



Carb Heat

Hot Air and Flying Rumours

EAA 245 NEWSLETTER Vol 40 No. 10

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Thursday November 18th at 7:30 PM

National Aviation and Space Museum

Bush Theatre

TSB Air Investigations, Yves Jolicoeur

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President	Cary Beazley	613-226-4028	cbeazley at innovista dot net
Past President:	Martin Poettcker	613-832-1210	m dot poettcker at sympatico dot ca
Vice President:	Russ Robinson	613-831-2485	russ dot robinson at sympatico dot ca
Treasurer:	Curtis Hillier	613-831-6352	the_hilliers at yahoo dot com
Secretary:	Phillip Johnson	613-253-2229	plmjohanson at yahoo dot ca
Operations:	Andrew DePippo	613-831-6478	adepippo at sympatico dot ca
Membership:	John Montgomery	613-599-1240	larmbandit at rogers dot com
Webmaster:	Russell Holmes	613-226-8273	billy dot bishop at sympatico dot ca
Newsletter Editor:	Bill Reed	613-831-8762	eea245 at gmail dot com
Technical Information Officer:	Nathan Aligizakis	613-730-1644	aligizn at yahoo dot com
Young Eagles Coordinator	Alfio Ferrara	613-836-8285	longeron at gmail dot com
Chapter Historian	Wayne Griese	613-256-5439	wayner at igs dot net

EAA 245 Website:

<http://eea245.org/>



President's Message

Hi Folks!

I was bit surprised when Martin indicated he was going to step down from the president position.

It was with some trepidation that I agreed to run for the position. I was reminded of how helpful the members of the executive are and how distributed the chapter business is among them. It is truly a team effort and the groups keep it lively and fun.

I must say that Martin seems to handle the president role naturally. I'm afraid that I am not nearly as polished or comfortable – so bear with me. I'll try to fill his shoes. Fortunately, Martin will still be around to ensure continuity in the transition and we look forward to his continuing assistance in a different role.

If you have any ideas, suggestions or just want to become more involved - feel free to approach any of the executives. In the end, these clubs are what we make them.

Around the patch

The late fall rush of annual inspections seems to be over and many planes are being put away for the winter.

We have been continuing our Sunday morning get together at the Carp hanger. Come on out.

Alfio Ferrera and Shirley Mackey have been prepping their RV-9A for paint after having flown it naked for the last year and half. Ask them how much they like fibreglass. I was fortunate to get a few rides in their RV-9A. I am very impressed with its slow flight capability, performance and handling characteristics. I'm not sure you even need rudder pedals in the air – quite different than your average tail dragger. It will look even nicer painted. Hmm, maybe RVs do rule?

Ken Potter brought his other toy (Kitfox) out to CYRP for the final finishing touches. A group helped unload it Halloween Sunday. It looks like almost as much fun as the Nieuport!

Now that Martin Poettcker has more time, we are hoping to see his Zenith airborne once again. There have been rumours of future projects – onex, Lesher teal, mini-imp?

Jeff Whaley's Sportsman 2+2/Wankel automotive conversion is now officially an airplane after having flown off its hours. Congratulations Jeff.

Andy Rickett's Long-Ez is flying once again after several years of hanger hibernation and some TLC. It sounds like it flies beautifully and I think I saw a Rutan grin.

WCD Update

We have received word that West Capital Development is clearing the final hurdles to taking over the Carp Airport from the city of Ottawa.

We look forward to working with WCD on the future CYRP airpark developments. It bodes well having a new, energetic owner.

EAA Shelter

WCD has given the go-ahead to erect the EAA Shelter over Curtis Hillier's Davis for a winter trial. It is really shaping up to be a less expensive alternative to the construction of new hangers.

October Meeting

Phil Johnson co-ordinated the slide presentation of this years Sploshkosh Air and Water Adventure and a photo review of the Wings over Gatineau en Vol Air Show. Thanks to Phil and all the people that contributed.

The incumbent president, Martin Poettcker, decided not to run for a third term.

The other incumbents agreed to stand for another term and were reaffirmed for each post. Let's welcome back:

Membership Director – John Montgomery,

Webmaster – Russ Holmes,

Technical Information Officer – Nathan Aligizakis

I would also like to thank Lars Eif for smoothly officiating the elections again this year.

Alfio has recently taken over the Young Eagles position from Dwayne Price. Thanks Dwayne.

On behalf of EAA Chapter 245, I would like to thank Martin Poettcker again for his terms of service as vice-president and president of EAA 245 Chapter.

Upcoming Meetings

Our next regular meeting will be held at 7:30PM on Thursday, November 18th in the Bush

Theatre at the Canadian Aviation and Space Museum.

For the November meeting Ken Potter has arranged for Senior Investigator Yves Jolicoeur to give a presentation on TSB Air Investigations.

For those that have not heard - many chapter members get together for dinner prior to each EAA 245 meeting at Swiss Chalet (corner of St Laurent Blvd and Montreal Road) at 5:30PM.

