

# COPA Flight

The Journal of the  
Canadian Owners and  
Pilot's Association

JANUARY 2018

## **CRASH SIMULATION**

HELPING AIRPORTS  
BE READY

## **CHECK PILOT CHANGE**

TCCA STEPS OUT  
OF PROCESS

## **IFR CHECK RIDE CHANGE**

COPA DRIVES RULE  
RELAXATION

## **SATELLITES AND GA**

NEW TECH ON THE  
HORIZON

## Photos of the Year

Great Entries in Our  
Annual Contest (P.38)

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**70**  
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(P.45)



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EDITOR  
Russ Niles  
russ@copaflight.ca  
250.546.6743

DISPLAY ADVERTISING SALES  
Katherine Kjaer  
250.592.5331  
advertising@copanational.org

CLASSIFIED ADVERTISING  
SALES AND PRODUCTION COORDINATOR  
Maureen Leigh  
1.800.656.7598  
classified@copanational.org

CIRCULATION  
Maureen Leigh

ACCOUNTING  
Anthea Williams

ASSISTANT ADMIN  
Rajei Gill

---

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Canadian Owners and Pilots Association  
75 Albert Street, Suite 903,  
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## FEATURE

### 38 PHOTO OF THE YEAR

We got almost 50 photos from every corner of Canada for our 2017 Photo of the Year contest and a lot were beautiful sunset shots like the one above by Dennis Perron. We also got a huge variety of airplane portraits, scenery shots out the window and images captured by action cameras mounted on the outside of the aircraft. In the end we picked an overall winner and two runners up for our Photos of the Year. We also picked an image that will go on the background of the 2018 COPA membership card. Go to page 38 for the winners and some other really nice examples of aviation photography.

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**COVER ART:** A Canadian scene on the Burntwood River that earned second spot in our photo contest. *Photo by Bruce Bowles*



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## SPACE-BASED ADS-B TCCA, NAV CANADA AT ODDS

Over two years after my first comments about the Aireon tracking system presentation given by Nav Canada (see President's Corner, January 2016), the project is taking shape with more satellites going up, wonderful technology taking us out of the stone age where aircraft will be able to be seen all over the world.

And even though there is still no official mandate for Automatic Dependent Surveillance-Broadcast (ADS-B) Out in Canada as spelled out by Transport Canada (TC), Nav Canada says there will clearly be a mandate. In fact, they are asking for feedback on their "Terms of Reference – Canadian ADS-B Out Mandate" as you read this. Pressed for an answer, TC officially says "nope", while NC says "of course we will have ADS-B Out." I have yet to figure this one out. Regardless, we're in the process of looking at what's best for us, for our members and for general aviation in the country, trying to leverage this technology above our heads as we fly across the country. I will refrain from comments or an opinion at this point.

One thing I am absolutely certain of is that this system could replace any form of Emergency Locator Transmitter (ELT) such as the 406MHz which TC should make mandatory for us in the near future. Several recent incidents in the past months (June 2017 in Cranbrook and this past November around Revelstoke, both in BC) have shown once again that when ELTs don't go off, they're just a few useless pounds in the aircraft. Our

ELTs rely on an old mechanical g-switch technology, a fragile whip antenna and a wide variety of installation quality. All can be greatly surpassed by stronger sold-state devices and the antenna we already use for our transponder. Even the simple accelerometers we have in our phones can probably do a better job than the ELTs.

So as we look at a possible mandate for ADS-B out, one of our requirements is for the development of a safety feature that would replace the 406MHz ELT with as good a track record as space-based ADS-B is purported to have. Back in January 2016, I said: "What's preventing it from being applied to private or general aviation? Right now, it's a technical race between something that arbitrarily works (ELTs) and something that will most always work as long as your ADS-B transponder transmits, and give you a much better chance of being found should something happen."

General aviation is entitled to the same level of safety as the airlines and the big commercial operators. In the meantime, we still encourage everyone to use an ELT, personal locator beacons or any other means such as portable devices for alerting search and rescue. And don't forget to listen to 121.5 MHz on another radio if you have one.

COPA Flights will be consulted in the next few weeks on the ADS-B subject, as well as several others. Stay tuned for the invitation and have a safe and happy new year. 🇨🇦



## L'ADS-B SATELLITAIRE TRANSPORTS ET NAV CAN NE SONT PAS ALIGNÉS

Plus de deux ans après mes premiers commentaires au sujet de la présentation de repérage Aireon faite par Nav Canada (voir Mot du président, Janvier 2016), le projet prend de l'ampleur avec plus de satellites en orbite, nous sortant de l'âge de pierre et permettant à tous les aéronefs d'être vus partout autour du monde.

Et même s'il n'y pas encore de mandat officiel pour la surveillance dépendante automatique en mode diffusion (ADS-B) Out tel que prescrit par Transports Canada (TC), Nav Canada (NC) dit plutôt qu'il y en aura certainement un. Ils sont en fait en train de mener une consultation sur ce que devrait avoir l'air ce « Mandat canadien concernant l'exigence de performance d'ADS-B Out » au moment de lire ces lignes. Officiellement, TC répond « non », alors que NC dit « certainement qu'il y aura un mandat d'ADS-B Out. » Je ne la comprends pas trop celle-là. Peu importe, nous sommes en train de regarder ce qui est le mieux pour nous, pour nos membres et l'aviation générale au pays, essayant de tirer le maximum de cette technologie au-dessus de nos têtes en volant à travers le pays. Je m'abstiendrai de commentaires pour l'instant.

Il y a une chose dont je suis absolument certain, c'est que ce système pourrait remplacer toute forme de balise de détresse (ELT) telle que la 406Mhz que TC devrait rendre obligatoire sous peu. Plusieurs incidents récents (juin 2017 à Cranbrook et en novembre dernier à Revelstoke, les deux en C-B) ont démontré une fois de plus que lorsqu'un ELT ne se déclenche pas, ce n'est que du poids inutile dans l'aéronef. Nos ELT dépendent d'une vieille technologie méca-

nique (g-switch), une fragile antenne fouet et des installations de qualité à tout le moins variables. Tout ce système peut être facilement éclipsé par de l'électronique (circuits intégrés) et par l'utilisation de l'antenne existante de notre transpondeur. Même les accéléromètres sur nos téléphones peuvent probablement faire un meilleur travail que les ELT.

En se tournant vers un mandat possible de l'ADS-B Out, une de nos demandes est le développement d'un dispositif de sécurité qui pourra remplacer nos ELT et offrir une fiche aussi reluisante que celle promise par l'ADS-B satellitaire. En janvier 2016, je mentionnais : « pourquoi ne serait-ce pas applicable à l'aviation privée ou générale? »... « En ce moment, c'est donc une course entre quelque chose qui fonctionne de manière arbitraire (ELT) et quelque chose qui fonctionnera presque toujours en autant que votre transpondeur ADS-B transmette, afin de vous donner une meilleure chance si quelque événement fâcheux se produisait. »

L'aviation générale a droit au même niveau de sécurité que les opérations commerciales et les lignes aériennes. Entre temps, nous vous encourageons toujours à continuer d'utiliser vos ELT, vos balises personnelles ou tout autre moyen comme les appareils portatifs afin de pouvoir alerter la recherche et sauvetage. Et ce, sans oublier de syntoniser le 121,5MHz si vous avez une autre radio.

Les Clubs COPA seront consultés dans les semaines à venir concernant l'ADS-B et autres sujets. Soyez attentifs à l'invitation à venir et d'ici là, je vous souhaite une bonne et heureuse année, en toute sécurité. ✈️



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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.

### ✉ DETECTING DANGER

Having recently read and reread "Keep the Silent Killer at Bay" (Aug '17), I feel compelled to offer an additional view. I feel its content is inadequate and will mislead the reader to believe they may be fully protected with one or more of the detection instruments mentioned. Based on my research and an unhappy experience in our aircraft some years ago, I strongly feel there is more to the story of which all pilots should be aware.

The author suggests detectors that begin to warn at 50 ppm for five minutes (or longer). I strongly feel that this threshold is far too high. At altitude the effect of CO on our body is additive; at 7000 ft, 25 ppm has about the same effect as 50 ppm does at sea level. Worse, piston engines produce far more CO at altitude than at sea level because less oxygen is available, leading to incomplete combustion.

Let's look at what we have to do to act as PIC. Observe (visual acuity starts to diminish at CO levels of 5 ppm), calculate (our mental ability starts to diminish at about 10 ppm), and make decisions (analytical ability starts to diminish at about 20 ppm, or before). All this is going on before the Guardian unit mentioned even beeps, and then it waits another five minutes. It might be useful while reading the evening paper at your sea-level home, advising you to get outside and call your HVAC technician, but neither of these is an option for a pilot. Throw in our already diminished vision at night and this detector could have the aircraft headed for a smoking hole in the ground with a happy pilot feeling like there is not a problem in the world.

I am also totally disappointed that the author would even mention the little "coloured dot" detectors. Anything that takes 30 minutes to indicate a lethal condition should not be permitted in an aircraft. And you have to watch it? What about at night?



Our research found only one detector that meets the safe performance requirements for our aircraft: the "CO Experts", available from Aeromedix. This unit begins warning at 10 ppm, and gets more insistent as levels increase. This early warning gives a pilot time to correct the situation and get the aircraft and passengers out of harm's way before their vision, judgment and cognitive ability is impaired.

Our CO Experts detector suddenly screamed at 25 ppm after a crack occurred in our muffler (normal reading in cruise flight is 0). Heat was turned off, vents were opened and we headed straight to a nearby airport — a good outcome. Being alerted five minutes after it rose to 50-70 ppm at 7000 ft? Perhaps not. Our reading settled at 35 — 40 ppm on the way to the airport. The Guardian unit mentioned in the article would never have sounded an alarm at all at this level, and the coloured dot detector might have changed colour only after we parked the aircraft.

For further information, enter "Overview of Altitude Effects on the Uptake" or "Detection and Prevention of Carbon Monoxide Exposure in General Aviation Aircraft" in your search engine

Dave Gamblin



### ☒ SURVIVAL VEST

Referring to the article Survival by Steve Drinkwater (Nov. '17), I would like to provide the following advice. Get a fishing or similar vest with lots of pockets. Put your survival gear in the pockets. If you have to get out of the airplane quickly, you'll have the basics: signal mirror, first aid kit, matches, secondary fire starter, etc. on you. You may not have time to rummage around the plane looking for your emergency pack under all the stuff that has fallen over top of it.

You also need to know how to use it. Volunteer to be a Scout leader, etc. so you can learn all sorts of outdoor skills, or just go camping and figure out how it all works. Having the camping basics down pat can make your remote stay much more comfortable, or perhaps be the difference between life and death.

*Harrie Jones*



A promotional image for the COPA 2018 Convention and Tradeshow. The COPA logo, a stylized blue and white geometric shape, is positioned above the word "COPA" in large, bold, blue letters. Below this, a photograph shows a large white cruise ship docked in a harbor at night, with the city lights of Saint John, NB, reflected in the water. The text "2018 Convention and Tradeshow" is written in white, followed by "Saint John, NB" in a larger, bold white font, and "June 21-23 2018" in a smaller white font at the bottom.



# CHECK PILOT CHANGES

## AIRLINES SELF REGULATE FLIGHT SAFETY

ANALYSIS BY RICH PITTET, CHECK PILOT



Transport Canada Civil Aviation (TCCA) recently announced it would soon leave the evaluation of check pilots to the airlines themselves, at least in the case of companies operating aircraft with seating for 50 or more passengers. The announcement has caused a bit of a stir in the industry, not surprisingly starting with TCCA's own aviation inspectors. The Canadian Federal Pilots Association, the union representing the pilots, suggests the move constitutes one more step on the path of self-regulation. It also draws into question our nation's compliance with the spirit, if not the strict interpretation, of ICAO standards, which mandate ongoing evaluation of pilots by the regulatory agencies of its 190 member states. Interest groups and international conventions notwithstanding, is this good for the travelling public? More specifically, will the changes impact safety?

Here's how the current system works. An airline's legal authority to

conduct flight operations is based on the issuance of an Operating Certificate (OC). The Minister of Transport is responsible for this. Company check pilots (CCPs), after being nominated by their respective companies and vetted by TCCA inspectors, ensure crews follow the procedures and policies upon which the OC issuance is based. In addition, they insure Canadian Air Regulations are adhered to, that effective human factors methods are employed by crews and, most importantly, that the aircraft is operated in a safe manner. Check pilots might work for an airline, but legally represent TCCA during evaluations. They are said to have Delegated Authority, acting literally with the authority of the Minister in matters pertaining to licensing and competency. If this seems like the makings of a structural conflict of interest, it is — a reality made clear to aspiring check pilots early in their training. In fact, they are deemed to be in an implied conflict of inter-

est every day they go to work, with an obligation to avoid a real conflict of interest should one arise. This unique arrangement has proven both workable and effective for many years.

