) du même hangar, de type ou qualité similaire, neuf; il n'y a pas de déduction pour la dépréciation. Ce n'est pas la « valeur marchande » et dans le cas d'un hangar (contrairement à votre maison), ne soyez pas surpris si le coût de remplacement est beaucoup plus élevé que la valeur marchande.

De toute évidence, le coût de remplacement est facilement déterminé lorsque votre bâtiment est neuf en

additionnant le coût réel des matériaux et la main-d'œuvre nécessaire pour construire le hangar. Cependant, pour un hangar plus ancien, nous sommes obligés de compter sur des évaluateurs et/ou des estimateurs professionnels. Chez Magnes, nous utilisons le logiciel de calcul de Marshall Swift Boeckh. Il utilise une variété de facteurs tels que l'emplacement, le type de construction, l'année de construction, l'utilisation et la superficie, pour déterminer le coût de remplacement approximatif de votre bâtiment.

Le défi auquel les compagnies d'assurance font face depuis des années, bien sûr, est de s'assurer que leurs clients assurent leurs bâtiments à leur coût de remplacement réel et qu'ils collectent donc le montant approprié de prime. Ils s'appuient donc sur la clause de coassurance (règle proportionnelle) énigmatique qui a été créée à la fin des années 1800.

Sur la première page de la plupart des polices d'assurance, vous verrez une colonne pour « règle proportionnelle » où vous verrez également les chiffres 80, 90 ou même 100 pour cent. Cela n'attire peut-être pas votre attention, mais c'est néanmoins un nombre important.

Voici ce que cela signifie : vous devez effectivement assurer à ce pourcentage de vos valeurs totales afin de se qualifier pour un paiement de réclamation complet. Voici un exemple :

disons que vous avez un immeuble de 500 000 \$ et que vous avez une clause de coassurance de 90 pour cent. Pour être admissible à un paiement complet, vous devez l'assurer pour au moins 90 pour cent de 500 000 \$, soit 450 000 \$.

Si vous assurez votre immeuble pour 300 000 \$, puisque c'est le montant pour lequel vous l'avez acheté et que le désastre frappe et qu'un incendie détruit la moitié du bâtiment. Votre contrat d'assurance avec une règle proportionnelle de 90 pour cent paierait ce que vous avez réellement assuré (300 000 \$) divisé par le mon-

tant que vous auriez dû assurer (450 000 \$) multiplié par le montant de la perte (250 000 \$).

En d'autres termes, le montant de l'indemnité versée s'élèverait à 166 667 \$ (plutôt que la perte totale de 250 000 \$). Ainsi, le nom « coassurance ». Vous remarquerez à travers ce petit exercice que vous devenez le co-assureur et assumez la partie de la perte qui n'est pas couverte par la compagnie d'assurance.

Si cela semble un peu méchant, la raison est simple. Les compagnies d'assurance garantissent les meilleurs taux seulement lorsque les valeurs complètes sont assurées. Ils disent également qu'ils vont fournir une marge d'erreur en payant une réclamation complète si vous assurez au moins 80 ou 90 pour cent de la valeur selon ce qui est indiqué sur le contrat.

Rappelez-vous que vous ne recevrez jamais plus que le montant que vous avez assuré.

Selon notre expérience, nous pensons que le système est juste. Cependant, dans les cas où les clients ayant des valeurs importantes sont confrontés à un risque possible, nous avons demandé à la compagnie d'assurance une clause de « montant déclaré » qui élimine la pénalité de coassurance. La compagnie d'assurance accepte habituellement de renoncer à la clause de coassurance si l'assuré signe une déclaration indiquant que le coût de remplacement est complet et que l'assuré achète des garanties pour ces valeurs complètes.

En plus d'assurer le bâtiment lui-même, une bonne pratique consiste à avoir une liste des actifs de tous vos contenus, équipements et outils pour vous assurer qu'ils sont également correctement assurés, car les mêmes règles de coassurance s'appliquent généralement.

En ce qui concerne la prime, les primes peuvent varier en fonction du type de construction. Par exemple, un bâtiment en structure et revêtement d'acier est moins combustible que

l'ossature de bois et générera souvent un taux inférieur. L'année de construction, l'utilisation, l'emplacement, la quantité de protection contre l'incendie et l'historique des pertes antérieures peuvent également avoir une incidence sur le taux.

Une autre considération importante lors de l'achat d'une assurance hangar, est la couverture souvent mal comprise pour la panne de l'équipement (également connu sous le nom de chaudières et machinerie). Pour la plupart des propriétaires de hangars privés, ce sera important si vous avez une chaudière, ou des récipients sous pression de plus de 15 psi. Si vous exploitez une entreprise de maintenance ou de fabrication à partir du hangar, cette couverture aura une pertinence encore plus grande en raison du type d'équipement de production et de machinerie que vous avez.

En outre, les propriétaires et les entreprises doivent envisager une couverture pour les temps d'arrêt et les dépenses supplémentaires si une perte ralentit ou arrête les opérations de votre entreprise pendant une longue période de temps. Par exemple, la fermeture de l'aéroport de Fort McMurray en raison des feux de friches a entraîné une perte d'exploitation dans les sept chiffres pour l'aéroport.

Enfin, pour certaines régions géographiques de la Colombie-Britannique et du Québec, il n'est pas rare de voir une exclusion liée au tremblement de terre ou une prime additionnelle facturée pour l'inclure dans le contrat.

Prenez le temps de comprendre ce que vous achetez ou appelez-nous pour obtenir des conseils au 1-888-772-4672. Informez-vous également pour une soumission exclusive pour les hangars pour les membres de la COPA. Le Groupe Magnes est un fier partenaire de COPA et disponible pour répondre à vos questions d'assurance, vous conseiller judicieusement et négocier des solutions d'assurance compétitives. 🏠

FLIGHT SAFETY HACKS

STACK THE ODDS OF RESCUE IN YOUR FAVOUR



We all brag that aviation is one of the safest modes of travel. That being said, it is not without some inherent risks. Sometimes things go badly and, when they do, it becomes one of the few times in life when it's ok to "cheat", especially when you are trying to cheat death. The way you do this is to stack the odds so much in your favour that a positive outcome increasingly becomes the only outcome possible, regardless of the circumstances. Having a mindset that sometimes it's ok to cheat may be the difference between making it back or not. In that vein, at CASARA we like to cheat — a lot. Let me show you some of the things that CASARA aircrews do to move that safety dial into the green arc.

I mentioned in my last article about carrying a SPOT tracking unit on board. This is a truly great device and, for the price, almost a common-sense necessity for any aviator. Is it the only device you need? No, far from it. It takes many different devices and processes, each adding their own nuance, to truly give you a complete blanket of safety. SPOT, as good as it, will not auto-activate. When an emergency strikes, and the immediate feeling of disbelief and denial wears off to be replaced with thoughts of one's own mortality, little thought is given to remembering to turn the SPOT from tracking to emergency

mode. Other more pressing issues, such as why my aircraft is on fire and where am I going to land, completely occupy our thoughts. So, go ahead and cheat. Add it to your communications emergency checklist right after "aviate, navigate...". Another fact is that SPOT units can and have been ejected from aircraft and landed upside down, thereby rendering them useless. Regardless, on every CASARA flight, either training or on actual searches, our SPOT units are on and in tracking mode. The Joint Rescue Coordination Centre (JRCC) has access to all our aircraft now and can see where we have been within the last five minutes.

Most CASARA aircraft are now using the industry-standard 406 MHz ELTs. Perhaps it's time to have that sober conversation about your

own ELT. Let's face it, the 121.5 unit in your aircraft is probably very old. While it may continue to pass its test every year, do you really want to be placing your precious life, your future as well as your passengers' safety on such old technology? They fail so often that over 90 percent of the time there is in fact no emergency, just a failed ELT. While it's true that all high-altitude flyers (usually airliners) must monitor 121.5 MHz, consider this: once the JRCC controller gets enough hits from high flyers, they begin the search process by drawing a number of circles on a map based on altitude and speed of the high-flyer in order to locate the signal. See the picture of what that looks like. It's pretty sobering given the area that would need to be searched is in the thousands of square kilometres. That means it's going to take a long time to find you. Perhaps you're injured, maybe seriously. Your life is priceless. Why not spend a little money now, knowing the latest technology is there to help you cheat death by narrowing that search area down to about 50 square kilometres? These units are far more robust and must meet a more rigorous standard (Technical Standard Order C-126). Once you have registered it (a free service), they have the added feature of turning a very expensive and unnecessary search into a more agreeable phone call from JRCC asking if you are okay. Assuming you are, and your ELT has gone off accidentally, the worst that will happen is the controller will ask you to go turn it off. No one is ever fined, no Hercules or Griffon or Cormorant deployed at thousands of dollars per hour and no CASARA aircrew called away from their Thanksgiving weekend. I mention this last thought only because

last Thanksgiving I was involved in three searches encompassing the entire weekend, from Friday evening to the following Monday morning. All of them were due to defective or accidentally activated ELTs. My team located the last one after spending many very wet hours searching a subdivision, only to discover the owner had dropped his ELT on the floor of his garage. If he had a 406 ELT, it would have been resolved in about five minutes with a phone call.

As for flight plans, why not file, remembering Nav Canada is there to serve you? As an aircraft owner, you pay for their services annually. Why not get your money's worth? CASARA always files flight plans, even on training exercises. "Yes, but I usually just leave a flight itinerary." In some instances (very few, in fact) it makes sense. However it is the lazy way of complying with the 25-nm rule, and does not guarantee that the person you left the itinerary with will check in on you when you forget to call them after you land. I recall a story about someone who left a flight itinerary with his or her spouse, who promptly called the police, rather than the JRCC, after the aircraft did not return at the appointed hour. The police then simply filed a missing person report. Unfortunately, this added three days to the search. The missing person was not amused. Nav Canada are the pros. Why would you not use them? Finally, your greatest weapon; an abundance of common sense. Subscribe to the IMSAFE mnemonic accompanying this article. 🇨🇦

TIP OF THE MONTH

This is Canada and the temperatures are in flux. Make sure your wings are completely free of even the smallest amount of frost and snow before launching. It's good airmanship and is one more way to cheat.



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ON THE HORIZON

AIRDRIE, AB: COPA Flight 134 regular monthly meeting. 1st Thursday of the month at 19:30 held at Airdrie Airport (CEF4) - 4.5 kms east on Yankee Valley Blvd off Highway 2. For more information, please see our website www.airdrieflyingclub.ca or email us via the web contact form.

AYLMER, QC: Monthly breakfast meeting on the 1st Saturday of the month. Come and talk about aviation with passionate flyers! Wives and children are welcome. For more information, please contact Maurice at 819-360-0706 or Andre at 819-329-2830. Déjeuner mensuel les 1er samedi du mois au restaurant Aylmer BBQ situé au 134, rue Principale (Aylmer), Gatineau, 819-684-4372. Venez parler aviation avec des pilotes passionnés! Les conjointes et les enfants sont bienvenus. Pour plus d'information contactez Maurice 819-360-0706 ou Andre 819-329-2830.

BEAVERLODGE, AB: Flight 184's monthly meeting is held on the third Tuesday of the month at 1930 hrs in the Board Room on the second floor of the Grande Prairie Airport Terminal Building.

BORDEN, ON: Flight 84's Monthly meetings are held on the third Thursday of the month at Edenvale Aerodrome (CNV8) at 1900h. www.bordenflyingclub.com.

BRANTFORD, ON: Flight 148's Monthly meetings are held on the third Wednesday of each month, at 1900 hrs, Brantford Flying Club

CALGARY AB: The Aerobatic Club of Alberta would like to invite you to our monthly meeting which occurs at 1930 the second Tuesday of each month. Get together and socialize with others who; have a casual interest or curiosity in aerobatics and aerobatic aircraft, occasionally conduct an aerobatic maneuver or are currently pursuing aerobatic competition. We meet to discuss various club events, aerobatic training, aircraft's and participate in various social activities. Location of the monthly meeting does change so please visit our web site www.aerobaticscanada.org for details and more information about the club, events, contest results/photos and contact information.

CARLETON PLACE, ON: Flight 121's Monthly meetings are held on the last Saturday of every month at 1000h at the Carleton Place Airport.

CHARLOTTETOWN, PEI (CYYG): COPA Flight 57/PEI Flying Assoc. Every Saturday at 0800 hrs join our members for breakfast at Razy's Roadhouse, 161 St. Peters Rd., Charlottetown. Also on the first Saturday of the

summer months we have our Saturday Fly-in & Burgers from 1200 until 1400 hrs. No Ramp or landing Fees. For more information or to arrange a ride from Apron 2, please contact Brian at 902-626-6963 or Barry 902-626-5882, pound@pei.sympatico.ca.

CHATHAM-KENT, ON: COPA YCK will host their monthly meetings every first Monday of each month at 1900h.

CLARENCE-ROCKLAND, ON: Flight 132, Embrun. Meetings every first Thursday of each month at 20:00 at 3984 Indian Creek Road, city of Clarence-Rockland.

CORNWALL, ON: Flight 59's Meetings are the 2nd Saturday of each month at 9 am at Cornwall Regional Airport (CYCC).

EDENVALE, ON (CNV8): Every Thursday from January 5-December 15, the Edenvale Classic Aircraft Foundation restoration shop is open and we invite everyone to fly over, or drive by and pay a visit. Membership flights are available in all our tail-dragger aircraft, including the Tiger Moth and Fairchild Cornell. For more information, contact Bryan Quickmire at 705-818-2223 or info@classicaircraft.ca. Visit our website at www.classicaircraft.ca.

EDMONTON, AB: COPA Flight 176 regular monthly meeting. 1st Thursday of the month at 1930 held at the Alberta Aviation Museum - 11410 Kingsway Avenue NW in the lecture area. For more information, please see our website or contact Janis at treasurer@copaedmonton.ca.

ESTEVAN, SK (CYEN): Regular COPA Flight 3/ Flying Club Meeting, held 2nd Tuesday of even numbered months, February, April, June, etc. at 1930 in main terminal building. For more information, please contact Neal Linthicum at 306-421-7629 or nealandndine@hotmail.com.

GRAND FALLS-WINDSOR, NL: COPA Flight 195 Regular monthly meeting (excluding June, July and August) held 3rd. Tuesday at 1900 in the community room of IBEX Fuels, 46 Hardy Ave. All welcome whether you are a seasoned pilot, or just getting interested in aviation come on out.

GUELPH, ON: COPA Flight 1's meetings will be held the first Tuesday of the month, 1930hrs at the Guelph Airpark Café.

HANOVER, ON: Flight 54 Monthly meetings on every 2nd Saturday of the month at the CYHS SMA Boardroom from 0930 to 1030. Everyone welcome!

