

NEWS AND

INFORMATION FOR

THE GWINNETT

COUNTY CHAPTER

OF THE

EXPERIMENTAL

AIRCRAFT

ASSOCIATION

CHAPTER 690 NAVCOM

June 1994

.....

Another Successful Young Eagle Rally!

Yet again, Chapter 690 has hosted a Young Eagle Flight Rally that accomplished the goals of exciting young citizens about sport aviation and providing fun to chapter members. Saturday, May 28, several 690ers and scores of Young Eagles and parents converged upon the Wilcox AeroWorks at Lenore Field. Winds were high and gusty, but right down the runway. After an exploratory foray by Wayne Whitaker, two innocents and myself, it was determined that conditions were lively but favorable. We just told the kids as they boarded that it would be like Six Flags only a few extra feet in the air. Andy Anderson and Duane Huff provided the preflight orientation, covering the actual flight, small plane flying in general, and safety considerations. Alan and Sherry Langford, Theresa and Bill Coleman, and I provided ground support. Frank and Margaret Wilcox graciously hosted. The pilots were Steve Dunahoo (C-172), Frank Flessel (TriPacer), Wayne Whitaker (Steve Ashby's C-172), and John Tumblin (C-170).

Thirty-four Young Eagles flew. At least four of the eight I flew with were genuinely thrilled and bubbling over with enthusiasm. Two more were thrilled, but only too happy to get back on the ground. If all the flights went that way, we're batting .500—pretty good! 100% of the parents were excited about the day. This Young Eagle stuff really is fun, especially in the serene surroundings provided by the Wilcoxes and Lenore Field.

Here is a sampling of the written responses to the Rally:

*"Dear Mr Huff,
Thank you for getting me into the Eagle Flight. It was so much fun. Love, Darren Christensen"*

*"Dear Mr. Huff,
Thank you do much for getting me into the Eagle Flight. It was the first time I ever flew. I hope I can do it again. Love Kevin Christensen"*

*"Dear guys,
Thanks for the plane ride. It was a blast! Thanks, Derrick Perkins"*

"Thanks for the rides. They were a blast. Scott Perkins"

*"Dear Mr. Huff, Pilots, guys of EAA,
What a wonderful group you all are. Our boys and parents, too, certainly enjoyed themselves. My kids are still talking about the planes, rides, grass field, and the friendliness of the group. You all are very kind, generous, thoughtful, and bring a lot of joy to others. What a great inspiration to our young people to see you all in action. Thanks again for everything. Our memories will last a lifetime. Up, up, and away. Carla and Dick Perkins, Pack 650."*

*"Duane,
Den 7 of pack 650 had seven boys participate in the EAA program on Sat., May 28 at Lenore Field...They had a tremendous time and will always remember this experience. John MacDonald, Den Leader." ...*

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Young Eagle Rally June 11

The PDK Chapter will host their first Young Eagle Rally on June 11 at PDK. Chapter 690, will be running the pancake breakfast. Since this is one of the funner parts of a Rally, we make out like Reilly. Volunteers will be needed to help cook, serve, and take money. Please contact Mike North at 925-9552. We will probably finalize plans at the June monthly meeting.

The Building Column

by Frank Wilcox

The planning phase of the Chapter Building Program is moving ahead quite rapidly. Under study is the size of the building. This will be determined to a great extent by the space needs of the current, projected and hoped for activities of Chapter 690. While it is true that space required for many activities can vary greatly, that for many activities such as chapter meetings is fairly predictable.

To develop data for the initial space planning, the Use Subcommittee recommended to the Building Committee 35 uses for the facility with a priority for each use. These were assigned to one of five general categories of activities - meetings, storage, social, fabrication/tooling and aircraft assembly/repair. The highest priority uses are generally in the first three categories. The Building Committee accepted this recommendation of the Use Subcommittee as the basis for subsequent planning when presented at their meeting May 20th.

The Site Subcommittee is preparing a lease agreement for submittal to the Airport Director by June 10th. The Site Subcommittee is also meeting with those members interested in constructing hangars on the land to be leased by the chapter. The group met at the airport on May 31st. There may still be an opportunity for additional members to participate in this program. Contact Charlie Sego for information.

Contractors are being solicited by the Construction Subcommittee for cost estimates of various size buildings suitable for both the chapter Building and the additional hangars. The hope is that the cost for individual hangars and the chapter building can be reduced with a single contract to one builder. Discussion has been initiated with the Gwinnett County Fire Marshall's office. They have been very helpful in providing information concerning their requirements.