When you get down to it, the real question is this: do airlines possess sufficient expertise to conduct independent assessments of check pilots and, as importantly, can they be trusted to do so? I believe the answer to both questions is yes.

Every day air carriers operate independently of the regulator, with the vast majority of evaluations and licensing events going unmonitored. This in no way suggests that TCCA inspectors are in the dark when it comes to an airline's operations. Many are trained by the company whose activities they will ultimately monitor and, by doing so, get a true insider's view of the company they are responsible for overseeing. I don't expect this will change. Despite what the public might think, inspectors' actual day-

to-day involvement with check pilots and the companies who employ them is more akin to them being auditors than an embedded representative of the Minister. However, as everyone is ultimately accountable to someone, airlines and their check pilots will still be accountable to TCCA inspectors; they just won't see them as often.

In response to all these changes, airlines themselves will have to train checkers in new oversight roles and will ultimately bear the cost of this process. This will not be an insignificant expense for companies employing dozens of check pilots on a variety of aircraft types. With complete deference to our federal colleagues, I dare say future company-driven evaluations may prove as or even more difficult than many that TCCA monitors. The reasons for this are simple. Company checkers not only have the playbook, but also possess a detailed knowledge of the evaluation scenario, not to mention an equal or greater expertise in the operation of the simulator. In many real ways it may prove an even more rigorous process. As well, not commonly known is that the previous TCCA monitor schedule of checkers was changed from an annual to a biennial evaluation cycle some time ago, so in reality we've been going down this road for some time.

From the regulator's perspective, I can't see this transfer of responsibility as something TCCA prefers, as no arm of the federal government charged with insuring the safety of the travelling public would favour relinquishing elements of such an important mandate. It's safe to assume TCCA is taxed to the limits in terms of manpower and resources, and is likely suffering from the same pilot shortage as the rest of the industry. As the old saying goes, "the tide raises all ships equally."

In the final analysis, what do we lose with the move away from the routine evaluation of CCPs by TCCA inspectors? As before, the effectiveness of captains exercising delegated author-

ity will be a reflection of the safety culture of the respective air carrier and, as importantly, the integrity of those skippers entrusted by the Minister with delegated authority. This will not change. Companies with a strong safety culture will continue to operate as they have, and those with less focus will conduct themselves no differently. TCCA inspectors have always dealt with this reality. What will be gone is the external perspective of another experienced pilot, one with a view independent of how an airline or check pilot might approach an evaluation or handle a problem.

To be honest, I'd prefer that the previous arrangement continues. Unlike our friends to the south, Canadians still mostly trust the regulator and probably take comfort in the notion of independent oversight. Moreover, the outgoing way of doing business has worked for years and has, in my estimation, proven highly effective. The inspectors I've worked with have provided insights and perspectives that have benefited my skill set. It will be sad to see this end. However, like the rest of the public sector, TCCA is being asked to do more with less. I'm confident that, while not the ideal situation, there is a sufficient buffer of expertise in the Canadian industry that safety won't be impacted negatively. The fact that few check pilots fail their TCCA monitors suggest those with the greatest experience operating the airplanes and possessing the requisite judgment are currently being granted delegated authority. These will, if anything, become even more the case.

Every check ride I've had with a TCCA inspector has started with one question, one that captures the central theme of delegated authority: "What is the main responsibility of a check pilot?" The correct response is, "To ensure the safety of the travelling public." Regardless of who asks that question, the answer won't change. 🙏



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# IFR TESTING RELAXED

## COPA LOBBIES FOR EQUIPAGE CHANGES



COPA has successfully lobbied Transport Canada Civil Aviation (TCCA) on behalf of our members to remove an arbitrary and bureaucratic hurdle that required aircraft used for IFR check rides (IPC) to be equipped with approved GNSS capability (IFR Flight Test Guide 02/2017). TCCA has revised this requirement to be applicable on the initial IFR test ride only. They now recognize that numerous IFR-rated private pilots who own aircraft not equipped with GNSS would not be able to maintain their IFR ratings without undertaking significant avionics upgrades, or renting aircraft from flight schools solely for the purpose of their IPC. With this announcement now formalized by TCCA, these pilots will continue to be able to renew their IFR rating on their own aircraft, in its current configuration.

Several important aspects have also changed with respect to our IFR rating in the last year or so. The first major change is that the IFR rating does not expire anymore. Once it is on our license, it is there for life, like the licence itself, and we will not have to rewrite the INRAT if our rating has lapsed beyond a certain date. We still have to do an Instrument Proficiency Check (IPC) every two years, on or

before the anniversary of our rating. Does this sound like anything major or significant for the GA pilot in Canada? It probably does not. On the other hand, we must recognize that these changes are legitimate in that they do address numerous issues in other areas of our licensing system.

Along with these changes, we also have the IFR currency requirement: six hours and six approaches to published minima in the last six months, or 6-6-6. This means that on the day we plan to fly IFR in IMC, we must have met this currency requirement. The onus is on us, as pilots, to keep track in our logbook of all our flights that qualify toward that currency requirement. When a flight

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### SEVERAL IMPORTANT ASPECTS HAVE ALSO CHANGED WITH RESPECT TO OUR IFR RATING

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addresses the 6-6-6, simply make a note to that effect with the logbook entry. It is also much wiser and safer to have this currency flying spread over time instead of cramming the day before the intended flight.

The recency requirement provides pilots flying IFR in IMC a means to ensure they are not rusty to the point of being unsafe; it does not invalidate your IFR rating if the 6-6-6 is not satisfied. The 6-6-6 is effective on the first day

of the thirteenth month following your instrument rating flight test or your IPC. If your 6-6-6 has expired, you do not meet the recency requirement to fly IFR. In this case, you have two easy options to revive your IFR recency:

- VMC — You get in your IFR equipped and approved aircraft and you go fly off the 6-6-6 requirement in VMC. You can do this by flying simulated published approaches down to the published minimum. You can do this at a controlled airport when the controller authorizes you, or at an uncontrolled aerodrome if this is more practical for you. The intent of this currency requirement is to ensure that you are current on the procedures, that you still remember how to read and interpret the plates for instance and can fly the approach with accuracy and safely, respecting all limitations and relevant guidance. The regulation does not mandate that a qualified person must be with you. It is however a wise and safe practice to have a knowledgeable and reliable person in the right hand seat to act as a security lookout. You will be flying with your head down in the cockpit, in VMC conditions. You are always responsible for your own traffic avoidance and aircraft separation; or
- IMC — You get in your IFR equipped and approved aircraft and you go renew your 6-6-6 by flying IFR in IMC, on a flight plan. In this case, you most definitely must have a qualified person in the right hand seat. Since you cannot file IFR, that flight plan will have to be on that person's IFR ticket. That qualified person can be a Flight Instructor with valid IFR and 6-6-6, a CPL with valid IFR and 6-6-6, an ATPL with valid IFR and 6-6-6, or you can go all the way to a TCCA authorized and qualified examiner. ✈️



## COPA NÉGOCIE AVEC SUCCÈS TCCA SUR LES REQUIS DE TEST IFR

**Suite à une négociation entre Transports Canada et COPA au profit de nos membres, un obstacle arbitraire et bureaucratique imposant qu'un avion utilisé pour un test en vol pour qualification IFR doive être équipé d'un récepteur GNSS approuvé et certifié (Guide de Test en Vol IFR 02/2017), ce requis a été revu. TCCA a reconnu que cette condition devrait viser les tests en vol IFR initiaux puisque les nouveaux candidats auront été entraînés sur un avion équipé de la sorte et auront un tel avion à leur disposition pour le test en vol. L'imposition de ce requis pour les renouvellements forcent nombreux propriétaires à modifier leur avion à grands frais ou à louer un avion à la seule fin de renouveler leur IFR. Cette interprétation de la part de TCCA permettra à ces pilotes privés de maintenir leur qualification IFR avec leur avion, dans sa configuration actuelle.**

D'autres aspects importants de notre qualification IFR ont été revus au cours de la dernière année. Notre qualification n'expire plus au bout de deux ans. Une fois apposée à notre brevet de pilote, cette qualification y est pour la vie, tout comme le brevet lui-même, et nous n'aurons plus à réécrire l'examen INRAT, peu importe le temps écoulé depuis l'obtention de la qualification. Mais nous devons tout de même passer un contrôle de compétences de vol aux instruments (IPC) à chaque deux ans, avant ou à la date anniversaire de notre qualification. Peut-être pas un changement majeur pour nous mais ceci résout de nombreux problèmes dans d'autres environnements.

Et nous avons aussi le requis du maintien à jour de nos compétences


IFR : six heures de vol aux instruments et six approches aux instruments jusqu'au minimum publié au cours des derniers six mois, ou 6-6-6. Ceci signifie que la journée ou nous planifions faire un vol IFR en IMC, nous devons satisfaire ce requis de maintien de nos compétences. Il nous incombe en tant que pilotes, de maintenir un dossier dans notre carnet de vol de tous les vols qui adressent ce requis. Lorsqu'un vol satisfait le 6-6-6, inscrivez une note à cet effet dans votre carnet de vol. Vaut mieux pratiquer régulièrement plutôt que d'en faire un marathon la journée précédent le vol planifié.

### *D'AUTRES ASPECTS IMPORTANTS DE NOTRE QUALIFICATION IFR ONT ÉTÉ REVUS AU COURS DE LA DERNIÈRE ANNÉE.*

Le requis du maintien des compétences donne simplement aux pilotes qualifiés IFR un moyen de s'assurer qu'ils ne sont pas rouillés au point d'être dangereux, votre qualification IFR n'est pas invalidée si le 6-6-6 n'est satisfait. Le 6-6-6 prend effet le premier jour du treizième mois suivant votre test en vol IFR ou votre IPC. Si votre 6-6-6 est expiré, vous ne rencontrez pas le requis du maintien des compétences vous permettant de voler IFR. Vous avez donc deux options :

- VMC — Vous montez dans votre avion équipé et approuvé IFR et

vous volez votre 6-6-6 en VMC. Vous pouvez faire ceci en volant des approches publiées simulées jusqu'au minimum publié. Vous pouvez faire ceci à un aéroport contrôlé lorsque le contrôleur vous y autorise, ou à un aérodrome non-contrôlé si ceci vous accommode mieux. L'intention de ce requis du maintien des compétences est de s'assurer que vous êtes bien au fait de vos procédures, que vous êtes toujours apte à bien lire et interpréter vos plaques d'approche par exemple et que vous pouvez effectivement voler l'approche avec précision et sécurité, en respectant toutes les limites et les autres détails importants. La réglementation n'impose pas la présence d'une personne qualifiée avec vous. Sécurité et bons sens imposent cependant que vous soyez accompagné d'une personne compétente et fiable dans le siège du copilote qui peut agir comme surveillant de sécurité. Vous piloterez les yeux dans le cockpit en conditions VMC. Vous êtes toujours responsable de votre séparation et protection par rapport au trafic aérien dans votre secteur.

- IMC — Vous montez dans votre avion équipé et approuvé IFR et vous mettez votre 6-6-6 à jour en volant IFR en IMC. Dans ce cas, vous avez définitivement besoin d'être accompagné d'une personne qualifiée dans le siège du copilote. Puisque vous ne pouvez pas déposer IFR, le plan de vol sera sur la qualification de cette personne. Cette personne peut être un instructeur de vol avec IFR et 6-6-6 valides, un CPL avec IFR et 6-6-6 valides, un ATPL avec IFR et 6-6-6 valides, ou vous pouvez aller jusqu'à un examinateur qualifié et autorisé par TCCA. 

# INCIDENTS + ACCIDENTS

## PRAIRIE AND NORTHERN REGION

### A privately operated TEAM 1300Z

Basic Ultra-light aircraft, was returning to Carstairs/Bishell's, AB (CGB2) from a local flight. While approaching CGB2, the engine (Zenoah G50C) lost power. The pilot attempted to restart the engine, without success. The pilot executed a forced landing in a field, 1 nautical mile West Northwest of CBG2. During the landing, the aircraft nosed over and came to rest inverted, sustaining substantial damage. There was no post impact fire. The pilot could not exit the aircraft as it was resting on its canopy. The pilot was eventually extracted from the aircraft by emergency responders and taken to hospital with minor injuries.