HAVELOCK, NB: COPA 27-The Havelock Flying Club invites you to fly-in or drive-in for breakfast any Sunday of the year. Our weekly Breakfasts are served between 0800 and 1000. For more information check out our website at www.havelockflyingclub.ca

HAWKESBURY EAST, ON (CPG5): COPA Flight 131 monthly breakfast meeting on the 1st Saturday of the month from 0830 to 1100 hrs. Come and talk about aviation with passionate flyers, make new friends and enjoy the friendly, homey atmosphere. For more information, please call Michel at 819-923-6767 or HawkesburyFlyingClub@gmail.com. The airport web site is <http://www.east-hawkesburyairport.com>

HAWKESBURY EST, ON (CPG5): Escadrille 131 déjeuner mensuel les 1er samedis du mois de 8h30 à 11h. Venez parler aviation et faire de nouveaux amis dans une ambiance amicale. Pour plus d'information, contactez Michel 819-923-6767 ou HawkesburyFlyingClub@gmail.com. Notre site web pour l'aéroport est <http://www.easthawkesburyairport.ca>

HIGH RIVER AIRPORT, AB (CEN4): First Thursday of every month at the 187 Squadron Royal Canadian Air Cadet Hangar the EAA Chapter 1410 has their monthly meeting 1830 - 2100. Whether you have a casual interest in aviation, you are an active pilot, or you are an avid homebuilder of aircraft, we offer the chance to meet others who combine fun with learning. We meet to learn from informative speakers, participate in various social activities, and are active in the flying community. Come by and visit! Please contact Paul evenings at 403-271-5330 or eaahighriver@shaw.ca. Visit our website at www.eaahighriver.org for more details.

HINTON, AB: COPA Flight 126 is also the Hinton Flying Club. Meetings on the second Friday of the month at 2000 hrs at the Hinton/Entrance Airport Clubhouse/Terminal Building.

KELOWNA, BC (CYLW): COPA Flight 36, Kelowna Flying Club, Apron III Event General Meeting, 1st Tuesday of each month. Pre-meeting BBQ starts at 1800; meeting starts at 1900. Join us for news and updates, guest speakers and fellowship! For more information, please contact John Itterman at Info@kelownaflyingclub.com or go to our website at <http://kelownaflyingclub.com>.

KITCHENER, ON (CYKF): COPA Flight 26, Breslau Flyers. Monthly meetings are held on the second Tuesday of each month (September-June) at 1900 hrs in an upstairs

ON THE HORIZON

classroom at the Waterloo Wellington Flight Centre. A variety of speakers present a range of interesting aviation topics. All are welcome. For more information, please contact Flight Captain Gordon Millar at gordon.millar@rog-ers.com or visit the website for the Breslau Flyers at <http://www.copaflight26.com%22/>

LAC LA BICHE, AB: COPA Flight 165. Monthly meeting held every second Tuesday at CYLB terminal building. AGM on or before October 1 each year. <http://www.laclabicheflyingclub.ca>

LETHBRIDGE, AB: The Lethbridge Sport Flyers, COPA Flight 24 would like to invite you to our weekly Saturday morning breakfast, 0730 held at Smitty's Pancake House, 2053 Magrath Dr. S. in Lethbridge, Alberta. We encourage you to call ahead if you're in the area. If you catch us at a Fly-In instead please feel welcome to join us there. All of our activities including the postings of our monthly meetings can be found on our Event Calendar at <http://www.lethbridgesportflyers.com>. To contact us, please call our club President, Mic Thiessen at 403-327-8808 or send us an email at Lethbridge-Sport-Flyers@telus.net.

LINDSAY, ON: Kawartha Lakes Flying Club COPA Flight 101 has a regular monthly meeting on the 1st Wednesday of each month at 1900 at LCVI High School, 260 Kent Street West, in Lindsay. Enter through the cafeteria's east door. We meet to discuss various club events with a focus on promoting aviation interest within the Kawartha Lakes. No meetings are held in July (BBQ) and December (Christmas Party). The Kawartha Lakes Municipal Airport, Lindsay consistently has the lowest fuel prices and the Airport View Restaurant, a "pilot's restaurant," serves up what are commonly referred to as, "The World Famous Butter Tarts." The airport supports an active float-based membership. For more information, please contact Bob Burns at bobklfc@gmail.com, or visit the Kawartha Lakes Flying Club at klfc.ca.

MEDICINE HAT, AB (CYXH): Flight 171 Medicine Hat (Gas City Aviators) Club meets the last Thursday of the month at the Club Hangar at 1900. Additionally coffee and donuts every Wednesday from 0900 to 1030 at the club hangar.

MIRAMICHI, NB: Flight 39. Monthly meetings 1st Sunday of every month at 7:30 pm.

NANAIMO, BC (CYCD): Welcomes you! Nanaimo Flying Club holds regular meetings; Third Sunday of every month 0930, followed by guest speakers & lunch. Meet & greet breakfasts or brunches held first Saturday of every month. Keep the dust off your wings;



join our "Truancy Squadron" callout offering weekly impromptu fly-outs. The cost is free — the fun, priceless. Visit for a round of golf next door, or join the BC-Social-Flying group on Yahoo to see what's happening. Special events & theme parties held throughout the year. Social activity suggestions to encourage flying and relations with other clubs always welcome. Co-ordinates are lat 49.1683°, long -124.0357°. For more information, please contact Don at 250-758-3540 or president@nanaimoflyingclub.org. Visit our website www.nanaimoflyingclub.org.

OKOTOKS, AB (CFX2), Foothills Flying Club, COPA Flight 81 regular meeting at 1930, last Monday of the month, Okotoks Elks Hall, 58 Elizabeth St. Okotoks AB. For more information, please contact Robert at foothillsflyingclub@icloud.com or 587-226-9753, or visit our website at <http://www.foothillsflyingclub.com/>

OLDS/DIDSBURY, AB (CEA3): Monthly Meetings held every first Tuesday of the month at Olds-Didsbury Airport at 1930 hrs. COPA Flight 142 fly-in second Saturday of each month 0900 until 1300hrs. Discounted Fuel, coffee and donuts. Everyone welcome to come and meet fellow pilots and take advantage of the discounted fuel. For more information, please contact Ed Shaw at 403-701-1600.

L'ORIGINAL, ON: CPG5 East Hawkesbury airport every first Saturday of the month for breakfast from 0830 to 1100.

OSHAWA, ON: Flight 70's meetings are held on the first Thursday of Every Month at 7:30 PM at 420 Wing Oshawa

PONOKA, ON: COPA Flight 187 monthly meeting is held on the first Monday of every month at 1900, at the airport terminal.

PENTICTON, BC (CYF): Penticton Flying Club / COPA Flight 50 holds its monthly meeting on the second Tuesday of the

month at 1900 hrs at the club house on 126 Dakota Way. All pilots and members of the public interested in aviation are welcome. We also meet every Thursday morning at 1000 hrs for an informal coffee chat at the club house. Fly-ins are always welcome! For more information about both events, please contact Ron Johnson, ronjohnson@telus.net 250-493-0441.

PETERBOROUGH, ON: Flight 34's meetings are every 2nd Wednesday of the month, 7:00 pm, Peterborough Airport Terminal.

PICTON, ON (CNT7): COPA Flight 53, breakfast on the second Sunday of every month starting at 0800 a.m. April-December. Located at the Prince Edward Flying Club, co-ordinates N 43 59 21 W77 08 21. For more information, please call Jeff & Jackie Douglass at 613-471-1868.

PITT MEADOWS, BC (CYPK): Aero Club of BC is holding its traditional fly-in and fuel sales. Every 3rd Sunday of the Month 09:00 to 18:00. Free hot dogs and coffee between 1100 and 1500. Regular Meetings are held on every (first) 1 Wednesday of the month starting at 1930 for Aero Club events please connect to our <http://aeroclubofbc.ca/> and join our Facebook Page.

PLYMPTON-WYOMING, ON: Sarnia Flight 7 holds their monthly meetings at 1900, every fourth Monday of the month at the Naval Association located at 403 Wing, 1430 Lougar Avenue, Sarnia.

POINTE CLAIRE, QC: Every 3rd Thursday except June, July, August & December, the Montreal Chapter of the Canadian Aviation Historical Society features a guest speaker at their 1100 hrs meeting at the Pointe Claire Legion Hall, 365 St-Louis. Light lunch provided, \$5 voluntary landing fee requested. Anyone interested in the history of civil or military aviation is welcome. For more information, please call Ron at 450-463-1998.

ON THE HORIZON

PONTIAC, QC: COPA Flight 169 Pontiac Monthly breakfast meeting on the 1st Saturday of the month. Come and talk about aviation with passionate flyers! Wives and children are welcome. For more information, please contact Maurice at 819-360-0706 or Andre at 819-329-2830.

PONTIAC, QC: Escadrille 169 Pontiac: Déjeuner mensuel les 1er samedi du mois au restaurant Aylmer BBQ situé au 134, rue Principale (Aylmer), Gatineau, 819-684-4372. Venez parler aviation avec des pilotes passionnés! Les conjointes et les enfants sont bienvenus. Pour plus d'information contactez Maurice 819-360-0706 ou Andre 819-329-2830.

QUEBEC, QC : Escadrille 169, 3e Lundi de chaque mois 19:30 hr. À divers endroits chez divers membres. Flight 169, 3rd Monday of every month, 1930 / Call for information / Téléphoner pour information (418) 889-9023

RED DEER, AB: Red Deer Flying Club / COPA Flight 92 meet on the 3rd Monday evening of each month (except July & August) at the Flying Club building directly north of the Red Deer Airport Terminal Building. Meetings start at 1930. Always an interesting program or speaker. For additional information call Bert at 403-350-5511 or visit reddeerflyingclub.org.

SASKATOON, SK: Flight 10 meets every second Tuesday of the month at 1900 at SK Aviation Museum classroom.

SEDGEWICK, AB (CEK6): Iron Creek Flying Club, COPA Flight 157 regular monthly meeting, second Thursday of each month at 1930 at the Flagstaff Regional Airport terminal building. Drive or fly in. Cardlock fuel available 24 hours and courtesy vehicle. Everyone welcome. For more information, please contact Shelley at shelley@ccewireless.ca.

SHOAL LAKE, MB (CKL5): Shoal Lake Flying Club/COPA Flight 162 holds general meetings on the second Tuesday of every second month (Feb, April, ...) at 1930 at the Airport Terminal Building, visitors welcome. The December meeting is a potluck supper followed by a short Annual Meeting and a social event. Check the meeting schedule by clicking on the News and Events tab at www.sflflyingclub.com. Email sflflyingclub@gmail.com for more information.

SUNDRE, AB: Sundre Flying Club meetings second Thursday of the month at 1930. Hamburgers and hot dogs and snacks anytime at terminal-self serve. For more information, please contact Myron Bignold at 403-638-7370 or winnmy@telusplanet.net.

STAR CITY / TISDALE, SK: COPA Flight 93. Monthly meetings on the 3rd Monday of the month Sep-Jun at the Tisdale Airport Terminal Building.

VAL D'OR, QC: COPA Flight 192's monthly meetings are on every 2nd Tuesday of the Month. 1800 at Hangar Q-60, Val-D'Or, QC.

VERNON, BC (CYVK): COPA Flight 65 hosts a regular monthly meeting every 3rd Tuesday of the month at 1900 until September 18th inclusive. There is a BBQ before the meeting Apr, May, and June, 1730 hrs. Potluck BBQ but no Meeting in July and Aug, 1730 hrs. The AGM is held the 18th September 2018, at 1900 hrs. There is also a monthly Pancake Breakfast every fourth (4th) Sunday up to and including August 2018, 0900-1100.

VICTORIA, BC (CYJY): COPA Flight 6 usually meets the first Tuesday of each month from 1900 until 2100. You do not need to be a member of the VFC or of COPA in order to participate. For more information, please contact copaflight6@gmail.com.

WELLAND, ON: Flight 149. Monthly meeting held every 3rd Tuesday of each month. Niagara Central Airport, Pelham. 7:00 pm

WESTLOCK, AB (CES4): Copa Flight 139 (Westlock Flying Club) regularly meets on the third Thursday of every month at 1900, in the terminal building at Westlock Airport. For more information, contact Dan at dan@syz.com or 780-961-2213. We look forward to seeing you!

WETASKIWIN, AB: Flight 51 meets every first Tuesday of the month.

WIARTON/GEORGIAN BLUFFS, ON: COPA Flight 68 monthly meeting is held the 1st Saturday of the month at 0930hrs at the Wiarton/Keppel International Airport CYVV at the airport Terminal Building. For more information, please contact Don Colter at 519-793-3473 or dshcolter@cabletv.on.ca

ON THE HORIZON

MARCH 2018

MARCH 2, SMITH FALLS, ON: Flight 101. Smiths Falls Flying Club Spring Seminar. 2018 Spring Rust Remover. Flight Safety Seminar. Seminar Focus: Discipline, Precision, Awareness. The evening starts with REFRESHMENTS at 6:00pm and SEMINAR starting at 7:00pm. Come out & enjoy an evening at the club, this seminar is open to everyone. Seminar location is at the Smiths Falls Airport (CYSH). 102 Van Exan Drive, Montague, Ont. (11 kms east of the town of Smiths Falls

off Roger Stevens Rd.) <http://www.smiths-fallsflyingclub.com/> Airport# 613-283-1148

MARCH 3, KARS, ON: RAA Chapter 4928 16th Annual Winter Ski Fly-In BBQ RAA4928, Ottawa-Rideau Chapter's 16th Annual Ski Fly-in at the Rideau Valley Air- park. CPL3 Coordinates N45°6.00' / W75°38.00'. Talk-in on 123.4 Mhz. Home cooked food will be served from 11:00 AM to 2:00 PM. PUBLIC WELCOME. Drive-ins: The field is south of Dilworth road at the Rideau River, Take the Dilworth exit off Hwy 416 . Contact Chris Williams at 613-296-3391 for field conditions before leaving.

APRIL 2018

April 10 - 15, Lakeland, FL: Sun 'n Fun is generally accepted to be the first show of the season and the weather in central Florida is generally warm and welcoming. In addition to a major air show, the event features a massive trade show and educational forums and seminars.

APRIL 21, KELOWNA, BC (CYLW):

COPA flight 36, Kelowna Flying Club. Our 4th annual RUST REMOVER will be held Saturday, April 21, in Hanger 9 of the T Hangers at YLW. Keynote speaker will be John Mullock, an acclaimed aviation meteorology and mountain weather expert; Dr. Morris with 10 tips on how to keep flying into your 80s; Kelly Collins on Mountain Flying, up and down drafts, and at least one other speaker. Check-in is at 0830 and the program runs from 0900 to 1400. Attendees of this COPA approved Rust Remover will qualify for a log book sticker showing they participated in currency training to meet CARS 421.05. People flying in on April 20 for an overnight stay or early on the 21st will be given free parking at YLW — just ask Ground (121.7) for taxi instructions to the T Hangers and our marshall will meet you there. Visitors in cars can also park free outside Hanger 9. Cost for the RUST REMOVER is \$25 and includes coffee, a light breakfast of Danish pastries, and a hearty lunch. We welcome overnight guests and we will host you and our members to free hamburgers, hot dogs and beverages from 1700 to 2000 on Friday evening. After the RUST REMOVER we usually do a fly-out to an Okanagan Valley airport. Please e-mail michael@blairkelowna.com if you are coming to our RUST REMOVER so that we can plan for you. For more information call Michael Blair at 250 575 4584.

APRIL 21, TILLSONBURG, ON: The Canadian Harvard Aircraft Association is once again pleased to host the Annual Awards Banquet and Fund-Raising Auction. Everyone welcome! Date: Saturday, April 21, 2018. Location: Royal Canadian Legion Branch 153, 16 Durham Street, Tillsonburg, ON N4G 1V7.

