



Carb Heat

November 2014

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Contents

Editor's Comments	Page 1
President's Message	Page 2
Exhaust 30/20 years ago	Page 3
Magnetos	Page 5
Gadget Corner	Page 6
Upcoming Meetings	Page 8
For Sale	Page 9
Chapter Executive	Page 11
Membership Form	Page 11

Next Meeting:
Thursday November 20 at 07:30 PM
Bush Theatre
Canadian Aviation and Space Museum

Presentation:
*Conservation and
Restoration Projects at the
Canadian Aviation and Space Museum*
Sue Warren

Editor's Comments



This month Phillip Johnson gives us the President's Message.

Wayne Griese brings us a historical look at Carb Heat.

Mark Briggs tells us about a detailed information source on magnetos.

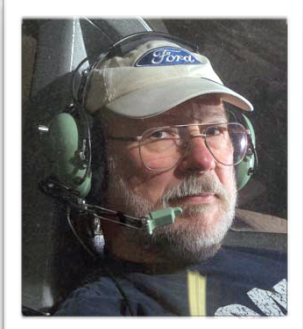
Alfio returns with a new Gadget Corner, telling us about AA batteries and ELT certification. This is Alfio's last Gadget Corner.

The For Sale section is quite long, we list a hangar, several airplanes and many other items.

Please take a few moments to write an article and tell our readers about your building or flying experiences.

Yvon Mayo

President's Message by Phillip Johnson



As I look out of my window whilst writing this message I see the first flurries of the winter and I am reminded of what the next few months will bring. I hope all of our members have prepared their aircraft for the winter months ahead of us. A cold running engine can be as damaging as an overheating engine so make sure you have the correct weight of oil and you install your winter running kits as recommended by the manufacturer. CYRP FBO recently offered an excellent "Rust Remover" seminar with particular reference to aircraft icing while on the ground. Remember it is not safe to fly with ice on your aircraft.

So the elections are done and we have some changes to the executive. I would like to thank Ameet Nidmarty for stepping up to the plate as Vice President as this position has been vacant for twelve months now. Thanks to Ken Potter for taking on the dual role as Treasurer and Marketing Manager and thanks to Curtis Hillier for your years of service across your many roles in the executive. Thanks is also appropriate for the work Russ Holmes has put in over the years as Webmaster and to Sam Holman for taking over the role. Alfio Ferrara has relinquished the Young Eagles Coordinator position. We thank

him for doing such a great job over the past few years. We are still looking for someone to take over this position. Lastly and most definitely not the least, thanks to John Montgomery for taking over Ken Potter's role as operations manager at the Chapter Hangar.

What's changed over the past twelve months? Well we went through a near death experience with the airport but like the Phoenix, out of the ashes we are heading for the skies. The airport has changed management and has become a GA friendly entity. Taxiway Charlie is being opened and connecting to Bravo for summer usage. In the short term the re-opening will be using crushed stone but the intent is to eventually pave the taxiway. This should relieve congestion at Alpha when the circuit is full.

With the opening of Charlie it will be possible to drive between the chapter hangar and the FBO using Bravo & Charlie but there are some protocols, that must be observed. All vehicular traffic must stop at the threshold of 22 and check for landing traffic. If possible vehicular traffic should use a radio to indicate their intent to cross the threshold, and lastly four way flashers are mandatory for vehicular traffic on all CYRP taxiways and apron areas. Vehicular traffic on the taxiways is a privilege and not a right so please follow the rules as we want to keep this privilege ongoing. Please be advised this privilege is for EAA members only and not for the general public.

Mark Braithwaite is looking to provide the Chapter Hangar with a wireless Internet connection in the near future so we will be working on setting up the PC again in the lounge. If there are any interested parties wanting to help set up and clean the corner workstation please step forwards.

We are always looking for new presenters or topics for presentation at our Thursday night Museum monthly meetings. If any of you have any great ideas please come forwards and talk to someone on the committee, remember this is your club and we want to offer our members the opportunity to enjoy subject matter of interest to them.

The monthly meeting at the Bush Theatre in the Canada Aviation and Space Museum (CASM) is on Thursday November 20th at 7:30 PM. For new members you will need to be there on-time as we have a limited access to the museum. If anyone gets caught outside after the meeting has begun please call me on my mobile phone at 6139839332 and I will have someone come to the door and let you in. Again for new members, many of the group meet for dinner at Perkins Restaurant on the corner of Ogilvie and St. Laurent at, or after, 5:30 PM and then move down to the museum as a group around 7:00 PM. Everyone is welcome.