### An Aerospatiale AS 350 B-2 aircraft

operated by Mustang Helicopters, was on a VFR training flight at Lacombe, AB (CEG3) with 3 persons on board. While conducting an autorotation with a power recovery, the training pilot noticed a high torque and N1 indications as power was being introduced in the flare. The training pilot reduced throttle in an attempt to keep torque and N1 within limits; however, the engine (Turbomeca Arriel 1D1) lost power. The autorotation was continued to touchdown, resulting in a hard landing. There were no injuries, however the aircraft sustained substantial damage to the tail boom, skid landing gear and the lower wire strike protection system.

## ONTARIO REGION

### TSB Report#A1700251: A privately

operated Beech C 23 Sundowner aircraft, was enroute from Ottawa/Macdonald-Cartier Intl, ON (CYOW) to Ottawa/Carp, ON (CYRP). Approx-

imately 9 nautical miles West Northwest of CYOW at an altitude of 1500' ASL, the engine suffered a complete power loss. The pilot performed a forced landing on a nearby road. During the landing rollout, the left wingtip struck a road sign and the wing was substantially damaged. The pilot was uninjured. Reportedly, the fuel tanks were found to be empty following the occurrence.

### Shift Manager (SM) was advised

by Trenton joint rescue coordination centre (JRCC) of a Brampton Flying Club Cessna 172P (C-GHAP) on a flight to Brampton-Caledon, ON (CNC3) crash landing short of Runway 08 at CNC3. Transportation Safety Board of Canada (TSB) and Aviation Operations Centre advised.

### TSB Report#A1700243: C-GYJZ,

a Bombardier DHC-8-402 aircraft operated by Jazz Aviation LP, was conducting flight JZA7977 from Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) to Toronto/Billy Bishop Toronto City, ON (CYTZ) with 4 crew members and 37 passengers on board. While landing at CYTZ in gusty wind conditions, the aircraft bounced and touched back down firmly on the runway. Subsequently, the FDR caution light illuminated. The aircraft then taxied to the gate as normal. Following consultation with the operator's maintenance via telephone, the flight crew conducted a visual inspection of the aircraft; no abnormalities were detected. It was then decided that a hard landing maintenance inspection was not required, and the aircraft was dispatched under MEL authority for the FDR caution light that remained illuminated. After the departure on the return flight to CYUL, the flight crew requested that the aircraft

be inspected on arrival due to a potential hard landing. When maintenance personnel in CYUL brought the aircraft into the hangar, airframe damage to the aft right fuselage and the right main landing gear was discovered. The aircraft manufacturer is conducting a damage assessment and a repair plan for the aircraft in order to return it to service.

## PACIFIC REGION

### A fuel truck (JETMARK402) drove

into a parked Summit Helicopters Bell 407 (C-GHTU) on the apron at Powell River Airport. Apron 2 closed as a precautionary for fuel leaks. The helicopter sustained damage to the rotor blades and tail section.

## RÉGION DE L'ONTARIO

### Un Beech C23 d'immatriculation

privée, effectuant un vol local d'Ottawa/MacDonald-Cartier (CYOW), QC, a signalé un MAYDAY dû à des ennuis de moteur. L'aéronef a effectué un atterrissage forcé sur le rue Rifle (9WNW CYOW). Aucun blessé ni décès. Le Centre national de l'exploitation (NOC), le Bureau de la sécurité des transports du Canada (BST), le centre des opérations aériennes et le centre conjoint de coordination de sauvetage (JRCC) de Trenton ont été avisés. (AOR 225495-V1 en double supprimé).

## RÉGION DU PACIFIQUE

### Un camion-citerne transportant du

carburant (JETMARK402) a heurté un hélicoptère Bell 407 (C-GHTU) garé sur l'aire de stationnement a Powell River. L'aire de stationnement no 2 a été fermée par mesure de précaution en cas de fuite de carburant. Les pales du rotor et l'empennage de l'hélicoptère ont été endommagés.

# ENFORCEMENTS

## ATLANTIC REGION

A person operated an aircraft over a built-up area at an altitude lower than 1,000 feet above the highest obstacle within a horizontal distance of 2,000 feet from the aeroplane. CAR 602.14(2), \$750 fine.

## PACIFIC REGION

The pilot-in-command of an aircraft failed to comply with all of the ATC clearances received and accepted. CAR 602.31(1), \$525 fine.

The company permitted a take-off, approach and landing in a helicopter within a built-up area of a city or town. CAR 602.13(1), \$3,750 fine.

## PARAIRIE REGION

The company operated an aircraft without complying with the conditions and operations specifications in an air operator certificate issued by the Minister. CAR 705.02, \$5,000 fine.

## RÉGION DE L'ATLANTIQUE

Une personne a utilisé un aéronef au-dessus d'une zone bâtie à une altitude inférieure à 1 000 pieds au-dessus de l'obstacle le plus élevé situé à une distance horizontale de 2 000 pieds ou moins de l'aéronef. RAC 602.14(2), sanction 750 \$.

## RÉGION DU PACIFIQUE

Le commandant de bord d'un aéronef a omis de se conformer à toutes les autorisations du contrôle de la circulation aérienne qu'il a reçu et qu'il a accepté. RAC 602.31(1), sanction 525 \$.

L'entreprise a permis le décollage, l'approche et l'atterrissage d'un hélicoptère à l'intérieure d'une zone bâtie d'une ville ou d'un village. RAC 602.13(1), 3 750 \$



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# SAT-FI COMES TO GA

## NEW ERA IN COCKPIT COMMUNICATIONS



◀ Satellite communication is getting more common in GA.

more than 1,000 satellites in earth orbit, comprised of two types: Geostationary (GEO) and Low Earth Orbit (LEO). GEO satellites, stationed 22,300 miles above the earth, appear fixed above a specific point on the earth, and deliver bandwidth of between 200 and 430 kbps. LEO satellite constellations typically have 60 or more satellites, orbiting at high speed 485 miles above the earth. The LEO constellation appears to be in constant motion; it is designed to have a satellite fly by the user at all times, thereby maintaining the communications link at modem speeds. Next-generation LEO constellations will provide bandwidth performance improvements.

Globalstar was the first satellite communications company to bring affordable bandwidth to the consumer marketplace. Globalstar's SPOT Connect communicator uses LEO satellites to deliver short messages through texting, email, Twitter and Facebook. With their recent FCC win in the U.S., Wi-Fi delivered over satellite (Sat-Fi) is on the horizon. Sat-Fi provides access to the open Internet. Iridium is another provider of LEO satellite bandwidth and provides bandwidth to Garmin products.

I have been testing GlobalStar's Sat-Fi in the cockpit for the past two years. With worldwide coverage at altitude, satellite-delivered Internet promises to fill the cellular connectivity gap. The satellite data terminal (SDT) is roughly the size of an Internet broadband router. Powered by either AC or DC, the SDT has a few simple connections: power, satellite antenna (about the size of a large hockey puck) and Wi-Fi stick antennas. In

**T**he advent of the microprocessor has allowed avionics companies to build navigation flight displays, engine management systems, flight deck technologies and applications (apps), creating a revolution in the cockpit. We are now benefiting from access to datalink sources.

With smartphones and tablets equipped with Wi-Fi and LTE cellular connectivity, near real time weather information, including airport observations, NEXRAD radar and access to the Internet, is available to pilots. Many Canadian pilots rely on satellite-delivered XM Weather displayed on their portable and panel mounted avionics. However there is a time lag of roughly 15 minutes for the graphical weather products. NEXRAD is a strategic tool to aid in the planning of

weather avoidance. It should not be considered as a real time either, and should not be relied upon as a tactical tool to pick your way through inclement weather.

With access to the Internet, online flight planning tools and weather information, pilots are provided with the tools to make a go or no go decision both on the ground and in the air. Delivered over a wireless cellular data network, Internet connectivity powers many flight tools at lower altitudes over populated areas. (Although there is no hard and fast rule for airborne cellular connectivity, Bill Arsenault of Mid-Canada Mod Centre reports that cellular connectivity above 2,000 ft AGL can be spotty and unreliable.)

Cellular and Wi-Fi connectivity can be augmented by satellite-delivered data and voice services. There are

2016 Globalstar released an FAA TSO'd and STC'd satellite antenna for installation on non-pressurized GA aircraft, which will improve satellite connectivity. TCCA certification is underway.

The challenge for current LEO satellite technologies is the amount of bandwidth it can deliver. With the satellite constellation orbiting high above the earth, only small amounts of bandwidth can be delivered. This is ideal for non-graphical data like METARs, TAFs, email, instant messaging and voice calls. The current LEO satellite bandwidth speeds are not designed to update charts, display graphical weather or deliver video calls.

Garmin's GSR56 satellite datalink hardware is the TSO'd/STC'd hardware that provides satellite data connectivity to a variety of flight decks and the Flight Stream 510. Part of the Garmin

Connex system, Garmin delivers satellite connectivity, providing weather, voice calling, SMS and position reporting. Through the Connex system, data and voice is extended to Wi-Fi connected devices, although access to the open Internet is not provided. All-inclusive rate plans with weather, voice and text start at \$80 (U.S.) per month.

LEO satellite connectivity brings the added benefit of turning an iPad or iPhone into a satellite telephone. I have had numerous occasions to radio Flight Services and request them to call U.S. customs to advise them of a delay in my arrival time. Lately, I have been denied this service by the FSS citing privacy concerns. A satellite telephone would have simplified time-sensitive communications.

Broadband residential Internet costs have been decreasing over the past

decade, providing more high-quality bandwidth for less cost per megabyte. However, residential Internet connectivity should not be used as a reference point for airborne connectivity. Both Globalstar and Garmin have subscriptions focused on aviators. Packages start at \$64.99 (U.S.) per month for modest usage, and continue up to \$2,400 per annum for unlimited usage.

The choice of a satellite service should align with the type of aircraft and budget. Weight restrictions in a Cessna 172 will be much different than in a Cessna Citation. Setting aside stereotypes, the amount of bandwidth and monthly cost may also align with the type of aircraft and overall operating costs. As with aviation, it's a trade-off between speed, weight, hardware requirements and monthly operating costs. 🐦

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### Assurance Responsabilité pour les membres de la COPA!

La COPA offre maintenant un programme d'assurance tous risques élaboré spécifiquement pour protéger les propriétaires et les opérateurs de drones commerciaux.

#### Les avantages du programme incluent entre autres:

- Des soumissions et polices en seulement quelques minutes grâce à notre système en ligne entièrement automatisé.
- Protection à des tarifs compétitifs.
- Une connaissance des lois et règlements locaux pour garantir une bonne couverture d'assurance.

Pour de plus amples renseignements, contactez le Groupe Magnes au numéro de téléphone 1-855-VIP-COPA ou visitez le site internet [uavinsurance.ca](http://uavinsurance.ca).



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## BRINGING BACK LIGHT AND SIMPLE MODERN MATERIALS MAKE IT STRONG AND SAFE



**T**he skies of North America were once buzzing with ultralights and now there are only a few diehards still flying them. We are trying change all that.

At our country grass roots airport, outside Calgary, over the last 36 years I have had the opportunity to observe and participate in the coming and going of the “movement” encompassing very light (ultralight) aircraft.

In Canada, because of our Transport Canada definition, we have become much more sophisticated in our equipment. We have turned our ultralight classification into that of homebuilt or experimental aircraft leaving behind the very light, simple and affordable entry-level flying machines, even though they are registered and called ultralights.

I am one of those old timers that look back over nearly 50 years of flying to find the most fun I ever had was getting into the sky in an aircraft that was lighter than my own body weight. Admittedly, some of those flying machines lacked a certain amount of structural integrity when it comes to some of the aggressive winds we get around Calgary. I now have more flying years behind me than ahead and the result is caution flags pop up when I think of all the ways I can get hurt. If my precious butt is going to get off the ground I want to make sure it is going to get safely back.

Modern power plants that give 21 horsepower out of an 11 lb. engine make a huge difference as compared to the old 9.6 horsepower out of an engine that weighed more than 30

▲ Styrofoam D cells form the leading edge of the wings.

lbs. What that enables us to do is put more strength into the structure and still keep the weight light enough to meet the American definition of an ultralight (254 pounds) and that is a weight works very well for an old fashioned ultralight.

