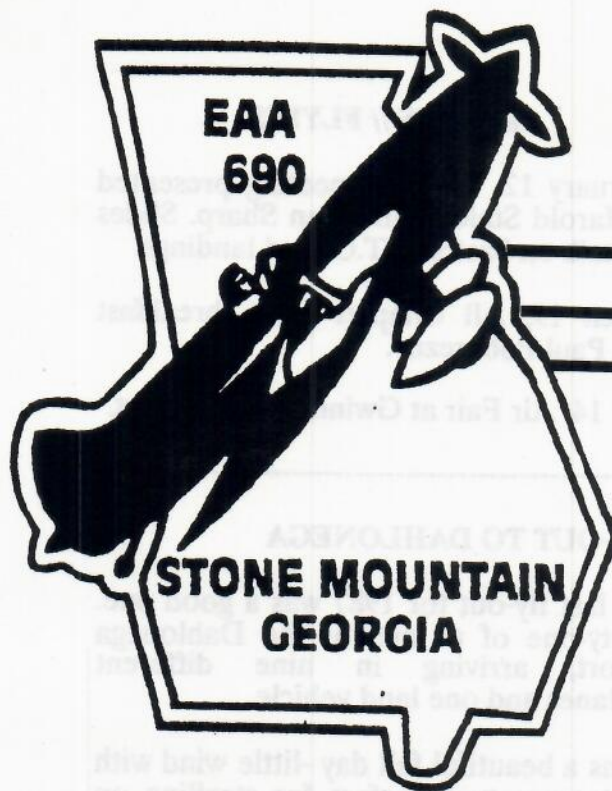


FEBRUARY 1988

EAA CHAPTER-690 NAV-COM



MEETINGS 2ND FRIDAY EACH MONTH AT STONE MOUNTAIN AIRPORT - 8:00PM

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TO:

PRESIDENTS MESSAGE

Due to the conditions created by "Snowjam 88" it seemed prudent to cancel our January meeting. We set up a "phone group" and tried to contact all members to advise of this. Our apology if we missed someone.

In spite of the weather we are "off and running".

Our membership committee is developing an application form for persons interested in joining. They are also thinking about a "packet of information" to give new members.

The historical committee needs your pictures of past events to include in the pictorial history they are beginning.

Joel Levine (Special events leader for Paul's visit) has been busy as you can see in this newsletter.

Don't forget 1988 "dues are due", send them to Donna or bring them to the February meeting.

Harold Stalcup
President

FOR SALE

SONERAI II PROJECT Professionally welded/rust prufed, fuselage on gear, wing spars ready for mod. Complete kit except for fabric, engine and paint - some extras. \$3,700 Firm. Contact Mac Forbes @ 257-1511 or 993-3411.

RV-4, 116 TTA, 116 SMOH on O-320 E2D (150 hp.), fresh annual, terra TXN-960 (720 Channel) with built in OBS, vertical card compass, vacuum pump, T&B, EGT, CHT, VSI, Great American prop, asking \$19,000. Contact Frank Wilcox 469-9323.

EVENTS // FLYINS

February 12, Chapter meeting presented by Harold Stalcup and Ken Sharp. Slides and talk on basics of T.O. and landings.

March 19, All Chapter EAA breakfast with Paul Poberezny.

May 14, Air Fair at Gwinnett Co. airport.

FLY-OUT TO DAHLONEGA

The last fly-out for 1987 was a good one. Thirty-one of us met at the Dahlonega airport, arriving in nine different airplanes and one land vehicle.

It was a beautiful fall day - little wind with the temperature perfect for strolling on the square after lunch.

We were ferried to the Smith House in two trips by "Paula", a very congenial guide. It was tough for those on the second load since they had to wait before enjoying lunch.

The food at the Smith House was never better. In fact, they served the best collards Mary Booth had ever eaten! To top off a great meal, fresh strawberry shortcake was the dessert.

The square, where we headed after lunch, was dressed up in Christmas finery - just waiting for us and our money.

After lots of looking, and even a little buying, we regrouped and headed back to the airport. Once there, it seemed a little hard to leave, so we chatted and took our time saying "goodby".

For those of you who haven't been on a fly-out, try one. I'll bet you will not only enjoy yourself, but you'll come away knowing some of your fellow EAA'ers even better.

Donna Forbes
Treasurer

Paul Poberezny will soon be visiting the Atlanta area to be the keynote speaker at the Soaring Society of America's annual convention.