Regards to All.

Phillip Johnson

EXHAUST – from the Carb Heat Archives



30 YEARS AGO November 1984

In Carb Heat 30 years ago we were given the following procedure for engine operation in cold weather:

Step 1 - Pull the engine through several times by hand, preferably with somebody on the inside priming. Listen for the click of the impulse couplings in the magneto to make sure they are working.

Step 2 - Start the engine with the starter and run it for a little while.

Step 3 – Shut it down, close the bug eyes and cover the cowl with a blanket. Let the heat of the exhaust system perforate through the whole engine compartment while you do your flight planning .

Step 4 - Start up again and feel free to go flying as soon as the oil temperature shows motion. If you are using multigrade oil you don't even have to wait that long.

“NEW” in SPORT AVIATION,
November 1984

ZENAIR ZODIAC CH600

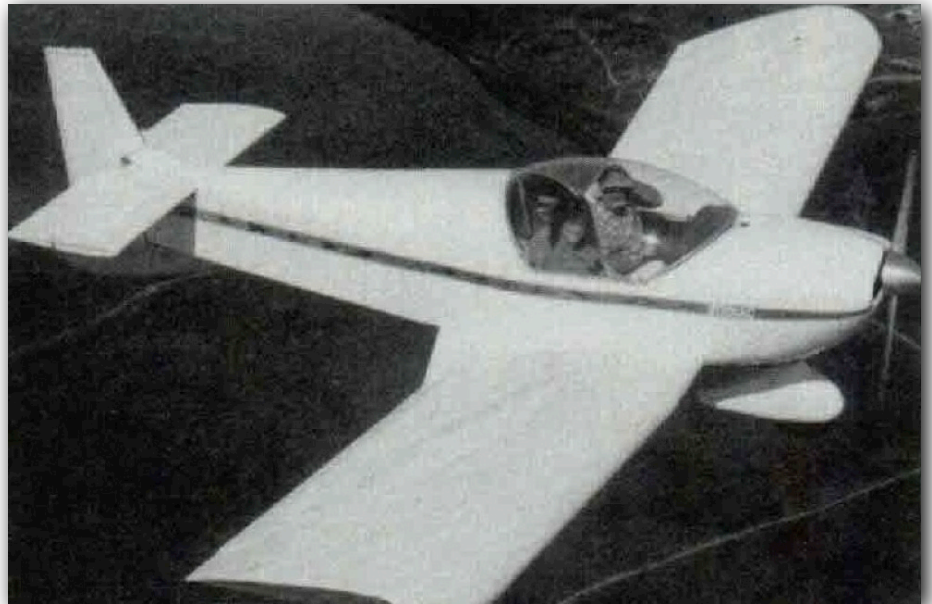
Two Seat Primary Aircraft
Wing Span.....27ft.
Gross Weight.....1050lbs.
Max Level.....115 mph
75% cruise105mph.
Stall44mph.
Climb.....680fpm.
ZENAIR LTD. KING ROAD,
NOBLETON ONTARIO
CANADA

20 YEARS AGO, November 1994

EAA 245 members were prepared for cold winters to come according to Carb Heat, 1994.

“Those who have been out to the chapter lounge recently will know that we now have real electric power available, and have started on a project to insulate and finish the workshop area so that it is usable year round. Dick Moore has been his usual stalwart self in heading up this latest improvement and would welcome some willing workers to come out on weekends to help finish up.”

Also “As with last year, the Hot Stove League is in full operation and all members are encouraged to drop out to the Carp hangar for some top notch hangar flying on the weekends.”



**19 YEARS AGO,
November 1995**

From SPORT AVIATION ,
November 1995.

Immediately following Oshkosh '94, construction began on two new commercial display buildings, located just across the street from the main admission gate. In the aerial photo you are looking to the northeast across the auto parking area, Knapp Street, the EAA Warehouse, main admission gate, FAA building, the West Ramp where the Concorde and C-17 were on display this year, the FAA control tower and the existing commercial display area.