We are really pleased with the new airframe and “D” cell construction of the wings. The structure of the whole airplane is simple yet strong enough to alleviate any of my fears about turbulent winds. We are making the airplane simple, strong, affordable and easy to build. Anyone who has built a model airplane will be able to build this one and they can actually get in and go flying! 🛩️



# CAUSE, EFFECT, REPAIR

## VAN'S RV STEP PROBLEM



**D**uring a pre-flight walk around we noticed a crack on the right-hand step of our RV-9A. Looking back through our tech logs, this occurred at around 300 hours on the airframe. We welded the step to make it serviceable again but the crack reappeared at 475 hours.

**Cause:** This type of fracture is indicative of fatigue failure. Fatigue failure can occur in a metal component when it is flexed both positively and negatively across its neutral axis. Its likeliness to occur is increased where there is a stress concentration such as is caused by a change in cross-section, a nick or other defect.

It is also enhanced by a more brittle composition as is created by welding. In our case we also added to its potential for fatigue by chrome-plating the steps, causing a more brittle steel component yet.

My theory is that the pulsations of airflow caused by our propeller produced the flexing, and welding the vertical airfoil section to the mounting plate, together with the chrome-plating process, provided the stress concentration.

**Effect:** When we detected the crack, it had progressed all the way around the airfoil section with only a small portion of the front holding the step in place. Good thing too, because contin-

◀ Proper repair of fatigue cracks can be challenging.

ued use of this defective step would have resulted in complete separation with a skinned shin and possibly a damaged flap.

On an RV website I discovered that this problem is not unique to our aircraft, and is certainly not uncommon. What surprised me is that it is also not limited to the right-hand step but also occurs on the left-hand one. So much for my theory of the prop pulsations on the right-hand side of the aircraft. Or do prop pulsations also affect the left-hand step? Also, in our case the right-hand step was probably used less than half as often as the left-hand one, so stepping on and off of a step seems not to have played any role in its failure.

**Repair:** Our first repair obviously did not solve the problem. For our second repair I used 4130 steel to form an airfoil sleeve, 12-gauge by 1-1/2 in. long, to fit snugly inside the airfoil section of the step at the fracture point. I drilled two 3/8 in. diameter holes, one above and one below the fracture in the step component, as shown in the photo. Re-welding the fracture and rosette-welding the holes in the step to the inserted sleeve completed our repair. We protected the paint surface by taping metal protection plates around the weld area. Other repair methods have also been used such as welding a plate over top of the fractured area of the step. Some builders of Van's RV aircraft have also elected to mount the step to the fuselage using bolts with nut plates on the inside rather than solid rivets, so that the step can be removed easily and replaced with a new one.

We now have flown 734 hours since this repair with no indication of any additional problem on either step. ✈️

# GETTING A SEARCH OFF THE GROUND

AIRCRAFT COMMANDERS TAKE CHARGE OF MISSION



◀ Aircraft commanders have to be ready to take charge of a mission at any time.

Last month we talked about the roles and duties of CASARA navigators. Together, along with the spotters, they have the life and death responsibility of directing the Aircraft Commander (AC) to the search area and keeping the AC on search while the spotters, known in CASARA as the Eyes of Life, look for the object of the search; a human being who is lost and likely in distress. My Canadian Forces (CF) liaison officer once impressed upon me, “That person out there is dying and it’s your responsibility to find them.” It’s pretty sobering stuff.

The final member of the crew is the Aircraft Commander (AC), or pilot. They are the ones who make everything happen. The ACs have a lot on their plate. They are responsible for ensuring the aircraft and they themselves are always available and ready for any mission. In addition, they are responsible for the actual flight itself: weather, fuel planning, the ability to get the aircraft to the search area and,

paramount to all this, the safety of the flight. “No pressure”, as they say, but if something does go wrong, and occasionally it does, it becomes the AC’s job to fix it. This is when the importance of good cockpit resource management comes into play. We put our heads together and solve the problem.

How does one become a SAR pilot? Depending on the operational needs of the zone, there are a couple of ways. First things first, though. To become a SAR pilot candidate, a candidate must be referred by their local zone’s chief pilot and have at least 150 hours of PIC time. It gets a little more in-depth when you are talking about multi-engine aircraft and retractable gear, but that’s beyond our scope today. In addition, candidates must, at their own expense, undergo a flight review with a qualified instructor and have the results submitted to the zone’s chief pilot. Once the standard has been met, training begins.

Typically we want SAR pilots to have a very high level of awareness of all of the other roles so they can ap-

preciate and assist those in the positions of spotter or navigator while on search. Remember, this is a team effort. In fact, our ability to operate as a team is our greatest strength, whether it is on our own or in a Force Generation scenario, as is often the case with our CF partners. This means that the typical SAR pilot is qualified in every role first before they begin their pilot training. First up are electronic ground searches (more on this in next month’s article) where they learn to home in on simulated emergency locator beacons under the mentorship of one of our ground homing specialists.

Once candidates have met the standard, they are invited to become a CASARA spotter and the training continues. After a few hours in our CASARA Visual Trainer (CVT) and a few classroom lectures, they begin their flight training. It’s tough on some pilots’ egos as they sit in the back seat and learn to become a competent spotter. Once they earn those wings they can apply to become a CASARA navigator. More CVT training and more classroom lectures, then it’s back to the plane — right seat this time — where they learn the art of SAR navigation. Finally, after earning their Nav wings, they can begin the last leg of their journey to the position of pilot.

Flying SAR is unlike any other flying you may have done. It's hard. It requires a level of precision not found in normal flying. They are trying to bring an aircraft around exactly on top of a search object so we can properly mark the coordinates and relay them to our SAR partners, who could be coming to the crash/casualty site by ground vehicle or by parachute. They don't want to be off by even a couple hundred metres. At best, it could result in delays in reaching the person; at worst, we may not be able to reach them in time. We also fly low, sometimes as low as 500 feet AGL for long periods of time. In the case of our multi-engine aircraft, those 500 feet could be over the middle of one of our Great Lakes. Much of the training necessary to become competent is done in the cockpit under the mentorship of the zone's chief pilot. The training workload is slowly increased until the chief pilot feels they are ready to safely handle an actual search. After the prerequisite number of flights and a final checkout, they become operational SAR pilots. It's a big accomplishment.

It's not for everyone and it does get physically demanding. For me it's the best gig going. I get to work with truly talented and committed people, with the rewards of having a hand in saving people's lives. To quote part of a wonderful poem by the great Helen Keller, "I believe there are angels among us, sent down to us from somewhere up above. They come to you and me in our darkest hours." Who wouldn't want to be a part of that? Join us. ✈️

## TIP OF THE MONTH

You have about ten seconds to get out of a submerged aircraft before you will probably drown. If you fly over water, take an underwater egress course, such as that offered by Bryan Webster. It's a fun day and I promise you will leave a more competent and confident pilot.



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# REQUIRED RADIO

## MANDATORY AND AERODROME TRAFFIC FREQUENCIES



Canada has a large number of uncontrolled aerodromes, meaning aerodromes where no control tower operates; either the aerodrome does not have a control tower, or the control tower operates during specified periods. For instance, the CFS might indicate that the tower is closed from 2300 until 0700 daily. The aerodrome then becomes an uncontrolled aerodrome. Depending on the density and mix of traffic at an uncontrolled aerodrome, Transport Canada Civil Aviation (TCCA) may designate a Mandatory Frequency (MF) or an Aerodrome Traffic Frequency (ATF).

Regulations mandate that an aircraft operating within an MF area shall be equipped with a functioning two-way radio and reporting procedures shall be followed as specified in CARs 602.97 to 602.103 inclusive. This clearly means that, when one flies within an MF area, one shall communicate — transmit and listen — on the

designated frequency as listed in the CFS. If a ground station is in operation (FSS, UNICOM, RCO, etc.) within the MF area, transmissions shall be addressed to the station; otherwise, the pilot will broadcast blind. For

### THE PILOT-IN-COMMAND ALWAYS CARRIES THE FULL RESPONSIBILITY FOR USING PROPER COMMUNICATIONS

aerodromes with an MF, the specific frequency, distance and altitude within which MF procedures apply will be published in the CFS.

Examples:

MF—rdo 122.2 5NM 3100 ASL

MF—UNICOM (AU) ltd hrs O/T tfc 122.75 5NM 3100 ASL

◀ Be aware of required frequencies around some airports.

Some aerodromes have a designated Aerodrome Traffic Frequency (ATF) based again on the mix and density of traffic. The ATF is established to ensure that all radio-equipped aircraft operating on the ground or within the area are listening on a common frequency and following common reporting procedures. The ATF will normally be the frequency of the UNICOM where one exists or 123.2 MHz where a UNICOM does not exist. Personnel providing UNICOM service and trained vehicle operators who possess a valid radio-telephone license and are authorized to do so, can communicate with pilots using two-way communication on the ATF and provide information such as:

- position of vehicles on the maneuvering area;
- position of other aircraft on the maneuvering area; and
- runway condition, if known.

The specific frequency, distance and altitude within which use of the ATF is required will be published in the CFS.

Example:

ATF — tfc 123.2 5 NM 5500 ASL

An ATF may also be designated for areas other than an aerodrome, when VFR traffic activity is high and an ATF could enhance flight safety. ( )

The pilot-in-command always carries the full responsibility for using proper communications and for maintaining adequate vigilance to ensure safe operations. Always carry a current CFS and ascertain the designated area (MF or ATF) applicable to your portion of flight. 🛫



# FRÉQUENCE OBLIGATOIRE (MF) ET FRÉQUENCE DE TRAFIC D'AÉRODROME (ATF)?

La Canada offre à ses pilotes un grand nombre d'aérodromes non-contrôlés, soit des aérodromes sans tour de contrôle. Soit que l'aérodrome n'a pas de tour de contrôle, soit que la tour opère suivant un horaire limité. Par exemple, le CFS indiquerait que la tour de contrôle est fermée de 2300 à 0700 quotidiennement. L'aérodrome devient alors non-contrôlé. Sujet aux considérations de volume et de diversité du trafic local, TCCA désigne en certains cas une fréquence obligatoire (Mandatory Frequency — MF) ou une fréquence de trafic d'aérodrome (Aerodrome Traffic Frequency — ATF). Bien que la terminologie française existe, les acronymes anglais (MF et ATF) sont d'usage courant.

La réglementation impose qu'un avion opérant dans une zone MF doit être équipé d'un radio en état de fonctionnement, permettant d'établir des communications. Les procédures applicables aux transmissions doivent respecter les articles RAC 602.97 à 602.103 inclusivement. Ceci signifie tout simplement que, lors d'opérations dans une zone MF, le pilote doit communiquer (recevoir et transmettre) sur la fréquence attribuée par TCCA et identifiée dans le CFS. Si une station au

sol est en service (FSS, UNICOM, RCO, etc.), les transmissions seront adressées à la station; autrement, le pilote transmettra simplement au profit des autres utilisateurs de la zone MF, sans attendre de réponse spécifique. Lorsqu'un aérodrome possède une MF, la fréquence attribuée, la distance et l'altitude applicables relatives aux procédures MF sont publiées dans le CFS.

Exemples :

MF—rdo 122.2 5NM 3100 ASL  
MF—UNICOM (AU) ltd hrs O/T tfc  
122.75 5NM 3100 ASL

Certains aérodromes ont une zone de fréquence de trafic d'aérodrome (ATF), selon les considérations de volume et de diversité du trafic. La zone ATF est désignée pour assurer que tous les avions équipés de radios en bon état de fonctionnement et opérant au sol ou dans la zone ATF maintiennent l'écoute sur une fréquence commune et respectent des procédures communes pour signaler leur position. L'ATF est normalement la fréquence de l'UNICOM lorsque celui-ci existe, ou autrement le 123.2 Mhz est de rigueur. À l'instar du personnel offrant les services UNICOM, des conducteurs de véhicules au sol formés et munis d'une licence de radiotéléphonie valide et qui sont autorisés à le faire,

peuvent communiquer avec les pilotes sur l'ATF, par le biais d'émetteurs-récepteurs. Ces personnes fournissent des informations telles :

- La position des véhicules sur l'aire de manœuvre;
- La position d'autres avions sur l'aire de manœuvre;
- Les conditions de la piste, si elles sont connues.

Dans le cas d'aérodrome avec une zone ATF, la fréquence attribuée, la distance et l'altitude applicables relatives aux procédures ATF sont publiées dans le CFS.

