

EAA 245

OTTAWA, ONTARIO

NEWSLETTER

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



CARB HEAT - Hot Air and Flying Rumours

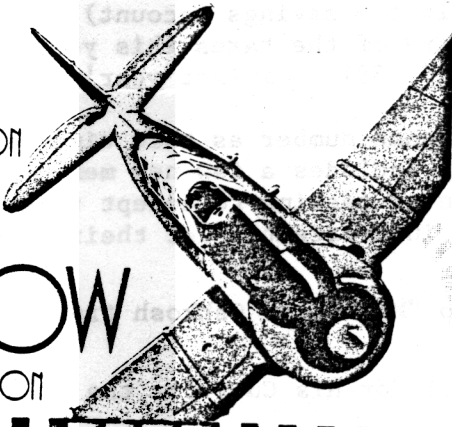
Meetings - 3rd Friday at the National Research Council Building Auditorium
100 Sussex Drive, Ottawa, 8 pm

MARCH '86

NEXT MEETING

- Henry Beaudoin will present a review of the tool crib.
- Video - The Straneraer (super marine)
 - a 30 min. video that should prove interesting.
- Tom Chase-Casgrain, an ex-Straneraer pilot and now a retired civil servant will be present. Maybe we can get him to talk about his experience with the Straneraer and many other aircraft with which he has considerable experience.
- Meeting April 18, 1986.
- Dave Murray will talk about his Starlight.

WEST
CARLETON
**AIR
SHOW**
ASSOCIATION



TO PROMOTE EDUCATION, FRIENDSHIP, AND SAFETY IN AVIATION

P.O. BOX 358, CARLETON, ONTARIO K1A 1L0 (613) 828-9057

West Carleton Air Show Association
will be having a meeting

March 23, 1986, 9:00 a.m.

at Westair/Mylight hangar.

Pres: Eric Taada 749-4264
Sec: Terry Peters 745-7466
Aircraft Op.: Garry Fancy 225-0454

Vice-Pres.: Roger Fowler 225-6070
Newsletter: Dick Moore 836-5554
Treasurer: Carl Stanfield 225-2277

Program Director:
Peter Plaunt

Minutes of February 21, 1986 Meeting

- Eric Taada welcomed five guests to the 25 or so members present:
 - Daryl Bender
 - Gaston Carle
 - Brian Mutsell
 - Wade Reeleder
 - John Smiley

- A source of aircraft quality spruce has been found for those interested:
 - Sound Wood
 - Masset, B.C.
 - Queen Charlotte Is.
 - VOT 1M0

 - Tel.:(604) 626-3628
 - or
 - TLX :0 47 85608

 - lengths up to 24 ft are available at approximately \$9./board foot.

- The Toronto Aircraft Show is being held during April 4-6 at the International Centre in Mississauga.

- It was announced that Bruce Hamer has return space for "sun-n-fun" on March 19th.

- The Chapter has need of a cut-off saw this spring to manufacture a hangar door. Can anyone help?

- The next meeting of the Carp Airshow Association is on Sunday, March 23rd at Westair (Mylite), 9:00 a.m.

- Gord Standing gave a brief accounting of our finances. A more detailed account is included in this newsletter.
 - We have spent \$1212.30 since the Sept. 30th statement.
 - We have a grand total of \$2984.90 in the bank (\$318. in the chequing account and \$2666.50 in the savings account).
 - The bill from Bradleys for our share of the taxes this year is \$743.79, a 10.35% increase (\$69.78) from last year's bill of \$674.01.
 - There are 26 paid-up members, the same number as this time last year, but this year's membership includes a few new members! (Gord will be available at the next meeting to accept this year's fees from those who have inadvertently let their renewal's slip their minds!!).

- The meeting was entertained with the video "Mach 2 to Oshkosh from England".

- Henri Beaudoin brought his instrument panel for his Cuby for the membership to view.

TREASURER'S NOTES

As Chapter Treasurer, it is my job to keep track of the finances of the organization and to report expenditures and the state of our solvency to the membership at the general meetings or by the chapter newsletter.

Recently, I have decided to publish a financial statement several times a season, since publishing one per year gets pretty tedious trying to balance, especially when it takes almost two weeks to find a pesky bookkeeping error.

For the benefit of chapter members who couldn't make the last meeting, a copy of the financial statement which was presented to the meeting is hereby published for their information.

At last count, after the February general meeting, twenty-six members have paid their 1986 dues. As you all know it is through our membership fees that the chapter operates. It is through our membership fees and the dedication of our members that we enjoy what we have to-day in the form of a hangar, a workshop and a lounge.

This summer it is hoped that the long awaited door will be constructed and hung. Further down the road, it is hoped that power will be added along with a deck around the lounge. All this can only be achieved by the support of the membership.