18 Nov 2010	TSB Air Investigations, Yves Jolicoeur
16 Dec 2010	No meeting, Christmas Break
20 Jan 2011	Governor Generals Cup (Caribbean Air Challenge), Dwayne Price/Bill Reed/Charlie and Gwen Martel/Terry Peters
17 Feb 2011	Importing Aircraft from the US into Canada, Bohdan Goyaniuk

I hope to see you all at the November meeting.

Ein Prosit,
Cary

EXHAUST – from the Carb Heat Archives

30 YEARS AGO – November 1980

Chris Heintz, designer of the Zenith, Tri-Z, Mono-Z, and Acro-Z, was the guest speaker at the November 27th, 1980, Chapter 245 meeting. He gave a highly interesting talk on weight and balance and stability and control. Also, he showed several movies about Zenair products.

On Saturday morning, November 29th, John Guertin showed up at the hangar construction project with a huge construction crane. Members had already erected 4 roof trusses by hand the previous Sunday and John hoisted the remaining trusses into place quickly using the huge Hurdman Brothers Ltd. machine that Saturday.

20 YEARS AGO – November 1990

This newsletter is not in our archives. Would you have a copy to donate?

Aviation Humour from AVwebflash **Volume 16, Number 45a** November 8, 2010

SHORT FINAL

While flying my Archer from Wilkes-Barre/Scranton to

Lancaster (PA), I heard this exchange. (Lancaster has a well-

known pilot shop located on the field.)

Cessna 12345:

"Lancaster Tower, Cessna 12345 right base for runway 31, three miles out."

Lancaster Tower:

"Cessna 12345: Cleared to land, runway 31."

"

Cessna 12345:

"Cleared to land, runway 31."

[10-second pause]

Cessna 12345:

"We're heading to the pilot shop."

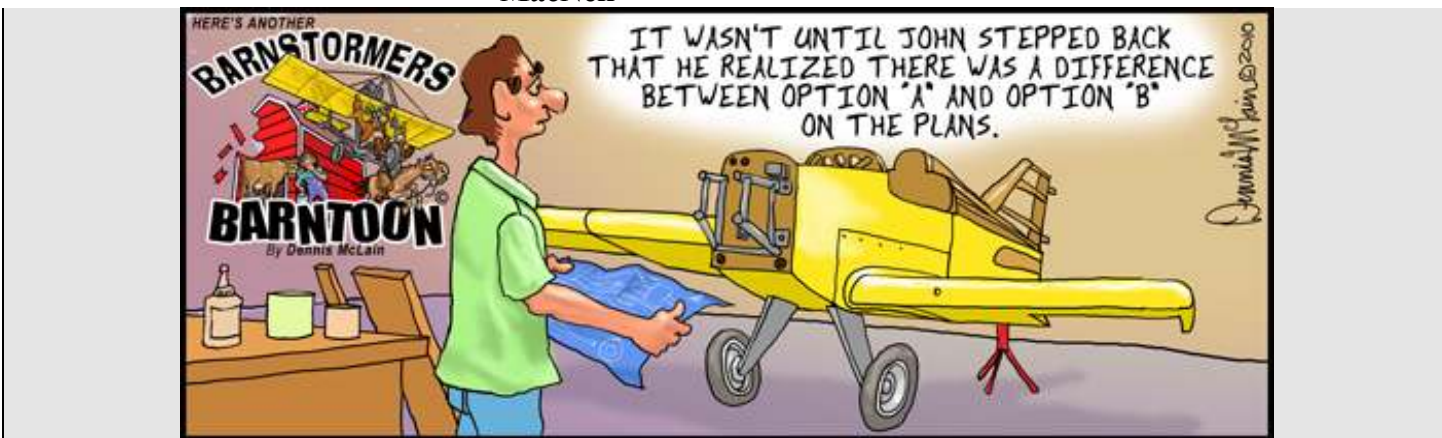
Lancaster Tower:

I think it would be a good idea to land first."

Dr. Russell Owens

Wilkes-Barre, PA

Barntoon Submitted by Don MacNeil



Local News

Canadian Aviation Historical Society

the Canadian Aviation Historical Society. The meetings are one week after our chapter meeting. They are held in the Bush Theatre at the same time ,7:30 P.M. as our meetings. A copy of the October notice is included with this newsletter.

department and the paramedics.

There were a number of points raised at the review at the end of the simulation. A more detailed account of the findings can be found at in the West Carleton Review and the EMC newspaper. Stan Acres has left the articles in the lounge if anyone would like to see the press releases. The airport thanked the chapter participants for their time and acting. The participating members were: Russ Robinson - impaled vehicle passenger, Curtis Hillier aircraft pilot, Martin Poettcker ejected aircraft passenger, and Bill Reed Operations Centre observer

NEXT MEETING OF THE OTTAWA CHAPTER
CANADIAN AVIATION HISTORICAL SOCIETY

THE PROFESSIONALIZATION OF THE RCAF, 1939-1945
RACHEL LEA HEIDE, PhD
uses the case studies of Canadianization and Tiger Force to analyse RCAF Institutional Leadership during the Second World War

Bush Theatre, Canada Aviation and Space Museum, Rockcliffe
Thursday, 28 October 2010, 1930 Hours

Aviation History Comes Alive!