Exemple:

ATF — tfc 123.2 5NM 5500 ASL

Une ATF peut aussi être attribuée pour des zones autres que des aérodromes, si le volume et la diversité du trafic VFR le justifient et que l'utilisation des procédures ATF peut améliorer le niveau de sécurité. ( )

Le commandant de bord (PIC) assume toujours la responsabilité d'assurer de bonnes communications et de maintenir une vigilance adéquate pour garantir des opérations sécuritaires. L'avion devrait toujours emporter un CFS à date et le PIC devrait toujours confirmer la zone d'opérations (MF ou ATF) applicable au secteur de vol en usage. ✈️

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# ACCIDENT FORGIVENESS

## SAFETY TRAINING HAS ITS REWARDS

It has been said that “Aviation itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of careless, incapacity, or neglect.” Every month we see proof of this in the Accident & Incidents section of the COPA Flight magazine.

At Magnes we handle more than 100 aircraft claims per year. Gratefully, the majority are “fender-bender” type losses, without injury, but inevitably each year we deal with injuries and, tragically, a few fatalities. According to Transport Canada, since 2007 there have been over 225 reportable accidents per year, with at least 20 to 50 percent resulting in fatalities or serious injury. Additionally, there are between 530 to 730 reportable incidents per year. Many of these result in an insurance claim. That accidents, incidents and claims can and do happen is the reality of our chosen passion and avocation as pilots.

At the COPA Convention and Annual General Meeting in Kelowna, B.C. earlier this year, Transport Canada announced the General Aviation Safety Initiative. Together with COPA and other industry leaders, they are taking an in-depth look at the causes of aircraft accidents with the goal of determining and promoting ways in which they might be prevented.

As part of these efforts, Magnes was invited to share our own data, which not surprisingly shows that one of the leading causes of claims is pilot error. The insurance industry has always been a strong believer that the level of initial and ongoing training is a significant factor when assessing the degree of exposure and risk each aircraft owner, pilot or operation presents. In support of Transport Canada’s new safety initiative, and in partnership with COPA, Magnes and

AIG have developed a new program called Accident Forgiveness.

Normally, if you have an insurance claim, whether it be in an aircraft, car, home or business, you typically expect to see your insurance premiums rise the following year by anywhere from five to 50 percent or higher. Starting in 2018, however, if an aircraft insured under the COPA Gold program is involved in an occurrence as defined by the policy and the approved pilot at the time of the occurrence has completed at least one Qualifying Safety Event as defined below within six months prior to the accident, your COPA insurer, AIG, will agree to waive any premium surcharges as a result of such occurrence. Furthermore, AIG will waive the applicable physical damage deductible as set forth in the policy declarations up to a maximum of \$250.

Qualifying Safety Events include:

- completing a flight review with an instructor;
- attending a COPA “Rust Remover” safety seminar;
- participating in a Transport Canada-approved recurrent training program;
- completing a training program or pilot proficiency check (PPC) required by Part IV, VI or VII of the CARs;
- completing the requirements for the issue or renewal of a license, permit or rating.

Of course there are conditions: (a) the policyholder will only be eligible for Accident Forgiveness for one claim every 36 months; (b) the completion of the Qualifying Safety Event must be evidenced via a completion certificate or applicable log book endorsement; and (c) the program will exclude an occurrence arising out of, or relating to, drug or alcohol abuse or fuel exhaustion.



In 1901, Wilbur Wright addressed a group of engineers, “Now, there are two ways of learning to ride a fractious horse: one is to get on him and learn by actual practice how each motion and trick may be best met; the other is to sit on a fence and watch the beast a while and then retire to the house and at leisure figure out the best way of overcoming his jumps and kicks. The latter system is the safer, but the former, on the whole, turns out the larger proportion of good riders. It is very much the same thing in learning to ride a flying machine.”

COPA is integral to promoting safety in general aviation in Canada. Magnes and AIG are excited to be able to support COPA by being the first program in Canada to offer Accident Forgiveness as a unique and exclusive benefit to COPA members who appreciate the importance of learning through practice and ongoing training.

For more information on Accident Forgiveness or the COPA VIP Insurance Program, please call the COPA VIP Magnes Team toll free at 1-855-VIP-COPA (1-855-847-2672) or email us at [vipcopa@magnesaviation.com](mailto:vipcopa@magnesaviation.com). As always, we are at your service to answer your questions, assist you in obtaining the best premium and coverage possible and help you stay protected year after year. ✈️

# PARDON EN CAS D'ACCIDENT

Il est dit que « l'aviation en soi n'est pas proprement dangereuse. Mais à un degré plus élevé que l'océan, elle est impardonnable en cas d'insouciance, d'inaptitude ou de négligence. » Chaque mois, nous en voyons la preuve dans la section Accidents & Incidents du magazine COPA Flight.

Chez Magnes, nous traitons plus de cent réclamations d'aviation par année. Heureusement, la majorité sont des pertes pour des accrochages, sans blessure, mais inévitablement chaque année nous traitons des cas de blessures et tragiquement, quelques décès.

Selon Transports Canada, depuis 2007, il y a plus de 225 accidents à signaler par année, dont au moins 20 à 50 percent entraînent des décès ou des blessures graves. En outre, il y a entre 530 et 730 incidents à signaler par an. Beaucoup d'entre eux aboutissent à une réclamation d'assurance. Une réalité de notre passion et de notre vocation de pilotes est que les accidents, les incidents et les réclamations peuvent se produire.

Transports Canada a annoncé une nouvelle initiative de sécurité de l'aviation générale au Le congrès annuel et salon professionnel de COPA plus tôt cette année à Kelowna, en Colombie-Britannique. Avec la COPA et d'autres chefs de file de l'industrie, ils examinent en profondeur les causes des accidents dans le but de déterminer et de promouvoir des moyens de les prévenir.

Dans le cadre de ces efforts, Magnes a été invité à partager ses propres données, ce qui démontre sans surprise que l'une des principales causes des sinistres est due à une erreur du pilote. L'industrie de l'assurance a toujours été convaincue que le niveau de formation initiale et continue est un facteur important dans l'évaluation du degré d'exposition au risque

de chaque opération, propriétaire d'aéronef ou pilote. Plus la formation et la pratique régulière, moins le risque d'erreur pilote.

Ainsi, en appui à la nouvelle initiative de Transports Canada en matière de sécurité et en partenariat avec la COPA, Magnes et AIG ont mis au point un nouveau programme appelé «Pardon en cas d'accident». Normalement, si vous avez une réclamation d'assurance, que ce soit dans un avion, une voiture, une maison ou une entreprise, vous prévoyez généralement que vos primes d'assurance augmenteront de cinq à 50 percent ou plus l'année suivante. À compter de 2018, si un aéronef assuré en vertu du programme COPA Gold est impliqué dans un accident et que le pilote approuvé au moment de l'événement a complété au moins un «événement de sécurité admissible» tel que défini ci-dessous dans les six mois précédent l'accident, AIG, votre assureur de la COPA, acceptera de renoncer à toute surprime à la suite d'un tel événement. De plus, AIG renonce à la franchise pour dommages matériels applicable conformément aux conditions particulières de la police jusqu'à un maximum de 250 \$.

Les événements de sécurité admissibles sont les suivants:

- Un examen de vol avec un instructeur;
- Un séminaire de sécurité «Rust Remover» de COPA;
- Un programme de formation récurrente approuvé par Transports Canada;
- Un programme de formation ou un bilan de compétence pilote (Pilot Proficiency Check) tel qu'indiqué par la partie IV, VI ou VII du RAC;
- Les exigences pour la délivrance ou le renouvellement d'une nouvelle licence de pilote, permis ou annotation.

Bien sûr, certaines conditions s'appliquent: (a) L'assuré n'est admissible à l'indemnité du Pardon en cas

d'accident en vertu de cet avenant que pour seulement une réclamation soumise pendant une période continue de 36 mois; et (b) La réussite de l'événement de sécurité admissible doit être attestée à l'assureur par l'intermédiaire d'un certificat conforme ou de l'approbation du livre de bord; et (c) Le programme exclura un sinistre découlant ou lié à l'abus de drogues ou d'alcool ou à l'épuisement de carburant.

En 1901, Wilbur Wright s'adressa à un groupe d'ingénieurs: « Maintenant, il y a deux façons d'apprendre à monter un cheval hargneux: l'un est de le monter et d'apprendre par la pratique comment chaque mouvement et chaque tour peut être mieux fait; l'autre est de s'asseoir sur une clôture et de regarder la bête un moment, puis se retirer et à loisir trouver le meilleur moyen de surmonter ses sauts et ses coups de pied. Le dernier système est le plus sûr, mais le premier, dans l'ensemble, fait ressortir la plus grande proportion de bons cavaliers. C'est à peu près la même chose en apprenant à piloter une machine volante. »

La COPA fait partie intégrante de la promotion de la sécurité dans l'aviation générale au Canada. Magnes et AIG sont ravis de pouvoir soutenir la COPA en étant le premier programme au Canada à offrir le pardon en cas d'accident comme un avantage unique et exclusif aux membres de la COPA qui apprécient l'importance de l'apprentissage par la pratique et la formation continue.

Pour plus d'informations sur le pardon en cas d'accident ou le programme d'assurance VIP COPA, veuillez appeler l'équipe VIP Magnes COPA au 1-855-VIP-COPA (1-855-847-2672) ou nous envoyer un courriel à [vipcopa@magnesaviation.com](mailto:vipcopa@magnesaviation.com). Comme toujours, nous sommes à votre service pour répondre à vos questions, vous aider à obtenir la meilleure prime et la meilleure couverture possible et vous aider à rester protégé année après année. 🛩️

# ON THE HORIZON

**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.

**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](http://www.aerobaticscanada.org) for details and more information about the club, events, contest results/photos and contact information.

**CHATHAM-KENT, ON (CYCK):** Come join us at the Chatham-Kent Municipal Airport for our delicious Monday night barbecue between 1730 and 1830 hrs. They will be starting Monday, June 11 and run every Monday, excluding holidays, until Monday, September 12, 2016. (No barbecues on July 2, August 6, and Sept. 3) We hold our barbecues rain or shine.

**OLDS/DIDSBURY, AB (CEA3):** 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.

**CHARLOTTETOWN, PEI (CYG):** 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](mailto:pound@pei.sympatico.ca).

## **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](mailto:info@classicaircraft.ca). Visit our website at [www.classicaircraft.ca](http://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](mailto: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 [nealandnadine@hotmail.com](mailto:nealandnadine@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.

**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](http://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](mailto:HawkesburyFlyingClub@gmail.com). The airport web site is <http://www.easthawkesburyairport.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](mailto: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](mailto:eaahighriver@shaw.ca). Visit our website at [www.eaahighriver.org](http://www.eaahighriver.org) for more details.

**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](mailto: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 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@rogers.com](mailto:gordon.millar@rogers.com) or visit the website for the Breslau Flyers at <http://www.copaflight26.com%22/>

**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 Thiesen at 403-327-8808 or send us an email at [Lethbridge-Sport-Flyers@telus.net](mailto: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



# ON THE HORIZON

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](http://klfc.ca).

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

**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 [orpresident@nanaimoflyingclub.org](mailto:orpresident@nanaimoflyingclub.org). Visit our website [www.nanaimoflyingclub.org](http://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 [capocruz@gmail.com](mailto:capocruz@gmail.com) or 587-226-9753

**PENTICTON, BC (CYFF):** 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](mailto:ronjohnson@telus.net) 250-493-0441.

**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.

**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.

**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.\

**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](http://reddeerflyingclub.org).

**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.slfflyingclub.com](http://www.slfflyingclub.com). Email [slfflyingclub@gmail.com](mailto:slfflyingclub@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](mailto:winnmy@telusplanet.net).

**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@ccwireless.ca](mailto:shelley@ccwireless.ca).

**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 (CYYJ):** 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](mailto:copaflight6@gmail.com).

**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](mailto:dan@syz.com) or 780-961-2213. We look forward to seeing you!

**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](mailto:dshcolter@cabletv.on.ca)

# ON THE HORIZON

## DECEMBER 2017

### DECEMBER 9, EDMONTON, AB:

Mark your calendars. All members of the 99s are invited to the First Canadian Chapter, Ninety-Nines annual Christmas Party. Location will be posted as the date gets closer. For more information and to RSVP contact: [robin@firstcanadian99s.com](mailto:robin@firstcanadian99s.com) or 705-309-3007

## FEBRUARY 2018

### FEBRUARY 1, WINNIPEG, MB:

COPA Flight 35 is hosting a Rust Remover from 1900 - 2130. At the ANAF Veterans Hall 3584 Portage Ave, Winnipeg, MB. For more information, e-mail [pokornikd@wcl.com](mailto:pokornikd@wcl.com).