For the benefit of members who cannot attend the chapter meetings, a membership renewal form is outlined below. Please take advantage of this method to renew your 1986 membership.

Gord Standing
Treasurer

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Membership Application
EAA Chapter 245

Name.....

Mailing address.....

.....Postal Code.....

Telephone.....

Full membership.....\$47.00

Associate membership.....25.00

Please make cheque payable to EAA Chapter 245 and mail to

EAA Chapter 245
P O Box 8412 Terminal
Ottawa Ont K1G 3H8

FINANCIAL STATEMENT
To Feb 15, 1986

Expenditures

Postage and Newsletters 163.10
 Gilks Ltd (Chapter Hats) 102.99
 Equip Purchase (Brake) 75.00
 Hangar Maint 21.12
 Loan Repayment 100.00
 Bank Service Charge 6.30
 Bradley's (Common Costs) 743.79
 Total Expenditures 1212.30

Total Revenue 1530.70
 Total Expenditures 1212.30

Opening Bal Checking 568.96
 Deposits 952.00
 Interest 9.74
961.70

Total Checking 1530.70

Opening Bal Savings 2611.30
 Interest 55.20
55.20

Total Savings 2666.50

Checking Bal Feb 15 318.40
 Savings Bal Feb 15 2666.50

Chapter Bank Balance Feb 15 2984.90

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TECHNICAL TIPS

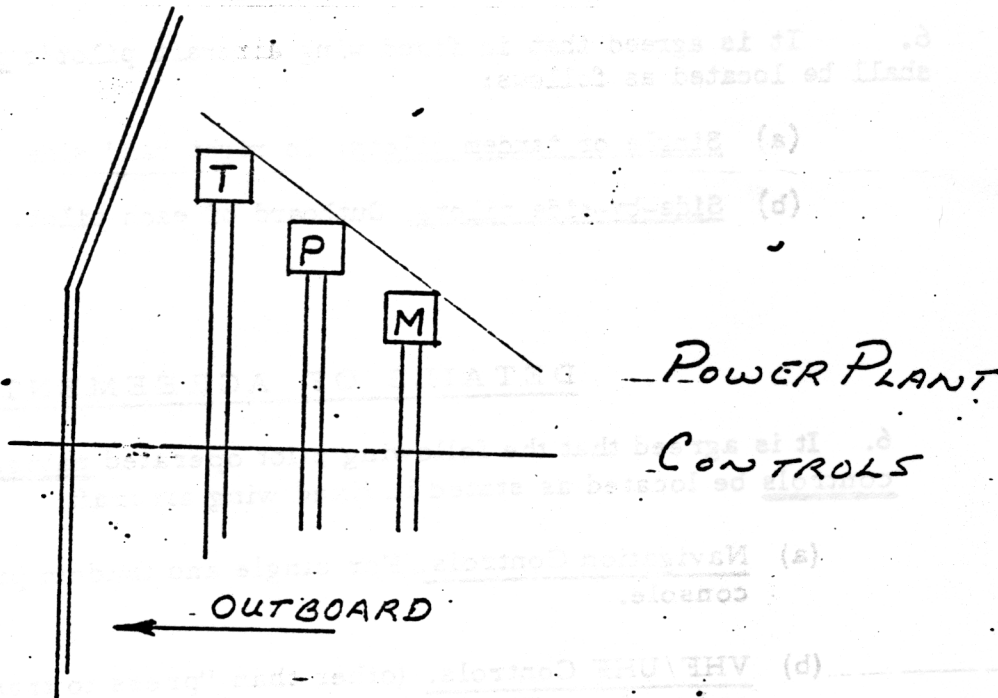
by

Garry Fancy

One of the most interesting items for the homebuilder to work on is the layout and placement of the instrument panels and cockpit controls.

I have recently just completed this exercise on my Super Cub and in the process of doing so, I referred to some old standby rules. Some of these include American, British and Canadian Agreements which (I hope) the editor will reproduce on the following page(s). Some of these do not apply to the average homebuilt (i.e., actuation of jet afterburner controls) but some are very much applicable such as throttle, propeller, mixture controls, being placed on the left and side of the pilot in single or tandem aircraft and in that order from the outboard in, tallest on the left, shortest on the right (see sketch). The preferred location of other control instruments and devices is given as well as direction of actuation. It may not always be possible to follow these recommendations, but where possible do so. These details are for one prime reason - SAFETY.