ON THE HORIZON

Time: Altitude Adjustment 4:00 PM, Dinner served at 5:00 PM. Cost: \$35.00 per person (advance sales only by April 15). Special Guest Speaker: Leon Evans, Chief Pilot of the Canadian Warplane Heritage; Lancaster Pilot, Tour of England. Tickets may be ordered at www.harvards.com or by contacting Jeannette Rooke at 519-539-2762 or email jerooke@msn.com. For other event information or to donate to the auction, please contact Pat Hanna at 519-212-6021 or email p_hanna@harvards.com

APRIL 29, FLIGHT 54. CYHS Hanover Saugeen Annual Rust Remover. 0830 registration, 0900 presentation start and 1130 finish

OVER THE HORIZON — 2018

MAY 2018

MAY 5, VERNON, BC: Vernon Flying Club, COPA Flight 65, will hold its annual "Rust Remover" recurrent pilot training on Saturday 5th of May 2018. Registration 0800 hrs. Training sessions 0900 to 1500 hrs with lunch supplied. Visit their website <http://www.vernonflyingclub.org/> for more information.

MAY 12, DRAYTON VALLEY, AB: (Rain Date May 13) Fly in Breakfast, Drayton Valley (Flight 186) at CER3 8am to 11am. Donations for meal. Fly or drive in. Contact Jason Colby 780-542-1485.

MAY 26, ABBOTSFORD, BC: Flight 83. Wings 'n' Wheels at Abbotsford Flying Club (CYXX). Saturday May 26th 08:00 to 15:00. All welcome. Airplane, Car and Motorcycle awards. Grass area parking around clubhouse. Early arrivals and camping available Friday. Free and friendly event, no registration. Free coffee 08:00. Brunch 9:30 to 12:00 \$8. Live music. Cash Draws, Awards 12:30. Ruth: 778.808.5887 Ed: 604.538.3814. info@AbbotsfordFlyingClub.ca www.AbbotsfordFlyingClub.ca

MAY 26, CHATHAM KENT MUNICIPAL AIRPORT (CYCK), ON. Breakfast and Safety seminar. Hosted by RAA chapter 4975. Kent Flying Machines. Fly in or drive in. Fuel available. Breakfast 8:00am to 10:00am. Safety Seminar starts at 10:00am. For directions check out our web site at kentflyingmachines.ca or the Canada Flight Supplement. For more info call 1-519-692-5309.

MAY 27, CAMROSE, AB: Camrose Flying Club / COPA Flight 137 annual Fly-in Breakfast from 0700h to 1200h.

JUNE 2018

JUNE 9, RIMOUSKI, QC : Association Aéro-

Sportive de Rimouski — Club COPA 202 (CYXK). 9 juin 2018. Rendez-vous aérien et portes ouvertes. Au programme : Dîner hot-dogs de 11h30 à 14h00, breuvages, cafés, collations. Visite des installations de SOPFIM et de l'aéroport, simulateur (Beech Baron 58). La plus cordiale des bienvenues ! Remis au lendemain en cas de pluie. / 9 June 2018. Fly-in and open doors : lunch with hot-dogs from 11 :30 to 14 :00, beverages, coffee, snacks. Tour of the installations of SOPFIM and of the airport. Simulator on-site (Beech Baron 58). A warm welcome ! Postponed to 10 June 2018 in case of bad weather.

JUN 9, DRAYTON VALLEY, AB:

(Rain Date June 10) Copa for Kids, Drayton Valley (Flight 186). Contact Jerry Greiner 780-621-2555 for info.

JUN 9, EDMONTON, AB:

COPA Flight 176 is holding a Fly-In Breakfast followed by our annual Rust Remover. Please register for the Rust Remover on our website. Registration fee \$30 prior to June 1. After June 2 and at the door \$40. TIME: Fly-In Breakfast: 8:00-10:00. Rust Remover: 0:30-15:00 (complies with Transport Canada Recurrency Requirements). LOCATION: Villeneuve Airport — CZVL. CONTACT: Janis — treasurer@copaedmonton.ca REGISTRATION: www.copaedmonton.ca

JUNE 10, CARMAN, MB: Airport Day. Fly-in, brunch, events. Contact: (204) 745-0426; jcarley@mymts.net

JUNE 10-15, CAMP ANJIGAMI, ON:

Fly from Otsego Lake's splash-in, directly to Camp Anjigami, then fly directly to Grand Marais' splash-in. Make it a week of flying, a splash-in "Trifecta"! Where: Camp Anjigami, Ontario, Canada (N047.50.36 W084.35.36) Cost: \$150.00 USD per person / per night (stay 1 — 4 nights) (plus HST tax) (This special rate applies to this event only) Price includes: Accommodations (2 adults per room), Meals (BYOB), Boats motors and gas (2 per boat), Advice and help with border crossing (Procedures can be found @ www.CampAnjigami.com, click seaplanes, border crossing). Does not include the cost of fishing licenses (www.Ontario.ca/outdoors-card). RSVP required, please call or email as soon as possible, accommodations are limited. williams@CampAnjigami.com or (239)588-0560.

JUN 16, FLIGHT 54. CYHS Hanover Saugeen COPA For Kids. 0830 registration, 0930 fly-in start and 0200 flying finish.

JUNE 16-17, SHERBROOKE, QC (CYSC):

Les Faucheurs de Marguerites, COPA

Flight 37, is proud to invite all COPA members and the aviation community to its 24th annual fly-in, hold at the Sherbrooke airport. A lot of aircraft of all kinds, a fly market, static displays, work shops, exiting conferences and seminars, home built/restoration contest, commercial exhibit, aircraft manufacturers, aircraft clubs and more. Saturday night special dinner, movies and signers. Free camping on site. Contact Real Paquette 819 878-3998; send us an e-mail at lesfaucheurs@hotmail.com; or visit our website at www.lesfaucheurs.com.

JUN 16-17, SHERBROOKE, QC (CYSC):

Les Faucheurs de Marguerites, COPA Envol 37, est fier d'inviter tous les membres de COPA et toute la communauté d'aviation récréative du Canada, à son 24ième rendez-vous aérien annuel tenu à l'aéroport de Sherbrooke. Au menu: beaucoup d'aéronefs de tous genres, marché aux puces, avions en démonstration statique, ateliers de construction amateur, conférences et séminaires, concours de construction et restauration d'aéronefs, comptoir commerciaux, manufacturiers d'avions, clubs d'aviation, souper festif du samedi soir, projection de film, chanteurs, restaurant sur place. Tours d'avions et d'hélicoptères si la météo le permet. Camping gratuit sur place. Contactez Réal Paquette au 819 878-3998, ou écrivez-nous à lesfaucheurs@hotmail.com. Visitez www.lesfaucheurs.com.

JUNE 21-23, SAINT JOHN, NB (CYSJ): The Atlantic Flight Centre and COPA Flight 193 (Saint John) will be hosting the 2018 COPA Convention and Tradeshow. Stay tuned for more details.

JULY 2018

JULY 8, BANCROFT, ON (CNW3):

COPA Flight 119, Annual Fly-in Pancake Breakfast from 08:00 until noon. Dedicated food line for fly-in guests. Held in conjunction with the Town of Bancroft's annual Water, Wheels and Wings weekend. Festivities in town all weekend. Static Displays, Vintage Cars. Jet A and 100LL available by VISA credit card. No landing or tie down fees. Camping allowed on the airport. For more information contact Gary Gaudreau Email at gary@bancroftflyingclub.ca.

JULY 14, KARS, ON (CPL3):

Kars Rideau Valley Airpark (CPL3): RAA Chapter 4928 16th Annual Kars 'n' Planes Summer Fly-In BBQ. Comm 123.4 RWY 26/08 Glider activity in area. Homebuilt, Classic and Antique Aircraft, Rideau Valley Soaring Club, BBQ served from 11 AM till 2 PM. Sausages on a Bun, Steamed hot dogs plus assorted beverages. PUBLIC WELCOME. Dilworth Road just East of Highway

ON THE HORIZON

416. For more information on the field conditions please call Larry Rowan 613-489-2332 or Chris Williams 613-296-3391.

JULY 14, MIDLAND/HURONIA, ON, CYEE, UNICOM 122.85:

Annual RAA Northern Regional Fly-In (NRFI), hosted by the Midland RAA chapter. A Transport Canada approved seminar is scheduled for 10:00. Zenair factory and the Midland Model Railway Association, both located on the field, will hold coincident open houses. Antique/Classic cars and motorcycles will also be on display. Breakfast and lunch will be available. For further information, please contact Rob MacDonald at 705-549-1967, Ray McNally at 705-717-2399. airport at 705-526-8086 or raa.midland@gmail.com

JULY 15TH, VULCAN, AB. Vulcan Flying Club's (C-FX6) Annual Fly-in Drive-In Breakfast, Red & White Hanger. Starts at 8 till 11 am. All are welcome.

JULY 21, VERNON, BC (CYVK):

Join COPA Flight 65 for COPA For Kids.

0800 - 1200. Visit the website <http://www.vernonflyingclub.org> for more information.

JULY 23-29 OSHKOSH, WI: EAA AirVenture OshKosh, come and meet us at the COPA booth and join us at the great Canadian Cook-out, sponsored by Magnes and AIG.

AUGUST 2018

AUGUST 9-13, ABBOTSFORD, BC:

Flight 83. Abbotsford Air Show Fly-In / Camping. Free aircraft parking and camping. August 9th through Mon 13th. Showers, meals, club hospitality. Arrivals and practice Thursday and Friday. Full night show Friday evening. Day shows Saturday, Sunday. www.AbbotsfordAirshow.com info@AbbotsfordFlyingClub.ca

AUGUST 12, LEGAL, AB: COPA Flight 139 (the Westlock Flying Club) will be hosting our annual fly-in/drive-in breakfast from 7:00 am - 11:00 am on Sunday, August 12th. For more information, contact Dan at dan@syz.com or 780-809-1788. We're looking forward to seeing you there at the Westlock Airport (CES4)!

AUGUST 18-19, 2018 FAIRMONT HOT SPRINGS, BC (CYCZ). Seventh annual airport free fly in. Come and enjoy all the amenities of the Columbia Valley and what the Airport has to offer. Co-ordinates N50.90.15 — W115.52.24, ATF 123.200. 5 cent fuel discount, Hot springs pool passes and shuttle, resort room discounts. Discounts at our three golf courses with shuttle or play for free on our championship one hole course at the Airport. Free BBQ 1430 hrs August 18 2018, Pancake breakfast.

AUGUST 19 2018.

50/50 charity draw and any requested activities if possible. All monies raised are for the Chris Rose Therapy Center for Autism. Free camping on site for a hundred or so. Everyone flying in receives the coveted CYCZ key chain. For discount codes and alternate accommodation please contact Shawn Jestley (250) 345 - 2121 or sjestley@fhsr.com

SEPTEMBER 2018

SEPTEMBER 8, FLIGHT 54. CYHS Hanover Saugeen COPA For Kids. 0830 registration, 0930 flying start and 0200 flying finish.

THE Neil Armstrong SCHOLARSHIP

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or write us at: reception@copanational.org





FOCUS ON SAFETY

.....

Your winter maintenance is done, the airplane is in perfect shape but are you ready for a safe flying season? COPA consulted its vast network of experts across the country for some timely tips to get you, as a pilot, in flying shape.

.....

SITUATIONAL AWARENESS

HOW TO REDUCE PILOT ERROR

BY JC AUDET

Aircraft accidents are thoroughly investigated, as a matter of course, for the stated purpose of improving aviation safety through preventing re-occurrences of these events. Over the years, these highly detailed investigations have identified pilot error as the cause of the overwhelming majority of these accidents. This applies to all forms of aviation, be they commercial, military, sport, business, etc. With further research and in-depth evaluation, we have reached the point where pilot error, and all its associated variations, can be grouped under the umbrella of situation awareness (SA). SA is not limited to what is around our aircraft when we fly; SA begins when we start thinking about our next flight tomorrow morning, carries on throughout the whole flight and stops when we get back in the clubhouse after the flight. SA also includes what goes on inside the cockpit and in our head.

In a paper published in 1988, M.R. Endsley, a researcher in human factors, defined SA as "...the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future". It's quite an encompassing and complex concept, thus not suitable for a detailed discussion here. We can, however, take a quick look and reflect on some elements that could help us, such as the in-flight perspective.

A pilot's SA must incorporate numerous aspects: geography (terrain, airports, runways, other aircraft), space and time (altitude, direction, speed, flight plan, flight path), systems (proper operation and functioning, communications, fuel, time and distance), environment (weather, clouds, temperature, visibility, winds) and performance (capabilities, flight dynamics, dangers, risks). I would personally define SA as



the ability of the pilot to integrate all these elements into a clear picture of life at that moment. The clarity of this picture will depend on some very specific and critical factors, particularly the pilot's own limitations and his or her ability to cope with challenges. The pilot's limitations are primarily the result of the degree of attention one can dedicate to the task of flying an aircraft. The pilot must continually sense a mass of information presented in a variety of formats, process this information and make appropriate decisions. Akin to a computer, the pilot is limited in working memory (Endsley 1988). This working memory enables the pilot to multitask: to handle numerous other task and information while maintain the safe operation of his or her aircraft. The pilot's ability to cope

▲ Maintaining situational awareness is vital to safe flight.

with varying situations will depend on the coping mechanism, or mental models, this person has developed and practices in relation to flying (Endsley 1988).

The topics introduced above would obviously cover a lot more than this brief article. The object here is to push ourselves (and our flying colleagues) to pay more attention to our environment and our personal conditions when flying. The internet offers numerous reading resources on situation awareness. We certainly urge all to invest some of your free time to grow your understanding of the importance of situation awareness and how to develop it. 🛫

CONSCIENCE SITUATIONNELLE

COMMENT RÉDUIRE LES ERREURS DE PILOTAGE

Les accidents d'avion sont minutieusement enquêtés de façon routinière dans le but déclaré d'améliorer la sécurité des vols en prévenant la répétition de ces événements. Au cours des années, ces enquêtes minutieuses ont démontré que la vaste majorité des accidents étaient dus à des erreurs de pilotage. Cette conclusion est valide pour toute forme d'activités aériennes, soit commerciale, militaire, récréatives, affaires, etc. Une recherche plus approfondie conclue que toutes ces erreurs de pilotage peuvent être regroupées sous la bannière « conscience situationnelle », ou Situation Awareness (SA) en anglais. La SA ne se limite pas à notre avion en vol. La SA commence lorsque nous pensons à notre vol demain matin, se continue tout au long de notre vol pour se terminer au retour au club de vol. La SA inclue ce qui se passe dans le cockpit et dans notre cerveau.

M.R. Endsley, une chercheuse en facteurs humains, définit la SA dans une publication datant de 1988 comme suit : « la perception des éléments dans l'environnement contenu dans un volume d'espace et de temps, la compréhension de leur signification et la projection de leur statut dans un futur rapproché ». Voilà un concept plutôt complexe et englobant et qui dépasse largement les objectifs de cette discussion. Nous pouvons tout de même examiner rapidement quelques éléments susceptibles de nous aider tout en nous limitant à l'environnement de vol comme tel.