Guest Speakers	Films & Slide Shows	Coffee & Donuts
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Visitors and Guests are Always Welcome

LANDING FEE \$1.00

Accident Simulation at Carp airport

A number of the EAA members participated in mock aircraft /vehicle accident simulation at the carp airport. This was a full blown simulation with 4 victims make up as casualties and the participation of the airport personnel, the police, the fire

We have been invited to attend the Local (Ottawa) chapter of

2010 EAST END 2010 FLYING ACTIVITIES (continued from last month)**By Charles Martel****3rd October**

Flight of 10 aircraft to Mont Laurier. Piper Pacer, Sportsmen 2+2, Cessna 172, 2 Stinsons, Piper Challenger, Piper Cherokee, RV-9, Tecnam, and ????

10th October

Flight of 3 aircraft to St-Lazare. Piper Challenger, Cessna 172 and Sportsmen 2+2.

16 & 17th October

Flight of 4 aircraft to Keene, Ontario. Piper Tomahawk, Piper Cherokee and Sportsmen 2+2. A Rebel homebuilt joined us on Sunday. An overnight stay at the Elmhirst lodge on Rice Lake. Autumn at it's best, we were greeted by the best weather one could wish for. Fall colours in their prime.

**18th of October**

Flight of 1 aircraft to Ashton. Charles Martel and Henri Monnin in the Sportsmen 2+2, flew down to Ashton to inspect Ron Johnstone's Christavia. The tandem 2 seat aircraft was damaged in Gatineau after a crash landing following an engine out. The aircraft sustained damage to the undercarriage and some bottom end frame damage. After inspection it was found to be in relatively good shape. The plan is

for Ron to remove the wings and empennage and move the aircraft to a heated shop for repair.

31st October

Flight of 3 to Mascouche and St Hyacinthe, Quebec. RV-9, Cessna 172 and Sportsmen 2+2. Unfortunately the restaurant at Mascouche is closed on Sundays, so we pushed on to St Hyacinthe. Although the weather was a bit iffy, it turned out to be a great flight. Sun eventually came out and light winds prevailed.

Ron Mcnamara's BushCaddy is airworthy again. Ron had to replace the cylinders on the 10-360. This was to satisfy the AD on the ECI cylinders. Testing and breaking in the engine is ongoing.

Henri Monnin's Rebel suffered a broken main landing gear. The aircraft sustained no other damage. The repairs are already complete and the aircraft is flying again.

Andre Girard has

tentatively bought a Titan tornado on floats in Alma, Quebec pending engine inspection by his mechanic. The plan is to ferry the aircraft as soon as possible before bad weather sets in.

Charles Martel has resumed construction on his RV-9 project. That's a sure sign that summer is definitely over.

Tom Smith is proceeding with the registration of his airstrip at Bearbrook.

Carbon Monoxide incident with the Sportsmen 2+2.

Coming back from Westport one day, I notice a strange smell on landing and shutdown at Indian Creek. I inspected the engine compartment thoroughly and found nothing. I test flew the aircraft and observed a bit of a different noise on startup. I made a comment to Henri Monnin our local mechanic and general expert on engines. After much probing we found a problem with the exhaust.



The picture below shows the broken pipe, the remaining pipes on the exhaust system looked great giving no faulty indications. The problem was corrected and C-GMTL is airworthy again. This was not an obvious problem and

fairly difficult to troubleshoot. The aircraft had been inspected thoroughly in March 2010 and the problem did not exist at that point.

Most aircraft use exhaust system cabin heat similar to this one. This could happen to anybody. I

am now using a CO monitor in the aircraft that will give early detection of CO accumulation.

Mark your Calendars:

Some items have been copied from the COPA Flight and the EAA website

NOVEMBER

November 11, Mount Hope, ON: Remembrance Day Ceremony (indoors) – pay tribute to those who have fallen in the defense of freedom. Free admission and free parking at 9280 Airport Road, Mount Hope, ON. Visit www.warplane.com for

November 13, Mount Hope, ON: Swing out to Victory Dance – Dig out your zoot suit and bring your honey to jitter bug, lindy or swing to the stylings of the Toronto All Star Big Band. Tickets available at www.warplane.com or 905-679-4183 starting in October.