The instrument panel presents a veritable feast for the homebuilder, even certified aircraft show a vast plethora of arrangement, not always logical or safety inspired. Remember here again, safety should be the prime consideration. The arrangement suggested in the attached ABC Std 16/1A is based upon detailed research including eye scan patterns and perceptions. Certainly like functioned instruments should be grouped together (engine, navigation, air data). I have always liked propulsion on the right, air data on the left and gyro/heading instrument dead ahead to avoid parallax (seems to me I wrote a very similar article a few years ago, since then I learned some new words: like plethora).



DETAILS OF AGREEMENT

7. It is agreed that in fixed wing aircraft instruments presenting to the pilot certain flight quantities should be arranged in two rows in the following sequence:

Top Row: Left - Speed, Center - Heading, Right - Attitude.

Bottom Row: Left - Height, Center - Approach Aid, Right - Vertical Speed or Turn and Slip as required.

8. Where a flight director is fitted for use in instrument approaches this will be considered to be the approach aid. Where no approach aid is fitted the bottom center position will be filled by vertical speed or turn and slip.

DETAILS OF AGREEMENT

7. Participants agree that controls and switches at all aircrew stations should be so designated that actuation upward, forward or clockwise shall increase performance of the component or aircraft: actuation downward, aft or counter-clockwise shall decrease performance of the component or aircraft. In cases where the roof angle may cause ambiguity between up or down movement the rule forward for "services on" or increase performance shall govern.

8. This agreement does not apply to "centre off" three-position switches.

ABC AIR STD 16/8

DETAILS OF AGREEMENT

6. It is agreed that in fixed wing aircraft pilot's map stowages shall be located as follows:

(a) Single or tandem pilots. On right hand side of pilot.

(b) Side-by-side pilots. Outboard of each pilot.

ABC AIR STD 16/1

DETAILS OF AGREEMENT

6. It is agreed that the following pilot operated navigation and radio controls be located as stated in fixed wing aircraft:

(a) Navigation Controls. For single and tandem pilots on the right console.

(b) VHF/UHF Controls. (other than "press to transmit") For single and tandem pilots behind the primary power controls on the left console. For side-by-side pilots on the center console or overhead panel accessible to both pilots.

DETAILS OF AGREEMENT

7. It is agreed that the engine controls detailed below should be located in fixed wing aircraft as follows:

- (a) Numbering of Engine Controls. Except in the case of vertically mounted engines, controls shall be oriented from left to right relative to the operator except for RAF rearward-facing members. Controls shall be numbered consecutively and shall correspond to the power plant with which they are associated. If controls are orientated vertically they shall be numbered from bottom to top.
- (b) Primary Power Controls. (Throttle(s), Propeller(s), Mixture(s)).
 - (i) Single or tandem pilots. On the left of the pilot, within easy reach with shoulder harness in place and locked.
 - (ii) Side-by-side pilots. On a centre console accessible to both pilots with shoulder harness in place and locked.
 - (iii) Relative Position and Size for Reciprocating Engine Aircraft. Placed in the following order from left to right; throttle, propeller, mixture, and sloped with the tallest on the left.
- (c) Super-charger Controls.
 - (i) Single or tandem pilots. Outboard and aft of primary power controls.
 - (ii) Side-by-side pilots. On centre console to the left and aft of primary power controls.
- (d) Assisted take-off controls. Adjacent to primary power controls when latter are in full open position.
- (e) Carburettor Air Intake Controls. Aft of, or below, the primary power controls. Actuation shall be up or forwards for ram, centre for filter, and down or aft for hot.
- (f) Fuel System Selector Controls. For single and tandem pilots, aft of and as close as practicable to primary power controls.
- (g) Ignition Control Switches. For single and tandem pilots for reciprocating engines, left and forward of primary power controls. For side-by-side pilots in the overhead panel if fitted.
- (h) Emergency Fuel Switches (Fuel Isolating Switches). On the same side as the throttle in a position from which it can be easily seen and readily reached by the pilot. The background to the cover guard over the switch is to be marked with black/yellow emergency marking.

REMOVE
BEFORE
ACCESS

TOP MOUNT 27

INSTRUMENT
PANEL 2

PANEL CAN
ROTATE AFT
FOR ACCESS

HINGES (2)

SHOCK MOUNTS

POWER PLANT CONTROLS

Instrument Panel Mounting

It is always good design practice to provide easy access to the instrument/and panel; unfortunately most of us don't always follow good design practice.

Following is the sketch of a system I am installing on my Super Cub. It utilizes simple hinges available at your local hardware store to CTC and allows the panel to pivot.

RED CIRCLE TIME

If your name has been red circled and you are wondering why? Wonder no more, it is because you have not paid your dues. Cheque or cash (no Visa) can be mailed to Gord Standing, 65 Canter Blvd., Nepean, Ontario, K2G 2Ma or better yet come to the next meeting and bring your completed membership form.

