DECEMBER 1990

EAA CHAPTER-690 NAV-COM

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

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President's Message

1990 is fast becoming history. Each of us can look back on this first year of the last decade of the 20th century and remember personal successes and disappointments, the many national and international events that have occurred and changes that have directly or indirectly affected sport aviation. Jerry Walbrun, V.P. Government Policy and EAA Programs, lists on page 11 of the November Sport Aviation, 22 "bullets" that we in sport aviation are currently dodging. A few of these are beneficial to us, but most impose restrictive requirements that are sometimes very costly. As concerned EAA members, we should all read carefully the first 10-12 pages of each issue of Sport Aviation so that we can keep abreast of our fast-changing sport aviation world and take action where it is needed.

Chapter 690 is concluding another very active year. Our program committee has worked diligently to provide interesting meeting programs, fund-raisers, flying events, seminars/workshops, project visits, youth programs, and social events (whew! - Ed.). Not many chapters can boast of meeting programs that include aviation lawyers, aeronautical engineers, airline pilots, NTSB and FAA representatives, helicopter police, and three of its own members. Each of these speakers was outstanding and brought to us personal experiences, technical information, and the "inside story" that is always beneficial. Our annual airfair, which required a maximum effort from all members, will long be remembered by the many local residents, who now have a better understanding of aviation in our community. We will not soon forget the several pancake breakfasts, the chili cook-off, Bar-B-Que, and our upcoming Christmas Party, where a few members have labored long and hard to provide the food, entertainment, and good time for the rest of us.

Our workshop program was anchored this year by the two-day fabric covering process presented by the Blue River people in the Spring and the DUAT program presented by John Popps in the Fall. These workshops, together with three project visits, provided builders, potential builders, and flyers in our chapter with valuable information. Several fly-aways, including the recent annual Dahlonega/Smith House Fall trip, though not well-attended, were fun for those who could participate. Our sole disappointment, and all active organizations do have them from time to time, was our Youth Air Adventure Day. This activity was cancelled because of too few registrants. Hopefully, 1991 will include this as a successful activity.

As 1990 draws to a close, I want to thank each and every member for their active participation in our programs and activities. Whether you were an officer, committee member, or simply attended the monthly meetings or other chapter events, your presence and support made our chapter one for which we can be proud. It is recognized by aviation folks in our community and by our national headquarters in Oshkosh. Congratulations and Thanks!

Report from Above

When Flyboy Joe finally got settled down after passing through the Pearly Gates, he went up to Saint Peter all excited:

"This is great! I get to fly everyday; weather is always clear; there are all kinds of planes to fly. In fact, this afternoon I checked out in a Wright Flyer; yesterday it was an F-117A. I hope to try the Concorde and B-29 soon. This is really neat!" said Joe.

Saint Peter turned to him and casually said, "If you hadn't followed all those FAA regulations, made sure your transponder was working, got your weather from DUAT, filed your flight plans, eaten your fiber cereal, and exercised so faithfully, you would have gotten here sooner!"

The Story of Sonerai IIL, N46RB

Chapter 5: But Wait! You Don't Know How To Fly!

"How can you build an airplane when you don't even know how to fly one?" Everyone is incredulous. Maybe they're right...baby birds are produced by parents that certainly know how to fly. But then I think, "We build airplanes at Lockheed, and I would be surprised if two percent of the people there are pilots. You don't have to be able to fly an airplane to build one. But you do need to know how to fly one if you are going to fly it...and I do intend to do that, when it's

finished."

"Control it...Bob...Control it, Bob...CONTROL IT, I GOT IT!" And we swerve back towards the center of the runway. Another botched landing. As far as Nathan Kimble, my instructor, is concerned, I am going to sleep and letting the little C-150 head for the runway lights. I have nearly nineteen hours dual now. I should be ready to solo, but I am not...and I know it. "Control it Bob." Dang! I thought I was controlling it, but nevertheless, here comes the edge of the runway until Nathan takes over. I can see something is wrong, too.