In the distance is Runway 18/ 36, the terminal area, the city of Oshkosh and Lake Winnebago. In the foreground are the two newly poured concrete slabs for what will be called the New South Aviation Exhibit Hangar (lower right), and the New North Aviation Exhibit Hangar. Each of the buildings will encompass 40,000 square feet of floor space (200' x 200'). The Exhibit offices will be relocated in the New North Aviation Exhibit Hangar.

wayner@igs.net

Wayne Griese



Excellent Info on Magnetos by Mark Briggs



I recently came across this document which is, without doubt, a fantastic reference on the topic of aircraft magnetos. For many of us who build, maintain, own and fly piston-powered airplanes, magnetos are something of a black art. When they work they are magic. When they don't work, they can cause even the most saintly to utter unkind words!

Airworthiness Bulletin 74-005, issued by the Australian Civil Aviation Safety Authority, falls into the "required reading" category for those of us who's lives depend on magnetos to keep that big fan up front (or in the back end in airplanes such as our chapter President's Cozy) turning. I've included a small excerpt here. The actual AWB document features excellent textual descriptions of problem areas encountered with magnetos, backed up with clear colour photographs. If you've never seen the insides of a magneto, this AWB gets you up close and personal with all the bits and pieces that make the sparks fly when needed.

The full AWB may be downloaded in PDF format from:

www.casa.gov.au/wcmswr/_assets/main/airworth/awb/74/005.pdf

Mark Briggs
EAA 795537



Australian Government
Civil Aviation Safety Authority

AIRWORTHINESS BULLETIN

Magneto Defects

AWB 74-005 **Issue** : 3
Date : 20 October 2014

1. Effectivity

All piston powered spark ignition aircraft utilising magnetos.

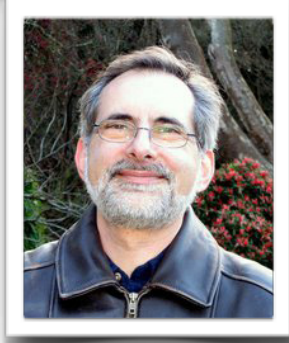
2. Purpose

This Airworthiness Bulletin (AWB) is a compilation of information contained in Airworthiness Advisory Circulars (AAC), Service Bulletins (SB), Service Difficulty Reports (SDR) and Advisory Circulars (AC) and will be revised from time to time to incorporate new magneto defects.

Magneto failures continue to result in in-flight engine failure, loss of power or rough running.

Gadget Corner

Article and Photos by Alfio Ferrara



This month I will be discussing two topics: Rechargeable batteries (the personal/portable AA kind) and yearly ELT certification.

AA Batteries

If we were to look through a typical flight bag we would likely find the following AA battery powered devices: flashlight, ANR headset, portable aviation radio etc. How do you power your aviation gadgets? Using the AA alkaline batteries? Are they fresh? How do you know if you need to replace them? These are all questions we should know the answers to, or else carry some spares. While spare batteries may be a solution, replacing batteries for you headset while on a final ILS approach to an airport may prove to be somewhat challenging.

In the past I have been using AA **alkaline** batteries purchased from Costco (Kirkland). These were reasonably priced home brand batteries, but prices have been going up quite steadily. I have also had **Nickel Cadmium** batteries in the past, and experimented with **Nickel-Metal Hydride (NiMH)** batteries but was never quite satisfied with the performance. Nickel Cadmiums are now old technology with an environmentally unfriendly

composition, posing issues at disposal time, as well as poor overall performance.

In the past few years a new battery composition has emerged, extending the performance of NiMH batteries. Sanyo **Eneloop** rechargeable batteries were introduced that maintained 70% of their charge over a year. Further improvements were introduced, and subsequently Sanyo was purchased by Panasonic.



These batteries (3rd generation and beyond) now offer the likes of 1900 mAH and well over 1500 recharges, maintaining over 90% of their charge after one year, and 80% after three years.

Gadget Corner R.I.P.

This month will be the last edition of Gadget Corner column written by yours truly. It is now time for me to take a break (and also give my credit card a rest).

I started this column just over two years ago, highlighting useful fun toys and gadgets for the pilot. I hope you have enjoyed reading Gadget Corner.

