

EAA 245 NEWSLETTER

OTTAWA, ONTARIO



Feb 84
March 1984?

CARB HEAT - Hot Air and Flying Rumours

Meetings - 3rd Friday at the National Research Council Building Auditorium,
100 Sussex Drive, Ottawa, 8 pm

EAA Chapter 245 Meeting

14 Feb 84

- Meeting was opened by President Eric Taada at approximately 8:10 pm.
- Attendance: 38, including 3 guests: Jim McLaren, who is interested in the Moller XM-5; Gerry Beauchamp; and Don Heaslip, our guest speaker.
- Eric expressed deep regret over the death of Frank Cianfaglione. Frank's contribution to the Chapter has been immeasurable. We lost a great guy and a wonderful friend.
- The Chapter and Bytown Flying Club have made contributions to the Canadian Cancer Society in memory of Frank.
- We have received a bill from Alert Aviation, in the amount of \$417.19, to cover our share of cost of operation at Carp. It has been paid. Eric is now looking into the possibility of leasing the adjacent lot in order to provide more tie-down space.
- Gord Standing has volunteered to organize a breakfast fly-in some time in late May or early June. A date will be selected which, hopefully, will not conflict with other flying events in the area. Gord will be needing lots of help, so your assistance would be appreciated.
- Gord reported that we have \$3921 in the bank account, and 43 members are paid up for 84.

Note: If your name and address are red-circled on the envelope, you are in arrears and will not receive any more newsletters until you cough up some bucks.

- Don Heaslip, Acting Assistant Director, Aeronautical Charts, Dept. of Energy, Mines, and Resources (EMR), gave a very interesting talk on the making of aeronautical charts and their uses. He also showed an excellent film entitled "To Make a Map" by DND. Don is a retired Major, having served 27 years in the RCAF, where he instructed on jets, flew Sabres, CF-100's, and with the VIP squadron, his favourite airplane the Dassault Falcon. He has been involved in cartography for the past 10 years, first as Director of Cartography for DND, then with EMR. He is obviously in love with his work and his enthusiasm is infectious.

Jim Butler
Acting Secretary

President: Eric Taada 749-4264 Vice President: Jim Butler 829-5750
Secretary: Terry Peters 745-7466 Treasurer: Gord Standing 224-2879
News Letter: Dick Moore 820-4586 (home) - 231-4299 (work)

Frank Cianfaglione succumbed to cancer on February 13, 1984. He is survived by wife Pat and three sons: Mark, Peter and Gregory.

Frank was a graduate of Electrical Engineering from the Nova Scotia Technical University and worked many years with the RCAF in the Central Experimental and Proving Establishment at Uplands. His activities there included systems development for the Argus, and participation in preparations for a world altitude record attempt in a CF-104 in 1967.

In 1970, he became a teacher at Algonquin College covering subjects as diverse as Fluid Mechanics, Instrumentation, Drafting and Business Management. At about the same time, Frank was introduced to Homebuilts by Par Tate. The following summer at Oshkosh, he purchased plans for a Taylor Coot amphibian and became involved in EAAC Chapter 245.

Frank's contribution to the Chapter was substantial as can be gauged by reading past issues of this Newsletter. Some highlights follow:

- 73/11/26 - one of seven members that signed our Ontario Incorporation papers.
- Somewhere between 1970 and 1976 - served terms as both Editor and Secretary.
- 76 - 78 - Vice-President
- 76 - 84 - started and maintained the Chapter tool crib.
- 77/2 - organized group discussion sessions to set Chapter policy.
- 77/8/24 - first flight of his Taylor Coot amphibian: C-GPMF.
- 78/1 - Chapter presentation on A/C wiring.
- 78/2 - construction of display boards for the Sportsman's Show.
- 78/7 - hosted Captain James Barton during the Spirit of St. Louis exhibit and single-handedly stopped 50 RCMP Musical Riders at Lansdowne Park so the Spirit could do it's flyby.
- 78/9 - 79/5 - conceived and executed the very successful Homebuilt A/C night school course at Algonquin. The following year yielded the highest ever Chapter membership.
- 79/10 - represented the Chapter at the EAAC Annual General Meeting in Vancouver.
- 80 - 82 - Chapter President.
- 80/10 - hosted EAAC Annual General Meeting in Ottawa.
- 82/10 - wrote a paper on A/C wiring for the Oshawa Tech Symposium.
- 84/1 - wrote an article on Engines for Carb Heat.
- 84/2 - was awaiting precover inspection of his Zenith CH250.

Frank appears to have been equally active in his family life, cub pack, Junior Hockey Associations and the Church. (As the priest turned on the lights at Frank's memorial service, he realized it was Frank's handwriting on the service panel identifying switch functions.)

Son Peter praised his father's lectures on commitment during the eulogy. I would judge the lectures were well-heeded as Peter has recently earned a powered pilot scholarship from the Air Cadets. Son Mark has expressed his intention to continue the construction of the Zenith.