### FEBRUARY 19, LACOMBE, AB:

COPA Flight 155 — Gull Lake Family Day Fly

In. Come for hayride, campfire and weenie roast (c/o the Summer Village of Gull Lake!). Ice runway (2500ft x 65 ft) cleared on south end of Gull Lake - 10 miles west of Lacombe, Alberta. Elevation 2950ft. Direction will be approx 12 / 30 use Lacombe Unicom 122.80. Please contact Jim — [jimw@telus.net](mailto:jimw@telus.net) for runway conditions.

### FEBRUARY 24 & 25, 108 MILE RANCH, BC.

Aerial Escapades is hosting a Pilot Refresher and Ski Fly In at CZML — South Cariboo Regional Airport and the adjoining 108 Mile Golf Resort. The theme will be "Winter Operations for the recreational pilot" and this will be followed by a Ski Fly-In event on Sunday and into the week subject to weather and interest. Please feel free to visit <http://bit.ly/2AwBPDx> for further details.

## 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.

## JUNE 2018

### 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 21, VERNON, BC (CYVK):

Join COPA Flight 65 for COPA For Kids. 0800 - 1200. Visit the website <http://www.vernonflyingclub.org/> for more information.

## 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.

## JUNE 2018

### JUNE 10, CARMAN, MB:

Airport Day. Fly-in, brunch, events. Contact: (204) 745-0426; [jcarley@mymts.net](mailto:jcarley@mymts.net)

## JULY 2018

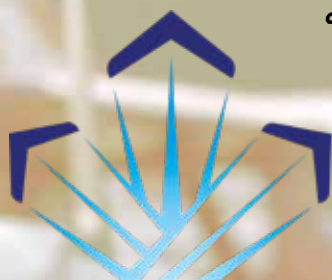
### JULY 23-29 OSHKOSH, WI:

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.

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## CRASH AND LEARN

### EXERCISE POLISHES EMERGENCY RESPONSE

STORY AND PHOTOS BY GORD MAHAFFY



There are some people who you hope to never meet, but when they are needed, you are really glad to see them. Such was the case at the Oshawa airport (YOO) when, at the request of airport manager Stephen Wilcox, the Loomex Group simulated crash rescue procedures at the airport for four days in October and November. These training exercises dramatically increase the safety for everyone; the fire response team, airport personal, airport businesses and residents who live in proximity to the airport.

Emergency response training is actually required at all airports by Transport Canada once every four years.

The recurring nature of these events and the scope of the exercises have

led to the formation of companies that specialize in these drills. One such company is The Loomex Group, which originally entered the airport business by managing the Peterborough and Lindsay airports. As the need arose they acquired specialized equipment to conduct these drills on their own airports, and then branched out to offer their services to any airport that requests them.

Some day you might be asked to participate in this kind of exercise, so here is what to expect.

At Oshawa, an area of about one square kilometre was roped off and the Loomex crash simulator was moved into place (the airport remained open during the exercise). The simulator is an early model cor-

▲ Loomex Group spent four days at Oshawa Airport with its crash simulation set-up.

porate jet with the wings removed. It sits on an iron bed that allows it to be quickly transported by a specially outfitted flatbed transport truck to virtually any airport. A smoke generator is placed underneath the simulator and, when in operation, it looks like a real burning fuselage. This was a pressurized aircraft; when the doors are shut the volunteers playing the surviving victims are not exposed to the smoke. Scattered 100 metres in front and behind the fuselage was a debris field consisting of aircraft parts, clothing and fake dismembered body parts.



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When the exercise begins, volunteers representing survivors are strategically placed. For the Oshawa exercise, a pilot and co-pilot were trapped in the cockpit with a couple of passengers trapped in the rear section. Another volunteer was placed outside the plane in an area that was out of sight of the airplane, representing a person who had been ejected from the plane during the crash or an airport worker who was simply in the vicinity of the crash.

The volunteer victims were given a scenario describing their condition (e.g. semi-conscious but unable to move or respond), thereby making the first responders responsible for extracting them from the wreckage without help from the victims themselves.

Some unexpected but realistic situations complicated the rescue efforts. On the first day a conscious victim with PTSD stood at the exit door as firefighters tried to enter and threatened them with a hammer. They responded properly by immediately backing away and letting police defuse the situation. Probably the most challenging situation occurred

when rescue workers found and tried to remove a victim who was in the throes of a grand mal epileptic seizure. To make things even more difficult, the aisle was blocked by displaced seats. After dealing with this situation, the rescuers had to remove the pilot and co-pilot from the cockpit by lifting them over the seatbacks.

All of these situations were dealt with under the eyes of training officers, and when the exercises were over everyone attended a debriefing session. One of the problems that came to light that applies to all airports was the difficulties in obtaining a passenger manifest which would indicate how many victims to look for. More and more, this information is kept in digital format on computers which would be hard to access from a crash site. So this kind of training will eventually produce new procedures that increase everyone's chances of survival.

As a volunteer victim I can promise you there is nothing like the joy of seeing firefighters crashing through a cabin door when you are sitting in a smoking fuselage. 🙏



## RUNWAY LIGHTS ON A BUDGET

### UNITY AIRPORT'S HOMEMADE SOLUTION

BY MAYNARD SLATER

The Unity Flying Club operates and maintains the Unity, Sask. airport (KE8). Back around 1980 a decision was made to install lights on our new 2000-ft paved runway. The cost? Quotes of \$10-\$20,000 were easy to get; it was the cash that was hard to come by.

First we had to plow a trench on each side of the runway. Next, for 20 lights, 100 feet apart on each side of the runway, we needed 40 wooden stakes to which we wired 40 pieces of two-inch plastic water pipe 24 in. long. Some suitable wiring was available, which we put into the trench from post to post. For lights, we used outdoor sockets that were mounted in the metal lids of glass peanut butter jars, employing Marr connectors. We used ordinary 110-volt bulbs under the glass jars. The light sockets fit into the top of the two-foot pipes. An ARCAL unit was not purchased due to cost and reliability issues. Instead, we went straight to a standard light sensor switch so that the runway lights would come on every evening. The lights were connected to the power supply and now we could fly at night.

Over the years some shortcomings were identified. First, the ordinary 110-volt bulbs burned out too often. They were replaced with 220-volt bulbs and we never had a bulb burn out again. Then we found that ordinary 14/2 gauge household wire that was plastic-coated and buried from light to light worked best. We did have some trouble with pocket gophers that like to dine on the plastic and would cause a short circuit, but the wire has served us well for almost 40 years.

The wooden stakes were prone to rot. We found that a short piece



of metal fencepost, shaped like a T, would allow the two feet of plastic water pipe to slide over and still leave room for the power wire to go up inside and connect to the lights.

The metal peanut butter lids soon rusted and, since peanut butter now comes in plastic jars, we switched to wide mouth mason jars. However, we still had problems with rust, so a mounting plate was made from puck board and three strips of aluminum. We used it to attach the light to the water pipe, and the glass jars to the new base, using stainless steel hose clamps.

As for the lights themselves, air ambulance pilots commented that the runway lights looked like street lights. Could we do anything? We had looked at LEDs but they were initially very expensive. Then they became available from China for 60 cents apiece. We replaced the incandescent

bulbs with "corn cob" LEDs, which then gave off a white light instead of yellow, characteristic of incandescents. There were a few problems with the first LEDs, so when the current and much brighter LEDs became available we switched again. Now you can see our runway lights from 10 miles out. They are very distinctive. For the approach lights, we had used red and green plastic film for the six wing bar lights at each end of the runway. We were never happy with them so we designed an aluminum box with red glass on one side and green glass on the other. They work extremely well.

So for less than \$1000 and some good old-fashioned work and ingenuity we now have beautiful, albeit fragile runway lights that come on each evening to welcome anyone who cares to visit Unity after dark. By the way, the air ambulance is now happy to come to Unity. 🛩️

# JUDGE HONOURED

## VEGREVILLE CELEBRATES MOSHANSKY

BY ED LEFSRUD



Vegreville Flying Club honoured a founding member at a 2017 fly-in breakfast. The Hon. Virgil P. Moshansky, C.M., Q.C., LL.B., FRAeS., was the guest. Moshansky, a Vegreville lawyer and previously the town's three-term mayor, was an aviation enthusiast, pilot and plane owner. In the 1980s Moshansky was appointed as a judge on Alberta's Court of Queen's Bench. Shortly thereafter, he was appointed to head up a Commission of Inquiry when Air Ontario flight 1363 ended in disaster at Dryden, Ont. on March 10, 1989. Moshansky was tasked with making Canadian aviation safer, and he did. In the summer of 2016, Moshansky was given the University of Alberta's Distinguished Alumni Award.

On the day of the fly-in, a crew of volunteers parked around three dozen planes and fed about 300 people. Moshansky gave a most interesting insight into the Air Ontario crash, its investigation and the resulting recommendations. Moshansky's presence at the fly-in was made possible by Bern Katelko, who flew Moshansky from his Calgary home to Vegreville airport (EV3) and return in his Citation.





# SANTA FLIES IN CHRISTMAS LANDS AT LYNCREST



It was another packed house at Lyncrest Airport for the arrival of Santa Claus on Dec. 2. Santa was wheels down at 1:30 in his red and white flying sleigh (a Fleet Canuck) and greeted by a crowd of excited fans while Santa's helpers from the Manitoba 99s provided some crowd control and got festivities underway.

There was hot chocolate, cookies and candy canes to be enjoyed by all in attendance, not to mention photos to be taken with the man himself.

In all it was another successful year for the annual Santa Flies event and the group hopes everyone will return for next year and maybe bring a few friends. 🧑‍🎄



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## RAMBLER ROLLED OUT

### MONTREAL AVIATION MUSEUM'S LATEST CREATION

TEXT AND PHOTOS BY JEAN-PIERRE BONIN AND ROBERT ST-PIERRE

It was in 1938 that Patrick Campbell, then 15 years old, paid two dollars for a seven-minute flight in a Curtiss-Reid Rambler. The boy grew up to be an engineer in the aviation industry and, after retiring, became a volunteer at the Canadian Aviation Heritage Centre, recently renamed the Montreal Aviation Museum (MAM). Campbell remembered his flight in the Montreal-built Curtiss-Reid Rambler and convinced MAM to build a replica of this airplane for Montreal's 375th anniversary. It would also be a fitting tribute for Canada's 150th festivities, as this aircraft is part of Canada's aviation history.

The Rambler, destined for the many emerging flying clubs throughout Canada, was designed and built at the now defunct Cartierville airport in Montreal by Wilfrid Thomas Reid, who founded Reid Aircraft in Montreal in 1928 after having designed numerous aircraft for England's Bristol and Canadian Vickers. (New York's Curtiss Aeroplane and Motor Company purchased the Reid Aircraft in 1928, resulting in the Curtiss-Reid moniker.) It was a largely conventional biplane designed with fabric-covered wings braced with Warren trusses, which could be folded back for storage. The fuselage was of steel tube construction covered in fabric, with tandem seats for pilot and passenger (or student) in an open cockpit.

While only 44 Ramblers were built between 1935 and 1942 (Mark I to III), 638 student pilots were trained on them, including Verdun-born WW-II leading Canadian ace George Beurling. The fact that a few aircraft were lost due to wings folding back during



▲ The MAM received the Canadian Aeronautical Preservation Association (CAPA) 2017 Excellence in Restoration award.

flight, and the introduction in Canada of the de Havilland Tiger Moth assembly line, probably explains why so few Ramblers were built.

Together with Jake Wilmlink and John Duckmanton, Campbell became in his early 90s the driving force behind the replica project. It began a little more than three years ago with two pairs of main landing gear wheels, two upper wing structures found in an airport hangar in Ontario, a slightly damaged original engine from a crashed Cirrus, and a few plans and drawings. The end result came from the artistic and gifted hands of many volunteers: a unique replica of a Curtiss-Reid Rambler Mark II. The aircraft even bears the registration CF-ABQ, the same call letters as the aircraft young Campbell flew in over a half-century ago.

