

Canon 39155

NEWSLETTER



EAA Chapter 245

Experimental Aircraft Association of Canada

Ottawa - February 1982

President	J. Keith Gillespie	592-4742
Vice President	Ray Perkins	722-4343
Secretary	Laurent Ruel	820-7017
Treasurer	Barney de Schneider	523-9526
Newsletter	Bill Laundry	523-6791 (home) 998-3121 (work)

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

(Opinions expressed in this newsletter are those of the contributors and not necessarily those of the Experimental Aircraft Association of Canada.)

PRESIDENT'S CORNER

The last newsletter contained a plea for helping hands to produce said newsletter, and all available hands be most welcomed by the "press gang" on the evenings stated. This is your Chapter paper and needs your support if it is to continue and flourish. Please -- a couple of hours per month is not an excessive demand, and this time well spent will reap benefits.

By the same token, there is another area of our sport/hobby in critical need of assistance and this is Ted Slack, the Executive Director of the EAAC Technical Committee. As you may well appreciate, the volume of technical and general paper flowing into Ted's office is considerable to sat the least. Ted would certainly appreciate our assistance in sorting and filing this data and helping him with other general office duties as the need arises. No experienc is required -- just an interest, some enthusiasm and a willingness to help. Surely there are some of us who can spare one or two Wednesday evenings a month to aid the most deserving segment of EAAC. As the resident Ottawa Chapter -- how about it # 245 members? The Tech Committee office is at 1801 Riverside Drive, Room 104, Telephone 523-7964, and Ted is usually there any time after 7:00 P.M.

On a final note, please plan on attending the next Chapter meeting on February 19, 1982. Your executive have been working on several projects which we think you'll find not only interesting but a challenge. See you all there.

Keith

EAA CHAPTER 245 MEETING OF 22 JANUARY 1982 AT N.R.C.

- Attendance: 42
- Ray Perkins chairmanned the meeting; Keith Gillespie was absent due to illness.
- Eric Taada brought up an idea which originated with Irving Slone; a bus trip to the National Air and Space Museum (NASM) in Washington, D.C. Included in the trip would be a tour of the Silver Hill Museum in Silver Hill, Maryland (near Washington). Irving had the opportunity to visit both locations before Christmas. According to Irving, although the NASM is superb; for the aircraft enthusiast. the 24 building Silver Hill facility (where aircraft are stored and/or rebuilt for future exhibition in the NASM) merits a trip by itself. The Silver Hill collection is not open to the general public, guided tours can be arranged for special interest groups.
- The round trip charter bus fare would be about \$50/person. The lodging would be in a university residence to minimize costs. The trip would be on a long weekend in the spring. (Ed. See pages 9 and 10 of this Newsletter for more info.)
- Eric also announced that Irving Slone was instrumental in procuring some high quality (used) carpetting for the Chapter lounge.
- The evening's speaker was John Martin, a noted aerodynamicist. John spoke about aircraft stability in a general and simplified fashion. His central theme was that aircraft stability is not particularly difficult to achieve if well established design guidelines are followed - the reason why most low-wing aircraft resemble Piper Cherokees and high-wing aircraft look like Cessna 172s. Much trial and error went into arriving at these guidelines. Design innovation is certainly possible, the resulting design can appear to be successful, but have hidden vices. Designer beware!
- John Martin proved to be a very engaging speaker. It came as a great surprise to discover that John is the Director of Transportation for the Post Office. John discovered that eating regularly can become a habit.
- Henry Beaudoin brought in some photographs of his CUBy project. The wings are all finished and many small parts completed. Won't be long at this rate.

Laurent Ruel

Fiberglass Catalyst Can Blind You

Making a fiberglass repair to your wind-damaged quad? Be careful. It is not generally known, but the catalyst you are using may be a health hazard.

At a recent safety conference in Vancouver, BC, an eye specialist described an experience that ended with disastrous results. "The victim had both eyes contaminated while fiberglassing a chair at home. Though he did make an effort to wash his eyes out, several minutes apparently elapsed before he found water. One eye was lost immediately; the other was lost gradually over a period of about eight years. Its deterioration was described as resembling that resulting from WW I mustard gas burns."