On behalf of all EAAers, we have invited Paul to meet with us. We are planning a buffet style breakfast with Paul as the feature speaker. A question and answer session will follow. The complete cost is \$10.00 with all profits to be donated to the EAA Youth Aviation Foundation.

You are invited to meet with Paul on SATURDAY MORNING, MARCH 19, 1988. The location is the ATLANTA NORTHLAKE HILTON HOTEL, 4156 La Vista Road (on the northeast side of town just off I-285) from 9:30-12:00 noon. The hotel is accessible from PDK Airport for those flying in. A Shuttle Bus will be available through the hotel by advance arrangement. For those desiring to spend the night, the hotel will extend a rate of \$55.00 for a double room for Friday and/or Saturday.

RESERVATIONS ARE A MUST FOR THIS EVENT! We encourage you to get your reservations in early, as seating is limited to 300 people. To guarantee your reservation, you must send your check made out to EAA Chapter 690 before March 1st.

We want this event to be for all the EAA Chapters and EAAers in the area. Mr. Dave Shaw, Chapter 268 (404-974-0611) and Mr. Joel Levine, Chapter 690 (404-394-5466) are the co-Chairmen and may be contacted for further information.

Afterwards, the SSA has invited those interested to visit the SSA Convention (Radisson Inn Downtown), which will be open to the public from 10:00 am to 5:00 pm. The cost will be around \$5.00 at the door. Those interested should contact Mr. Bob Grey, in Athens, Ga., at 404-543-2007.

Let's make this a dual event, the EAA Breakfast and the SSA Convention, and show Paul that EAA is strong in the South!

RESERVATION FORM

NAME: _____
ADDRESS: _____
CITY: _____
STATE, ZIP: _____
PHONE NO.: _____

RETURN TO:
EAA CHAPTER 690
% MS. DONNA FORBES
4002 MANSION DR.
MARIETTA, GA.

30062

PLEASE RESERVE _____ SEATS FOR ME AT \$10.00 PER PERSON. MY
CHECK MADE PAYABLE TO EAA CHAPTER 690 FOR \$ _____ IS
ENCLOSED.

RESERVATIONS MUST BE RECIEVED NO LATER THAN MARCH 1, 1988

DOES YOUR AIRCRAFT HAVE "BO"?

When oil is discharged out of the engine crankcase breather tube, it usually ends up on the belly of the aircraft. This is jokingly called "B.O." meaning Belly Oil. Not only does this increase oil consumption (\$\$) but also the work of keeping the aircraft clean (my aching back). This oil discharge is often thought to be the result of crankcase pressurization from piston/cylinder "blow by", and can be the reason in many cases. This cause may not be corrected without an engine overhaul of some type (top/major). There is, however, one other less serious cause of aircraft "BO" that is often overlooked - Too Much Oil. The oil capacity of engines installed on aircraft is dictated by an FAA regulation that equates the amount of oil capacity available to the range, in hours, of the aircraft (seems like fuel capacity has this same relationship). As range has increased over the years, the size of oil sumps has increased. Few "normal" engines use anywhere near the amount of oil that this regulation is predicted upon. When the oil sump is filled near maximum capacity, in most cases, the last few quarts are in the upper portion of the sump where engine and aircraft motion make discharge out through the breather much easier. The engine will literally throw out the first quart or two in less than thirty minutes of operation. Through testing, i.e., gradually reducing the sump oil level until oil consumption stabilizes, the oil level at which an individual engine "likes" to operate, can be determined. Most engines will operate at one-half (1/2) the oil sump capacity with no oil related problems. Avoid long flights and monitor oil pressure and temperature during these tests (Keep them in the green).

Oil sump dip sticks can be another source of too much oil in the sump. It has been reported that "factory installed" dip sticks were not calibrated for the particular engine, or, they got lost and an incorrect replacement was installed. The angle of the aircraft, oil being retained in the

upper portions of the engine, and/or a vacuum occurring in the dipstick tube, can result in an incorrect "reading" of engine oil level. The dipstick is only a simple gauge showing the current oil level in the sump-not necessarily the total oil available to the engine. Again, too much oil and "BO".

The location of the breather tube can also create "BO". Factory designs were OK(??) on the prototype test aircraft, but airflow around/inside the cowling of production and subsequently modified/repaired aircraft may cause a suction on the breather tube causing oil discharge. Homebuilders, take note of this in locating crankcase breather lines.