November 17, Toronto, ON: Operational Update – Flying this Winter. Winter flying can be quite enjoyable if you are prepared and take appropriate precautions before taking to the clear, blue skies. Join us as we present an overview of various winter operation considerations, including the clothing you should wear/have with you, the survival equipment you should have, aerodrome safety, the care and feeding of your aircraft, health considerations (carbon monoxide (CO) detectors) and, of course, weather smarts. For more information please visit our website at <http://www.tc.gc.ca/eng/ontario/air-civil-aviation-seminars-seminars-1526.htm>.

November 18-19, Montreal, QC: Cross-Border Issues Conference. For more information visit the website

<http://www.cbaa-aaaa.ca/> or [click here to view the brochure](#).

November 27, Kingston, ON: 14th Annual Aviation Christmas Dinner. To be held at Italo Canadian Club in Kingston. For more information contact Lois and Dave Tisdale at loisdave@kingston.net.

DECEMBER

No EAA 245 Meeting

JANUARY

FEBRUARY

February 26, Ottawa River, ON: Mo's Fly-In starting at 10:00 a.m. Located on the QC side 1 Mile West of Ottawa VOR. Co-ordinates N 45 26 57 W 75 55 48. Ground Frequency 122.75 and air 123.20. Ski landing recommended. A strip for airplanes on wheels will be arranged weather permitting. Landing is at your own risk. For more information please contact Maurice Prud'Homme at 819-682-5273. [See poster](#).

26 février, rivière Outaouais, ON: RVA chez Mo à 10:00 a.m. Côté QC, 1 mille à l'ouest de VOR d'Ottawa. Co-ordonné N 45 26 57 W 75 55 48. Fréquence 122.75 et pour air 123.20. L'atterrissage sur skis est recommandé. Une piste pour avions sur roues sera aménagée si la météo le permet. Atterrissage à vos risques. Pour plus d'information appelez Maurice

Prud'Homme 819-682-5273. [Déclie ici pour l'affiche](#).

February 26-27, Midland, ON: COPA Flight 73 Winter Fly-In located at the Midland Huronia Airport. Two day event, wheels or skis. Hot chilli, burgers and coffee. Discount fuel on site. New T-hangar for inspection. For more information please phone 705-526-8086.

February 27, Cobden, ON: COPA Fight 124, Champlain Flying Club, hosts their annual "Ski Plane Only" winter Fly-in from 10:00 until 14:00. CPF4 in the Supp. Beans, chilli and beverages. For information please contact Larry Buchanan, lbuchan@nrtco.net or 613 638-2792.

MARCH

March 5, Kars Rideau Valley Airpark (CPL3): Kars RAA Chapter 4928 9th Annual Ski Fly-In. Comm 123.4 RWY 26 /08. One week after Moe's world famous ski Fly-In. Homestyle food served from 11 AM till 2 PM in our new Clubhouse. PUBLIC WELCOME. Dilworth Road just East of 416. For more information please email Dave Stroud dstroud@xplornet.com.

Cold Weather Preparation Tips For Pilots and Aircraft

From **AvStop. Com** (<http://avstop.com/technical/mountain/5.htm>)

Time has run out for those pilots still waiting to winterize their aircraft. Cold weather is here, and snow has fallen in many parts of the country. This winter checklist is dedicated to those procrastinating pilots, from the seasoned pro to the newest student, to help prepare both their aircraft and themselves for a winter of safe flying. Fliers from some of the coldest areas of the country, including Alaska, helped in preparing the list.

Ron Waterman at the Rapid City, SD, Flight Standards District Office (FSDO) told of one winter problem he has seen involving general aviation pilots. He calls the problem the "big iron" syndrome. He said it describes a typical pilot who formerly flew small aircraft, such as a Cessna 152, but who now, instrument rated, flies a "big" aircraft, such as a Cessna 182, during winter IFR conditions. The pilot thinks the "big" aircraft can fly in the same weather conditions as the "big iron" aircraft of the airlines. What the pilot does not realize is that the aircraft is not capable of flying in, nor certified for the same winter conditions as the "big iron" planes.

One cold winter day while on an IFR cross-country flight, the pilot has to descend through some clouds for an approach. The aircraft picks up ice and crashes. The pilot may have had the skill but not necessarily the aircraft to handle the freezing conditions. Because cold weather can harm the unwary in many ways, pilots and their aircraft need to be ready for winter's hazards. This list will help the unwary prepare for some of those hazards. Aircraft are easy to prepare for

cold weather operations. The problem is preparing pilots to make good, safe, cold weather decisions.

AIRCRAFT PREPARATION

First, the pilot must decide if the aircraft will be flown during the winter or not. Some aircraft are primarily warm weather aircraft - ultralights are a good example - and some pilots simply do not like winter flying. If the aircraft is not going to be flown, the owner should follow the manufacturer's special requirements for long-term storage.

Aircraft tied down out in the weather require special attention because of the hazards of ice and snow buildup. The wings and horizontal tail are not designed for the stress of heavy snow and ice loads a winter storm can leave on their upper surfaces. Helicopters also require special attention because their rotor and control systems' vulnerability to ice and snow.