La SA d'un pilote se doit d'incorporer de nombreux aspects : la géographie (terrain, aéroports, pistes, autres avions), l'espace et le temps (altitude, direction, vitesse, plan de vol, parcours), les systèmes (bonne opération et fonctionnement, communications, essence, temps et distance), environnement (météo, nuages, température, visibilité, vents), performance (capacités, dynamique

de vol, dangers, risques). Ma définition personnelle de SA serait « l'habileté du pilote à intégrer tous ces éléments dans une image claire de sa vie au moment présent ».

La clarté de cette image dépendra de certains facteurs précis et critiques, en particulier les limites personnelles du pilote et son habileté à confronter les défis. Les limites du pilote découlent principalement du degré d'attention que la personne peut dévouer à la tâche de piloter un avion. Le pilote doit continuellement détecter une masse d'information qui lui est présentée sous une variété de formats, interpréter cette information, et prendre les décisions appropriées. Similairement à un ordinateur, le pilote est limité par sa mémoire active (Endsley 1988). Cette mémoire active permet au pilote d'accomplir plusieurs tâches en parallèle (multitasking), de traiter de nombreuses tâches et informations importantes tout en maintenant le contrôle et l'opération sécuritaire de son avion. En termes pratiques, ceci signifie concentrez sur l'important, ignorez le reste, notre espace mental est limité. L'habileté du pilote à faire face à différentes situations est reliée à son mécanisme d'adaptation comme les modèles mentaux que ce pilote aurait développés et mis en pratique dans son environnement de vol (Endsley 1988).

Une discussion approfondie des sujets présentés dépasserait largement l'espace disponible ici. Le but de cet article est de sensibiliser nos collègues aviateurs à porter une attention particulière à leur environnement et leur condition en vol. L'Internet offre une multitude de sources d'information sur la SA. Nous nous permettons de vous exhorter à investir un peu de votre temps libre pour développer votre perception de l'importance de la SA dans votre vie de pilote. ✈️



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PREPAIR SEMINARS

NAV CANADA EXTENDS AN INVITATION TO ALL PILOTS

BY DARLENE GEORGE & SIMON DENNIS




you can prepare yourselves to ensure that you are managing risk to as low as reasonably practicable (ALARP). Some important questions to ask yourself prior to any flight:

- Are you battling complacency?
- Are you being seduced by “get there-itis”?
- Are you asking yourself “weather to fly”?
- Are you staying ahead of the aircraft?
- Are you of a mindset to eliminate distractions?
- Would I want to fly as one of my passengers today?



This list may seem obvious, but we do not always give these non-checklist items their due attention. If we start our preparations with a greater sense of the big picture and self-awareness versus skipping directly to mandatory checklist items, we will manage risk in a much safer context. Start the big picture with risk management and then specifics will follow.

For example, when we train our air traffic controllers, we emphasize that the more a controller can learn by heart, the more time they have to make better decisions. It’s the same for pilots; the more rules and procedures that you know by heart, the more time you will have to look for traffic, find reporting points and ultimately prepare the aircraft for a safe landing. It really is as simple as giving your brain a fighting chance to keep up.

PrepAIR brings together Nav Canada employees, pilots and other industry users in a new way. Our primary goal is to involve all participants, by way of collaborative discussion, to not only learn from each other but about each other. For more details and to discover how to participate in upcoming seminars, visit prepair.ca. 

A pilot calls up at an appropriate reporting point and altitude and confidently enters the control zone, prepared to integrate themselves into the traffic pattern. Another pilot fumbles on the radio with a late call, well behind the airplane and at an altitude that conflicts with other aircraft.

A pilot maintains a listening watch and sees their place in the big picture. Another pilot responds with a tentative voice and leaves the impression that they are unprepared and have no realization of the big picture.

A pilot reads back critical instructions to ensure complete understanding. Another pilot acknowledges,

regardless of instruction or clearance only with their ident.

A pilot flying their last leg of the day is as prepared mentally and physically as if it were their first. Another pilot flying their last leg of the day has become complacent, therefore unprepared and at increased risk.

Which pilot are you? Which pilot do you want to be? Think about your last flight; were you prepared for how it went, or did you fall behind the aircraft and unnecessarily increase risk? At Nav Canada we are always focused on risk management. Through PrepAIR — our pilot refresher program — we ask you how

SOCIAL MEDIA AND GENERAL AVIATION

AT TIMES YOUR FRIEND, AT OTHER TIMES YOUR ENEMY

BY KEVIN MAHER

Social media has benefitted general aviation more than just about any other activity. Friends are made, events organized and technical information and ideas are shared. Even better, the proliferation of GoPro and similar cameras that can be easily attached to an airplane make for a great learning and debriefing tool. But unlike many other activities that require little judgment or can't hurt you, there is a dark underbelly to the increasing popularity of social media in aviation. People are posting videos of themselves, or others doing things, without truly thinking of the potential effects watching them could have on other viewers. Worse, people are actually doing dumb things themselves just to stroke their egos and increase the chances of their video going viral.

What got me thinking about this was a video I once posted on a vintage airplane page on Facebook. I am lucky enough to get to fly aerobatic demonstrations with a Stearman biplane at a few airshows each year. At one show, I had a couple of cameras on the airplane and put together a neat video of the show as seen from the cockpit. A week later, a comment was made by somebody who had tried one of the manoeuvres, flubbing it and recovering much closer to the ground than they planned to. This person didn't know how many thousands of gallons of gas I had burned learning not only to fly the manoeuvres, but also learning how to build safety margins into them, and how to leave myself ways out. Or, that only when I had the manoeuvres perfected at altitude did I start slowly working them lower and lower. Or, that dealing with potential problems such as



wind, density altitude or an engine failure had all been planned for. Or, that I had been mentored by some of the most accomplished performers in the industry. Or, that my routine is officially evaluated yearly by TCCA, and unofficially evaluated by every other performer who sees me fly. All this person saw was somebody doing something fun with an airplane just like theirs.

This problem isn't just limited to aerobatics. Bush flying, formation flying, gravel bar flying — anything out of the ordinary, airport-to-airport \$100 hamburger run that requires specialized skills or knowledge — has the potential to lure an unwary pilot into trying something that they shouldn't. I am not saying don't post videos of yourself doing cool things in an airplane; I love watching them. Just realize when you are watching them that the person who made the video may have experience, skills, knowledge, and an airplane that are far more capable than what you possess.

The really scary thing is when people actually plan to go out and

do something dumb just to be able to post a video. Kind of a modern-day version of "Hold my beer and watch this" that social media has turned into an abundance of Darwin Award contestants. One of the best examples of this I've seen is a pilot shown flying at less than 100 ft AGL in a turn, at high speed, in a \$50 million business jet. And just when you think it couldn't get worse, the dude turns his attention away from flying the airplane to "hang loose" for the video camera. Apart from demonstrating a rather poor attitude toward risk management, he also demonstrates his near total lack of knowledge of low-altitude flying techniques. It is hard to believe that he would have done this if it were not for the opportunity to impress everyone with the video. And while I am sure that anyone reading this is smarter than the buzz boy in the photo, it is worth noting that anytime there is a camera around, we all subconsciously feel just a little bit of pressure to perform for it. We need to manage that pressure and not let it degrade our decision making. 🙄

FLIGHT SCHOOLS TRENDS

INTEGRATED METHODOLOGY REAPS MANY BENEFITS

BY SMARTPILOT



◀ Simulators are part of integrated flight training.

school does have a Redbird FMX motion simulator.

According to Ricci, a benefit of sims like the Redbird FMX is that they can be switched from one aircraft type to another. It is not a cockpit model-based sim like other full motion type 5 units, but is more flexible and comes with a very different price tag. You can have twin or single. For Rockcliffe, the Redbird is a procedural trainer only. This recognizes that there are possible deficiencies as compared to actual aircraft time. There are also deficiencies in how the instructors can train. Finding the balance for meeting the objectives of the lesson is important here, and this falls heavily on the CFI. “The urge to make money vs a good training experience is very important” states Chris.

Ricci refers to a Seneca College research paper on how to use sims at various levels of training. He notes that one of the findings was that if the trainer is not trained on the sim and its use for education, they cannot utilize it to its fullest potential. The bottom

Flight training continues to evolve and embrace new systems and methodology – while also preserving what is good and reliable from traditional processes. The use of simulators plays an important role in today’s modern school. Operators find the right balance between safety, efficiency and financial considerations. The pressure of being a business and following a solid educational acumen is, however, a constant consideration.

Chris Ricci, general manager and CFI of Ottawa’s Rockcliffe Flying Club (at YRO), operates a typical school that embraces the best of both traditional and simulator-based education. Their students still get 90-95% of their flight training in the cockpit of an aircraft via real-time flight experience. Ricci says that their students train in the aircraft in all types of weather, depending on their proficiency. That said, the

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line is that you have to know how to use it and, according to Chris, the report found that most instructors are not typically trained in this manner.

During its first incarnation, Smart-Pilot took some seasoned, well-experienced pilots to a Redbird simulator and set up some decision-making scenarios based on deteriorating weather and visibility. The results were big eye-openers for the participants and led to some safety training and awareness about how quickly things can change and decisions become terminal. This is where a simulator can prove itself of value not only neophyte aviators, but to veteran pilots too. Learning is the goal, but also safety and practice can be achieved with minimal risk.

The Canadian Flight Academy/Toronto Airways is located at the Oshawa airport (YOO) and operates a fleet of aircraft and three Level 5 simulators. According to company executive John Davis, "Our Integrated Airline Transport Pilot Licence program (IATPL) has shown a number of advantages vs. those who train through the modular route. Their IATPL program provides 162.5 hours of aircraft time along with approximately 85 hours of time in Level 5 FTDs. Students meet skill and proficiency criteria in the FTDs before completing the exercises in the aircraft. Since the FTDs are cockpit-specific to the

Cessna 172S aircraft the students will be flying, we have found that training completed in the FTD transfers to the aircraft on virtually a one to one ratio." Davis goes on to note that, in his experience, such is not the case with generic FTDs as the cockpit layout, placement of radios, switches etc. are quite different when moving from the FTD to the aircraft.

Davis continues his comparison stating, "The national average in Canada to

FINDING THE BALANCE OF MEETING THE OBJECTIVES IS IMPORTANT

obtain a PPL is 75-80 hours of aircraft flight time. We have found our IATPL program participants typically obtain the PPL at just above minimum times at around 52 hours of flight time."

According to John, another advantage of the FTD is that students can be provided scenario-based training where the focus is on pilot decision-making. "We use these scenarios as part of our normal flight exercises. At some point during the lesson, the student will be presented with a problem or situation. How they deal with the

issue is then a subject for debriefing at the end of the lesson."

A final comment from John relates more to a community and airport impact perspective (a growing concern for many airports as residential developments encroach on what was green space). Simply put, fewer movements (takeoffs and landings) are created over the course of the training. "Since students meet skill levels in the FTD before going to the aircraft, they need fewer circuits in the actual aircraft to become proficient. This reduces the noise impact on the community and congestion in the circuit. A typical graduate of a modular program will have completed 900-1200 movements over the course of their training (PPL, CPL, Multi-IFR). A student enrolled in the IATPL program will graduate with the same licences and ratings but will have completed around 300 movements. This represents a significant reduction in traffic in the pattern around the airport."

One of the great things about all levels of aviation is how much things change and grow. What is the norm today will be outdated by tomorrow. Flight training is typical of this as new safe and efficient methods come into play. The other great thing is the choices it provides students to gain experience and follow their dream. The choice of which school or learning methodology is entirely theirs to make. ✈️

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ESSENTIAL SURVIVAL CONSIDERATIONS

EFFECTIVE PLANNING AND PRACTICE MAY SAVE YOUR LIFE

BY RYAN VAN HAREN



Canada is home to some of the most vast, rugged and beautiful terrain in the world. Unlike our neighbours to the south, we do not have the luxury of having an aerodrome every 20 to 30 miles along most routes of flight. This is why the aircraft survival kit is one of the most important pieces of equipment on board any Canadian aircraft.

CARS 602.61 states that "...no person shall operate an aircraft over land unless there is carried on board survival equipment, sufficient for the survival on the ground of each person on board, given the geographical area, the season of the year and anticipated seasonal climatic variations, that provides the means for:

- (a) Starting a fire;
- (b) Providing shelter;
- (c) Providing or purifying water; and
- (d) Visually signaling distress."

While there are some exceptions to this regulation outlined in subpart (2), it would be considered foolish by many to not have an adequate survival kit on board any aircraft operating in Canada. One of the exemptions in subpart (2) is for flights that take place entirely within 25 nm of the departure aerodrome. It doesn't take long flying in British Columbia for one to realize that even within 25 nm, a pilot can find themselves in an

▲ A well thought out survival kit is essential.

area where rescue could take days. One of the most critical considerations for any survival kit is ensuring that it is appropriate to the season and the terrain over which the flight will take place. Pilots should make it a habit to unpack and repack their kits as the seasons change to ensure that the contents are appropriate for the season and that they are still in good working order. Your emergency matches won't do you much good if your emergency water packet opened up in the survival kit and soaked ev-

PHOTO CREDIT: CALGARY PILOT SUPPLY

everything, only for you to find out when you actually need them.

Even more important than the items you have neatly packed in your survival kit are the items that you are wearing. We cannot stress enough the importance of dressing appropriately for your intended route of flight. It may be sunny and 20 degrees at your point of departure, but if you need to spend the night after a forced approach in the mountains where the weather is much cooler and changes rapidly, you will quickly find that your shorts, t-shirt and flip-flops were probably not the wisest choice of flying attire. When planning what to wear, plan as if you will need to walk home from any point along your route of flight. That said, leaving the immediate vicinity of your aircraft is discouraged for obvious reasons. On the topic of what you wear, consider having the bare essential survival items stowed in your pockets or in a survival vest that you are wearing. There is a good possibility that the only items that make it out of the airplane are those that are physically attached to you.

Lastly, practice using your survival kit. Having a survival kit is one thing but, even with all the survival gear in the world, you can still die if you are not well-versed in using it. Consider taking your kit on an overnight camping trip and challenging yourself to survive, using only the items contained in your aircraft survival kit. You will probably find that after just one night you will seriously reconsider the contents of your kit. Whether you fly over the prairies, around the Great Lakes or in the rugged British Columbia mountains, survival planning is a critical part of any pre-flight. We challenge you to go through your survival kit and ensure that it is appropriate for the season, and to give serious thought to your flying attire. With proper planning and a little practice, you can turn a survival situation into a waiting-to-get-rescued situation. 🛩️

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AFTER THE CRASH

BOOST YOUR SURVIVAL CHANCES

BY JIM BELL



An airplane crashes about every third day in Canada, according to Transportation Safety Board statistics. Most of these accidents aren't fatal. If you were involved in one of these crashes, do you know what to do to increase your chances of survival?

Surviving an accident begins before departure. Do you have a recent first aid course? When is the last time you looked in your aircraft first aid kit? Is it adequate for its purpose? Have you ever practised using a fire extinguisher? Do you know its limitations? A typical aircraft fire extinguisher will probably not put out a fuel fire unless it's very small. If you fly away from populated areas, you should carry a survival kit optimized for the area you're flying in, and appropriate to the season.