Sadly, Campbell passed away at the age of 94, just over a week before the Rambler replica rolled out at MAM on



Nov. 14, 2017. We therefore dedicate this story to Patrick Campbell, to all MAM volunteers, and to the unknown pilot who, some 80 years ago, lit a fiery passion for aviation in a young boy's heart.

The Rambler will become a permanent exhibit inside the MAM, located in the historical Old Stone Barn on the Macdonald Campus of McGill University, in Sainte-Anne-de-Bellevue (Montreal), Quebec. 🇨🇦

# LE MUSÉE DE L'AVIATION DE MONTRÉAL DÉVOILE UNE RÉPLIQUE UNIQUE AU MONDE, LE CURTISS-REID RAMBLER

Il était une fois, un garçon de 15 ans nommé Patrick qui paya deux dollars pour un vol de sept minutes sur un Curtiss-Reid Rambler. Devenu un homme, il a travaillé comme ingénieur dans l'industrie aéronautique. À sa retraite, Patrick Campbell est devenu bénévole au Centre canadien du patrimoine aéronautique (CCPA), rebaptisé plus tard Musée de l'aviation de Montréal (MAM).

Se souvenant de son vol dans le Curtiss-Reid Rambler, de fabrication montréalaise, Campbell a convaincu le MAM de construire une réplique de cet avion pour le 375e anniversaire de Montréal, qui coïnciderait aussi avec les festivités du 150e du Canada puisque cet avion fait partie de l'histoire de l'aviation de notre pays. Au début des années '90, Campbell allait donc devenir, avec Jake Wilminck et John Duckmanton, le meneur de ce projet. À l'âge de 94 ans, il est malheureusement décédé juste un peu plus d'une semaine avant le dévoilement de la réplique au MAM, le 14 novembre 2017. Ce texte est dédié à Patrick Campbell et à tous les bénévoles du MAM. Nous avons aussi une pensée pour ce pilote inconnu qui, il y a 80 ans, a allumé la passion de l'aviation dans le cœur d'un jeune garçon.

Ils ont commencé leur projet il y a un peu plus de trois ans, avec deux paires de roues de train d'atterrissage principal, deux structures d'ailerons supérieures trouvées dans un hangar d'aéroport en Ontario, un moteur Cirrus accidenté et donc légèrement endommagé ainsi que quelques plans et dessins. Le reste est le résultat des mains «artistiques» et douées de nombreux bénévoles, soit une réplique unique au monde d'un



Curtiss-Reid Rambler Mark II. L'avion arbore l'immatriculation CF-ABQ, la même que celle portée par le Rambler dans lequel le jeune Campbell vola il y a plusieurs décennies.

Le Rambler a été conçu par Wilfrid Thomas Reid qui, en février 1928, a créé Reid Aircraft à Montréal après avoir conçu un certain nombre d'aéronefs pour différentes compagnies, dont Bristol (Angleterre) et Canadian Vickers (Montréal). Le Rambler était destiné aux nombreux clubs aéronautiques émergeant alors à travers le Canada. Curtiss Airplane and Motor Company de New York acheta la compagnie en décembre 1928 ce qui donna le Curtiss-Reid Rambler Mark II que nous pouvons maintenant voir comme reconstruction / réplique au MAM. Soulignons également que Curtiss-Reid a aussi été à l'origine de l'aéroport de Cartierville, aujourd'hui disparu. Il est certes très pertinent pour le seul musée de l'aviation à Montréal d'avoir choisi de recréer cet avion conçu et construit sur l'île de Montréal.

Le Rambler était un biplan en grande partie conventionnel conçu avec des ailes couvertes de tissu avec

▲ Le dévoilement officiel a été fait en présence de nombreux bénévoles et amis du MAM, y compris certains de ceux qui ont travaillé sur le projet.

une structure de haubans métalliques de type Warren et qui pourraient être repliées pour le remisage. Le fuselage était fait de tubes d'acier recouverts de tissu. Il avait des sièges en tandem pour le pilote et le passager (ou étudiant) avec un cockpit ouvert. Alors que seulement 44 unités ont été construites (Mark I à III) entre 1935 et 1942, 638 élèves pilotes ont été formés sur les Ramblers, y compris l'aviateur George Beurling, As canadien et héros de la Seconde Guerre mondiale, né à Verdun. Le fait que quelques avions aient été perdus en raison du repli des ailes pendant le vol et l'introduction au Canada d'une chaîne de montage des de Havilland Tiger Moth, explique probablement pourquoi le Rambler a été construit en si petit nombre.

Le Rambler sera en exposition permanente au Musée de l'aviation de Montréal, situé dans l'historique «vieux ferme de pierres» sur le campus Macdonald de l'Université McGill à Sainte-Anne-de-Bellevue (Montréal), Québec. ✈️

## GOLDEN MOMENTS

### RENOWNED JET TEAM HONOURED

STORY AND PHOTOS BY JOHN CHALMERS, HISTORIAN, CANADA'S AVIATION HALL OF FAME



◀ A new painting by Peter Robichaud, called "Salute to a Golden Age", depicts the pilot in a Golden Hawks Canadair Sabre saluting an approaching flight of the team as one aircraft breaks off to leave the group in a "missing man" formation.

At the 2017 Aviation Hall of Fame's induction dinner and ceremonies held last June at the Vancouver airport, the legendary RCAF Golden Hawks aerobatic team received the Hall's Belt of Orion Award for Excellence. The award is given "to honour organizations, groups, societies or associations which have made outstanding contributions to the advancement of aviation in Canada."

Accepting the award was J.A.G. Fernand "Fern" Villeneuve who, as a squadron leader in the RCAF, was the first team commander of the Golden Hawks. The team flew 317 incident-free performances from 1959 to 1966. However, during preparations for the 1964 season, the Golden Hawks team was stood down as a result of budget cuts to the air force. Villeneuve retired as a wing

commander with the RCAF and in 2006 was inducted as a member of Canada's Aviation Hall of Fame.

A Celebration of Excellence was held September 15-17 to again honour

### *A TRIBUTE DINNER TO HONOUR THE TEAM WAS THE HIGH POINT OF THE CELEBRATION'S PROGRAM*

the Golden Hawks and their place in Canadian aviation. The event was held at Miramichi, N.B., minutes away from the site of former RCAF Station Chatham, which was the original home

of the Golden Hawks and is now the Miramichi municipal airport.

Headed by retired RCAF Captain Kevin Anderson, now executive director of the New Brunswick Aviation Museum, the event brought together pilots, ground crew and family members of Golden Hawks personnel. A tribute dinner to honour the team was the high point of the celebration's program.

Speakers at the dinner included Kevin Anderson, New Brunswick Lieutenant-Governor Jocelyne Roy-Vienneau, RCAF Deputy Commander Major-General Blaise Frawley and retired Lieutenant Colonel Dan Dempsey, former team commander of the Snowbirds, who spoke of the international respect held for the Golden Hawks and the team's influence on Canada's aerobatic teams that followed — the Golden Centennaires and the Snowbirds.

Featured speaker for the program was Gerald Haddon, grandson of J.A.D. McCurdy, the first person to fly in Canada. Haddon outlined McCurdy's contributions to aviation, which went well beyond the first flight at Baddeck, Nova Scotia, on February 23, 1909. Others speaking from the podium were local Member of Parliament Pat Finnigan, and Jim Harrison, mayor of Quinte West, Ont., (formerly Trenton) which was the final home of the Golden Hawks. The government of New Brunswick and Quinte West





were major financial supporters of the celebration.

An extensive exhibit of Golden Hawks memorabilia from the New Brunswick Aviation Museum was on display throughout the weekend. Flying suits, prints of the team, the Belt of Orion certificate, models, log books and other artifacts were included. Notable among the items were five massive volumes of Golden Hawks history, photos, documents and news clippings compiled by the late crew chief Bill Briggs, who had donated them to the Museum.

Those in attendance received a copy of a new 94-page history about the Golden Hawks, *A Celebration of Excellence*, which includes photos, names of all pilots and ground crew who served on the team, articles about the Golden

Hawks that had appeared in the former RCAF journal *The Roundel*, and first-person accounts by team members. Unveiled at the dinner was a new painting of the Golden Hawks by aviation artist Pete Robichaud.

Copies of both the book and the print of Robichaud's painting can be ordered by contacting the New Brunswick Aviation Museum: [nbamdirector@outlook.com](mailto:nbamdirector@outlook.com).

The final event of the weekend honouring the Golden Hawks was a memorial service on September 17, conducted by RCAF chaplain Major Al Murphy. The service was held to remember Golden Hawks pilots who lost their lives in accidents while flying during either training or practice sessions: F/L Sam Eisler, F/L Jeb Kerr, and F/L Jim McCann. 🕊️

▲ **Clockwise from top:**

Past and present RCAF members seen at the Golden Hawks celebration in Miramichi are left to right: event coordinator Kevin Anderson, Jean St.-Pierre, George Miller, John Elmore, MGen Blaise Frawley, Ed McKeogh, Mick Nordeen, Dick Clements and Gerry Homer. Former Golden Hawks pilots, Ed McKeogh, left, and George Miller, both took the microphone at the celebration to pay tribute to the dedicated and talented ground crew technicians who kept the team's Canadian-built F-86 Sabres in the air. Unveiling a new painting by Peter Robichaud, entitled "Salute To A Golden Age," are left to right, retired RCAF Col George Miller, a former team commander of the Snowbirds, MGen Blaise Frawley, Deputy Commander of the RCAF and former RCAF ground crew technician for the Golden Hawks, LAC Mick Nordeen. New Brunswick Aviation Museum executive director, Kevin Anderson, with support of his committee of directors, organized an historic celebration of the RCAF Golden Hawks aerobatic team.



FIRST PLACE  
Rob Jaap's GoPro Sessions caught this dramatic view of Jaap's classic 1956 Cessna 172 turning for the forestry strip near Red Deer.

SECOND PLACE  
Bruce Bowles got this quintessentially Canadian shot on the Burntwood River near Thompson, Manitoba.



THIRD PLACE  
Robert Austen enjoyed a hop in a Christen Eagle with an action camera on the wing to show a view of the world that only pilots can enjoy.

COPA  
MEMBERSHIP  
CARD  
Student pilot Kevin Burton fills his plane at the Camrose, Alberta airport before going for a lesson with instructor Daryl Rott, who snapped the image on an early spring day.







# PHOTOS ~ OF THE ~ YEAR

CANADIAN AIRCRAFT  
IN CANADIAN SETTINGS  
BY RUSS NILES

Father's Day 2017 dawned clear and sunny in Innisfail, Alberta and as with pilot dads all over the country, it gave Rob Jaap the ideal excuse to take his airplane, in this case a square tail 1956 Cessna 172, out for a flight.

With his daughter Ayla as co-pilot, Jaap launched into the blue sky with no particular agenda, just to take advantage of the freedom to fly that he helps protect with 17,000 other COPA members.

And like a lot of owners, Jaap has action camera mounts on his aircraft so he can share his adventures with friends and family in a way that conveys the beauty of flight to them. »



# PHOTO CONTEST



"I like the idea of taking pictures when I'm in the air," said Jaap.

So as he was turning final for the forest service grass strip near Red Deer, the GoPro Sessions camera was doing its thing on the right horizontal stabilizer, framing a picturesque Canadian aviation scene from a unique and dramatic angle.

The combination of framing, the spectacular setting and the great view from that mount made the photo the choice for COPA's first Photo of the Year.

We got almost 50 entries in the contest this year and most were of similar high calibre. In addition to supplying us a Photo of the Year and two runners up, another image, by Daryl Rott, will become the background photo for the 2018 membership card. It was chosen by Facebook followers who gave it the most "likes" of the photos displayed on social media during the year. The image is of student pilot Kevin Burton getting ready to take advantage of the early spring sunshine to get in a lesson at Camrose, Alberta. Rott is his instructor and Burton had no idea the photo was taken until later. Two days after we notified him the photo had been chosen for the membership card, he was scheduled for his private pilot test.

Ideally, we'd like to use the first place entry as the cover photo for the January issue but we couldn't make it work with Jaap's photo so we used the second place entry by Bruce Bowles.



Bowles took the quintessential Canadian vignette on the Burntwood River near Thompson, Manitoba. Like many entrants, he sent us a bunch of photos and they were all magazine quality.

The third place finisher was another action camera entry sent in by Robert Austen of him taking a hop in a Christen Eagle. Just when the world seems upside down, going flying can put things in perspective.

As mentioned, there were dozens of great photos and just because they didn't get picked as winners doesn't mean they won't appear in the magazine. We frequently need stock photos to illustrate features and columns and we'll be drawing on this pool of great images throughout the coming year.