The catalyst added to fiberglass resin (to accelerate hardening) before the resin is applied to the work is usually MEKP (methyl-ethyl-ketone-peroxide) which can completely destroy eyesight. Once MEKP starts to destroy eye

tissue, there is no known way to stop or repair the damage.

In tests using laboratory animals, MEKP in solutions of varying concentrations was found to cause eye problems ranging from "irritation" to "severe damage." The maximum concentration producing no appreciable irritation was a solution containing only 0.6-percent MEKP. Material published on the subject indicates that washing an effected eye within four seconds after contamination prevented injuries in all cases, but no known chemical neutralizer has been reported.

When you are working with a fiberglass hardener, wear safety goggles and have on hand an adequate supply of water to wash out your eyes in case an accident occurs. Remember four seconds is your time limit. It is also a good practice before using any catalyst to check the chemical composition and take appropriate safety measures. — William G. Welsh, W6DDB

NEW MEMBER - The Chapter welcomes John Corning . John gives his address as Bureau of Immigration Affairs (IMSC), Department of External Affairs, 125 Sussex Drive, Ottawa Phone - 593-5971 home

John is building Quickie 1; the first in the Ottawa area I believe.

DINNER/DANCE - The Chapter is arranging a dinner/dance at the Nepean Sportsplex for Saturday, February 27 to cost about \$18.00 per person. Contact Keith Gillespie right away if you plan to attend. Keith's phone number is 592-4742.

NEXT CHAPTER MEETING - The next Chapter meeting will be held on Friday, February 19. This is going to be a plans night; so come prepared to give your views on the plans you used to build your machine.

SMITHSONIAN INSTITUTE, National Air and Space Museum - Elsewhere in this newsletter you will find a full page devoted to a possible tour to the museum. If you are interested in such a tour, make your views known to one of the executive members or to Irving Slone.

PLANS SURVEY - The results of the questionnaire handed out at the last meeting are as follows - (a V following a name means the plans can be viewed; an S, for sale)

- Baby Ace Reid (V)
- BD-4 Bell-Walker (V), Brunton (V)
- Cavalier SA102.5 Bellefeuille (V)
- Coot Cianfaglione (V)
- Dragonfly Phipps (V)
- Headwind (Stewart) Gillespie (V)
- Jeanies Teenie Phipps (S, \$35)
- Jodel D-9 Reid (V)
- KR-2 (Rand) Gillespie (V)
- Midget Mustang Reid (V,S)
- Pazmany PL-4 Bell-Walker (V), Reid (V)
- Pietenpol Aircamper Gillespie (V)
- Playboy (Stits) Phipps (S, \$35)
- Smith Miniplane Reid (V)
- Tailwind (Wittman) Fowler (V)
- Taylor Monoplane Brunton (V), Laundry (V), Reid (V)
- Vari Eze Taada (V)
- Vari Viggen Beaulieu (V), Gillespie (V)
- Volksplane VP-1 Phipps (S, \$50)
- Volksplane VP-2 Gillespie (V)
- Whing Ding (Hovey) Phipps (S, \$25)
- Zenith CH200 Phipps (S, \$100)
- Zenith CH250 Cianfaglione (V)
- VHS Video Tape Composite Construction Saumweber (V)
- VHS Video Rutan Aircraft Saumweber (V)

CHAPTER HANGAR - At the last Chapter Executive meeting, priorities regarding the operations at Carp were considered. During these discussions, the following items fell in the "WANTED" list that some members could help or supply information.

- WANTED - commercial electrician to approve hangar wiring when completed
- individual to supervise laying of concrete floor in shop area
- source of supply for wallboard (gyprock) for hangar
- electrical supplies for hangar wiring
- electric generator

DID YOU KNOW?

That the modern-day configuration of a seated pilot, vertically-hinged rudder, stick for pitch and roll control (the latter through differentially movable surfaces on the wings), and engine on the nose of the fuselage where the propeller was attached directly to the crankshaft was used as early as 1909 by the Frenchman Louis Bleriot, in his epic crossing of the English channel?

