

EAA 245

OTTAWA , ONTARIO

# NEWSLETTER

REPLY TO: EAA CHAPER 245 , TERMINAL BOX 8412  
OTTAWA , ONTARIO  
K1G 3H8



CARB HEAT - Hot Air and Flying Rumours

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

## MAY 87

### EAA CHAPTER 245

# ANNUAL FLY IN

# BREAKFAST

SUNDAY

JUNE - 21 - 1987

8 AM to 12 PM IN THE CHAPTER HANGAR  
ALWAYS ON FATHER'S DAY



Rain or Shine  
IFR - VFR



Bacon - Eggs - Sausage - Pancakes

WELCOME TO ALL

# CARP ONT.

President: Eric Taada 749-4264

Secretary: Andy Douma 225-1559

Aircraft Operations: Garry Fancy 225-0454

Vice-President: Roger Fowler

Newsletter: Dick Moore 836-5554-(work 564-4299)

Treasurer: Gord Standing: 224-2879

DATE: FRIDAY, 24 APRIL 1987  
LOCATION: ROOM 1024, NRC BUILDING, 100 SUSSEX DRIVE  
ATTENDANCE: 34  
TIME: 20:00 HRS

Chapter president Eric Taada opened the meeting with some announcements at 20:00 hrs.

The Annual Chapter Fly-in breakfast is being organized by Gord Standing who took the names of several volunteers. More help is always welcome, phone Gord at 224-2879 if you can give us a few hours on Sunday morning, June 21st.

Chapter treasurer Gord Standing announced that the bank balance is currently at \$4195.88 with about \$800.00 in taxes still to be billed. Gord proposed raising the spending limit for a riding mower to a more realistic \$1500.00. This was briefly discussed then unanimously approved by members present.

The Ottawa Flying Club's annual Fly-day to raise Funds for the Boys and Girls Club is on Sunday, May 3rd. The Chapter was asked to put on a display and Eric offered the Pietenpol. Andy will bring the Jodel and Andrew Ricketts said he would try to bring the Gyrocopter.

New Members joining the Chapter this evening were:  
John Richards - he is actively building a CH300, Eduard Vilks who owns a Mitchell U2 and Joseph Loch who is shopping for a plane to build.

The guest speaker of the evening was introduced by Garry Fancy. Captain Clive Barratt joined the CAF in May of 1976 earned his wings and instructed on tutors and simulators from March '78 to July '82 at which time he also became CFI at the Moose Jaw Flying Club. From July '82 to July '85 he was assigned to Search and Rescue Squadron 442 at Comox, B.C. where he acted as Assistant Searchmaster and Searchmaster during searches for missing aircraft. He was involved in over 70 operational SAR missions. From July 1985 to the present he has been working for the Directorate of Flight Safety employed as Aviation Safety Investigator for Transport Aircraft.

Captain Barratt brought slides and videotape to describe the role of the DFS as compared to the civilian CASB. He described the role of the accident investigator and the general causal factors of aviation accidents. The videotape and slides showing in flight airframe break ups were both horrific and sobering. He described the reason for the failures all of which resulted in fatalities. He then showed a videotaped Case Study of a June 1986 accident of a

Twin Otter on an SAR mission in which 6 people died. The tape brought to our attention just how risky SAR work can be and how dangerous Mountain Flying can be.

After several questions from members - Eric made closing remarks and meeting adjourned at 22:40 hrs.

Submitted by A.G. Douma,  
Secretary

#### EAA CHAPTER 245 (OTTAWA) EXECUTIVE MEETING

DATE: 16 December 1986

ATTENDANCE: Dick Moore, Eric Taada, Peter Plaunt, Garry Fancy, Roger Fowler, Gord Standing, Andy Douma.

LOCATION: 30 John St. Stittsville

TIME: 1930hrs

ITEM: Meeting topics for Jan. feb. Mar.

DISCUSSION: - Get Lawrence Russel from Canus Plastics to give a talk. Have a film on working with plastics as a back up. Bring in some stuff to demonstrate cutting or bending.

-Contact Wayne Plubine for a talk on navigation devices.

-See if Stan Kureliuk would like to talk about flight testing aircraft.

ACTION: Contact Lawrence Russel for January, Stan Kureliuk for February, Wayne Plubine for March. Also check with Jim Laing if he is willing to videotape the February session.

ITEM: Meeting Formats

DISCUSSION: Call to Order, -Introduce Guests, -Announce items of business to discuss and dispatch them ASAP, -Open the floor to brief announcements about Technical tips, Supplier sources or anything of interest, -Introduce the Guest Speaker.

ITEM: Financial Report

DISCUSSION: Gord Standing has found his one cent error and corrected it. Chequing account currently contains \$2557.34 -Savings currently has \$700.03 -For a total of \$3257.37. Gord will produce a financial statement to hand out at the next meeting.