A mirror may be the most important survival tool you carry. A mirror properly used can be spotted ten miles away or more on a sunny day. Although there are substitutes, a good survival mirror and some practice so that you can hit the target are well worth it.

STARTING A FIRE IS AN IMPORTANT PART OF POST-CRASH SURVIVAL AND RESCUE.

Don't forget to take advantage of the material in the aircraft. Fuel, oil, wiring, glass, and the skin can all be put to other uses. One pilot who

needed snowshoes removed the seat cushions and strapped them on with the seatbelts. A tool kit and a multi-tool are invaluable.

Make sure you're dressed for the weather along your route. You should always dress as if you're going to spend the night in the woods.

Most of us don't file a flight plan when we fly. Does someone know where you're going and when you'll be back? Even if you don't file with NavCanada, you can still fill out the form and give it to someone who will call the police or the Joint Rescue Co-ordination Centre if you don't return on time, and you can't be contacted. SPOT trackers and cell phone location sharing are useful, although they both have disadvantages that have to be compensated for.

Once the airplane has come to a stop, remove yourself and your passengers from immediate danger, perform first aid, and find a suitable survival site. It's nearly always best to stay near the airplane. People walking in the woods are extremely difficult to spot from the air. Aircraft wreckage is much easier, although if you're in deep woods, you may need to move to a clearing to make yourself visible. Get a fire going as soon as you can. Although SAR aircraft won't be looking for you yet, a fire makes you more visible to passing aircraft and provides comfort. Build a shelter, collect lots of firewood — do it in daylight if possible, when you can walk without taking a branch in the eye. Don't use the aircraft fuselage as a shelter. It's too large an area to heat.

SAR aircraft will launch within three hours of the flight plan expiration time. RCAF search aircraft are mostly located near the US border, though, so the further north you are, the longer it is likely to take for them to get to you. CASARA aircraft may be closer. The first pass will be along your planned route at relatively high altitude, with the spotters looking for obvious signs like wreckage, signals, and ELT or radio signals. Make sure your ELT is transmitting. Satellites no longer listen for ELTs on 121.5 MHz, but airliners do.

Try not to eat the first day. You probably have already eaten, so you will get through the day. Save your food for later.

If you are on your planned route, and you are making yourself visible, you will be found. SAR aircraft will make multiple passes up to ten nautical miles on either side of your route, until the searchmaster is certain the area has been thoroughly covered. That will take several days.

If you aren't on your planned route, you have to consider walking out before you become too weak to do it. A search will continue for up to two weeks, but unless you have a good source of food and water, you shouldn't wait that long.

Searches for missing aircraft are normally flown as track crawls, back and forth along your planned route. The first flight will be at 3,000' above ground, and subsequent flights will get lower, with less distance between legs. If you see or hear an aircraft, get your fires going. Pour some oil on it or use evergreen branches to create smoke in daylight.

Depending on its altitude and the terrain, a search aircraft may be visible for as little as thirty seconds. Don't miss your chance! It might not come again.

Almost any aircraft crash is survivable. It's up to you to make sure your passengers and you are prepared, and that preparation starts long before the airplane slides to a stop. ✈️

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THE ALLURE OF PRAIRIE FLYING

POSITION REPORTING KEEPS CONFLICTING TRAFFIC AT BAY

BY DON MCPHERSON



◀ Saskatchewan has many uncharted aerodromes used by aerial applicators.

The weather on a typical prairie day Saskatchewan is reasonably good. Small and large airplanes fly in and out of the major airports around the province. If you wonder where most are coming from or going to, look at the aviation charts; the half dozen hubs and a few other symbols of one sort or another tell a story, but not the full story; to be safe, pilots need to communicate frequently on 126.7 MHz.


In Saskatchewan there is an unknown number of small grass strips – private airstrips which may or may not be used seasonally. Typically, they’re not on any map. There is no effective way of knowing how many flights originate and terminate each day at these strips; they are truly off the map. Sometimes the radio is on and pilots are transmitting on 126.7 to indicate a takeoff or joining the circuit or landing, but often not. Saskatchewan’s aerial applicators are very busy at various times in the summer. They generally

fly low, use farm strips, and are based in small rural centres. The aerial applications industry utilize a large number of aircraft, with their operations taking place across the province. Modern Ag planes are bigger and faster than ever. When they are working, they fly below the horizon of transiting light aircraft. They are hard to see against the variety of colours and textures of the fields. They also make abrupt short-radius turns. Although they make position reports flying to and from the work area, they really do not have time to talk when they are working a field. That said, those pilots really appreciate knowing who else is in their area.

Then, too, there is a big military presence in the province, and today’s Hawks and Harvard IIs travel farther than those of years past. The advisory “You can expect to see military aircraft around Moose Jaw,” is still valid, but now you can expect military traffic across the province. Remember

that Cold Lake aircraft operate across provincial borders. They often fly low during simulated attacks on ground targets. And, north of Prince Albert, your chances of seeing a helicopter or a water bomber are excellent; broadcast your position on 126.7.

When people feel secure they become complacent, and complacency kills people. A glance at an aviation chart creates a false impression of security. After all, on the chart your track to Uncle Joe’s house is well away from airports. Why call on 126.7 and report position? “No need, because there’s nobody out there.” But there could be somebody. Yes, flight routes on charts radiate out from major airports where there is a lot of flying. And yes, a pilot really should expect to encounter traffic over those areas too.

Saskatchewan covers more area than Germany or France. When you are in uncontrolled airspace in our province, the temptation to relax your guard can be very strong and 126.7 far from your mind. A few years ago, two small aircraft collided in uncontrolled airspace a few miles from a Saskatchewan airport. There was no other traffic in the sky. A fluke? Perhaps, but more and better communication on 126.7 might have prevented a fatal mid-air. Pilots need to expect traffic, both en route and near any airport. How long does it take to call a position report of who you are, where you are, where are you going, and how long till you will get there? Yes, the VNCs give you an idea where a lot of traffic will likely be. However, it’s a huge province and there are a lot of airplanes out there in the blank areas on the chart. 

FLYING IN THE MOUNTAINS

GLACIERS AND PRISTINE ALPINE LAKES BECKON

BY COLETTE MORIN

Mountain flying is an everyday part of flight in most of British Columbia. There is no secret to mountain flying; the aircraft has no idea whether it is flying over prairie or mountainous terrain, but the pilot does, so there are some key things to be aware of when mountain flying. Mountain flying doesn't need to be feared, but a little apprehension is healthy, which means you respect the vastness, power and unpredictability of the mountains and mother nature. Those butterflies in your stomach are your body's way of telling you to be prepared. Good pilot decision-making, respect and proper planning will ultimately keep you safe, regardless of the terrain you fly above.

Respect weather, winds and air temperatures; these conditions can be unpredictable and change quickly in the mountains. A full weather briefing for your entire route of flight is necessary, including upper winds, NOTAMS and PIREPS. Never fly into the mountains when deteriorating weather is forecast or the sun is setting. Getting lost or disorientated in the mountains is stressful; add fading light to the equation and you increase the risk for disaster. Respect aircraft weight, balance and performance limitations. Most piston airplanes do not perform well on a hot day at high altitudes and so will not be able to outclimb terrain. Therefore, plan to fly around the peaks instead of over the top. Takeoff and climb performance will be reduced with increased weight, temperatures and high altitudes, so understanding limitations and calculating performance based on the aircraft's flight manual is critical.

Respect your personal limits and learn from the experience of others. Do your research and ask locals for insights into flying in unknown regions.



Take training from someone who actually flies in the mountains on a regular basis and who will challenge your comfort zone in a safe and controlled environment, instead of going out and scaring yourself. If in doubt or you're not feeling confident about any part of the flight, ask for help or don't go. Study the maps and terrain, plan your flight route and alternate routes based on different altitudes and weather conditions. Plan for frequent fuel stops, en route weather updates, flight tracking/position reporting and time of day that you will be flying. Will the sun be in your eyes or creating shadows that make terrain more difficult to see?

Be prepared. Carry appropriate survival gear and clothing for the season in case you get stuck outside for a few nights. Carry some cash, current paper charts, the CFS and spare batteries and charger for headsets, GPS, iPad or other electronic devices you use on your flight. Paper won't run out of batteries or satellite connection and can be used as fire starter or toilet paper if the need should arise. File a flight plan and follow it! Provide position reports with FSS en route and report any deviations from your flight plan. Be specific on your routing when filing because SAR will only look for you along your reported route.

▲ Mountain flying is spectacular but takes planning and care..

If you say you are flying direct from A to B, they will only search 15 nm either side of your stated track. Make it easy to be found, carry a tracking device, have someone follow you and provide the URL in your flight plan. A GPS tracking device is cheap insurance and will help immensely in an emergency.

Prior to each flight, the checking all safety equipment, survival gear and emergency systems, a detailed pre-flight inspection, a careful run-up and the use of checklists is mandatory regardless of where you fly. It's better to find a problem on the ground than in the air during an emergency. It's easy to get disorientated in the mountains; one valley or lake can easily look like another if you do not pay attention. GPS or Foreflight on an iPad won't tell you where the birds are or show smoke or haze that can reduce your visibility, so keep your eyes outside and your finger on the chart.

Take photos and enjoy the majestic mountain vistas of untouched forests, snow-covered glaciers and pristine alpine lakes that can only be seen from the air. Remember, safe flights start on the ground. 📷

TACKLING BUSH FLYING

PLANNING AND PRACTISE CAN KEEP YOU OUT OF TROUBLE

BY GILLES LAPIERRE, FORMER PRESIDENT, AVIATEURS.QUEBEC



When we discuss bush flying, we usually refer to aircraft operations to and from destinations where certified runways are unavailable, such as at hunting or fishing lodges, or on uncertified grass or gravel airstrips in remote areas, or even on a neighbouring farmer's field. In such cases a pilot must gather all available information on present conditions at the destination from knowledgeable flyers, or directly from the facility operator, who you may be contacting anyway to obtain landing permission. Extra fuel must also be loaded to ensure landing at the destination can be aborted and the aircraft flown to an alternative in the event conditions are too difficult to manage, either for the aircraft type, or because of the pilot's limited experience.

Since most of these destinations are in inhospitable areas, pilots must also bring survival gear and supplementary communications tools like satellite phones, or a GPS-based

tracking system such as a SPOT Tracker or Garmin InReach.

The pre-flight must be carefully conducted and include precise weight-and-balance calculations, the careful confirmation of healthy control surfaces and fuel quantity and integrity. The pilot must also obtain information on the latest weather conditions, including a long-term forecast covering the trip duration. Passengers need briefing on safety measures such as the proper fastening of belts or harnesses and other emergency procedures. The bush pilot should know how to operate a GPS, and then use it; he or she would then be able to locate other airports along the planned flight path and communicate current position by radio.

The bush pilot should first overfly the destination airstrip to spot potential obstacles, evaluate terrain conditions, figure out the available landing run and decide what to do should an unforeseen situation develop.

▲ Bush flying has its own set of safety considerations.

If possible, the pilot should also reach the facility operator by radio, cellphone or satellite phone to inform them of the imminent arrival and obtain last-minute information on runway conditions. When taking off from an uncertified facility, the pilot can't count on the presence of runway markings, or even a windsock to aid in estimating a critical wind component. He or she must also devise visual checkpoints should taking off suddenly become problematic. At this stage, rereading the POH is recommended, especially to confirm the takeoff distance over a 50-ft obstacle (remembering density altitude).

Bush flying requires constant practise so that a pilot can remain current. A pilot can keep his or her skills sharp by practicing takeoffs and landings on short runways and/or soft terrain, with an instructor if needed. 🛩️

BROUSSE SUR ROUES

LA PLANIFICATION ET LA PRATIQUE PEUVENT VOUS PROTÉGER

Lorsqu'on parle de brousse sur roues, on fait référence aux vols vers des destinations non pourvues de pistes homologuées, comme les pistes des pourvoiries de chasse et pêches, les pistes de pelouse ou gravier non répertoriées, ou même le champ de votre ami fermier. Dans ces cas, le pilote doit obtenir le maximum d'information sur les conditions actuelles du terrain, en consultant des pilotes qui connaissent la destination ou en téléphonant à l'opérateur ou proprio pour obtenir les permissions requises. Il faut aussi apporter un surplus de carburant au cas où au moment d'atterrir, le pilote jugerait les conditions trop difficiles pour son appareil ou son expérience. Comme ces destinations sont souvent en zones non hospitalières (même si ce terme n'est plus utilisé dans les cartes aéronautiques), le pilote doit prévoir un équipement de survie et des moyens de communication comme un téléphone satellitaire et un dispositif de suivi GPS comme le Spot ou le Garmin InReach.

Avant le vol, la planification de l'excursion doit être faite avec soin et inclure, en plus de la route à suivre, la masse et centrage, le fonctionnement des surfaces de contrôle et l'état du carburant. Le pilote doit vérifier les conditions météorologiques actuelles et prévisibles pour toute la durée de l'excursion. Le pilote doit procéder à un bon briefing des passagers sur les mesures de sécurité comme le port des ceintures et baudriers et les procédures en cas problèmes.

Lors du décollage à partir de terrain non homologué, le pilote n'a pas de manche à vent ni de marquage au sol pour le guider. Il doit donc déterminer le vent favorable et se donner des points de repère visibles pour



savoir quand avorter la manœuvre si l'altitude, la nature du terrain et la longueur de piste disponible avant tout obstacle rendent le décollage trop difficile. Relire le POH serait une bonne idée, en particulier pour connaître la distance de décollage avec obstacle de 50 pieds en bout de piste et en fonction de l'altitude-densité.

Durant le vol, le pilote de brousse devrait connaître et utiliser son GPS, répertorier les aéroports à proximité de la route prévue, communiquer sa position par radio ou dispositif de suivi GPS.

Avant l'atterrissage, le pilote voudra effectuer un survol d'observation

pour identifier les obstacles, les conditions de terrain, mesurer la longueur disponible pour atterrir, prévoir le trajet d'atterrissage interrompu en cas d'imprévu. Il communiquera avec l'opérateur du terrain par radio, téléphone cellulaire ou satellitaire pour l'informer de son atterrissage imminent et s'informer au besoin des conditions changeantes de la piste. Le vol en brousse requiert une pratique continue pour maintenir les compétences du pilote. Le pilote doit se préparer en effectuant des décollages et atterrissages terrain court et terrain mou avec un instructeur au besoin. ✈️

FLOAT FLYING

TIPS TO KEEP YOU ALOFT AND AFLOAT

BY GILLES LAPIERRE

When flying at cruising altitude, a float plane behaves just like any other fixed-wing aircraft. Yet flight security can quickly become critical when the plane strays from cruise conditions into much more critical profiles, such as taking off, landing, taxiing, slow flight or engaging in steep-turn manoeuvres. The special configuration of the float plane will affect its behaviour under such circumstances. Floats certainly augment the weight and drag of the aircraft. And since float planes often operate over unfamiliar bodies of water, a pilot must analyze many factors like the size of the water surface, the effect of winds on this surface, the presence of obstacles like rock formations, islets and various floating objects, the surrounding terrain and its effects on surface or low-altitude winds.