*Cheers,
Alfio*

Eneloop batteries are a little more difficult to find in Canada than in the US. I have purchased my batteries from Amazon.com in the past, however Canada Computers used to carry them too. Another option is the home brand NiMH battery from Ikea (Ladda) which is purported to be an older generation Eneloop battery. Those are priced quite competitively and I may just try them out some time.

LADDA
Rechargeable battery
\$5.99 / 4 pack
Article Number : 002.405.85

The battery is ready to use. You can use the battery for all kinds of products, such as MP3 players, cameras, toys, clocks and remote controls. [Read more](#)

Size
HR6 AA 1.2V

1

Related Products
+ [View all related products](#)

Check stock availability at your local store
Choose
Store selection may vary and prices may differ from those online



ELT Certification (where do you get yours done?)

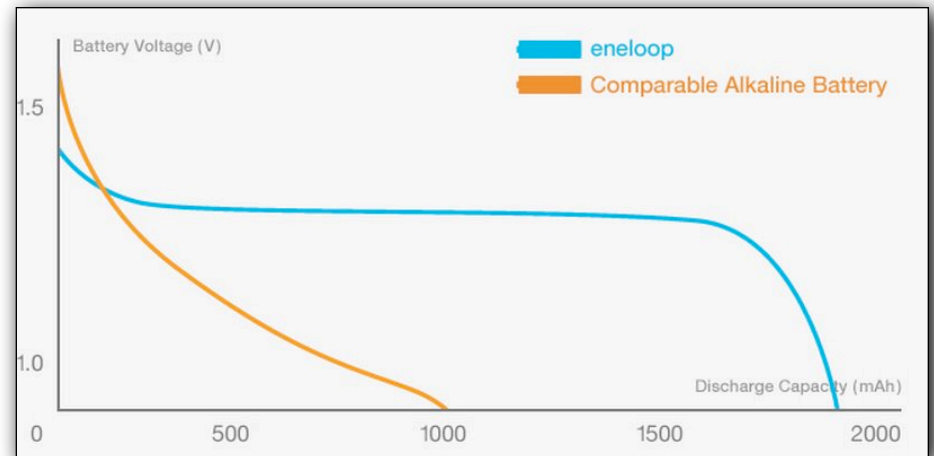
Per Transport Canada regulations, every Canadian registered aircraft needs to have its ELT tested certified by a TC AMO (Authorized Maintenance Organization) on a 12 months basis. It used to be that CYOW had an avionics shop, but that has since closed in recent years. One place I found that has provided me with exceptional service is small outfit called Discount Avionics in Angus, Ontario. Carl Bertrand has provided me this service for over three years now and I cannot speak more highly of him to describe his customer service and integrity; just outstanding.

Carl will take your 121.5MHz unit, and for \$27.95 perform the required testing and battery replacement (cost of batteries extra if you do not supply them) and return your unit for an additional \$9.95 for postage and handling.

A frustration I had with previous rechargeable batteries was the lacking ability to determine the health of the battery. This problem was solved with a bit of money of course; buying a higher performance charger. So Amazon to the rescue again and after some due diligence, I chose the **Powerex Maha MH-C9000 charger**. This thing can charge four batteries (mix of AA or AAA) at a time, but more specifically, the battery parameters can be controlled independently for each battery such as charging current, analyzing charge capacity available, break-in cycle, and other features. If you have a dud battery, then you can easily find out with this device. You can also use it to match batteries with similar performance.

The downside of rechargeable batteries, in particular the NiMH, is that the cell voltage is 1.21V instead of the 1.5V cell voltage of the alkaline. Depending on your device this might present a problem, however the discharge curve for the Eneloop batteries is superior to the competing alkalines as shown below.

I have an air-band VHF radio whose NiMH battery back has ceased functioning, as they all do after a good number of years. I have an AA adapter pack though that I fill with Eneloop batteries. I can rest assured that these batteries maintain a full charge for many months, and then test them and recharge them occasionally. When I had alkalines in the pack I would have concerns about how much life was left, since I occasionally use the radio for monitoring air traffic.



I invite the readers to use their favorite search engine to further investigate these batteries.

When Carl received my ELT on Friday, it was back in my hands the following Tuesday morning. I request that the unit be shipped to my company address so I am assured someone will be there to accept the package.

I have a 121.5MHz unit (I use a 406MHz PLB as a backup) that has user replaceable D cells, so I just provide a fresh set of batteries every two years, as required by the manufacturer. Testing and certifying a 406MHz ELT will cost \$84.50.