Pilots flying during the winter season must follow the manufacturer's instructions for servicing and operating their aircraft. The instructions will vary depending upon the type aircraft, its complexity, and such local environmental conditions as temperature and type of precipitation.

FAR Part 43 allows an owner to do some seasonal preparation work under the preventative maintenance rules. In fact the FAR lists 29 specific things an owner can do. Work not listed must be done by a licensed A & P mechanic. A mechanic should also know about unique

requirements for the local flying area.

Once an aircraft is prepared for cold weather operations, if it is then flown into a warmer area, such as an aircraft from Minnesota being flown for a mid-winter vacation, the aircraft must be serviced for the warmer operating conditions. The aircraft could be damaged if not properly serviced. An example is removing a winterization kit to prevent possible overheating the engine and damaging the exhaust valves.

Once the operator has made the decision to fly in the cold and has appropriately prepared the aircraft, each pilot operating it needs to ask the following questions.

Oil and Lubricants:

Was the correct grade of engine oil installed? Was the correct grade of lubricant used to grease the aircraft?

Winterization Kits: Is a winterization kit needed? Some manufacturers recommend baffles, winter fronts, and oil cooler kits for their aircraft during low temperature operation. If installation approval is not provided by the kit's manufacturer, FAA approval may be needed. If baffles are installed, one source recommends the installation of a cylinder head temperature gauge to avoid overheating the engine. If a kit was installed, was it properly signed off and placarded? Do you know at what ambient temperature it should be removed?

Oil System Insulation:

Some manufactures recommend insulating oil lines, oil pressure lines, and the oil tank to prevent oil from congealing and causing damage to the engine and other oil dependent systems. If insulation was installed, is it fireproof and is it the correct type?

Hose clamps, hoses, hydraulic fittings and seals:

Have all hoses, fittings, and seals been inspected and replaced if necessary? Were all parts installed to cold weather specifications?

Oil breather:

Does your aircraft need a modification? Some aircraft require a system modification, a breather hole, to prevent the tube from freezing. (In cold weather, water vapor, a normal by-product of engine combustion, may freeze in the end of the oil breather tube, blocking the engine crankcase ventilation system. Internal oil pressure can build up to the point where it can rupture an engine-nose-case oil seal and blow the oil cap off, with the resulting loss of oil and a damaged engine.) If a modification is required, was the installation FAA approved? Is checking the breather tube part of your preflight inspection?

Control cables: Did the A&P mechanic check the control cables for proper winter tension?

(Colder temperature changes can cause control cables to contract, which can lower the cable's tension and make flight controls less effective.)

Fuel system:

Was the fuel system inspected for water contamination? Water in the system can freeze and prevent an engine start by blocking fuel flow, or worse, it can freeze after takeoff, causing an engine failure in flight. Freezing water can also rupture fuel lines and components. Another bad situation is an aircraft taking off in the early morning with ice in the fuel tanks. The ice can melt in flight as the temperature gets warmer and stop the engine because of water ingestion. To combat water problems, pilots should only use filtered, pure, water-free fuel and keep the tanks filled to avoid condensation. Pilots should drain the fuel sumps before and after each flight to remove any water in the fuel system. If a fuel additive is used to combat water, is it mixed using the manufacturer's instructions to avoid damage to the aircraft?

There is a fire risk in taking a cold aircraft with full fuel tanks into a warmer hangar. As the cold fuel in the tanks becomes warmer, it will expand and possibly overflow onto the hangar floor causing a potential fire hazard. Care should be taken when servicing a cold aircraft in a hangar because if the increased fire risk. Plus, any fuel will flow over the wing possibly removing any wax or other surface protection you may applied for the winter.

Controllable propellers: Has the aircraft's operating manual been reviewed for the proper cold weather servicing and operation of the controllable pitch propeller/s? Oil pressure-controlled propellers require special care because of the possibility of the oil congealing.

Installation of a recalculating system may be required. One manufacture recommends cycling the props periodically during flight to flush the cold oil from the hubs to ensure safe operation.

Cabin heaters:

There are several types of cabin heaters installed in general aviation aircraft. Combustion heaters should be inspected for safe operation to prevent a possible fire. The heater's fuel flow also needs to be checked, because excessive heater fuel flow reduces flight time since the fuel comes from the aircraft's fuel tanks.

The most common heating system in light general aviation aircraft is where outside air is heated by passing it through a shroud or covering on the exhaust system before venting the heated air to the cabin. The system must be inspected for exhaust leaks. A leak could let exhaust gasses, including carbon monoxide gas, into the cockpit, incapacitating the pilot and passengers. Pilots need to be alert to the signs of carbon monoxide poisoning. Tightness across the forehead, headache, tingling in the fingertips, fingernails possibly turning a bluish tint, a feeling of nausea, a ringing in the ears, and not being able to concentrate are all signs of carbon monoxide poisoning. Because of the risk of carbon monoxide in a closed cockpit and the fact it is not readily detectable, pilots, if they so desire, can purchase and use one of the carbon monoxide detectors sold at most fixed base operators.