Entries are now open for the 2018 photo contest and we are hoping for even more great images.

The rules are simple. The photo has to be taken in 2018 and there has to be at least one Canadian registered

▲ There were plenty of great entries for our photo contest and we hope to get even more next year.

aircraft in the photo. They must be submitted in high resolution or we can't use them. The file should be at least 2 megabytes in size. If you're using a relatively new camera, make sure the resolution is set high enough. The same goes for action cameras. Today's smartphones can take really nice photos but getting them off the phone is a crucial step. If you're emailing the photos from your phone, make sure you select the "full size" or "actual size" when prompted so we get enough pixels to work with.

For a cover photo, we need a vertical orientation so keep that in mind if you think you have a winner in the viewfinder. We can often crop from a landscape orientation but portrait works best for covers.

Thanks for all the entries and happy flying and snapping in 2018. 🛩️

# EDUCATOR TACKLES AVIATION LABOUR CRUNCH

BY JAMES JACKSON



Suzanne Kearns knows first-hand the passion that comes with flying. The 38-year-old grew up near the airport in the small Ontario town of Wiarton, on the southern coast of Georgian Bay. She joined the Air Cadets in her youth, started flying lessons at the age of 15, did her first solo flight on her 16th birthday, and had her private pilot fixed- and rotary-wing certificates signed off on her 17th birthday.

“I know what it’s like to be the kid looking up in the sky and seeing the planes flying overhead and say, ‘one day I’ll do that,’” she said.

That passion for flight is what has Kearns so concerned for the future of the industry. Numerous reports in recent years have highlighted a looming shortage not just in commercial aviation pilots, but almost every ancillary career associated with the industry — from air traffic control to maintenance crews.

And it’s why the University of Waterloo professor spent nearly a year

of her life, in conjunction with the International Civil Aviation Organization (ICAO), developing a free online e-learning program to help inform anyone interested in the industry about the wide array of careers available.

“The way we traditionally teach in aviation is we teach very narrowly; one profession in one country, so you learn how to be a pilot in Canada,” said Kearns, a faculty member in the University of Waterloo aviation program.

“My idea was what if we flipped it upside down; instead of starting with one job in one country, what if we introduce them to the entire field of aviation on an international scale. If you do that, maybe they’ll make an informed decision for their career that aligns with what they want.”

The commercially licensed airplane and helicopter pilot holds a Helicopter Flight Training diploma, a Bachelor of Science degree in Aeronautical Science, a Master of Science degree in Human Factors and Systems

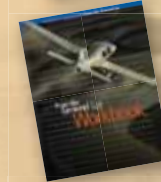
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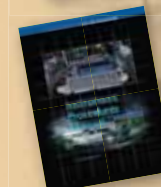
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Engineering, and a PhD in Education. She has been at the University of Waterloo for about 18 months, and was a faculty member at the University of Western Ontario for 12 years prior.

She is also an accomplished author, and wrote *Canadian Aviation* (2009), *e-Learning in Aviation* (2010) and *Competency-Based Education in Aviation* (2016).

In an effort to recruit more aviation professionals into the industry, ICAO (a branch of the United Nations) formed the Next Generation of Aviation Professionals (NGAP) committee, and Kearns is vice-chair of that committee. ICAO asked her if she could develop a free online program that combined her experience as a pilot with her expertise in e-learning and education.

Geared toward aspiring aviation professionals and professionals transitioning into aviation, the new course contains nine modules covering air law, aircraft, operations, navigation, airports, security, the environment, accidents, and safety. Trainees will have the option to complete the course free of charge, or to pay the \$100 USD exam fee to earn a course certificate.

A combination of imagery, videos, interactive cases and problem solving explore sector-related matters, and they range in length from about 45 minutes to 90 minutes. They can be completed anywhere and on any schedule.

"My PhD is in instructional design for online learning so I care about it being done well," said Kearns. "It's not just Powerpoint [slides]. There are problems to solve and quizzes. It's not passive."

She said the hope is because it's free, that will lower the barrier to entry for anyone interested in the field. And the hope is the people who do decide to pay the exam fee will cover the costs of the program for everyone else.

In a press release, ICAO Secretary General Dr. Fang Liu said, "Providing

greater access to affordable quality training is key to attracting, educating and retaining the next generation of skilled aviation professionals."

It's not just aimed at aspiring pilots or maintenance professionals, though, Kearns said.

"Maybe you worked in finance and now you work in finance aviation but don't know anything about aviation, this helps with the transition of professionals to give them a way of showing they're taking an effort to learn about aviation," she said. It could also help with post-secondary admissions to show a true interest in aviation.

The industry has recognized the need for skilled aviation experts in the coming years, but Kearns said the problem exists today. The Air Transport Association of Canada estimates

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## THEY SAY THE INDUSTRY IS EATING ITS SEED CROP

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a shortage of approximately 6,000 pilots over the next 20 years, due to lower wages for new pilots and high training costs, coupled with the rapid expansion of the industry.

Globally, the numbers are even more concerning. According to a June 2017 report by CAE, which trains new pilots, the global airline industry will require more than a quarter of a million new airline pilots over the next 10 years to sustain the predicted growth in the sector. There's also a need to transition nearly 200,000 first officers into airline captains, the most ever.

Total passenger trips is expected to increase by 50 per cent, from 3.2 billion to 4.8 billion in the next decade, and an estimated 105,000 pilots are expected to retire or leave the industry over that same period.

"These numbers mean that over 50 per cent of the pilots who will fly the world's commercial aircraft in 10 years have not yet started to train," according to the report, available online [http://www.cae.com/uploadedFiles/Content/BusinessUnit/Civil\\_Aviation/CAE-Airline-Pilot-Demand-Outlook-Spread.pdf](http://www.cae.com/uploadedFiles/Content/BusinessUnit/Civil_Aviation/CAE-Airline-Pilot-Demand-Outlook-Spread.pdf).

Boeing has a more comprehensive report online that examines not just pilots but other careers in the aviation industry, <http://www.boeing.com/commercial/market/pilot-technician-outlook/>. They predict that about 2 million new commercial airline pilots, maintenance technicians, and cabin crew will be needed by 2036.

That includes 637,000 new commercial airline pilots, 648,000 new maintenance technicians, and 839,000 new cabin crew.

Kearns said much of that growth is located in the Asian markets, where a burgeoning middle class with more disposable income is set to spur the airline industry over the coming decades. The need for skilled aviation experts is far outstripping our capacity to train them, she added.

One worrisome trend is larger airlines are in such desperate need for pilots they are now recruiting new graduates. While it's a great opportunity for them, Kearns noted, it leaves smaller, regional airlines struggling to find talent and is leading to shortages at flight schools, where new pilots had typically gained much-needed flight hours as instructors.

"Now the need is so great, we have students going right from graduating to the right seat of a 737 with Sunwing, for example. They're 22-year-old kids and they're well trained and everything, but the progression is faster than it's ever been before," said Kearns.

"They say the industry is eating its seed crop."

The program was officially unveiled at the upcoming ICAO NGAP Global Summit in Montreal from Nov. 27 and 28.



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# FLYING FLOATS ON THE COAST

## HARBOUR AIR HIRING SEAPLANE PILOTS

BY SAMANTHA KENT, HARBOUR AIR



◀ Capt. Mike Criddle is a graduate of Harbour Air's mentorship program.

**We're currently entering an unprecedented time in aviation when there are not enough pilots to fulfill the airlines' demands. According to one study, in North America there is an anticipated need for 117,000 new pilots over the next 20 years. So, what does it take to make it to the captain's seat? And, with so much demand, what's the best route for an aspiring pilot?**

At BC-based Harbour Air, one of the largest seaplane airlines in the world, the real key to success is finding the right people that embody Harbour Air's attitude of success and its four key values: safety, service, integrity and team spirit. After 35 years in operation, the once two-plane airline now employs 54 pilots over the winter season, looking to hire at least 15 more over the spring. The path to becoming a Harbour Air pilot is either through internal mentorship and external recruitment.

Harbour Air noticed many of its ground support staff were also

aspiring pilots. So, in 2016 Harbour Air tested the launch of an internal mentorship program, enabling staff to learn the business while working to attain their commercial license.

Mike Criddle is one of two graduates from Harbour Air's mentorship program, which launched officially

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*GET YOUR HOURS  
DONE AS QUICKLY AS  
POSSIBLE BECAUSE  
PEOPLE ARE HIRING*

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in November 2017. Alongside the program, Harbour Air also created a training division that specializes in advanced floatplane flying. Using their highly-experienced pilots, this allows Harbour Air to train the candidates fresh from school wholly under their own guidance.

For Criddle, the local airline seemed like a perfect fit to get into the industry while accruing his flying hours and keeping him close to home. After two years, a commercial license, multi-IFR and float rating under his belt, Criddle landed a position as second officer on Harbour Air's Twin Otter.

"Harbour Air really helped kick-start my career," said Criddle, who, another two years on, with the help of experienced Captains and their mentorship, is now flying as captain on the Beaver.

The new captain said his best advice for aspiring pilots is to get flying. "Get your hours done as quickly as possible because people are hiring," he said.

The opportunities currently available is a stark contrast to the last 15 years. During this time, fierce competition sent pilots into remote areas tackling odd jobs, and manual labour just to secure the minimum flight requirements.

After travelling as a passenger to New Brunswick on a small plane, current Harbour Air pilot Reggie Morriset had an epiphany that would launch a swift shift from his then-teaching career. Shortly thereafter, Morriset applied and attended flight school outside of Montreal. He went on to earn his commercial license, IFR rating and eventually multi-engine rating, while accumulating his hours in Northern Manitoba, Kelowna and Quebec.

After "earning his stripes" across the country, Morriset was able to land a coveted position on the West Coast flying float planes, working his way up to eventually secure a position with Harbour Air in 2006.



“The opportunity for pilots to move forward is better now than it’s ever been in any department of aviation,” says Morriset.

For Morriset, there are pros and cons to each path. “There’s a certain amount of value to paying your dues, but I think it’s great that new pilots won’t need to sacrifice so much to move up in the ranks.”

After 11 years with the company, Morriset is a training captain and has been named one of two pilots who will fly the new Cessna Grand Caravan EX on Harbour Air’s downtown Vancouver to downtown Seattle scheduled service launching in the spring 2018.

Those interested in becoming a Harbour Air pilot can send applications to [jobs@harbourair.com](mailto:jobs@harbourair.com) or visit [www.HarbourAir.com](http://www.HarbourAir.com)

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- Current Class 1 Medical

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- 1000 hours floatplane, including 500 hours PIC floatplane
- Transport Canada Commercial Pilot’s License
- Current Class 1 Medical

### DHC3T Captain

- Minimum 2500 hours PIC fixed wing
- 1000 hours PIC floatplane
- Transport Canada Commercial Pilot’s License
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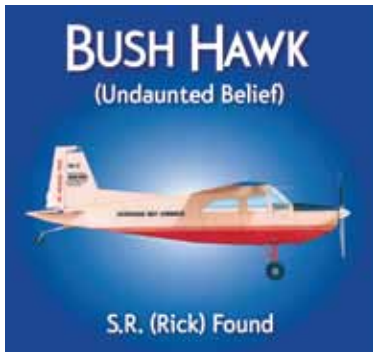
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An important chapter of Canada's aviation history is told for the first time in a new book by S.R. (Rick) Found titled Bush Hawk (Undaunted Belief) The Found family's name is famous among bush pilots, worldwide, for having built a tough little freighter 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.

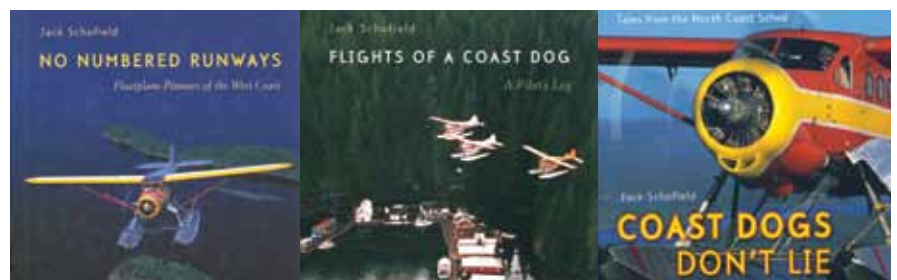
Author: Doug Grant  
 Publisher Harbour Publishing Ltd.  
 Price: \$39.95



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