Then it dawns on me, I wasn't going to sleep and drifting to one side...I was "wrong-footing" it. Turns were no problem in the air, but here on landing roll-out, I am treating the airplane like a sled...push with the right foot to turn left.

When I told Nathan the good news, that I had figured out my problem, he gives me this tired look and says, "Yeah?...Right!" But I am right. Steering an airplane on the ground is not an inborn instinct. Maybe most people get it right the first time. But me? I had to learn: "Pull the nose with your toes." Next time out proves me right. And after twenty hours of dual, Nathan gets out and says, "Make three full-stop landings, then pick me up again." Solo! Wow! No problems except for some idiot who insists on landing at the same airport I am using. What if I lose sight of the runway? I'll never find it again!

I had just launched into cross-country navigation when Nathan got a call from Evergreen, out in Oregon, so he was off to be a B727 flight engineer...guess my lesson fees just weren't quite big enough to hold him here.

An old friend from Lockheed, Dave Byrne, picked up where Nathan left off. He had me plan a flight for us down to Macon, GA, skirting the Atlanta TCA on the east side. Things went well for the trip south and as we started back north, we crossed our first checkpoint, some tall towers, on time and on the nose. The next checkpoint was Jackson Lake, and I scanned the horizon for the landmark. Ah! There it is; just to the left of course. I steered directly for it without looking at my heading. After all, that heading is affected by wind and stuff like that. If you can see the checkpoint, head for it! But as we got closer, I could see that this pond was not Jackson Lake. Besides, it had a big interstate highway running north-south next to it. When I looked at the map, I saw what I had done. I had strayed some 35 degrees off to the west. What to do now? I proposed to set a new course due north to get us back on track. So now, I watched the D.G. religiously...but what I see under me doesn't look like what I see on the map. I started to tune the Nav radios to the local VORs, but Dave said, "Oops! Your radio just went out," as he clapped his big hand over the CDI. Well! I knew exactly where that put me. I was lost! Dave looked down and said, "What airport do you guess that is?" Another look at the uncooperative map... "Berry Hill?" I guess...but I thought I had come straight north from the little pond at Chappel. Here I am 15 degrees west of that. Ah! ever hear of gyro precessing? Ever think of checking it against the magnetic compass? A very educational flight!

Here it is, the 15th of June, 1984...just two days short of one year since my first lesson, and I have just finished my private pilot's license check ride with big John Green. I can't claim it was a perfect check ride, or even a pretty one. In retrospect, I suspect the last thing John wanted to do was fail me this time and be forced to do it all over again later.

So I got my license. Rita is here at PDK to help me celebrate the glorious occasion. She has consented to be my first passenger as I return the rented C-152 to McCollum Airport 20 miles west-northwest of PDK.

Now Rita is not an aviation person, so it really is a brave thing she is doing. After all, it is not easy to sit twenty minutes straight without swallowing, blinking, or breathing. But she is doing it...for me.

Now I have additional drains on my resources and demand on my spare time...flying. This is not likely to accelerate my work on the Sonerai IIL.

Chapter 6: Covering, Painting and Winding It Up !

If a mouse keeps nibbling, the elephant will

eventually disappear.

With the wings finished, the canopy and cowling fitted, and the fuselage and tail framework primed, I ordered Stits Process materials from Alexander Aeroplane. Using yet another great tip from Sport Aviation, I apply two coats of thinned poly-tak to the edges of the part to be covered. It dries in no time. Then I cut a piece of the light-weight Stits fabric to wrap around the part and clip it in place with clothespins. While it lies there relaxed, I brush some thinner through the material where it is to be attached, and rub with the fingertips 'till the poly-tak seeps through and locks it in place. Viola ! No waving a goopy brush full of glue, dripping all over, while trying to position the fabric with the other hand.