Detectors vary from the small, simple, chemical spot device

which changes color when exposed to CO (They react very slowly and are good for about 30 days.) to complex electronic devices (more reliable but require a mechanic to install them).

Another safety tip is to open an outside air vent or the cabin air knob slightly for some fresh air in the case there is any carbon monoxide leakage in either type heating system.

Air intakes and filters: Have the alternate air sources and air intake been inspected and serviced as required? Snow and ice can block an air intake filter and prevent the engine from developing full power either for takeoff or a go around.

Wheel wells and wheel pants:

Do you know the winter operating procedures for your aircraft's landing gear and brakes? Mud and slush can freeze in wheel wells and interfere with the operation of retractable landing gear. Brakes can freeze, locking the wheels. Do you know what to do if you have a problem? Some manufactures recommend delaying retraction of the landing gear to allow wheels to spin a moment to throw off any slush on the wheels or brakes to prevent them from freezing. Another suggestion is to spray the torque links and retraction mechanisms with WD-40 or LPS-1 to force any moisture out of the gear. As always, follow the aircraft operating handbook's recommendations.

The FAA Accident Prevention Program's "Tips on Winter Flying" pamphlet recommends recycling the gear to clear slush buildup only as an emergency procedure. FAA Advisory Circular, "Cold

Weather Operation of Aircraft," AC 91-31C, says simply to avoid those types of surfaces in retractable gear aircraft. It also recommends removing wheel pants on fixed-gear aircraft to prevent slush or mud from freezing in the pants and locking the wheels or adding weight. Owners should check with an A&P mechanic before removing the wheel pants though, as removal may require an A&P to recompute the aircraft's weight and balance data, and a form 337 may be required. Removal of the wheel pants will also affect aircraft performance, so pilots should review their flight manual for any change in speed range, performance, or weight and balance.

Batteries:

Have you checked the electrical system of your aircraft? Batteries require special care during cold weather. Wet cell batteries should be kept fully charged and if possible removed from the aircraft if the aircraft cannot be kept in a heated hangar. As the temperature drops, a battery's performance and charge decreases, which increases the risk of cold damage and freezing. Freezing can destroy a battery. If an aircraft battery needs charging, do not use the local gas station's high amperage, fast charging battery charger. It can damage an aircraft battery. Aircraft batteries need to be recharged at a low rate for a longer period of time. A good example is a 24 hour charging period at about 1.5 to 2 amps for most lead-acid aircraft batteries. Because of the importance of the battery and its decreases output in cold weather, the aircraft's electrical system should be checked to ensure optimum

performance and recharging capacity.

Dry cell batteries, such as ELT or portable transceiver batteries, should be checked as per the manufacturer's recommendation. Finally, do you know the electrical requirements of the deicing equipment installed in your aircraft and what to do in case of an electrical problem?

Fuselage and control surfaces:

Have the following been done, Control surfaces checked for freedom of movement and defects? Any damage discovered repaired? All drain holes open?

Surfaces cleaned and waxed or covered with the manufacturer's recommended anti-corrosion compound? Hinges serviced with the recommended grade of lubricant? If covers are used to prevent snow and ice from entering the various openings in the fuselage and control surfaces of your aircraft kept outside, have the manufacturer's instructions been followed because some covers can damage windows and other surfaces. Are the wings and other surfaces protected from the heavy stress loads snow or ice can cause? Is an overhead roof available or is the snow and ice simply removed as soon as possible?

Materials provided by the Aircraft Owners and Pilots Association (AOPA) identified a relatively new winter danger involving composite aircraft and freezing water. Composite skin damage needs to be repaired immediately to prevent water from penetrating the outer skin and the composite material. If the water freezes, the expanding ice

can delaminate the composite material causing structural damage.

Static vents, pitot heat, and alternate static source:

Were the static ports checked to make sure they are open? Was the alternate static source checked for proper operation? Was the pitot heat checked for proper operation?

Carburetor heat control:

Was the carburetor heat system inspected and adjusted as required?

Deice and anti-ice systems:

Was the system inspected and serviced as required? Were all of the solution containers filled, if so equipped?

Tires and brakes:

Were the tires and brakes inspected and serviced as required? Was the tire pressure checked? Do you know the recommended technique for setting the brakes during freezing conditions? Some manufactures recommend not setting the parking brakes if there is a chance they can freeze. If your brakes freeze, do you know how to deice them?

Special winter equipment:

Special winter equipment such as ski gear should be installed and preflighted as per the manufacture's instructions.

Fire extinguishers:

Because of the increased fire risk during winter operations, fire extinguishers deserve special

attention. Did you inspect and service yours as required for cold weather. Is it one of the units not suitable for cold weather use?