Donations to the Canadian Cancer Society were made in Frank's memory by both the Chapter and the Bytown Flying Club.

We will miss him.

ERIC TAADA

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Notes on Talk on Map-making

by Don Heaslip

Pilots tend to take maps for granted. They use them perfunctorily but rarely if ever give any thought to what goes into making a map. For example, it typically takes about two years from the time survey work is started to the time when the map is ready for distribution, assuming survey information and air photography are available.

Aeronautical Chart requirements—what and when—are determined by the Aeronautical Charts Division of the Surveys and Mapping Branch of the Dept. of Energy, Mines and Resources (EMR), based on requests from Transport Canada and the Dept. of National Defence (DND). The first step in the making of a new or revised chart involves sending out a topographical survey crew who establish bench-marks (often seen painted on rocks) to provide a framework for reference. This is followed by aerial survey photography, which is best done during leafless times and requires a lot of time and coordination. Topographical contour is traced by doppler radar and recorded by highly sensitive equipment which has the capability of compensating for errors introduced by the pitch and roll of the aircraft. Cartographers analyse the air photos and contour data, using highly sophisticated equipment, and, using the bench-mark targets, cut and paste them together into a highly accurate rendition of the area topography. Aeronautical information such as towers, power-lines, etc., is added; contour data is collated, compiled, and coordinated; contour lines are plotted; and draftsmen prepare accurate multiple-overlay tracings of the cartographers' work, adding necessary data such as names, symbols, etc. Overlays are reproduced on photographic masters which are used to create printing plate masters, one for each of the six colours used. Maps make three passes through the press, picking up two colours on each pass. Typically, a 1/500,000 scale map will cost approximately \$125,000 to produce, and \$12,000 to revise.

Revision (updating) of charts goes on continuously; but the frequency of revision depends upon the area. Montreal, Toronto, Winnipeg, and Vancouver (and 49th parallel generally) charts are updated every year. Charts for areas farther north are updated every two years and the Far North every five years.

One of the many problems facing the map-makers is deciding what information to put on and what to leave off the map in order to avoid confusion caused by too much detail.

Notes on Talk on Map-making

A source of frustration to pilots is that many small airstrips are not shown on aeronautical charts. There are essentially two reasons for this: (1) the problem of keeping information—particularly safety information—on small strips up to date, and (2) the problem of congestion in some areas (e.g., Toronto area has approximately 70 small airstrips). Transport Canada decides which of the 2200 airports/strips in Canada will be shown.

While many pilots may feel that charts are expensive at \$2.50 a copy, they would be surprised to learn that a similar map would cost the equivalent of \$9 in the U.K. and more in most of Europe.

Lambert Conformal Projection is used to create Canadian aeronautical charts, whereas Transverse Mercator Projection is used for U.S. "sectionals". The former system is used in Canada because it is considered to be more accurate than the latter for far northern latitudes.

Don is very proud of the new Visual Navigation Chart (VNC). It covers four times as much territory as the old map, which he considers to be too small. It is also similar in format and appearance to the U.S. sectionals.

Another achievement of which Don and his division are justifiably proud is a strip chart for the Alaska highway, covering a distance of 700 miles. Previously, several charts were required for the area, and this fact was considered a prime factor in many pilots being lost in the territory.

Symbology for aeronautical charts is standard in Canada and the U.S. It is established by the Air Standards Coordination Committee (ASCC) and ICAO.

A problem faced by pilots flying across national borders is that chart dealers are hesitant to buy international material for fear of not being able to sell same.

Don strongly advises the use of Terminal (VTA) Charts (1/250,000 scale) when flying into busy areas such as Montreal and Toronto. He feels it is unsafe to fail to use them.

Among the publications produced by the 65 employees of EMR's Aeronautical Charts Division, in concert with Transport Canada, are the Canada Air Pilot and the VFR and IFR Supplements. Don says the VFR Supplement is the best buy a pilot is likely to find. Currently revised every 112 days, the new improved edition will be revised every 56 days and is tentatively priced at \$30 for an annual subscription (7 issues) or \$7.50 for a single copy.

Map-making is changing very rapidly. Automation is greatly enhancing the process. Incredibly sophisticated computers, digitizers, and laser tracers produce maps with an accuracy of 0.001 inch.

EMR and Transport Canada are very proud of the high standards they have set—among the highest in the world—in the art and science of creating maps. They are trying to provide the best possible maps and publications for the use of the flying community. But they need—and welcome—input from you pilots out there.

Jim Butler

PAINTING METAL AIRCRAFT —

If you're still wanting to go ahead here are a few things that you'll need. Rubber gloves---clean absorbent rags---Scotch Brite---sponges or scrub brush---tack cloth---Solvent-M.E.K.-lacquer thinners or enamel remover---Metalprep-Dupong M-3 Metal conditioner.---Alodine power-Amchem---Epoxy Primer - catalyst---Epoxy Primer - thinners.