Based on the data provided by the Use Subcommittee, the Interior Subcommittee is developing estimates of the space required for higher priority uses of the building. Obviously the same space may be used for multiple activities and this will be fully explored. They will study the limiting factors for the uses desired.

Several ideas are being considered by the Finance Subcommittee to provide the funds required to construct and furnish the building. When cost estimates for site development, construction and interior finishing have been developed, a firm financing program for the project can be recommended to the chapter membership for consideration.

A report of the latest progress is scheduled for each monthly chapter meeting. There is a good possibility that the members attending these meetings will be asked not only for advice, but also to officially act (vote) on some item(s) in order to facilitate future progress. All members are encouraged to attend the monthly chapter meeting both to become better informed and also to actively participate in the decision making process as opportunities are presented.♦♦♦

In case you missed the committee chair roster in last month's NavCom, here it is again. Please contact any of these folks with building ideas or opinions.

Frank Wilcox	General Chairman and Use	Andy Anderson	Use and Interior
Charlie Sego	Use and Site	Mike North	Interior
Steve Ashby	Site	Lnor Levine	Interior and Finance
Roy Stoutenburg	Use and Construction	Greg Jannakos	Interior
David Posey	Construction	John Connelly	Use and Finance
Duane Huff	Construction		

Calendar of Events

June 10 - June monthly meeting of Chapter 690. Briscoe Field Admin. Bldg. Topic: Corrosion prevention.

June 11 - International Young Eagles Day. Fly a kid somewhere somehow. Chapter 690 will be helping the PDK chapter by running a Pancake Breakfast at PDK in the morning and helping with Young Eagle activities through the day. This is our chance to begin repaying all those who helped at our Y.E. Rally!

June 11 - Decatur, AL - EAA 941 7th Annual Fly-In. (205) 355-5770.

June 11 - Russellville, AL; Russellville Muni (M22) - RV-3, 4, and 6 owner/builder/pilot gathering. Jerry (205) 332-0050. Rain date June 12.

June 11 - Gadsden, AL, Gadsden Muni (GAD) - EAA 1048 2nd Annual Fly-In Cook-Out. Charlie Bennett (205) 492-7137.

June 18 - Project visit to Jim Estes' RANS S-12. Lenore Field, Big Hangar, 9-12. Doughnuts and Coffee!

June 18 - Huntsville, AL; Moontown Airport - 2nd Annual Chapter 190 Father's Day Fly-In. Camping, poker run, spot landing. Rick Nelson (205) 539-7435; Frank Fitzgerald (205) 882-9257.

June 18-19 - Rhinebeck, NY; Old Rhinebeck Aerodrome - Cole Palen Dedication and Memorial Air Show. (914) 758-8610.

June 19 - Ozark AL; Army Aviation Museum - Georgia Pilots Breakfast Club. Chuck Ruddy (706) 561-5413.

June 26 - Louisville, GA - Georgia Pilots Breakfast Club - Chuck Ruddy (706) 561-5413.

July 1994 - Earth - For 5.5 days, the comet Shoemaker-Levy 9 collides with Jupiter. Galileo space probe and Hubble scope set to film.

July 1-3 - Gainesville, GA - EAA 611 26th Annual Cracker Fly-In. (404) 889-1486.

July 28-August 3 - OSHKOSH

August ? Chapter 690 post Oshkosh Exchange at the Kuntz palace.

August 20-22 - Gadsden, AL - Aerodrome '94 - WW I Aircraft Fly-In and Airshow sponsored by Lake Guntersville Aero, 205/582-4309.

Sept. 9-11 - Atlanta; Clayton Co./Tara Field (4A7; the old "Bear Creek") - Regional IAC Contest hosted by IAC Chapter 3. Lloyd Wittenburg (706) 412-8838.

October 22 - Lenore Airfield (Wilcox hangar) - Project visit to SMARTI Cessna 140.

November 19 - Project visit to Greg Jannakos' Ercoupe restoration.

Christmas 1998 - Earth - Eros asteroid 'near' rendezvous.

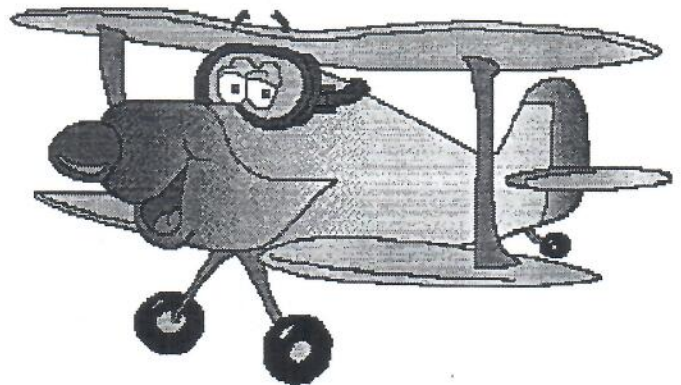
Summer Fly-Out

by Bobbie Estes

For many years, Jim and I have enjoyed flying out of the Andrews/Murphy Airport in North Carolina and would like to share this with our friends in Chapter 690. I have talked to Gregg Jannakos and, while we have not chosen the exact weekend, we would like to do it during either July or August—but not to interfere with Oshkosh, of course!