Meeting adjourned for coffee 2130hrs.

NEXT MEETING      MAY 15th

Dave Cooper, a rep. from Castrol Oil will talk  
on Aviation Fuel and Lubricants

MEETING            JUNE 19

BREAKFAST        JUNE 21

The winner of last months puzzle was Bill Argue ,and the  
answer is Sir George Cayley.

SPIRIT OF  
ST. LOUIS

We are proud to announce that EAA is taking the replica Spirit of  
St. Louis out of retirement to accomplish one last historic flight.  
The Charles A. Lindbergh Fund has asked EAA to participate in the  
reenactment of Lindbergh's arrival in Paris. The 60th anniversary  
celebration will take place at LeBourget Field. Also, while in Paris, the  
Spirit will be featured at the Paris Air Show (June 11-21) along with the  
Voyager at the Teledyne pavilion.

CHAPTER  
FORUMS

With the convention only a few months away, much planning is being done  
regarding the Chapters and their participation. Please mark your calendar  
and make sure you attend the following Chapter forums:

CHAPTER FORUM:

Monday, August 3rd, 9:00 AM - 11:30 AM, Tent No. 3

STATE ASSOCIATION FORUM:

Monday, August 3rd, 2:45 PM - 4:00 PM, Tent No. 8

NEWSLETTER EDITOR FORUM:

Tuesday, August 4th, 10:15 AM - 11:30 AM, Tent No. 5

**NEW TIE-DOWN PAYMENT POLICY**

Effective immediately, tie-down fees will be payable in advance  
to the end of the calendar year. Should the tenant leave  
before the end of the calendar year, then a refund for each  
remaining complete month will be made.

*If the heavens then be penetrable, and no lets, it were not amiss to make wings and fly up;  
and some new-fangled wits, methinks, should some time or other find out.*

ROBERT BURTON (1621)

In the course of his long life Cayley revealed a mind similar to Leonardo da Vinci's, and in many ways as remarkable. One can do no better, in a short account such as this, than to paraphrase slightly Captain Pritchard's list of Cayley's brilliant aeronautical achievements. Cayley was the first man in history:

- (a) to lay down the scientific principles of heavier-than-air flight;
- (b) to carry out aerodynamic research for flying purposes, on the pressure on surfaces at various angles of incidence (he used a whirling arm machine);
- (c) to use models for flying research;
- (d) to make the first proper aeroplane (the 1804 model glider);
- (e) to draw attention to the importance of streamlining, and to outline the shape of the body of least resistance;
- (f) to show and discuss the movement of the centre of pressure of a surface in an air stream;
- (g) to discuss the problem of stability in an aeroplane, and to indicate methods of obtaining stability; to draw attention to the effects of the dihedral angle for aeroplane wings, and of a movable tailplane (elevator) and rudder;
- (h) to suggest the use of superposed wings (i.e. biplanes or triplanes) to provide maximum lift with minimum structural weight;
- (i) to draw attention to the great importance of weight control;
- (j) to design a light undercarriage wheel for aeroplanes (this was the tension wheel which led to the bicycle wheel);
- (k) to build and fly a full-size man-carrying glider;
- (l) to point out that curved surfaces give a better lift than flat surfaces; and that there exists a region of low pressure ('vacuity') on the upper surface which provides a powerful lift;
- (m) to suggest an internal combustion engine for aircraft (he made a model gunpowder motor); to draw attention to the importance of the power/weight ratio, and the need of a light prime mover;
- (n) to suggest jet propulsion for aircraft (he described it in reference to airships);
- (o) to suggest the convertiplane (published designs in 1843) which would have four helicopter screws for vertical lift that closed to become wings, with two propellers for forward propulsion (Pl. II).

In addition, although he did not invent the aircraft propeller, Cayley was fully conversant with its principles and incorporated it in his ideas for propelling both aeroplanes and airships, as well as considering ornithoptering 'winglets' analogous to the propelling wing-tips of a bird.

Cayley also paid great attention to the dirigible airship: he realised that the practical difficulties of constructing powered aeroplanes would postpone success for many years and be preceded by the dirigible: 'I am fully convinced', he wrote in 1816, 'that this mode of aerial navigation is practicable, and will, ere long, be accomplished.' It was accomplished tentatively in Giffard's airship of 1852.

Not only did Cayley achieve towering merit in aeronautics, his favourite sphere; but, fortunately for posterity, he was careful to publish his brilliant theories and conclusions, and so led directly to all subsequent research and development in aviation. It was William Henson who conferred on him the simple and definitive title of 'the Father of Aerial Navigation' in 1846.