Survival gear:

Both Alaska and Canada have specific survival gear requirements that must be complied with for aircraft operating within their areas. It is hard to describe a typical survival kit because of different aircraft operations, routes, and conditions flown in. But each aircraft should carry the type of equipment, including food and shelter, that will enable the people on board to survive until rescue. The kit should be designed for the worse case combination of terrain, temperature, precipitation and time needed for rescue for the route of flight.

The rule is be able to survive the environment after surviving the crash. Many airmen have died from exposure while waiting for help. If the weather is bad enough to cause a crash, it is probably too bad to start a search, so rescue could be delayed while the weather clears.

PILOT PREPARATION

Once the aircraft is prepared for cold weather operations, the second part of the flight equation is the pilot. The basic question is, "Is the pilot prepared to fly the intended flight and for whatever the weather might bring." The following questions may help you prepare for a typical winter flight.

Do you know and understand the aircraft's systems and what procedures are required if the systems malfunction?

Do you know all of the aircraft's limitations, such as whether or not flight is permitted into known icing conditions?

Do you know the operational effects of low density altitude on your aircraft and its systems?

(Low density altitude can effectively increase the power output of an engine and possibly cause engine damage if proper adjustments are not made.)

Do you understand winter weather and the risks of freezing conditions?

Do you know how to get a complete weather briefing?

Do you know the unique operational requirements for your flight route or area?

Are you qualified and current in the aircraft?

Are you medically safe: no cold or flu for example?

If you are instrument rated, do you know the risks of encountering ice and what must be done when icing is encountered?

Can you fly your aircraft with ice on it?

If not IFR rated, are you prepared to turn back if the weather starts to drop below VFR minimums?

Do you know where to find better weather conditions or warmer temperatures along your route of flight?

Do you have the fuel to get to those conditions or your alternate airport?

Can you takeoff or land on a snow or ice covered runway?

Do you exercise or move your engine, propeller, and flight controls every 10 minutes or so on long flights to make sure they have not frozen?

Are you prepared for extended night operations?

Do you carry a working flashlight in case of an electrical failure?

Are you prepared to survive a crash landing?

Do you have a survival kit? Do you know how to use it?

Have you prepared your passengers for a possible accident?

Have you ensured everyone is properly dressed, including proper winter footwear and hats for the environment over which you will be flying? If the required items are not being worn, are they readily available? In an accident, an injured pilot may not be able or have the time to unpack needed gear stored in the baggage compartment. In one case, a pilot's survival gear sank with his aircraft after a water landing. Fortunately the pilot survived. When asked about cold weather clothes Ron Waterman said, "Pilots need to dress for the cold, even if it is only because the heater quits." Are you prepared if the heater quits? Will you be warm enough to continue the flight or will you have to land to get warm?

These are only a few of the items a pilot must consider when preparing for a winter flight. Winter flying can be safe. But the problems of freezing

temperatures, conditions such as ice and snow, and shorter periods of daylight combine to make a pilot's job more demanding and the risks greater during this period of the year. A safe pilot tries to reduce those risks through planning. Proper flight planning and a good preflight are two of the best ways to reduce the risks of winter. Good planning includes:

- Having the latest weather information, including freezing levels
- Having an alternative plan ready if the weather changes
- Having the latest pilot reports, if available
- Allowing extra time to preflight because of the need for a thorough ice and frost check of the aircraft and having time to deice if required
- Avoiding the urge to cut a preflight short because of the cold and your failure to dress warmly
- Reviewing the aircraft's operating handbook for the proper cold weather preflight procedures
- Being aware that an aircraft's controls can freeze while the aircraft is taxiing or waiting for takeoff
- Remembering that deicing an aircraft does not guarantee the aircraft is ice free
- Remembering that if an aircraft is taken into a warm hanger to deice, then taken back outside, new precipitation falling on the now warm aircraft can melt and later freeze while the plane is taxiing or preparing for takeoff
- Remembering to always check the flight controls on the runway just before takeoff for freedom of movement because they could have frozen while the aircraft was taxiing to the runway or waiting to takeoff

- Following the instructions when using a preheater
- Preheating the cockpit to reduce wear on the instruments and avionics equipment

Avoiding the dangerous practice of using an automobile's exhaust heat to warm an engine or cockpit. Carbon monoxide and other harmful gases can buildup in the cockpit plus the gases can damage the aircraft. If everything has been checked by the book, the safest route in terms of survival planned, and the aircraft and pilot are both ready to fly, the single most important thing a pilot can do for a safe flight is to file a flight plan. (If it is a VFR flight plan, the pilot must activate the plan on takeoff and close it after landing.) A flight plan is a pilot's best assurance help will be available if an otherwise perfect flight fails to arrive at its destination. When time is critical, an activated flight plan is a pilot's best hope for rescue.