Nearly complete elimination of aircraft "BO" from any cause is the installation of an enlarged air/oil separator. The oil is returned to the crankcase and the purged vapor is then discharged overboard. Costs range in the low hundreds per engine. You can buy a lot of oil for that-but your aching back?? Remember that the causes of aircraft "BO" are not the kind that will lead to any sort of catastrophic engine failure, but monitor your engine gauges anyway.

Frank Wilcox
Technical Counselor

FOR SALE

VARI-VIGGEN, Wood and fabric 2 place, takes up to 180 hp. 25% finished, have all wood and hardware to finish, asking \$3,00, have \$7,000 invested. Contact Don Alspaugh 981-1291.

If you have anything that you would like to see in the newsletter, please send it to the Editor (see cover for address).

NEWS & GOSSIP FOR LATE FEB. & EARLY MARCH

* The April LPM will have a major story about Lycoming valves. It seems the old problem of head erosion (80-octane valves exposed to 100LL fuel) and outright failure of exhaust valves is as bad as ever -- and may be design-related. And/or QC related. There is some question about whether all Lycoming sodium-filled valves actually contain sodium. (We received one from an overhauler in Florida who took time to have one cut open and analyzed -- and it contained no sodium. The valve had broken after 100 hours in service.) Superior Air Parts' Charles Dedmon cooperated with us on the story, for which we're grateful. It turns out Superior no longer has its Lycoming P/N 74541 valves made for them by Eaton's Iowa plant (where Lycoming valves are still made); instead, Superior has gone to W. Germany to have its latest Lycoming valves made, and the latest valves incorporate **SIGNIFICANT IMPROVEMENTS** -- including improvements in the way sodium is put into the valves. See the April issue for details.

* Lycoming has superseded its old P/N 74541 valve, of course, with LW19001, which is dimensionally the same as before but fabricated of better material (Nimonic alloy instead of XB steel). Price is \$299.50 (list retail). Superior's version is only \$150 (net to dealer). And the Superior valve, it appears to us, is indeed superior. Chuck Dedmon tells us that since the valve went into production two years ago, "Not one has come back to us with a pie-shaped piece broke out of the head." Which is more than they could say about the old 74541 valve.

* The April valve story affects mainly owners of parallel-valve, low-compression Lycomings with half-inch valves. (It does not affect O-235 or O-290 models, nor the angle-valve types such as the 200-hp IO-360 and most TIO-540s.) An improved valve will soon be available for angle-valve, high-compression Lycomings, however -- from Superior. Superior's Charles Dedmon admits that his firm is nearing approval of a replacement valve for the P/N 16740 valve used in the angle-valve models. The improved valve will be dimensionally different from Lycoming's, will be made in W. Germany, and will be sodium-filled by the new, patented zirconium-gas-evacuation processes described in our April article.

* Also in the April LPM: A fine photo story, finally, about how to fix SCAT tubes -- you know, those 3-inch mothers that carry cabin heat to your cabin (and that fray mercilessly from repeated takings-off and putting-back-on at annual inspections). Also, the Malibu's odd mixture-leaning schedule is **FINALLY EXPLAINED** (in part by a graph created especially for LPM on the Adobe Illustrator program), thereby answering that age-old question: When and why is it OK (or not OK) to lean beyond peak?

* More gossip: Jeff Parnau (editor of sister newsletter IFR) has lost the partners in his 310 and is therefore looking to sell

the plane, rather than pay all the bills himself. So if you're thinking of moving up to a 310, consider Jeff's aircraft. It's a 1972 non-turbo 310Q (short nose, but long cabin with rear window), FULLY BOOTED, with 3-bladed props, 163 gallons of fuel, two transponders, Loran coupled to HSI, and many other goodies. The good news is that the IFR 310 is a very clean plane (8 on the outside; 5 to 6 on the inside) and running strong. The bad news is that it's got runout engines: The IO-470 Continentals are presently at 1,700 hours. But that's not as bad as it sounds. I personally flew the plane and found the engines to be well-matched (still) and producing fantastic power; and on a recent roundtrip flight from Milwaukee to Bridgeport, Connecticut neither engine used even a quart of oil. I told Jeff to run the engines to 2,000 hours. They seem like excellent powerplants to me. In a way, it'd be a shame to tear them down at this point.

* In any case, Jeff is looking for \$30,000 -- give or take a little -- for what would otherwise be (in an up market, and with lower engine times) a \$47,000 airplane . . . and he'll throw in a fresh annual. Call Jeff at 414/784-7252 or -- better yet-- log onto his (IFR's) bulletin board by modem-dialing 414/784-6458 any time of night or day. Tell him LIX sent you.

--KT