That daily aerial bombing dates from Aug. 30 1914 when the ironically-named German bomber, the Taube 'dove', began bombarding Paris?

That a W.W. I German biplane bomber, the Staaken R-VI, had a wing span of 138 ft. (34 more than a B-17), 4 245 h.p. water-cooled engines with 14 ft. propellers, a gross weight of 13 tons, BUT a maximum speed of only 80 m.p.h. and a cruise of about 65?

That before the introduction of gyro flight-attitude instruments and radios for navigation, the U.S. air mail service lost 31 of its first 40 pilots in crashes?

That movable wing flaps for decreased landing and take-off speeds were invented in 1919 in Germany by Hugo Junkers?

That a practical retractable landing gear appeared in 1920?

That the variable-pitch constant-speed propeller dates from 1924?

That to convince the Americans of the practicality of the helicopter, Igor Sikorsky--in 1939!--hovered in it; danced sideways, backwards, forwards; speared a ring with the nose of his craft; gently lowered, without breaking any, a dozen eggs suspended in a net from his undercarriage; then deliberately broke them while landing in a small fenced enclosure, to prove they weren't hard-boiled?

That Sopwith Camels downed 1294 enemy aircraft in W.W. I?

That by 1915 the German Fokker Eindecker ('monoplane') sported a synchronizde machine gun firing through the prop?

That the F-1 Camel got its name from the hump enclosing the breeches of its guns?

Roger Fowler

FROM THE EDITOR'S TYPEWRITER

At the last Chapter Executive meeting, a story by our past president brought to mind a chance meeting last summer. On my way to Cshkosh, I was fortunate to meet one of the 99ers also on her way to Cshkosh (where else do people go in the summer). This 99er had recently purchased a Piper Comanche from one of the many ads in Trade-A-Plane. As our past president found out, this process of checking items can be very costly, not in the actual purchase, but in the travelling to see if the item is as advertised. But the 99er solved this problem in a way that the EAA should have done years ago.

The process involved is to review advertisements such as Trade-A-Plane for the exact item desired. Next contact a member or Chapter in the area where the item is for sale. If a cursory review by the contacted members proves positive, then contact an approved mechanic to check it out. The cost of this latter action will be far less in time and dollars than a personal inspection. The whole process can be accomplished with a few telephone calls and there are no real surprises when the item gets into your hands. If the 99ers can do it, the much larger EAA should find it a breeze. Isn't that what EAA is all about; helping each other. Thank you ladies for the suggestion. One mark in the superior column for the ~~****~~ fairer sex.

EAA CHAPTER 433 Okanagan Valley, B.C. Slipstream February 1982

A nice note from Editor Sid Barget saying that 433 will not be able to send us a newsletter each month but will keep us informed by an occasional newsletter. Thanks very much Sid, the concern for keeping others informed is appreciated and we understand the problems in newsletter distribution. We will now be able to meet you at the next AGM in Calgary with some knowledge of what you guys have been up to. If John Ivens is still in the area, give him my best wishes for the new year. Interested in what's going on in the light aircraft engine business, read Roy Clemen's article in the 433 newsletter.

CHAPTER PROJECTS IN REVIEW

Taylor Monoplane

This month's featured project is Glenn Brunton's Taylor Monoplane. Glenn--who already has a BD-4 to his credit--decided on the British-designed Monoplane after seeing George Reid's flying, a few years back.

The plane is a single-seater low-wing all-wood VW-powered economical-to-operate fun machine (Phew!). Glenn has worked steadily on the project for about 4 years and reckons he is at the 80-85% mark. He regularly turned out a rib per day, sometimes 2, and got extra little shifts in on week-ends. Although he only knows that he has invested "a lot" of time so far, he is pretty certain that the BD-4 was less time-consuming, perhaps because he admits to having had more familiarity with metal than wood. Thus far, he has all the control surfaces covered and sounds pretty close to being able to cover the rest of it. The material chosen was dacron, which he finds more difficult to work with than linen but which has a compensating longer life-span.