The pre-flight inspection must be dealt with carefully and include precise weight-and-balance calculations, confirmation of control surface functionality (ailerons, flaps, elevator, aerial and water rudders), pumping water from floats, securing of baggage to maintain forward and aft centre of gravity, as well as fuel quality and quantity. The pilot must also obtain information on the latest weather conditions, including any extended forecast covering the trip duration. If there are passengers, they must also be briefed on safety measures (e.g. the proper fastening of seat belts and other harnesses, special procedures in case of aircraft submersion and the role of passengers at the time of docking).

Taking off from any water surface is not that simple. There are many issues to consider; the pilot has to start from scratch each time he or she attempts a takeoff by carefully re-evaluating the wind component, estimating the avail-



able distance and re-checking for fixed or mobile obstacles. All this while making sure the plane can deliver the necessary power at all times. As the float plane becomes airborne, its airspeed is typically so low it risks stalling. Therefore, the pilot must raise the flaps while simultaneously lowering the aircraft's nose. Flying the aircraft very close to the surface creates a very strong psychological effect — the pilot might be tempted to raise the nose a bit more to avoid hitting the surface, risking losing control of the aircraft and crashing.

Speed, speed, speed. The name of the game is speed, for speed keeps the machine aloft. The pilot must carefully manage any steep turn, learn to anticipate downwinds, ride downdrafts, avoid scud-running and work hard to maintain attitude.

Before landing, a precautionary overflight of the body of water is

▲ Safe operation on the water requires planning and preparation.

necessary to identify potential obstacles, assess wave height and estimate the length of the landing run. A good pilot will also pre-plan the route of any go-around scenarios. These are the key precautions before alighting on water. And yes, in case of glassy water, one should maintain a descent rate of 100 ft/min. by keeping a slightly nose-up attitude until touchdown.

Float plane flying requires constant practise so a pilot can remain safely current. If you fly less than 50 hours in a season, you should consider an annual check flight with a qualified instructor or a commercial pilot. The test ride should include slow flight and crosswind flying, as well as glassy water and short landing run practise. 🛩️

EN VOLANT AVEC DES FLOTTEURS

CONSEILS POUR RESTER EN L'AIR ET À FLOT

L'hydravion, lorsqu'il est en vol de croisière, se comporte comme tout autre aéronef à ailes fixes. La sécurité du vol peut devenir critique quand on sort des paramètres de vol de croisière, comme au décollage, à l'amerrissage, au taxi et dans des conditions de vol lent ou de virage à grande inclinaison. La configuration particulière de l'hydravion affecte son comportement dans ses circonstances. Les flotteurs augmentent le poids de l'appareil et sa traînée. Comme l'hydravion opère sur des plans d'eau souvent peu familiers, le pilote doit analyser plusieurs facteurs pouvant affecter le décollage et l'amerrissage, comme la taille de la surface d'eau, l'effet des vents sur cette surface, les obstacles sur la surface comme les rochers, les îlots et les objets flottants, le relief autour du plan d'eau et ses effets sur les vents à la surface et en basse altitude.

L'inspection pré-vol doit être faite avec soin et inclure la masse et centrage, le fonctionnement des surfaces de contrôle (ailerons, volets, élévateur, gouvernails aériens et marins), le pompage des flotteurs, l'arrimage des bagages en respectant les limites avant et arrière de centre de gravité, la quantité et la qualité du carburant. Le pilote doit vérifier les conditions météorologiques actuelles et prévisibles pour toute la durée du vol. S'il y a des passagers, le pilote doit les informer sur les mesures de sécurité comme le port des ceintures et baudriers, les procédures en cas de submersion, leur rôle à l'accostage.

Le décollage à partir d'un plan d'eau comporte des difficultés particulières. Premièrement, c'est une surface non balisée ni sécurisée, que le pilote doit évaluer à chaque décollage en fonction de la direction et force du vent, de la distance de course



disponible, de la présence d'obstacles fixes ou mobiles et des capacités de l'appareil. Deuxièmement, dès que l'hydravion quitte la surface, il doit composer avec le relief environnant et le comportement du vent en fonction du relief (risque de rabattement, usage des vents ascendants). En quittant la surface, l'hydravion a typiquement une vitesse lente, avec risque de décrochage. C'est pourquoi le pilote doit enlever les volets et abaisser le nez de l'avion pour lui permettre d'accélérer, malgré l'effet psychologique causé par la proximité du relief, qui amène le pilote à relever le nez pour éviter la collision. Si le nez est relevé avant d'atteindre une vitesse sécuritaire (environ deux fois la vitesse de décrochage), il y a risque de perte de contrôle et éventuellement de contact avec le terrain.

Vitesse, vitesse, vitesse : c'est ce qui garde l'appareil en l'air. Donc le pilote doit bien gérer ses virages à

grande inclinaison, apprendre à anticiper les vents rabattants et à utiliser les ascendants, éviter le « scud-running » (vol au ras du relief pour ne pas entrer dans les nuages), et demeurer attentif à maintenir l'assiette.

Avant l'amerrissage, survol pour identifier obstacles, les conditions de vagues, mesurer la longueur disponible pour amerrir et prévoir le trajet de go-around en cas d'imprévus. Voilà autant de précautions à prendre avant d'amerrir. En cas de surface miroitante, garder une assiette légèrement cabrée pendant la descente au vario de 100 pi/minute jusqu'au toucher.

Le vol en hydravion requiert une pratique continue pour maintenir les compétences du pilote. Si vous volez moins de 50 heures par saison, un vol de vérification annuel avec un instructeur ou un pilote commercial est de mise, et devrait inclure des exercices de vol lent, de vent traversier, de surface miroitante et de surface courte. ✈️

SAFELY FLYING ON SKIS

USEFUL ADVICE FOR FLYING OFF THE ICE

BY JACQUES LABERGE, PRESIDENT, *PILOTS ASSOCIATION OF SAGUENAY-LAC-ST-JEAN*



I've been the owner of a Piper PA-18 Super Cub since 1986 and, yes, I've been operating this bird mounted on skis during all these years, especially in mid-northern Québec. I love flying in winter and discovering the beauty and sheer tranquillity of the landscapes. But to make sure this privilege remains attractive and reasonably safe, there are rules to be followed. In these remote areas, winter will not forgive the errors of ill-prepared or reckless pilots. This said, I would now like to share my experience with you.

Most ski flights are made to or from lakes. It is therefore important to know the thickness of the ice at the destination and, most importantly, if it is strong enough to support an airplane. A good idea is to get in touch with local snowmobile aficionados to obtain information on the age and solidness of the ice sheet. It also helps to study the recent weather pattern in the area. The bottom of the skis must be coated with Teflon; no metal part should come in contact with the surface. The engine cowl and other ventilation openings must be protected by a winter kit limiting cold air circulation, and an appropriate oil cooler must be in place. For operations in sub-zero weather, a 3/16 in. hole must be made on the ventilation duct near the engine to avoid any damage from icing.

Otherwise, the seals of the crankshaft or pushrod tubes could fail because of excessive internal pressure. You should be prepared to replace these parts on the spot if such a failure happens while away from base. You should also bring along an extra five or six litres of engine oil, depending on the size of your power plant.

During the walkaround, make sure the wings and control surfaces are free of any ice. Also, try to install flexible hot air ducting to the base of the windows to allow for their defrosting and/or defogging while heating the cockpit. When flying in cold weather, expect your fuel consumption to increase by half again. Always make the first engine start of the day by hand (prop start) to conserve battery charge.

Avoid sheer-ice lake operations under moderate to strong wind conditions, unless you can avoid backtracking with a tailwind. Otherwise, you risk the major inconvenience of a loss-of-control incident. Under whiteout conditions, adjust your descent by observing the lakeshore profile — but remain watchful for rocks and other obstacles. On the first landing on any lake, avoid operating near inlets and outlets, or sandy beaches. Also, be wary of warm spots on the surface. Always come in for an exploratory touch-and-go at a moderate speed before attempting a full-stop landing. After this precautionary pass, you can ensure there's no water or slush under the snow by examining your ski tracks for telltale liquid streaks. If your plane must remain on the ground for awhile, make sure its skis are kept off the surface by slipping logs or tree branches under them. It is also a good idea to protect the wings and engine cowl with a well-anchored tarpaulin. ✈️

RECOMMENDED SURVIVAL EQUIPMENT

- The same as summer equipment, but without flotation jackets and anti-mosquito protection;
- A pocket lighter in your pocket;
- A satellite phone in a watertight bag, a SPOT tracker or other GPS system;
- A firearm for self-protection;
- A sleeping bag;
- Knee-high rubber boots and appropriate clothing, with woolen items next to your skin;
- Snowshoes (at least one corded pair for use in slush);
- An old car jack with an adapter for skis;
- An ice auger than can be powered by a battery drill and adapter. You will then be able to drill holes to get water and, if required, prepare 45-degree mounting holes in the ice to anchor the aircraft with wooden logs;
- A plastic or solid aluminum shovel;
- A naphtha stove (or other similar equipment) to warm up the engine block. The stove should also run on 100LL fuel;
- A 4 in. x 6 ft aluminum pipe and a 4 in. x 6 in. adapter for the stove;
- A propane torch and lighter;
- Ten or more plastic bags to protect engine vents if you do not have an appropriate tarpaulin;
- Some aluminum tape or duct tape to close off the oil cooler vent if needed.

SÉCURITÉ EN VOL SUR SKIS

CONSEILS UTILES SI VOUS VOUS DIRIGEZ VERS LE LAC CET HIVER



Je possède un Piper PA-18 Super Cub depuis 1986, et je l'opère sur skis depuis toutes ces années, surtout dans le moyen-nord du Québec. J'aime beaucoup voler l'hiver pour découvrir la beauté et la tranquillité des paysages. Pour que ce privilège demeure attrayant, il faut respecter des règles. L'hiver dans ces régions ne pardonne pas les erreurs de pilotes mal préparés ou téméraires. Je voudrais donc vous partager mon expérience.

La plupart des vols sur skis se font sur les lacs. Avant le vol, il est important de connaître l'épaisseur de la glace à la destination et si elle est sécuritaire pour s'y poser en aéronef. Un bon moyen est de s'informer aux moto-neigistes qui voyagent dans ce secteur et savoir depuis combien de temps ce lac est gelé. Savoir aussi la température qu'il a fait les jours d'avant dans cette région. Les skis doivent être équipés de semelles de téflon et n'ayant aucune partie métallique qui touche le sol. Les orifices avant du capot moteur doivent être équipés de kit d'hiver qui limite l'entrée d'air ainsi que le refroidisseur d'huile selon la température du vol. Pour les températures sous zéro, il faut faire un trou de 3/16 po sur le boyau de ventilation prêt du moteur advenant qu'un bouchon de glace se formerait à la sortie du capot sinon les joints étanches du vilebrequin ou des tubes de tiges poussoirs risquent de lâcher

par excès de pression dans le carter du moteur. Soyez équipé pour remplacer les pièces si ce problème arrivait et prévoir une réserve d'huile de 5 à 6 litres selon le moteur.

Une inspection minutieuse que les ailes et commandes soient libres de glace. Installer si possible un boyau flexible de dégivrage des fenêtres et qui permettra aussi d'acheminer la chaleur aux endroits opportuns. La consommation d'essence accroit de un fois et demi environ par temps froid. Effectuer le premier démarrage du jour à l'hélice pour conserver la batterie pleine. Éviter les lacs de glace vive par vents modérés ou forts sauf si vous n'avez pas besoin de remonter vent arrière pour le décollage, vous éviterez ainsi une perte de contrôle très désagréable. En cas de voile blanc, vous poser en longeant les bords de lacs en surveillant les roches.

Au premier atterrissage à un lac, évitez les opérations proches des recharges ou décharges de lac et plages de sable. Surveillez les trous chauds, toujours faire un poser ou décoller à vitesse réduite avant l'arrêt complet et vérifier en vol par la suite s'il n'y a pas d'eau dans les traces de skis. Toujours soulever les skis du sol avec des bûches ou des branches lors d'arrêts prolongés. Il est aussi recommandable de protéger les ailes et capot moteur avec des toiles solidement fixées. 🛩️

COINCÉ DANS LA GADOUÉ SUIVEZ CES ÉTAPES POUR VOUS LIBÉRER

- Il faut premièrement rester calme.
- Les bottes longues sont alors primordiales.
- Avec la pelle, dégager la gadoué jusqu'à la glace vive et nettoyer les skis, il sera facile de retourner l'avion sur la glace et redécoller dans les traces si c'est avantageux.
- Battre deux traces de raquettes assez longues pour décoller selon la charge et la puissance disponible.
- Faire des rampes en compactant à la raquette pour monter sur la neige durcie et mettre de la neige folle pour empêcher la neige mouillée de coller aux semelles de skis.
- Une fois monté sur la neige durcie, nettoyer encore les skis et décoller.
- Ça marche 99 pour cent du temps avec un Super Cub.
- L'un pour cent restant si l'avion est encore embourbé, enterrez les skis de neige folle en attendant au lendemain que la piste devienne dure. La slush autour des skis ne sera pas gelée et facile à nettoyer.
- J'ai vu des amis aller chercher du bois au loin pour soulever l'avion – à ne pas faire avec un avion léger.
- Quand le pilote ne connaît pas les bonnes manières de se déprendre, il ne refait plus d'avion sur skis pour de bon.
- Cette vidéo vous permettra de visualiser cette méthode : [youtube.com/watch?v=tMO-wHoM6GE](https://www.youtube.com/watch?v=tMO-wHoM6GE).

NEW WAYS TO DETECT TRAFFIC

TRAFFIC AVOIDANCE SYSTEM COMES TO GLIDER COCKPITS

BY SYLVAIN BOURQUE, CHAIRMAN OF THE BOARD OF DIRECTORS
DIRECTOR OF SAFETY, SOARING ASSOCIATION OF CANADA



Canadian glider pilots are experiencing the same challenges as general aviation pilots. General aviation accident statistics are challenging us. 85 percent of injuries are due to pilot error, 92 percent of deaths are due to pilot error, and 50 percent of all accidents are due to loss of flight. Therefore, situational awareness is a key factor in reducing pilot errors. The use of simulators in critical situations has been proven in commercial aviation. We encourage all pilots to conduct a flight review and update their knowledge annually.

There is a new risk which relates to human factors: the arrival of smart-

phones, tablets and small cameras. We need to minimize these distractions in flight. This is essential, especially during the landing phase. Wanting to impress with videos uploaded to social media can encourage pilots to take unnecessary risks that jeopardize everyone's safety. Humility must take precedence over one's ego.


The majority of midair collisions occur when visibility is ideal. Fifty percent of these collisions are fatal. This tragic situation was previously one of the major causes of deaths in gliding. In recent years, there has been an affordable and effective collision warning system that saves lives. Most Canadian civilian gliders

are now equipped with it. Owners who are insured with our (SAC) plan have access to a discount of five percent of their premium when they install a FLARM unit (flarm.com). For example, a \$2000 FLARM pays for itself quickly. You also have to ask yourself how much you are willing to invest in protecting your life. The FLARM receives nearby traffic information when equipped with an ADS-B transmitter, transponder or

WHAT CAN I DO TODAY TO IMPROVE MY FLIGHT SAFETY?

other FLARM, and displays it on a screen. The FLARM emits an audible proximity alert when an aircraft is on a converging trajectory. This system is also compatible with some EFIS displays.