Now comes a very important step. Go to your local appliance store and buy your wife a brand new super duper steam iron. Give it to her as a surprise present. She will be so shocked that she won't care, or even notice, when you take the old iron to your workshop... what for ? ... you'll see.

The instructions manual that comes with the Stits Process materials will tell you more than you ever wanted to know about covering your airplane. It will tell you how to calibrate the old iron and how to use it to tighten the fabric.

It is absolutely amazing how beautifully this stuff works. I would look with dismay at the baggy covering job ... then pass the hot iron over it and, PRESTO ! It's beautiful ! Two coats of the poly-brush are brushed on to fill the weave of the fabric. Then I started applying the silver. I guess I put on (and sanded off) about six coats of poly-spray. I didn't want to get too much on it or it might crack later.

Once the silver had aged, I packed it all up and hauled it over to Bob McGrath's hanger at Mathis Airport. Bob generously provided the facility, Clyde Schnars wielded the spray gun, and I tried to stay out of the way, I did do the masking and taping. First it was painted all gray... then masked, and trimmed in Eagle Red. Then I towed it back home and put it on the patio for its completion.

The ship was out of the bottle for the last time. Hooray ! I would not be one of the those guys with an airplane stuck in his basement after all.

In the early 80's, Jere Rosser built a neat little yellow KR-2 he called "Tweety-Bird". He powered it with a 1700 cc Volkswagen engine that he built up from new parts. After putting 115 hours on it (including at least two trips to Lakeland) Jere decided he wanted a bigger engine for Tweety-Bird. He could have rebuilt his current mill, but elected instead to "jack up the radiator cap and put a new one under it."

So it was that the perfectly sound 1700 cc engine became available. I brought it home and bolted on a Monnett accessory case (because that's what would fit the motor mounts I had built into the fuselage framework). Then I added an electronic ignition module and Posa Super Carb from HAPI.

Of course there was more to it than that. There were still stacks. the intake manifold, block-off castings for the fuel pump and oil cooler holes, oil temperature and pressure sensors, and cylinder head and exhaust gas temperature sensors to install and wire up. And these were all the instruments to wire and plumb ... tubes from the static ports and from the pitot tube.

But the day finally came (December 13, 1987) when I tied the tail wheel to a big pine tree, put some gas in the tank, and gave it a try. Wonder-of-wonders ! It started ! I still had a lot of adjusting to do ... the timing, the carburetor ... but it did run.

I visited each of our nearby neighbors to explain what all the racket was about and asked their indulgence for a few weeks 'till it was ready to be moved to the airport. They were, each and every one, graciously interested in the project ... and encouraging too. In the words of one lady: "Alright ! Go for it!"

I took them up on their encouragement and cranked it up for a few minutes every time I passed it.

On January 23, 1988, with the help of several dedicated friends, I loaded the wing panels on to Clyde Schnars' trailer (hooked to Mac Forbes' Caddy) and attached the fuselage to my car and we caravanned out to Winder-

Barrow Airport. We put it together and I cranked it up for a slow taxiing tour of the airport.

Now it's time to make an appointment with the FAA to have them come out and give it final inspection...and then?...don't ask!

Bob Barton

Next Month: Taxi Tests, First Flight, and Epilogue!

New Features

As we cruise into the 90's, there are many issues facing YOU as a sport aviator. Some of these concerns are complex and should be addressed in healthy debate for their proper democratic resolution. The current environment, both at the grassroots level and in our hallowed (hollow?) halls of government, does not foster such discussion.

To aid in the democratic process, I would like to inaugurate two new columns in our NAVCOM. One, "Plane Facts", will be devoted to factual news items sent in by Chapter 690 members. These can be from any source: newspapers; aviation journals, including and especially membership journals or newsletters from other organizations (e.g., AOPA, USUA, etc.); or even events you've seen with your own eyes. They don't have to be of national importance; just information that you know of that may not be available to your fellow members otherwise.