As if all this were not enough, Cayley researched and invented indefatigably in many other fields, mechanical and social, such as land reclamation, unemployment relief, artificial limbs, theatre architecture, railway equipment, lifeboats, artillery, optics and electricity. He even contributed to applied science two other major 'firsts' of lasting importance by inventing the expansion air engine (colloquially called the hot-air engine) about 1805; and the caterpillar tractor in 1825, which has equipped agriculture and warfare with one of their most important means of progression. His social work was further made notable by his founding of the Regent Street Polytechnic in 1839.

To round off the picture of this Victorian giant, it is interesting to record that Cayley was a poet in some of his spare moments, a Whig in politics (and even served for a short time as M.P. for Scarborough), a devout Unitarian by religion, and a devoted husband and father.

'Aerial navigation', wrote Cayley in 1809, 'will form a most prominent feature in the progress of civilisation.' He would not have been disappointed. 1

# Hand prop swinging again *Crash corner*

Every year accidents occur due to hand-swinging propellers. Here is a recent case where an AME/pilot aircraft owner hand propped his airplane. The aircraft failed to start on the first hand-propping session; during the next attempt, however, after some adjustments to the cockpit controls, the engine fired up to a high RPM. The aircraft had been tied down, but it broke free and, gaining speed, rapidly left the AME/pilot lying on the ground in

a somewhat dazed and bruised condition. The aircraft continued forward until it ended up in a ditch where it was damaged beyond repair. Section 803 of the Air Regulations requires that, before an aircraft engine is started, the pilot's seat must be occupied by a person competent to control the aircraft or the aircraft must be restrained from moving forward. Conclusions drawn from this incident suggest that for undetermined reasons

the method of restraining the aircraft was inadequate. Although in this case the spirit of the regulation was complied with, the results were not only embarrassing and dangerous, but a serious drain on the pocket book considering that a valuable aircraft was destroyed. ▲

---

Champion 7GC	C-FFWU	04 07 86	Nanaimo Airport, BC	None	Substantial
--------------	--------	----------	---------------------	------	-------------

Aircraft was started by swinging propeller. When engine started, aircraft moved forward and struck a parked aircraft. Substantial damage to both aircraft.

---

Cessna 172	C-FLHE	18 10 86	1735 St. Jean, PQ	None	Substantial
------------	--------	----------	-------------------	------	-------------

After having secured aircraft to fence, pilot hand started engine. Aircraft broke free and collided with ditch.

---

Several weeks ago during Christmas, a noted Canadian surgeon had his hand completely severed during a light plane prop accident. (Attempts were made to rejoin it to the wrist by a team of surgeons.) This tragedy should remind all pilots and aircraft owners about the seriousness of becoming involved physically with whirling propellers.

Recently, a similar tragedy was luckily averted when a newly installed engine unexpectedly started, even when the ignition switches were 'off', because the brass ground strip inside the magneto wasn't installed to fit tight against the magneto frame (internally). It looked okay from the outside.

To avoid prop-injury accidents, one should treat the propeller with caution as if it were alive at all times. During winter months, batteries are apt to be too low to turn over the propeller and more engines are being started by 'swinging the prop'. In many cases, the prop-swinger is standing on icy or slippery ground which makes a hazardous practice all the more precarious.

Propeller accidents have occurred involving highly intelligent people. Similar types of mishaps can be avoided if others heed all warnings.

The above article/accident summaries emphasize one axiom— an aircraft propeller should be treated like a loaded gun, with a hair trigger. This is why some new instructions regarding aircraft regarding aircraft parking and hand propping have been drafted for Chapter 245

Garry Fancy  
Aircraft Movements Officer

EAA Chapter 245

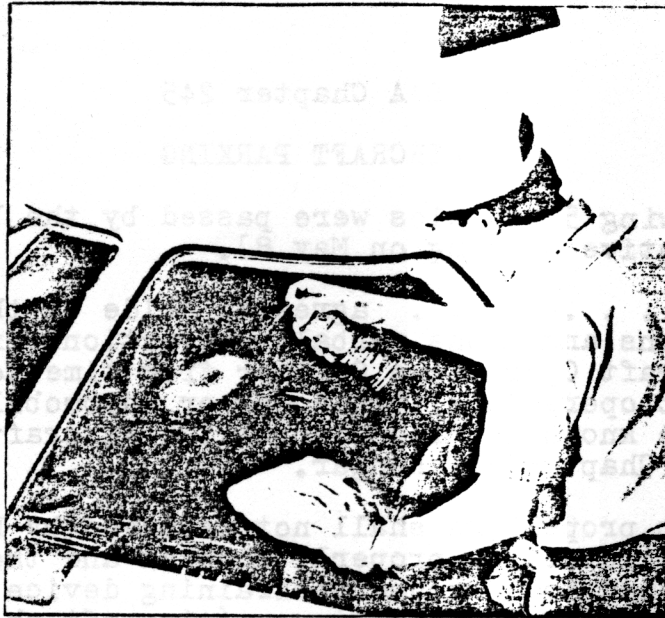
AIRCRAFT PARKING

[The following 5 articles were passed by the board of directors at an executive meeting on May 8].