Discount Avionics:
<http://www.discountavionics.com/>

Disclaimer: I have not received any sort of remuneration for any of the above products or services. I am just a happy customer.

Tailwinds to you all.

Alfio

Meetings and Events Schedule

20 November, 7:30 PM - CASM	Conservation and Restoration projects at the Canada Aviation and Space Museum, Sue Warren
15 January 2015, 7:30 PM - CASM	Transport Canada challenges with CAR 301 for Private Aerodromes Guy Héneault
19 February 2015, 7:30 PM - CASM	Old Rhinebeck Aerodrome is a true “living” museum of antique aviation Dwayne Price & Charlie Martel
19 March 2015, 7:30 PM - CASM	Converting an Aircraft Instrument Panel from VFR to IFR Henri Monnin, Dwayne Price, Charlie Martel, Greg Holbrook

If anyone has suggestions or ideas for future meeting subjects, or specific speakers to recommend, please bring them up at the meeting or send an Email to the President president@caa245.org

For Sale or Rent

Place your ads by phone with Yvon Mayo 613-830-1935 or e-mail to yvonmayo@rogers.com or eea245@gmail.com
The deadline is two weeks before the next meeting. The 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.

FOR SALE - Davis DA2A

With reluctance I have decided to sell our Davis, built by repeat-builder and long-time EAA245 member Jim Bradley. TTAF 600hrs. Engine is C85-12, approx. 150SMOH. Warp Drive 3-bladed Prop. Dynon D100 EFIS with BrightScreen glass & internal battery, steam ASI, ALT, VSI, electric T&B. Moving map GPS, ICOM IC-A200 comm, GTX320A Xpdr, 2-place intercom, 406MHz ELT. New main tires. This aircraft is both economical to own/operate and an amazingly fun flier. Please contact me for additional details.
Mark Briggs cgjoy@yahoo.ca 613-725-4361

FOR SALE - Pietenpol Air Camper

Total time since new (engine and airframe): 548:15;
Fuel: 2 tanks, 10 gallons each, 4 gallons per hour;
New icom radio with two head sets, intercom and push to talk;
4-point harness, new tires, removable canopies, skis, custom tow bar;
Year manufactured: 1972. Log books since new.
Engine Model A65 - 8F;
Last annual inspection Dec 9, 2013, last flown Aug. 15, 2014.
Cruise speed 80, stall speed 40 mph.
Aircraft has always been hangared.
Asking \$12,000.00 or best offer.
For more information please call George Lockhart 1-902-243-2164.(or Terry Peters – 613-491-8000)

FOR SALE

RV9/9A Project for sale. Tail and wing kit complete with extras. Tail done with MDRA inspection and sign off. Wing kit - right wing to quickbuild stage, left wing still in clecoc. All small parts sorted in labeled bins included. All logs, docs and plans included. Pics avail. \$5,500. email holbrog@gmail.com or phone Greg Holbrook at 613-867-8084.

FOR SALE

The Canuck Group at EAA 245 in Carp has **shares in the 1946 Fleet Canuck** CF-DPZ for sale. The aircraft has 1250 hrs TTSN engine and airframe since being built in 1946 and has always been hangared. Price, \$ 6,800 per 1/5th share. Own a Canadian classic. Please call Ken Potter at 613 259-3242 or email at: kjpotter@sympatico.ca

FOR SALE

Hangar for Sale \$24,000
Location: CYRP Carp, ON
40 ft wide x 32 ft deep (approx)
South facing on Taxiway Charlie
Contact: Alfio at 613 836-8285

WANTED

I will be starting to do fabric covering soon on Supper Pelican and Fisher 101, finally...mostly elevator and aileron parts.
If anyone has surpluses/leftovers fabric (Dacron or Stits in the 1.7 oz, 1,8 oz to 2.1 oz area for ultralights) I could be interested in buying.
These parts are long but not wide and can be made in two pieces (top & bottom). So these parts are ideal for leftovers.
Elevator parts are about 95 inches long by 14 & 19 inches wide. Ailerons are about 110 inches long by 12 inches wide.
Thank you,
Michel Tondreau
Tel: 819-685-2194