The second new column is "Plane Sense". This will include opinionated editorials and letters to the editor. Any topic, from proposed new medical certification to potholes in the local runways, is fair game. Nothing is so big that we can't deflate it; nothing is so small that we can't inflate it. Submitted pieces can take up entire pages of the NAVCOM (see below) or be one-liners like, "The runway at Mathis is too darn short, but I like taxiing over the old tombstones!"

I realize that what is reported and discussed in a chapter newsletter won't send the world reeling, but this small forum may provide the kernel of wisdom or truth that inspires us to think about where sport aviation is heading versus the course that we want to plot for it.

Who knows? - maybe some of us will be prompted to write our government representatives. Wow! Democracy in action. Besides, it's fun to hear how the other half lives and thinks.

Participation costs one 25 cent stamp or phone call. My address is on the cover, and I have an answering machine. Don't worry about presentability (a concern that one member has already expressed); I take full responsibility for grammar and spelling - if it's poor, it must be mine!

Of course, as done in the past, any other articles you care to send (e.g., flying or building experiences, travelogues, recipes, etc.) will be published.

Thanks for your time,
Jeff B., Co-Editor NAVCOM.

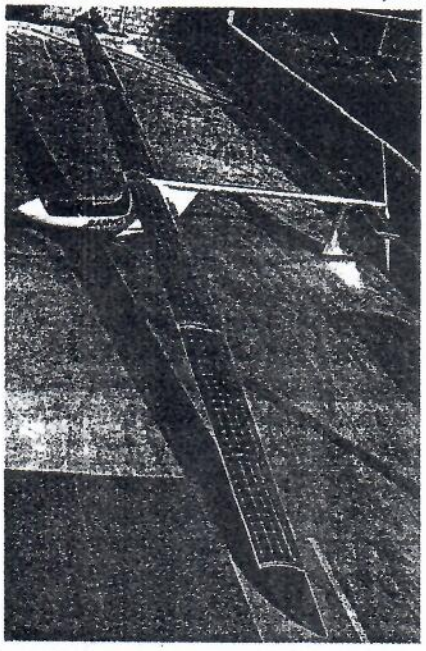
Plane Facts

Good news for those of you who own products made by the now-defunct GENAV Corp. Genav/NRC is a new company that will service your needy GENAV components. They also sell support manuals. Genav/NRC, 24234 Chesley Trail, Hampton, MN 55031, (612) 460-6616.

A reminder: Do not fly into or out of Lenore field (Frank's place) before noon on Sundays! There's a plethora of reasons, including keeping things quiet for the church off the end of the runway during services.

Environmentally sound airplane? Recently, Eric Raymond of Lake Elsinore, CA competed a 50 day cross-country flight from San Diego to Spot, NC (near Kitty Hawk) in a plane powered entirely by solar cells. The plane weighed 198 lbs and had a 57.4 ft long wing covered with flexible, amorphous silicon cells provided by Sanyo of Japan (see photo). The basic cruising technique was an early morning climb at 40 mph to ~14,000 ft followed by day-long thermal seeking. Only one accident - caught a wing tip on some brush due to a microburst on take-off in AZ. Although this is a neat story, I wonder if Sovonics Solar Systems of Troy, MI took notice. They are the only U.S. firm with this flexible cell technology. In fact, they hold the patents, but as they decided to sell exclusively to the

aerospace/military market, neither they nor their parent corporation have turned a profit in 30 years! Sanyo is on the verge of putting this stuff on beach umbrellas, tents, sails, etc. (Sources - Scientific American, Sport Aviation, Hot Kits and Homebuilts).



SOLAR AIRPLANE is powered by sheets of flexible, lightweight solar cells.
SCIENTIFIC AMERICAN *August 1990*

Christmas Party

The annual Chapter 690 Christmas Bash is scheduled for Dec. 14 at the Decatur Elks Lodge (see map on last page of NAVCOM). Bring your cameras and dancing shoes! The scheduled speaker is Lt. Col. Blake "Crash" Thomas. Frank Flessel says he will be interesting... Maybe we can get Mike "Crash" North and Bob "Crash" Barton to compare notes with him. Also, the outstanding service or achievement award for 1990 will be presented.