New aluminum should be wiped clean with solvent and dried off as you go, to get rid of any oil etc. Then apply the metal prep thoroughly using Scotchbrite or scrub brush. Mix 1 part metal prep and 3 parts water, keep the surface wet for about ten minutes then rinse off with water. When the material is dry again, apply Alodine mixture (1 tablespoon of powder to 1 quart of water) with scotch-brite or a sponge. Allow to stand till nearly dry at which time the metal should be looking brown. Wash off again with water and wipe dry. This procedure guards against corrosion as well as enhancing the adhesion of the paint.

Prime coat should be applied within a day after prepping. Mix the primer about 15 minutes before using. 1 part base 1 part catalyst 1 part thinners. Wipe the metal with a tack cloth to remove any dust or lint. Apply a light even coat making sure to keep it wet. Dry spots do not adhere well, and also cause rough finishes. If you do not intend to finish-coat the job within two days, apply a second of primer (half hour interval). Epoxy primer becomes very hard and durable after two days, so much so that you will have to scuff lightly with #320 grit sandpaper to insure good adhesion on your finish coat.

This may sound all very involved, and I guess it is, but the end result is worth it. After all the finished product can only be as good as the preparation. 65 to 80 degrees F.

FROM OSITAWA - CHAPTER 304 NEWSLETTER

John Colven

UPCOMING MEETINGS

MARCH 16 MEETING AGENDA
100 Sussex Dr. Room 3001

- Lionel Robidoux will be speaking on the importation of A/C parts.
- Chick Bidgood, the Ottawa Lazair dealer will show 2 videotapes: one on Lazair products, the other is the controversial 20/20 TV program that discussed ultralight accidents.

April 27 (Note 4th Friday due to Easter).
100 Sussex - Room to be announced.

- Graham Smith of Gralen Avionics will speak on Avionics Installations.

May 18: Bradley Air Service, Carp Airport.

- Richard Rho, Chief Engineer of the engine overhaul shop.
Note: We are looking for a VHS video camera to record the precious information available here. A recorder we already have.

UPCOMING ARTICLES

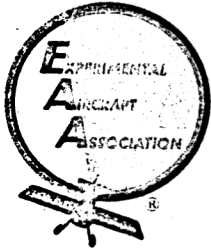
- Bill Laundry will be giving us an article on stick free stability. I am looking forward to this article since I will be able to relate it to the unique characteristics of our Pietenpol.
- Gary Fancy will be publishing a set of bylaws for operations at Carp. These rules were drawn up by him in 81 but we never got around to implementing them.
- Funny how our newsletter contributions keep coming from ex-Editors.

UPCOMING EVENTS

June 17 or June 24 appear as the most suitable dates for our FlyIn Breakfast. June 17th however is a Flying Farmers gathering at Rockcliffe. The most significant item we lack is a large grill that could be placed over a gas barbecue for fried eggs and pancakes. In addition, a picnic table or 2 would be useful to keep the traffic down on our lounge carpet and a pair of 45 gallon oil drums to build some barbecues. Please contact Gord Standing.

Jack McCready has resigned as Chapter Secretary and we thank him for his year of service. Terry Peters has volunteered to pick up the pencil to record our activities.

E.T.



EXPERIMENTAL AIRCRAFT ASSOCIATION

WITTMAN AIRFIELD, OSHKOSH, WI 54903-2591
PHONE: 414/426-4800

January 31, 1984

Dear Chapter Members:

I want to take this opportunity to wish you health, happiness and prosperity during this new year. In a recent letter to your Chapter Presidents I indicated some of the many challenges which we will be facing in 1984. 1984 does however, signal a new beginning for EAA and a new dimension of service from EAA Headquarters to its members in the aviation community as a whole. As I write this note at our new Headquarters in the EAA Aviation Center I am confident that this new facility, which focuses our activities and consolidates our staff will better serve you and your fellow members. From this Aviation Center new materials, activities and programs will reach out to improve the future of aviation. This facility would not have been possible without your support. The entire aviation community owes you a debt of gratitude.

On another note, I want to mention how much I enjoy reading the various Chapter Newsletters. They are an important conduit for sharing information, ideas and our love of aviation. We, here at Headquarters, learn a great deal from these newsletters. They are one aspect of the great educational opportunities and camaraderie which our Chapter network provides.

I have already thanked your Chapter Presidents for assuming the difficult leadership role. I have, over many years, learned that the Chapter President is a leader, an educator and an entertainer. The President is also, more often than not, the one who cleans up after the meeting.

To the Presidents, Chapter officials, Designees and Chapter members we send our best wishes from EAA's new Headquarters.

Yours sincerely,

Paul H. Poberezny
President