Several members of our chapter have flown in and out of this airport and can attest to the scenic beauty of the surrounding mountain area (cf. The NavCom, Feb. 1994). It's located at the very head of the valley for, appropriately, the Valley River and right against the Snowbird Mountains. This means a left-hand pattern for runway 25 and a straight-in approach for runway 7. Not to worry, the runway is wide and long—75' x 5000'! Also, only 90 "regular" miles north of Gwinnett County Airport—just a nice cross-country trip.

The FBO has agreed to let us use the roof of his office for our picnic. Really, I'm not kidding. The roof is flat, large enough to accommodate our group, and overlooks the



taxiways and runway.

Complete facilities are available including avgas, restrooms, and plenty of tiedown space. For anyone wanting to make this an overnight, we'll help you with arrangements. There's plenty of white water rafting in the Nantahala River Gorge Wilderness Area, The Great Smoky Mountain Railroad from Andrews to Wesser, NC on the Appalachian Trail and other mountain attractions.***

Minutes of the May Meeting

President Jim Estes opened the May 13, 1994 meeting of EAA Chapter 690 with the obligatory introductions and humorous barbs. In attendance were thirty-six members and eight guests.

ANNOUNCEMENTS: Jim announced that Oshkosh needed volunteers to host forums during the convention and that imitation leather name patches were available with the Chapter number for \$5.00.

Jeff Boatright announced that he had just received good quality artwork for the AcroSport. Jeff will add an additional logo to the now infamous "Musketeer Logo" for consideration by the Chapter.

Other announcements included Stone Mountain Chapter 1025's Pancake Breakfast for the following Saturday and a Young Eagles Mini-Rally at Lenora Airport over Memorial Day Weekend.

BUILDING COMMITTEE: Frank Wilcox reported that all committees had met and are looking for input from the membership. Plans are going ahead at a J-3's pace. Tom Wilson has donated \$20.00 to the building fund and has challenged others to do likewise. Tom was duly thanked for his challenge, with the hope that others would do likewise if they felt they could.

TREASURER'S REPORT: Lnor Levine reported \$xx in the checking account and \$xx in the newly opened savings account. Lnor reported that the Chapter now has fifty-four paid up members. She expects several more to add to the list after having sent out reminder notices to past members who had not paid 1994 dues.

NAV-COM: Jeff was warmly recognized for the current issue of the NAV-COM. It was certainly a quality issue.

Jeff reminded all that articles were needed by June 1.

NEW BUSINESS: Lnor Levine reported that the PDK Chapter was attempting to get a Tax Exempt Status and had been advised that to date only one Chapter, in California, has succeeded. At this point, their attorney is talking to ours. The good news is that they're talking. The bad news is that it's probably in the pattern. Chapter 690's Red Baron, Steve Ashby, feels that it's probably not worth the effort. Some anonymous member suggested that the Chapter form a Museum which would then be tax exempt and that Frank Flessel donate his relic Tri-Pacer as the first offering. Only one voice was heard in dissension.

PROJECT VISIT: Greg Jannakos reported that the Chapter would visit Gary P's Pulsar on Saturday at Stone Mountain Airport. Gary has a fine example of composite construction.

Jeff Boatright moved (this is supposed to be under **NEW BUSINESS**, Jeff) that the Chapter purchase the CAD/CAM Software advertised in last month's Sport Aviation. John "486" Connelly seconded the motion, which passed faster than one can say Control-Alt-Delete.

PROGRAM: Mr. Michael Hollingsworth, in his best King's English, spoke around the topic of BFR's, I think. After this entertaining program, Michael and Advanced Aviation Training are sure to find some members needing BFR's or recurrent training at their hangar door.

The meeting was adjourned at 9:20 P.M.