Tear-off applications forms can be found with this Newsletter.

NOTES ON TED SLACK'S TALK
ON THE OTTAWA FLYING CLUB'S GROUP
FLIGHT AROUND THE CARRIBEAN

Flying the Carribean is not difficult but it certainly is different. Ted commented that most people don't realize that in North America, 90% of the flying is done by general aviation aircraft and only 10% by commercial and airline aircraft. In the Carribean it's the opposite. As a result, everyone in the Carribean assumes you're a professional pilot!

The three week trip last spring included 12 airplanes with 30 people, 22 of whom were pilots. A similar excursion in 1983 was shorter and included Gerry Beaudreau and his amateur Tri-Z - so far those of you with homebuilts, there is no reason not to broaden your horizons; all you needed on this last trip was enough range to cover about 400 miles (plus reserves - you're over water remember!).

The total distance travelled was 6000 N.M. with 22 hops. Ted was flying a Cessna Cutlass and his average hop was 2-1/2 hours (the longest was 4 hours flight time/3:40 air time). The group consisted of two Cessna's 172's (one from Victoria!), a Cherokee 180, a C182, two Cutlasses, a C210, a C310, a Mooney, a Bonanza, a twin Commanche and a Piper Seneca II.

The normal routine was for the fastest aircraft to go first and the slowest last. That way, they never overtook one another and the controllers at the arrival end didn't get flustered. In the Carribean, two aircraft arriving in the zone at once is liable to cause a bit of a bother apparently. Take-offs usually went very smoothly - all 12 aircraft off in 2 minutes.

Any weather in the Carribean is usually over the islands - clouds build up in the afternoons. However weather is rarely a problem, and a few clouds over each island makes navigation easier! The group only got held up once because of weather.

Flight plans are filled out on ICAO forms, which must be completed in a very precise manner. The time and place of border crossings had to be identified. Life vests and life rafts were required (more than 50 miles from land).

Flight planning was done the night before, because it can take forever to get out of a Carribean airport. The pre-planning that was done helped a great deal.

Customs clearances can be tedious. Where we would have one customs officer, they often had five, each of course anxious to show they had a responsibility. Ted had one box full of bags of washers. In Trinidad the customs officials counted every washer. Ted mentioned that on a previous trip, he had happened to use red ink on the forms he completed in Haiti. They had to be completely redone. Red ink was only allowed for officials.

Forms had to be filled out to leave a country and had to be presented on arrival at the next stop to show point of origin. Usually three copies were required. Venezuela wanted nine copies. A plentiful supply of forms and carbon paper was a must!

The group gathered at Fort Pierce in Florida and left on a Saturday for the Bahams where they landed at North Eleuthera. They stayed at Spanish Wells for two days then on to Providenciales in the Turks and Caicos Islands. A stop in Puerto Plata was planned but the group overflowed the Dominican Republic when it was discovered that foreigners were charged \$6. per gallon for fuel. Two days were therefore spent in Puerto Rico, then on to Guadeloupe for three days. Ted's slides showed the beaches there to be particularly scenic.

The group was treated very well everywhere they went. Pre-planning made a great deal of difference and thirty people arriving in a dozen private planes is bound to create an impression and cause a fit of a reaction. Ted found out in Guadeloupe that at their next stop, Tobago, repairs to the airport aprons meant there were no parking areas. They therefore flew to Trinidad not knowing quite how they'd organize themselves to get to Tobago and their reserved accommodation. Imagine their surprise when they were met at the Trinidad airport by the hotel owner and tourism officials who had a chartered DC 9 waiting to take them to Tobago. A party was given in their honour - their hosts were anxious that they meet a cross-section of the Island population and invited about 30 people as diverse as a minister of the government and a taxi driver. Background music was provided by a talented steel band.

The next stop was Venezuela (Caracas Del Centro Airport - which they couldn't find at first - they hardly expected to find it on top of a mountain!). Two nights were spent in Caracas before heading for Aruba for a day and a night. The longest flight over water (356 miles) was between Aruba and Santo Domingo, Dominican Republic. The group toured the city before heading for Port-au-Prince, Haiti for fuel and clearance to Cuba. The group visited Santiago de Cuba which they toured and then flew to Veredaro and clearance to leave Cuba. Hours of delay in getting clearance to Veredaro and exorbitant landing fees dampened the Cuban portion a bit. The flight back to Florida was via Key West to Fort Lauderdale.

It should be noted that Ted was the prime mover and organizer for the trip - a formidable task if you stop to think of all the details involved in pre-planning and figuring out how to cope with the idiosyncracies of customs and aircraft clearance procedures and arranging accommodations for 12 airplanes and 30 people visiting 10 different countries.