1. I . . . . . agree to abide by these written instructions and those verbal instructions from the President or Aircraft Operations Officer from time to time regarding aircraft operations, tie-downs or automobile movements on the site known as "EAA Chapter 245 Aircraft Parking Area" and EAA Chapter 245 Hangar.
2. Aircraft propellers shall not be moved by hand unless:
  - a) the aircraft is properly chocked and the aircraft fastened to a ground restraining device to prevent inadvertent forward motion. (Aircraft chocked alone or tied alone are not considered secure).
  - b) or all ignition wires are completely disconnected from the source of ignition or the spark plugs.
  - c) or a qualified person occupies the pilot's seat. (Section 803 of the Air Regulations requires that, before an aircraft engine is started, the pilot's seat must be occupied by a person competent to control the aircraft or the aircraft must be restrained from moving forward).
3. Aircraft shall be tied down in accordance with instructions issued by the Aircraft Operations Officer when not attended. The wings shall be tied with rope in good condition capable of withstanding a minimum of 3000 lbs. The tail shall be secured with a minimum of two dog-type screw-in stakes. The securing rope shall have a minimum breaking strength of 1,000 lbs.
4. Aircraft owners/<sup>operators</sup> shall provide proof of insurance (third party liability) in the minimum amount of \$100,000 for the period for which aircraft parking is authorized.
5. Unsafe aircraft operations on EAA Chapter 245 Aircraft Parking will not be tolerated. Failure to abide by these instructions will result in revoking of aircraft parking privileges and removal of aircraft.

Signed as having read and understood,

. . . . .



Prist cleaner removes grease and grime without harming your transparencies (see story)

## Windscreen cleaning "do and don't"

### PITTSBURGH

Hints on how to keep your windscreen clean and to prolong its life come from the chemicals group of PPG, Pittsburgh, which is introducing a new non-abrasive spray called Prist:

**Do** flood with water to wash away surface dirt. Use hands or fingertips to loosen residue clinging to the transparency.

**Do** apply Prist acrylic plastic and glass cleaner to one area at a time, and wipe away with a soft, non-synthetic cloth (chamois, pure cotton Terry-cloth, or flannel).

**Do** use an up-and-down motion, and fold the cloth to expose a clean area after each pass to prevent scratching from dirt accumulating on the cloth.

**Do**, when the windscreen is completely dry, apply a thin coat of hard wax to reduce in-flight water absorption and to prevent pitting. Prist's self-contained anti-stat helps to repel dust and dirt.

**Don't** use paper towels, which are abrasive and will cause hairline scratches.

**Don't** clean with a circular motion, which can cause glare rings.

**Don't** use cleaners containing harsh chemicals or abrasives, which can cause hazing, streaking, or scratching, and don't use aerosol cleaners with fluorocarbon propellants which, says PPG, "can damage the environment" (PPG, One PPG Place, Pittsburgh, Pennsylvania 15272, USA).

motion. (Weber Aircraft Division of Kidde, 2820 Ontario Street, Burbank, California 91504, USA).

## Helmets: learning the hard way

SIR—I would like to add my comments to the letter in *Flight* for February 14 from Air Vice Marshal Cairns.

In 1981 I was in a Tiger Moth that ran out of height, airspeed, and ideas. Luckily I was wearing a "bonedome" at the time. I did break nearly every bone in my body, and am now confined to a wheelchair (which does not stop me flying), but without a doubt the "bonedome" saved my life.

The helmet was virtually destroyed and my head only scratched. I have since purchased a new helmet, but people still laugh when I am poured into a Tiger with helmet on. I try to point out that £200 for a bonedome is cheaper than £600 for a funeral. I would like to see all those who fly antique, home-built, or aerobatic aircraft wearing one.

Without being a "spoilsport", I would also like to see the dear old "Sutton harness" changed for a more effective model and, in the case of the Tiger, actually revised, so that in the event of a sudden stop it won't break!

I would like to end by mentioning two points:

1 I used to wear a leather helmet until one of the few old and bold pilots who is still around suggested that a bonedome was safer.

2 With regard to parachutes, all glider pilots have to wear them, and most aerobatic aircraft (C.152, Tiger, Stampe, etc) are equipped to take them. The outlay for a club would be minimal. Is not any step towards safety a good step?

C. G. H. GURNEY

Heath Cottage  
Northrepps  
Cromer NR27 9LB