FOR SALE

1986 Rutan LONG EZ FOR SALE:

Price Reduced \$34,000

470 Hrs airframe. Engine: Lycoming 0-235 L2C. Engine overhauled by Aero Atelier in September 2013. Other new parts: Impulse Mag , Vacuum pump, Starter & alternator. Avionics: Xpndr Collins TDR-950, Garmin 296 GPS, Kannad 406-AF ELT, ICOM A5 Radio, Flightcom 403mc Intercom. Hangared at CYRP. Extra prop (Silver Bullet). Andrew 613-836-3968, cell 613-295 7451 andrewr@magma.ca Aircraft will not be flown till Spring 2014 and fresh annual to be done. For specs see http://en.wikipedia.org/wiki/Rutan_Long-EZ

FOR SALE

Mc Caulley Prop
Klip-tip Met-1 prop
Lm 7249 ser 28108 Spacer 2141A C1210 with bolts; never overhauled, checked by BL aviation. Prop in very good shape \$1,500.00
contact Bernie 613-293-6527 also 1 set tires 800. 6 brand new valued \$470.00 plus tx. asking \$400.00 plus a set of 6.00 x 6 check in for price.

FOR SALE

G meter + 6 to -2 g
Quartz clck with timer function
Facet electric fuel pump 50l/hr 12v
prices negotiable
Glass cloth, medium weight, close weave about 1.2 x 0.5 m FREE
Contact John Firth johnfirth0@gmail.com

FOR SALE

Jabiru 2200 serial # 842, 200 hrs very good
compression \$8,000.00 or best
Sensenich 54x48 composite prop 20 hrs
for a 2200 Sonex \$600.00
Sonex tail dragger engine mount \$450.00
Grand Rapids EIS 2000 with probes \$350.00
2 1/4 Uma instruments Alt, AS, VS \$75.00 each
ELT \$100.00
Aeroflash strobes \$150.00
Comant antennae model C1-121 \$75.00
Contact Chris McNally at:
Email: iammcnally@yahoo.com
Phone: 1-613-291-1254

FOR SALE

2010 Glastar, 80 hrs TT,
Mattituck IO-360, Hartzel C/S Prop, Dynon D120-D100, HS34, Garmin 155XL GPS TSO, Garmin 496 GPS, Garmin Transponder, ICOM 210, True Track A/P, Kannad 406-AF ELT +, \$95,000.
Denis Charbonneau 613-897-4070

FOR SALE

1973 Piper PA28-140
5400TT, Lyc 0-320 1495 TT, 40 hrs STO,
KX170B, KI201C, KR86 ADF, AT150 transponder, mode C, 2 pl intercom, clock, tail strobe, wheel fairings, engine heater, hat shelf, toe brakes, new windshield, mogas STC,
130 to 135 mph on 8.5 gal/hr \$39000.
Hans Sanders, 613-446-7728

FOR RENT

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. Send us an email: info@eaa245.org

Experimental Aircraft Association Chapter 245 Ottawa. We are a group of Amateur Aircraft Builders, Owners, and Enthusiasts with a hangar, lounge and workshop facility located@the Carp Airport, just west of Ottawa.

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Young Eagles Coordinator:	Position Vacant		
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Past President	Cary Beazley	613-226-4028	cbeazley@innovista.net
EAA 245 Website:	http://eaa245.org/	and	http://www.245.eaachapter.org/



Experimental Aircraft Association Chapter 245

Membership Application

New: ___ Renewal: ___
Date: _____

Name: _____
Address: _____
City/Town: _____
Prov: _____ PC: _____
Phone: (____) _____ - _____ H(____) _____ - _____ W
Email: _____
Newsletter Distribution Preference:
Email ___ or Canada Post ___
Aircraft & Registration: _____

Aviation Affiliations:
EAA Number _____ EXP Date: ___ / ___ / ___
COPA: _____ RAA: _____ UPAC: _____
OTHER: _____

Make cheque payable to:
EAA Chapter 245 (Ottawa)
P.O. Box 24149
300 Eagleson Road
Kanata, Ontario,
Canada, K2M 2C3

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

Newsletter Subscriber: ___ \$40.00
Newsletter only

Associate Member: ___ \$40.00*
Newsletter plus Chapter facilities

Full Member: ___ **\$90.00***
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
**Credit Card payment available, Contact Membership Coordinator for details.