Do you know the critical altitude of your aircraft? This is the altitude at which it would be impossible to recover from a stall during the landing phase. One must be aware of this and pay particular attention to the angle of attack and airspeed to avoid a stall, possibly leading to a spin, causing a loss of control and impact with the ground. A video prepared by AOPA illustrates this danger: youtu.be/M8scVzLX9I8.

Stalls practiced during flight training are often very different from what a pilot actually encounters. During the landing phase, avoid non-essential distractions in the cockpit. Keep conversation with passengers at a minimum and look out the window. Remember, we fly according to visual flight rules. Before each flight, ask yourself: What can I do today to improve my flight safety? 

QUI EST AUTOUR DE MOI ?

AMÉLIORATION DE LA SÉCURITÉ DES PILOTES DE PLANEUR



Les pilotes de planeur canadiens rencontrent sensiblement les mêmes défis que les pilotes de l'aviation civile générale. Les statistiques des accidents en planeur diffèrent peu de ceux de l'aviation générale. Les statistiques des accidents de l'aviation générale nous interpellent : 85 pour cent des blessés sont dus à des erreurs de pilotage, 92 pour cent des décès sont dus à des erreurs de pilotage et 50 pour cent de tous les accidents sont dus à une perte de contrôle en vol à l'atterrissage.

Voici pourquoi la prise de conscience situationnelle est importante afin de diminuer les erreurs de pilotage. L'utilisation de simulateurs dans des situations critiques a fait ses preuves dans l'aviation commerciale. Nous encourageons tous les pilotes de faire une révision en vol et la mise à jour des connaissances annuellement.

Il y a un nouveau risque lié au facteur humain. Avec l'arrivée des téléphones intelligents, tablettes et petites caméras, il faut minimiser ces distractions en vol. Ceci est primordial, surtout pendant la phase d'atterrissage. Vouloir impressionner avec des vidéos sur les médias sociaux peut inciter le pilote à prendre des risques inutiles qui met en péril la sécurité de tous. L'humilité doit avoir préséance sur la promotion de l'estime de soi.

La majorité des collisions en vol arrivent lorsque les conditions de visibilité sont idéales. Cinquante pour cent de ces collisions sont fatales. Cette situation tragique était auparavant une des causes importantes de décès en planeur. Il existe depuis quelques années un système d'alerte d'abordage abordable et efficace qui sauve des vies. La majorité des planeurs canadiens civils en sont équipés. Les propriétaires qui sont assurés avec notre plan (ACVV) ont accès à un rabais de cinq pour cent de leur prime lorsqu'ils installent une unité Flarm (*flarm.com*). Ainsi, un Flarm de 2000 \$ se rentabilise rapidement. Il faut aussi se demander combien êtes-vous prêt à investir pour protéger votre vie ? Le Flarm reçoit des informations sur le trafic à proximité ayant un trans-

metteur ADS-B, un transpondeur ou un autre Flarm, et l'affiche sur un écran. Le Flarm donne des alertes sonores de proximité lorsqu'un aéronef a une trajectoire convergente. Ce système est aussi compatible avec certains affichages EFIS d'avions ou hélicoptères.

Connaissez-vous l'altitude critique de votre aéronef ? Cette altitude est l'altitude à laquelle il serait impossible de récupérer d'un décrochage lors de la phase d'atterrissage. Il faut en prendre conscience et porter une attention particulière à l'angle d'attaque/vitesse de vol pour éviter un décrochage évoluant en vrille insidieuse, causant une perte de contrôle avec impact avec le sol. Une vidéo préparée par l'AOPA illustre bien ce danger : youtu.be/M8scVzLX9I8.

Les décrochages pratiqués lors de la formation en vol sont souvent très différents de ce qu'un pilote rencontre en réalité. Il faut faire attention lors de l'atterrissage aux distractions non essentielles dans le poste de pilotage. Maintenir au minimum les discussions avec les passagers et regarder dehors car nous n'oublions pas que nous sommes en régime de vol VFR.

Avant chaque vol, demandez-vous : que puis-je faire aujourd'hui pour améliorer ma sécurité en vol ? ✈️



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SIGNIFICANT, COST-EFFECTIVE SAFETY ENHANCEMENT

BY J.C. AUDET



The findings of the U.S. General Aviation Joint Steering Committee have identified that the installation of an angle-of-attack (AOA) indicator is a key safety enhancement in reducing fatal inflight loss-of-control accidents in general aviation (GA). The General Aviation Safety Campaign (GASC), launched in June 2017 by TCCA and COPA, has reached the same conclusion with its review of recent Canadian statistics. In fact, the GASC strongly believes that the installation of an AOA indicator system is one of the best investments one could make to enhance the safety of his or her GA airplane. As a responsible and safety-conscious pilot, you might be considering the installation of an AOA indicator system in your type-certified airplane, but are probably thinking that the cost and complexity of installing such a system is daunting.

The installation of an AOA indicator in GA airplanes may be found by an AME to be no more than a minor modification in accordance with CAR 571. In these cases, the AME may accomplish the minor modification using an appropriate set of acceptable data, such as the AOA indicator manufacturer's recommended installation instructions, or the FAA Advisory Circular (AC) 43.13-2B

Acceptable Techniques and Practices, or as otherwise specified in CAR Standard 571.06(1). The decision as to whether any particular modification proposed for a specific aircraft is classified as major or minor is up to the AME who, following incorporation of the modification, will need to sign the maintenance release pursuant to CAR 571.

Searching the internet for AOAs takes us to a well-known aircraft parts supplier (at least to amateur builders). Their selection of AOA systems includes some STC'd AOAs, but most

THE INSTALLATION OF AN AOA INDICATOR MAY BE NO MORE THAN A MINOR MODIFICATION

are not STC'd. Should you purchase an STC'd AOA, your AME should have no issue with the installation and maintenance release of your aircraft providing it is approved for your aircraft. If you choose an AOA that does not have an STC, then your AME will have to decide if this installation is a minor or a major modification. The factors affecting this decision

▲ AOA indicators provide a visual and audible warning when the lift reserve is getting low.

will include the level of detail and the quality of the installation instructions provided by the manufacturer, whether your chosen AOA system interfaces with other systems on the aircraft and to what extent, if it has an FAA Approval Letter or Form, etc. The products offered by that supplier typically indicate what documentation accompanies the kit; some even indicate that their product may be installed as a minor modification requiring only a log book entry (always confirm this with your AME first).

TCCA does recognize the installation of several products, that could be considered as life-saving technologies, as minor modifications, and intends on publishing an AC to clarify the regulation in this respect. Pending the publication of such an AC, TCCA recognizes the accuracy and validity of the information provided here to assist aircraft owners in working with their AMEs in these circumstances. Note that this information is far from complete; it is only a brief summary. We strongly recommend that you read the full-length article in the March 2 issue of our eFlight newsletter. ✈️

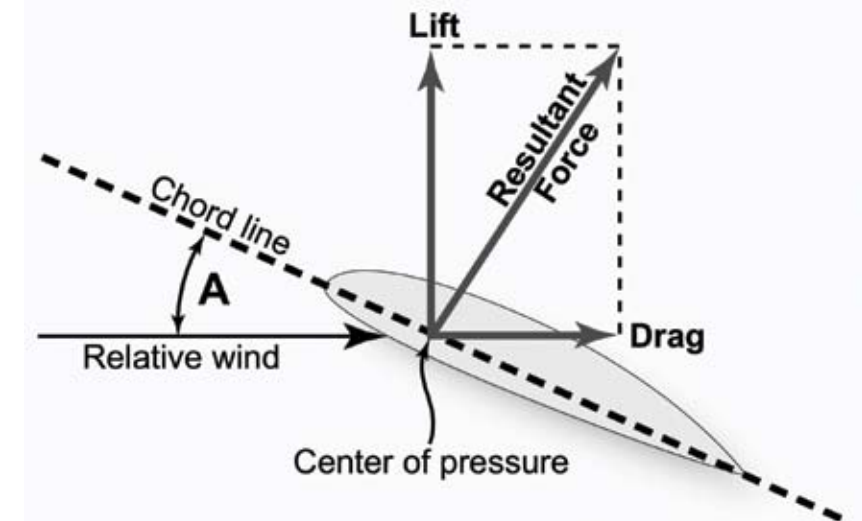
L'INDICATEUR D'ANGLE D'ATTAQUE

UN APPORT SIGNIFICATIF ET ABORDABLE À LA SÉCURITÉ

Selon le General Aviation Joint Steering Committee (GAJSC), un organisme du conjoint de la FAA et de l'industrie de l'aviation aux É-U, l'indicateur d'angle d'attaque constitue une mesure de sécurité capitale, si l'on souhaite réduire les accidents d'aviation imputables à des pertes de contrôle fatales. Dans le contexte d'une campagne en sécurité aérienne lancée en juin 2017 par TCCA de concert avec COPA, une relecture des statistiques canadiennes les plus récentes a débouché sur la même constatation. En fait, l'organisme américain estime que l'installation d'un système d'indicateur d'angle d'attaque (AOA) demeure l'un des meilleurs investissements pour quiconque désire améliorer la sécurité de son avion. Comme pilote conscient de ses responsabilités, peut-être envisagez-vous l'installation d'un tel dispositif sur votre appareil bénéficiant d'un certificat de type, mais aussi estimez-vous, tout probablement, que le coût et la complexité d'une telle démarche la rendront prohibitive.

L'installation d'un AOA peut cependant être considérée par un technicien d'entretien d'aéronef (TEA) comme une simple modification mineure relevant de la Norme 571 de la réglementation canadienne. En pareil cas, le technicien pourra effectuer ladite modification en suivant le guide d'installation recommandé par le fabricant ou en consultant la Circulaire 43.13-2B sur les techniques et pratiques acceptables, ou tel que spécifié dans la Norme 571.06(1) de la RAC. C'est en définitive au technicien qu'il appartiendra de considérer telle ou telle autre modification comme « majeure » ou « mineure » parce c'est lui qui devra ensuite apposer sa propre signature au bas du certificat d'entretien relatif à la modification.

Une excursion sur Internet en quête d'indicateurs d'angle d'attaque nous amène assez rapidement sur le site d'un fournisseur de pièces aéronau-



tiques déjà bien connu des constructeurs amateurs. Le catalogue des systèmes AOA de ce site inclut bien quelques indicateurs déjà approuvés selon un Certificat de type supplémentaire (STC) de la FAA, mais la plupart des autres produits ne le sont pas. Si vous faites l'acquisition d'un tel appareil, votre TEA pourra l'installer sans problème pour apposer ensuite sa signature là où légalement requis. Si, par contre, vous faites l'acquisition d'un indicateur AOA non certifié, il appartiendra à votre technicien d'établir si l'installation constitue une modification mineure ou majeure de votre aéronef. Sa décision dépendra des précisions fournies par le fabricant ainsi que de la qualité du descriptif d'installation. Il faudra aussi savoir si le système proposé est compatible avec les avioniques déjà installés sur votre tableau de bord et s'il fait l'objet d'une lettre d'approbation de la FAA (TSO) ou comprend un formulaire permettant d'obtenir une telle approbation, etc. La nomenclature des produits offerts par ce fournisseur décrit aussi, habituellement, la documentation qui accompagne une trousse d'installation. Certains de ces systèmes sont déjà

décrits comme acceptables au titre de modification mineure nécessitant une simple signature de votre technicien dans le livre de bord. Il vous faudra toutefois confirmer l'applicabilité en l'instance de cette disposition avec votre TEA.

L'Agence de l'aviation civile de TC reconnaît par ailleurs comme « modifications mineures » l'installation de plusieurs dispositifs pouvant aussi être décrits comme « de nouvelles technologies permettant de sauver des vies ». L'agence a d'ailleurs manifesté l'intention de publier un document pour clarifier la réglementation canadienne à ce chapitre. Dans l'intervalle, TCCA admet la précision et reconnaît la validité des informations fournies ici pour permettre aux propriétaires d'aéronefs de travailler de concert avec leurs techniciens aux fins d'accéder à ces dispositifs de sécurité.

Pour votre gouverne, il convient de souligner que les renseignements fournis ici sont loin d'être complets. Il s'agit en fait d'un sommaire plutôt bref. Nous vous suggérons donc de lire attentivement l'article complet sur cette question, dans l'édition du 2 mars de notre bulletin eFlight. ✈️

IGNITING THE INTEREST

GENDER EQUALITY WOULD SOLVE LABOUR ISSUE

BY RUSS NILES



One of the obvious strategies to boost the ranks of aviation professionals is to try to interest girls and young women in aviation roles. Less than 10 percent of the aviation workforce is female and anything approaching gender equality would instantly fill every available slot.

Initiatives like Women of Aviation Week bring girls and women face to face with aviation to demystify it and ignite interest. Thousands of girls are taken for rides by volunteer pilots and many of the events include exhibitions and speeches from women involved in aviation careers.

The one-on-one contact appears to tear down what may be one of the last perceived bulwarks of male privilege left. The widespread perception persists that aviation is a male-oriented pursuit and that females need not

apply. It's such a deep-seated perception that it has gone virtually unchallenged until recently while all other professions approach gender equity.

WOAW founder Mireille Goyer says follow-up surveys reveal that the sessions are genuine eye-openers for females who overwhelmingly report that they came out of the events with an interest in pursuing aviation careers.

"Events that welcome girls of all ages and encourage them to experience the multiple facets of the industry, hands-on, in a nonjudgmental environment are critical to the advancement of women in the industry," said Goyer.

She further elaborates on various initiatives for this year below:

"The largest announced event thus far is in Loveland, CO, with several thousands guests planned during the week-long event. I just got a note

today in the WOAWie online community that Manila in the Philippines is planning a big Pink Paper Planes event on March 8. Last week, I got an email from Jolene at the Lakefield District Public School in Ontario asking about planned activities in Peterborough. I quote: "I have a girls group that I run at my school and wanted to inquire about the Fly It Forward activities that might be held at the Peterborough Airport." They remember, and they ask... The interest is there as it has always been. Our job continues to be to connect those in the industry who support the inclusion of women in a tangible manner.

"WOAW week has always been grassroots powered and incentive based. We added two community awards in 2018: "Most Female Friendly Association Worldwide" and "Most

Female Friendly Corporation World-wide” to our list of Fly It Forward awards. We have recognized the airports that host the most Fly It Forward flights during the week since 2010; we will now also recognize the associations that engage the most members (percentage-wise) and the corporations that involve the most employers (percentage-wise). The winners of the community Fly It Forward awards will receive a plaque for their office, a digital seal for their marketing communications, and free advertising in our website network for one year, enabling them to promote their brand to our 300,000 unique visitors a year.

THE INTEREST IS THERE AS IT HAS ALWAYS BEEN

“Members of associations such as COPA, the Ninety-Nines, and RAA — Australia have flown it forward in significant numbers to celebrate Women Of Aviation Worldwide Week since 2010. Likewise, corporations like Nav Canada, L3, Airbus, TEI have encouraged their employees to get involved and opened their doors to girls during the Week. We wanted to recognise the organisations that step up in a tangible manner.

“We have always believed that outreach is better served with documented results. That is one of the reasons that we have always offered prizes for the completion of reports showing proof of activity. We also use the reports to determine the winners of the Fly It Forward awards.