There are many excellent sources of information on cold weather operations and survival, including the instructions in each aircraft's operating manual. But for a simple and practical guide, airmen can review the FAA Advisory Circular (AC) 91-13C, "Cold Weather Operation of Aircraft." Pilots can request the AC by writing to Department Of Transportation, Utilization and Storage Section M443.2, Washington, DC 20590. The Accident Prevention Program's "Tips on Winter Flying" pamphlet FAA-P-8740-24, is also a good source. It is available from your local FAA district office or by writing to the Accident Prevention Program Branch, AFS-20, 800 Independence Ave., S.W., Washington, DC 20591.

FOR SALE

Place your ads by phone with Bill Reed 613-831-8762 or e-mail to [caa245 at gmail dot com](mailto:caa245@gmail.com)
 Deadline is two weeks before the next meeting. Ads will run for three months. You may request a two-month extension.
 Please let me know if any of the articles have been sold.

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07/09 Call Bill Reed 613-831-8762	

<u>For Sale</u>	\$3,100

<u>For Rent</u>
Chapter 245 members can rent a tiedown near the EAA 245 hangar at Carp Airport. You can rent the tiedowns by the month or for the full year.
07/09 call Curtis Hillier 613 831-6352

<u>For Sale</u>	See Below
Two Volkswagen 1600cc "Beetle" engines. One Completely rebuilt - \$1,000, One partially rebuilt - \$275 Larger (6-cyl) Continental Oil Cooler (8"x9") - \$50 Lycoming accessory case dual take-off adapter (ie hydraulic and vacuum pump - \$150 Piston Ring Set for E-185/0-470 Continental series - \$100.00 Continental C-85/0-200 ring set and rocker pins Lycoming dynafocal engine mount - \$100. Two shoulder harness inertia reels \$10.00 each Four seat belts metal to metal like new - \$20.00 each MIL W83420D 1/8" control cable Two Scott parking brake valves (new value \$150 U.S.) Scott solid rubber tail wheel and yoke Lightweight automotive starter and bracket for	

Lycoming Miscellaneous older instruments, Misc. wing tip lights Lycoming valve cover gaskets Misc. inspection panel covers for fabric, metal Piper trim wheel and cables - \$15. Garmin 96C (colour) GPS used once Cessna 140, 100 hrs since major rebuild, many STCs 01/10 Contact Garry Fancy (613) 836-2829 cherokee1970@rogers.com

<u>For Sale:</u>	\$8,000 OBO																
Diamante CP605 Project Aircraft. This aircraft has commendable workmanship (this comment from Transport Canada at time of documentation for pre-cover inspection March 21, 1988.)																	
<u>Work to be Done</u> 1) Purchase Lyc.0320 engine to fit dynafocal mount. 2) Finish engine cowling (needs 2 layers fibreglass, etc. 3) Requires 2 wing tanks, for leading edge. 4) Assembly required. 5) Final inspection 6) Fly....Fly.....Fly																	
<u>Specifications</u> <table> <tr> <td>Top Speed</td> <td>180/hr</td> <td>Empty Weight</td> <td>1150 lbs.</td> </tr> <tr> <td>Cruise</td> <td>150/hr</td> <td>Gross Weight</td> <td>1875 lbs.</td> </tr> <tr> <td>Stall</td> <td>51/hr</td> <td>Seats</td> <td>3-4</td> </tr> <tr> <td>Climb</td> <td>1100/ft</td> <td>Span</td> <td>30.6</td> </tr> </table> Main gear Ercoupe Nose gear Cessna 150 Sliding Canopy Low Wing - elliptical design Seats (Cessna Adjustable) Misc. - Assy Bolts, paint, electric flaps, etc.		Top Speed	180/hr	Empty Weight	1150 lbs.	Cruise	150/hr	Gross Weight	1875 lbs.	Stall	51/hr	Seats	3-4	Climb	1100/ft	Span	30.6
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Stall	51/hr	Seats	3-4														
Climb	1100/ft	Span	30.6														
For more details contact: ednaredl@hotmail.com Phone: Elmer @ 306-374-5340																	



EAA Chapter 245

Membership Application

Ottawa 245

NEW: ___ RENEWAL: ___ DATE: ___/___/___

EAA NUMBER _____ EXP Date: ___/___/___

NAME: _____

ADDRESS: _____

CITY/TOWN: _____

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COPA: ___ RAA: ___ UPAC: _____

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Annual Dues: January 1st to December 31st. (prorated after March 31st for new members /subscribers).

Newsletter subscriber ___ : \$35.00 Newsletter only

Associate Member ___ : \$35.00* Newsletter plus Chapter facilities

Full Member: ___ : \$70.00* Newsletter, hangar, workshop, tiedowns. (Note: there is a one time \$200 initiation fee when you become a Full Member)

*Note Associate and full members must also be members of EAA's parent body in Oshkosh WI, USA

Make cheque payable to:
EAA Chapter 245 (Ottawa)
P.O. Box 24149
300 Eagleson Road
Kanata, Ontario, Canada, K2M 1C0