November's Meeting

Mike North gave us all a lot to chew on with his description of his unexpected meeting with the Earth. It takes fortitude to stand before your peers and calmly discuss your decisions, both bad and good, surrounding such a mishap. It was educational, and we thank you, Mike.

January's Meeting

Just in case I don't get the January NAVCOM out in time (I will be gone for the holidays), we are meeting Jan. 11. The speaker, Ben Jeffrey, a new member, will discuss wiring and termination of wiring.

Calendar of Events

Dec. 14 - Christmas party

Dec. 15 - Hangover

Jan. 11 - Chapter Meeting

Apr. 7-13 - Sun'n'Fun, Lakeland FL.

Plane Sense

Recently, the FAA has announced changes in Part 103 ultralight regulations. FAA's Bill O'Brien requested comments on these proposals. The following is taken from my letter of response to him concerning ultralight activity.

Dear Mr. O'Brien,

Two arguments concerning ultralight regulation have always existed. The first argument holds that ultralight flying is a sport involving personal risks, and is often compared to snowmobiling or scuba diving. The sport has minimal impact on the safety and activities of others, while the inherent risks are evident to the participant. As such, minimal regulation is necessary.

The second argument is that the medium in which the activity occurs is shared by a highly-regulated population. The situation is often compared to mixing bicycles with automobiles on an expressway. This view maintains that relatively unregulated users endanger non-participants, and hence these users must also be regulated for the safety of all.

On first analysis, the second argument seems more defensible. All things being equal, surely it is better to err on the side of safety than otherwise. Unfortunately, as witnessed by the decay of general or sport aviation in America, all things are not equal. One must

consider what happens when the FAA and DOT "err on the side of safety". Although there are many outstanding individuals and policies associated with the FAA and DOT, federal regulation of sport flying has become a self-proliferating tangle of arbitrary restrictions without benefit to the average user, and with little impact on safety. As such, few new regulations should be allowed.

Given this, all concerned must help decide which aspects of the sport truly require intervention, and what are the least obtrusive means to effect such intervention. The primary consideration for the creation of a sporting regulation is safety for non-participants. Consideration of participant safety is the domain of the participant. However, both needs can be met by the same factor, one that most users and the federal government agree on: EDUCATION. It is interesting to note that the 1985 NTSB safety study "Ultralight Vehicle Accidents" (NTSB/SS-85-01) "found that education was the most important asset for ultralight flight safety" (quoted from letter of J.L. Kolstad, Chairman of NTSB committee, to J.B. Busey, head of FAA). Out of all the factors researched by the NTSB study, education seems to be the ONLY area in which the resources of a large, central organization (like the federal government) could possibly increase safety.

Before federal regulations are created, several questions should be raised. How active has the FAA been in ultralight safety seminars? What non-mandatory FAA safety programs exist for ultralight needs? Does FAA disseminate any ultralight safety information? Before enacting mandatory restrictions, might not the FAA try something more creative? The FAA safety program for private pilots was very successful. The FAA encourages this type of information dissemination through the EAA and USUA. These organizations, the users, and the FAA all agree that this has been a successful tack.

I posit that all that is required to substantially increase safety in ultralight activities is an expansion of this type of education, with emphasis on preventive maintenance, emergency procedures, and proper airspace separation. If safety is advertised enough, such that all participants want to be associated with national organizations that provide safety education, safety will increase. It worked in scuba diving with PADI and NAUI. It will work for ultralight flying.

Unfortunately, there are other facets of ultralighting that can be more-easily regulated, and I fear that they will be, much to the detriment of the sport. Before taking action, please remember that the needs and actual activities of the two types of airspace users, ultralight flyers and non-ultralighters, are sufficiently different as to provide inherent separation, both in the air and in the offices of administrators and policy-makers...