“The reports allow us to compile outcomes every year. Since 2010, the percentage of women and girls who have ‘thought about aviation’ have doubled. However, we continue to note a hesitation at checking things out in person even when interest is awakened.”

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Photo by Mike Reyno

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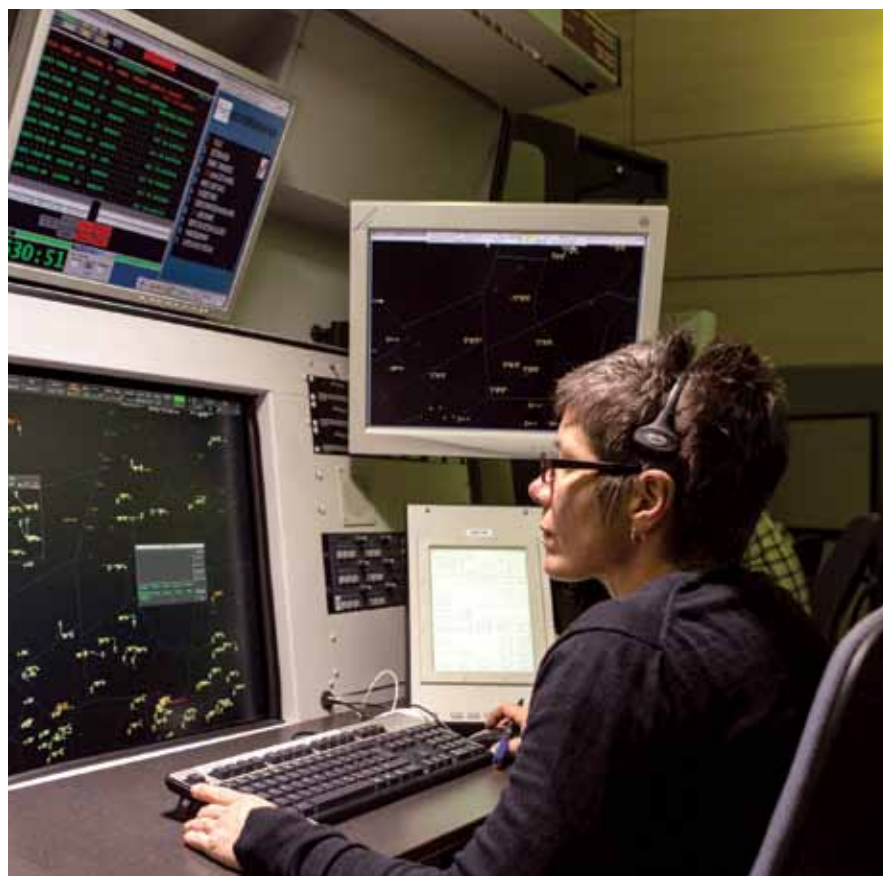
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NAV CANADA SUMMER CAMP

GIRLS URGED TO 'LEAVE ORDINARY BEHIND'



Nav Canada is making a direct appeal to teenage girls to join its ranks with its first summer camp for girls heading into Grade 10 in September.

The air navigation services provider will invite 20 girls to its Cornwall, Ontario facilities for a week of hands-on contact with a variety of aviation careers.

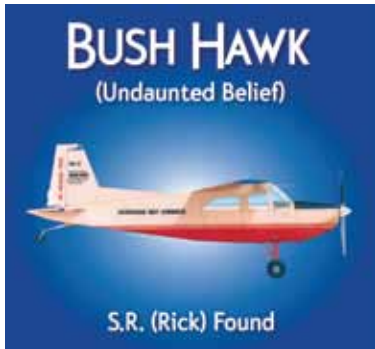
The girls will spend the week learning about jobs in air traffic control, electronics, flight services and other specialties that keep air traffic moving smoothly.

Nav Canada has created a promotional video and will be sending packages to educators across the country.

With the theme "Leave Ordinary Behind" the teens will be encouraged to try their hands on simulators and the other high tech gear that the highly trained people at Nav Canada use to manage the system. They will also learn how to fly drones.

Applications are due by March 9 and will include a completed application form, a 350-500-word essay on why the applicant wants to attend and a letter of recommendation from a teacher or community leader.

More information and the link for an application are here. <http://www.navcanada.ca/EN/careers/Pages/Explore-Aviation-Summer-Camp.aspx>



BUSH HAWK (UNDAUNTED BELIEF)

An important chapter of Canada's aviation history is told for the first time in a new book by S.R. (Rick) Found titled *Bush Hawk (Undaunted Belief)*. The Found family's name is famous among bush pilots, worldwide, for having built a tough little freighter aircraft designed for hard service in Canada's wilderness. The author's father, Sherman, along with his uncle Nathan (Bud) Found with financial backing from department store magnate John David Eaton took on the herculean task of gaining FAA certification for their dream aircraft. Despite both financial and engineering set-backs they hung in and produced an airplane that outperformed anything being then imported from the United States. So why, with an industry begging for the plane, were only 27 aircraft produced? Financial consultants and timid bankers did the trick and crashed the Found FBA-2C before it could gain altitude. For 15 years the rights to manufacture lay in Eaton's vault, but (Undaunted) Bud Found did the Phoenix from the ashes thing and the Bush Hawk flew once more. Don't wave the maple leaf just yet as what is known as angel money became the devil's own and the Found family lost their Bush Hawk to investors once more—this time across the seas from where it is about to reappear in international skies.

By S.R. (Rick) Found
 Publisher: Canadian Aviator Publishing Ltd. Imprint of Coast Dog Press
 List price \$29.00 CAD



VERTICAL HORIZONS

Author Doug Grant was a long-term employee of Okanagan Helicopters and has put together

an amazing fluidly written and comprehensive history of this pioneer company. OK, as they soon became known, achieved world renown from humble beginnings in British Columbia's interior by developing a mountain flying technique that is still a fundamental of helicopter flight training. Teaching the US army was just one of the achievements of founder, Carl Agar, who became known as Mr. Helicopter as he took the company into world prominence. Grant has not missed one other outstanding feature of Okanagan Helicopters—hundreds of former employees still speak of the pleasure they experienced in working for this pioneer Canadian company.

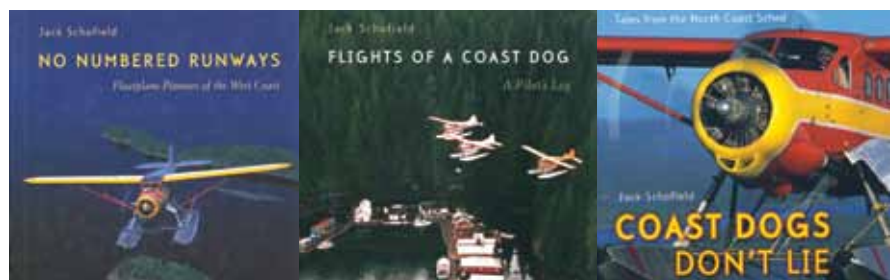
Author: Doug Grant
 Publisher Harbour Publishing Ltd.
 Price: \$39.95



HANGAR FLYING

Hangar Flying—Tales from the Flight Deck will be hot off the press by the end of November—a great 162 page full colour gift for an aviator friend who might just be yourself! Six professionals tell stories from their log books and some outstanding aviation artists illustrate with acrylic paintings and pen and ink sketches and now, for the first time, a twenty-first century painting by a digital Raphael and that's not finger painting. Priced at \$31.00 CAD we can mail it to you for \$7.00 anywhere in Canada. Perfect under the covers reading during winter's blast.

Author: Jack Schofield
 Price: \$39.00



THE COAST DOG SERIES

These are Schofield's three books that were destroyed in a warehouse fire and brought back to life by an enthusiastic aviation community who ordered sufficient numbers of sets to finance the reprinting. Wow! That's something of a mind-boggling story. *Flights of a Coast Dog* — a BC book award and west coast bestseller along with its sequel, *Coast Dogs Don't Lie* and some significant BC aviation histories in a revised edition of *No Numbered Runways* makes up the trio of great flying yarns with a BC Coastal flavour.

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FEATURED LISTINGS FOR MARCH, 2018



1967 CESSNA 172H TTAf 3503, SMOH 1600 (1800 TBO) New Garmin 225 com, New encoder, New Garmin 696 GPS, (Panel Dock) Super wing tips, New Carb, New Exhaust, Paint 7/10, Interior 9/10. Compressions 74-78. FACTORY FLOAT KIT, fresh annual Feb. 28. \$39,900.00 call 780-278-1598. skylaneaircraftsales.com (2712.15570)



1974 CESSNA 172M, 6850 TT, 530 SMOH, IFR King/Cessna/Garmin Avionics, JPI EDM 700, Reiff Engine Heater, In Annual, NDH, Well Cared For, Hangared Last 30 Years, \$59,000, 905-849-1339, ggrenville@cogeco.ca (3121.16266)



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| 2001 Diamond Eclipse, 4827TT, 1278 SM, Garmin GNS530! Commercial! | \$99,000 USD | 1975 Mooney Exec, 5892 TT, 2433 SM, Flown Regularly! GX55 GPS! EDM700! | \$60,000 CAD |
| 1994 Cessna 414A, 4925TT, 1204 SM, RAMVII, Garmin530/430! | \$177,000 USD | 1975 Traveler, 2072 TT, 1419 SM, Beautiful/Paint/Tan/Leather | \$40,900 USD |
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| 1980 Turbo Arrow IV, 4083 TTSN, 637 SM, King! 3 BL Prop! | \$70,000 USD | 1959 Pacer, 2967TT, 1019 SM, Hangared! Low Time! | \$45,000 CAD |
| 1979 Archer II, 18484TT, 2278SM, Commercial Training Aircraft! | \$40,000 CAD | 1953 Cessna 180 Floatplane, 5574TT, 820SM, Horton STOLL! | \$70,000 CAD |
| 1979 C10R, 8595TT, 1414SM, FIKW/NewBoots (2012)! | \$119,900 USD | 1942 Harvard MKIIIB! 5224 TT, 991 SM, RCAF Scheme! | \$159,000 USD |

FEATURED LISTINGS FOR MARCH, 2018



1972 CESSNA 177B 3684.4TT, 78.5h on 3 blade Hartzell prop, 180hp Lycoming O-360-A1F6. 1684.8 Engine hours .STEC 40 Fuel flow monitor, Elec. ignition, Garmin 430 Nav Com coupled to the Autopilot, NARCO AT165 Trans. Mode C, NARCO MK 12D Nav Com, new #3 cylinder, Power Flow exhaust, tail gap seals, strobes. 2 new extra tires, new battery, light weight starter, wheel pants. Annual April 2016. \$65,000 USD. Call 306-421-6500 or email: 2000@accesscomm.ca (3097.15997)



1980 CESSNA R172K HAWK XP, TTAF 5,622, SMOH 515, 210 hp, Sea prop TT 365 .VGs, wing X, atlee Dodge folding sea, also full seat, EDO 2440 floats, wheel gear, land prop. KX 155, KX 165 nav/com, digital tach, KT76A transponder, King KLN GPS, 55A compass slaved, HSI, King ADF, auto pilot. Gross weight 2,700 lbs useful load on floats 765 lbs, on wheels 983 lbs, long range tank 66 gallon. Very well maintained aircraft, always hangered. Located in Cochrane Ontario Canada. \$128,000 Canadian comes with fresh annual. For more information call Mitch Gravel at 705-272-5786 (2901.15666)



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CESSNA 182P - 1973. 3530 TTSN, 1456.5 SMOH (TBO : 2500). EDO 2960 Floats. Propeller-landplane : McCauley 2CA34C204-C, SPOH :317.9 due 2015, Seaplane : McCauley C2A34C204-C, SPOH : 0.0. Audio panel King KMA-20, 2 radios comm/nav, Bendix/King KX155, 1 DME transceiver Bendix/King KM62, 1 transponder Bendix/King KT75 Garmin. Micro vortex generator kit (STC #SA00834SE) on wings and tail surfaces, BAS shoulder harness (STC #SA2067NM), Horton stol-craft kit (STC #SA2285CE), L/H aileron trim tab by Aero-trim (STC #SA1297SO), Brakett air filter, Fuel drain mod kit (SKC206-24), Electronic international fp5 fuel flow transducer (STC #SA00068SE), Insight engine analyser, Engine heater Reiff Corp., Engine modified IAW Texas skyways (STC SE8949SW), 250hp TBO @ 2500hrs, Engine mount Seaplane West, Replaced RH fuel cell in 2012, Replaced engine rubber mount. Annual February 2018. \$110,000 OBO. Call Robert Adam, 819-732-6066 (bus), 819-727-6223 (cell), 819-732-6189 (home). Email : radam@cableamos.com (2753.16236)



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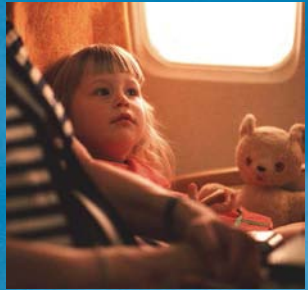
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alc.alcohol (as in alc. prop)
APauto(matic) pilot
ATSautomatic throttle system
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360CH360 channel radio
720CH720 channel radio
CGcentre of gravity
CHTcylinder head temperature
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CSconstant speed propeller
DGdirectional gyro
DMEdistance measuring equipment
EGTexhaust gas temperature
ELTemergency locator transmitter
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FBOfixed base operation
FDflight director
FREMAM,
FREMfactory remanufacture
GEMgraphic engine monitoring
GPHgallons per hour
GRglide ratio
GSGlideslope
HPhorsepower
HSIhorizontal situation indicator
IFRinstrument flight rules
ILSinstrument landing system
3LMB/MB3 light marker beacon
LOClocalizer
LRFlong range fuel (capacity)
LycLycoming (engine)

MBSee 3LMB
MKMark (model of equipment)
MPHmiles per hour
NAVnavigation
NAV/COMnavigation/communications
NDBnon-directional beacon
NDHno damage history
OAToutside air temperature
OBOor best offer
O/Oxyoxygen
P&WPratt & Whitney (engine)
RMIradio magnetic indicator
RNAVarea navigation
SCTOHsince chrome top overhaul
SCMOHsince chrome major overhaul
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SPOHsince prop overhaul
STCsupplemental type certificate
STOHsince top overhaul
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Name: _____ Date of Birth: _____
Name: _____ Date of Birth: _____
Name: _____ Date of Birth: _____

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E-MAIL: MEMBERSHIP@COPANATIONAL.ORG
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PLEASE CLIP & RETURN THIS FORM BY FAX OR MAIL

By submitting this form you agree to support the Strategic Vision of the Organization, which is "COPA will be the strong, recognized and credible voice, sufficient in size and capability to optimize access to General Aviation in Canada." Your membership is effective upon receipt of your membership number sent to you by electronic or other means. When you receive your number you are entitled to all the benefits of COPA membership but it is subject to confirmation by the Board of Directors at their next board meeting in accordance with COPA General Operating By-Law No. 1, section 3.01 (http://www.copanational.org/files/2014-06_COPA_Bylaws_Final.pdf). Unless and until you hear back from COPA about the status of your membership, you can consider yourself a full member of COPA.

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