The plans were inexpensive--\$30--but the bad news is that they leave a good deal of detail to the imagination of the builder, a potentially serious shortcoming where the novice is concerned. Glenn pointed out, for example, that necessary gussets are often not shown.

Alterations to the original design include widening the fuselage 2" (yes it will still go through the door!), including push-pull rods in the control mechanisms, a trim tab on the elevator, and a centre-section containing the landing gear so that the outer wing panels can be removed without having to support the fuselage on saw horses and lug an awkward wing/landing gear ensemble around. As a result of this change, the dihedral no longer begins at the fuselage but at the outboard points of the centre section. Glenn would unhesitatingly make the same changes again.

Ribs are the truss-variety, made with sitka spruce. The fuselage is monocoque construction, the covering being plywood. What little welding the project required was done by Bill Nichol. No fancy materials or tools were required and the work was done in Glenn's basement. The only skill-testing or difficult operations encountered so far have been getting the exact amount of wash-out built into the wings and making smooth scarf joints. Incidentally, Glenn has generously offered to make his various jigs available to other Taylor Monoplane builders.

The glue used was aero-lite and the results were entirely satisfactory.

The powerplant will be a 2100 c.c. VW. At present, it has a cast iron crankshaft, so Glenn is looking for a reduction drive. The extra weight, he feels, will be worth the extra performance due to more efficient prop speed. He plans on using a wooden prop (probably from Chris Heintz) and test-flying the ship himself, probably in early 1983. Much of the material was purchased from Sport Aviation in Toronto.
SPAN: 21; LENGTH: 15; WING AREA: 76; SEATS: 1;
EMPTY: 410; GROSS: 620; FUEL: 7; CRUISE: 90 m.p.h.;
STALL: 38; RANGE: 230.

Roger Fowler.



CHAPTER NEWSLETTER REVIEW

EAA CHAPTER 65 Hamilton, Ontario Crosswinds January 1982

- Chapter 65's loss will be Chapter 185's gain. George Opacic, the most well known Hamilton Chapter member to those outside of the Hamilton area, is finally going back to work, in the Windsor area. Your reviewer, who knows George quite well, feels pleased for George and Darlene, but saddened at Hamilton's loss. The EAAC movement owes a lot to George, at the last AGM it was George's document on "organization and Responsibilities" that was the basis for the formation of the EAAC committees. Maybe George's input into the Windsor Chapter will produce more input into the EAAC from the Windsor area. We'll be looking for great things from south-western Ontario.
- Chapter 65/EAAC Technical Committee Maintenance Seminar will be held on May 8 and 9 of this year at the Mount Hope Airport (south of Hamilton). Saturday morning will be in the classroom while Saturday afternoon and all day Sunday will be in the hangar getting your hands dirty. More information will be published as it becomes available.
- The Hamilton newsletter was mailed on Sunday, January 23rd, according to Alan Constant's "From Yer Editor" column. (Sunday was the 24th this year.) This reviewer picked it up at the Ottawa main postal station on Wednesday, January 27th, that's pretty good. (It wasn't there on Tuesday, January 26, my normal pick up date.)

EAA CHAPTER 142 Victoria, B. C. January 1982

- We got our First newsletter from Victoria and it was nice to hear from another part of the west. The incoming President of Chapter 142 is Paul Lisson. Chapter 142 has six (6) designees and their areas are Electronics, Composites, Sheet Metal, Power Plants, Wood and Welding. No uncertainty in Victoria where to turn for assistance. Similar areas should be set up in all Chapters; the individuals don't have to be designees, just the custodians of certain types of information, a phone number to call to get some information.
- HOLE PULLER - That's the name of a simple little device to drill or redrill a hole where you want it. It is simple, that means it works, and it's simple, that means it's very useful. 142 says they stole it from 490, Courtney, B.C.