Thank you for your time and consideration in this matter. I appreciate that you are working in a tough situation. Good luck.

Sincerely,

Jeffrey H. Boatright

Fly Buys

Focke-Wolfe FW 190. 1/2 Scale. Foam and glass, single seat homebuilt. 75% complete, all cowlings, canopy, and C-95 engine. Wood frame on gear. No logs. War replica plans. $2000 OBO. Contact: Paul Atkins 973-7928 or 977-4663.

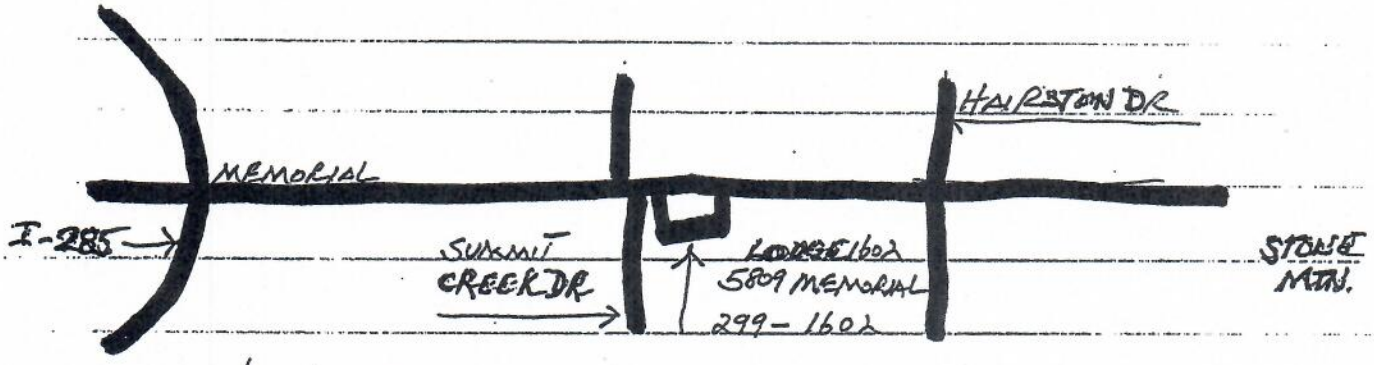
Vari-Viggen project for sale. 30-35% complete. Almost all parts needed to finish except engine, canopy, and outboard wing. Over 6000 invested. Make offer. Don Alspaugh, 981-1281.

RV-3 kit (less engine) wings 50% complete, $3000 Jonesboro, GA. Contact: 478-3321.

Long Eze project. Fuselage on gear, speed brake, center spar, and Roncze canard complete. Materials and hardware to finish, including canopy. Contact: Jim Sower, 564-0412.

Tri-Q project for sale. All major structures completed. Carbon spar/LS airfoil canard, all parts/plans to complete project including instruments, prop, Revmaster 2100-D engine. Frank Wilcox, 978-2403.

Send the below coupon to make a reservation for you and your guests at the EAA Christmas Party to be held DECEMBER 14th and plan to come to the Decatur Elks Lodge on Memorial Drive for and evening of celebration !



SCHEDULE
7:00 - 8:00 PM ARRIVE + SOCIALIZE
8:00 - 8:30 SPEAKER
8:30 - 9:00 SOUP & SALAD BAR
9:00 — ENTREE
10:00 — DANCING AT LODGE

RESERVATION

EAA CHAPTER 690 CHRISTMAS PARTY, DECEMBER 14TH

TO: Mike North
5252 Audubon Place
Norcross, Georgia 30093

Please make reservations for _____ persons for the Christmas Party. I have enclosed payment of _____ ($13.50 / person). I would like following entree(s) : _____ Prime Rib _____ Red Snapper.

Name .....

Guests .....