EAA DESIGNEE NEWSLETTER December 1981

Failure of Improperly Installed Nicopress Sleeves - Discontinue Use of Polyvinylchloride (PVC) Insulated Wire - Ultralight Propellers - Temporary Fixes Can be Fatal (EAA Chapter 305) - Rib Jig Cam Clamps - One Scale Aircraft Weighing - Mr. Corrosion - Substitute Materials for Drag/Anti-Drag Wires - Out of the Past: Performance at a Glance - Service Difficulty Reports: Cessna CA185F/Fuel Line; Piper PA28-180/Fuel Tank Sealer; Cessna C172N/Heater; Beech BE-77/Engine Mount; Cessna C172N/Control Stop; Cessna C182P/Fuel Line; Cessna C150/Carburetor Heat Control; Beech BE-76/Engine Mount.

EAA CHAPTER 570 - Abbotsford, B.C. Valley Flyer January 1982

- Congratulations to 570 on a really informative First Edition. Now that we in 245 are getting more newsletters from the west we are getting to know that the west is the same as the east, the same love of flying. From Roger Hauka's first editorial, I would like to steal a few quotes;
 - "All are somehow involved in either building or restoring aircraft." All? What a unique group!
 - "All are deeply committed to helping each other." As this reviewer mentioned earlier in this newsletter, this is the real spirit of EAA and EAAC.
 - "There is one other thing that they all share in common - none of them are rich." Amen! Tom Fitzgerald's survey of the average amateur-aircraft builder shows this fact is universal and not limited to the Fraser Valley.
- Thanks again Roger for #1; we'll be looking with great interest for #2.

"Aeroplanes like you've never seen before"

How many of us have seen and touched the weird and wonderful creations of Aeronautical Engineers and Pseudo Engineers. Flying contraptions like Hiller's one man flying platform or his twin rotored back pack helicopter. How about a Buck Rogers type back pack rocket powered one man lifter or the ungainly Gossamer Condor and many other fascinating creations as seen only in the pages of Popular Mechanics and Aviation magazines. I'll bet not many.

During this past November I visited the Smithsonian Institute in Washington D.C. and spent four and one half days meandering through the various buildings. Two days were allotted to the National Air and Space Museum and a half day at their storage and restoration facility.

To attempt to convey in writing what lays in store for the Aviation buff would be folly and beyond my capability. To sum it up, they certainly display an awesome collection of Aeroplanes and Rocketry which kept me scurrying about like a cockroach looking for its mate.

The whole point in bringing this up is to assess the feasibility and test the interest of our members in organizing a bus tour on/a 3 day holiday weekend. Admittedly three days would be compressing time considering Washington is nearly a 12 hour drive. With careful planning and precise timing, I think it can be done at very moderate cost.

The following is offered for your consideration.

Leave Ottawa Saturday at 8:00 a.m. and arrive in Washington at 8:00 p.m. (same time zone). Sleep at pre-arranged lodging, preferably some University Dormitory to keep costs down. This would effect the dates of such a tour.

Sunday morning our Bus will deposit us at 10:00 a.m. at the Air and Space Museum. The full day till 5:00 p.m. is spent within the "HUGE" building which has several marvelously efficient cafeterias. It is possible to view all the exhibits providing one moves along and resists spending one hour to see their spectacular air movie in the theatre which boasts a five storey high curved screen. Something like Ontario Place.

Monday morning our bus will take us to the Paul E. Garber facility where aircraft are stored and restored. This facility is semi public as tours must be arranged for in advance. This tour takes about three hours. We would depart for Ottawa say at 1:00 p.m. and arrive about 1:00 a.m.

This might result in a lot of sleepy eyed people on Tuesday, however I feel the rewards far outweigh the punishment.

Sincerely, Irving E. Slone.

The following lists the aircraft on display:

Aircraft at the Paul E. Garber Facility

Exhibit

Aeronca C-2
 Aichi B7A1 *Grace*
 Arado Ar. 196A
 Arado Ar. 234B
 Baldwin *Red Devil*
 Bell Model 30
 Bell P-63
 Bell UH-1B
 Bell VTOL ATV
 Bellanca CF
 Blohm-Voss BV.155B
 Boeing B-17D *Swoose*
 Boeing B-29 *Enola Gay*
 Boeing KC-97L (nose section)
 Boeing-Stearman N2S-5
 Bowlus *Baby Albatross*
 Bowlus-duPont *Falcon*
 Caudron G.4
 Cessna O-1A
 Convair 240 *Caroline*
 Convair XFY-1
 Crosley-Mignet *Flying Flea*
 Crowley Hydro Air Vehicle
 Culver TD2C-1
 Curtiss JN-4D
 Curtiss Robin *Ole Miss*
 Curtiss XP-55
 Curtiss-Wright CW-1
 Custer CCW-1
 de Havilland DH-4
 Douglas B-26B
 Douglas XB-43
 Erco Ercoupe
 Felixstowe F.5L
 Fieseler Fi. 156
 Focke-Wulf FW. 190F-8
 Franklin PS-2 *Eaglet*
 Grumman F8F-2 *Conquest I*
 Grumman TBF-1
 Grunau Sailplane
 Hawker Hurricane Mk.IIC
 Heinkel He. 162
 Heinkel He. 219A
 Herrick HV-2A
 Hiller Flying Platform
 Hiller HOE-1
 Junkers Ju. 388
 Kaman KA-225
 Kugisho Ohka 22
 Kyushu J7W1 *Shinden*
 Langley Aerodrome A
 Lockheed P-38J
 Lockheed XC-35
 McDonnell F-4A *Sageburner*
 McDonnell FHJD-1
 McDonnell XHV-1
 Martin (J.V.) K. III Kitten
 Messerschmitt Me. 163
 Mitsubishi G4M *Betty* (nose section)
 Nakajima J1N1-S *Irving II*
 Nakajima Kikka
 Nelson BB-1
 Nieuport 83E
 North American F-86A

North American F-100D
 North American RO-47A
 North American SNJ-4
 Northrop N1M Flying Wing
 Northrop 2B Gamma *Polar Star*
 Northrop P-61C
 Piper PA-12 *City of Washington*
 Piper PA-18
 Pitcairn AC-35
 Princeton Air Shooter
 Reginald Denny TDD-2
 Republic P-47D
 Schweizer 2-22
 Sikorsky JRS-1
 Sikorsky XR-5
 Sisu 1-A
 SPAD XIII
 Standard J-1
 Stearman-Hammond Model Y
 Stinson SR-10F
 Stout Skycar
 Vertol VZ-2
 Verville Sportsman
 Vought XF8U
 Waco UIC
 Yakovlev Yak-18

open house

In Storage

Avro Canada VZ-9V
 Bachem BP 20
 Benoist-Korn
 Bücker Bu. 181 Bestmann
 Burgess-Curtiss
 Curtiss X-100 VTOL
 de Havilland DH.98 Mosquito II Mk. 35
 Douglas A-1E
 Douglas XB-42A
 Ecker Flying Boat
 Fairchild 71
 Fairchild PT-19A
 Focke-Wulf Ta. 152H
 Fowler Gage Tractor
 Herring-Curtiss 1910
 Hiller YROE
 Horton Brothers Ho.3
 Horton Brothers Ho.229
 Horton Brothers Primary Glider
 Kawanishi N1K1 *Rex*
 Kawasaki Ki.45 *Nick II*
 Kellett KR-8
 Kugisho MXY7-K2 Ohka
 Kugisho P1Y2 *Francis*
 Lippisch DM.1
 Martin Glider
 Maupin Lanteri Black Diamond
 Messerschmitt Me.410
 Montgomery 1904 Glider
 Nakajima Ki-115 Tsurugi
 Nakajima C6N1-S *Myrt II*
 North American AT-6 (SNJ-4) *Texan*
 Pitcairn-Cierva C-8
 Pitcairn-Cierva PCA
 Platt-LePage XR-1
 Shoemaker Biplane
 Vertol XHRP-1
 Voisin Model 8 Bomber
 Vought V-173
 Vultee BT-13
 Waco 1922 Glider
 Waterman Whatsit
 Weissman-Cooke