Respectfully submitted, Joel M. Levine
Substitute Secretary and Wordsmith. •••

For Sale

- 1968 Cessna 150. 200 SMOH. Trspdr, Mode C (ACK), intercom, ELT, MK 12 radio, King 145, ADF, Audio panel/MKR BKN REC, wheel Pants. \$14,500. Based at Lenore, N50132. Ken Sharp 404/979-4233 (H), 404/750-6025 (W).
- 1990 Sonerai II. 75 TTSN. Greg Jannakos 296-0937
- Placard Labels made to order. Greg Jannakos, 296-0937
- Fly-Baby project. Excellent workmanship. Ben Jeffrey, 925-2852



April Chili Cook-Off

The Annual Cook-Off went well again this year. We had over 30 eaters and six chefs. Several flew in, but the real eye-catcher was the SNJ piloted and owned by Sue and Terry Adams.

Thanks again to Margaret and Frank Wilcox for hosting another 690 event!

Love is in the Air

by Lynn Zahner

One day during my long struggle to become a pilot, I found it necessary to take an airline flight. My seatmate proceeded to regale me with his accomplishments as a surgeon, pilot, and father. Resisting the urge to crawl into my airsickness bag, I asked him if he had flown lately. "I can't," he replied. "My wife won't let me." As I thought of the pilots, former pilots, and would-be pilots of my acquaintance, I recognized yet another threat to general aviation: spousal apprehension. Like me, some wives take up flying because of their husbands, but more often husbands give up flying because of their wives. How many of the young eagles we launch today will be nest-bound once they mate? Aviation is commonly regarded as dangerous, expensive, and divisive to the family unit. It is time to target the unfounded fears that prevent so many from exercising their natural flying talent. If the good Lord had not intended that we should fly, He would not have given us the brains to build wings.

Fellow wives, do you really think that aviation is more hazardous than other masculine pursuits? How about boating? Picture your husband attempting to thread his way through a lakeful of other boats whose skippers have not the faintest notion of safety or sobriety. Hunting? Despite vaunted gun safety programs, the odd hunter is mistaken for a deer now and then. Motorcycling? With helmets, broken necks; without helmets, broken skulls. Bowling? Broken toes. Spectator sports? Broken hearts. The media fuel our fear of flying, or letting our loved ones fly. Every aircraft accident from Miami to Anchorage to Honolulu to Bangor receives nationwide attention, whereas the only newsworthy local road wreck is the most spectacular, inconvenient, or just plain weird. There are about 25 to 40 midair collisions per year, 800 boating deaths, and tens of thousands of motor vehicle fatalities within the same time period. The discipline of flying fosters compulsive attention to safety. During flight training, and every two years thereafter, every licensed pilot is legally required to demonstrate mastery of emergency procedures, as well as general proficiency, during actual flight. Before each flight the pilot must systematically investigate the condition of the airplane and the weather to be sure the flight is safe. A legally certified mechanic must inspect the airframe, engine, and other aircraft systems and bring them up to standard at regularly scheduled intervals. If cars and drivers were so carefully monitored, many lives would be saved.

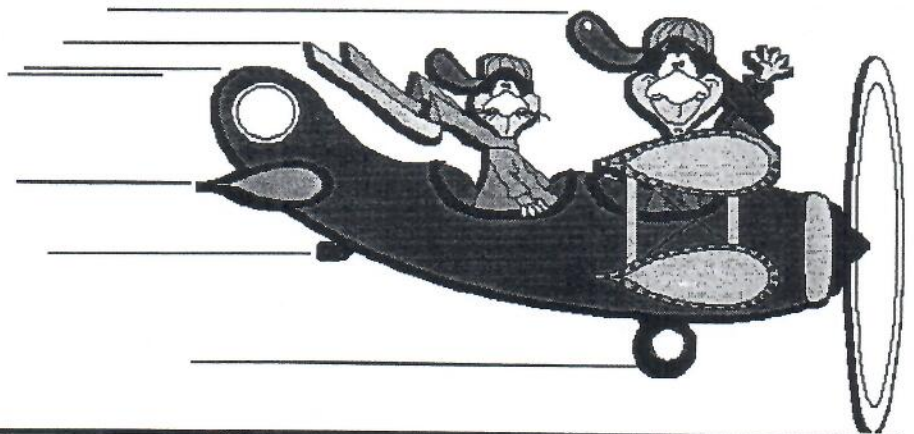
Speaking of saving lives, have you ever nagged your husband to exercise, watch his diet, or get a physical? I know how futile that can be. That's why I became a gynecologist. Pilots, however, are required to pass a

physical at least every two years. If your man doesn't take care of his health, he loses his license. With motivation like that, he'll probably live longer if you do let him fly.

But isn't flying expensive? Drop by the local EAA meeting. These folks don't look like millionaires to me. Actually one can purchase or build an airplane for about the cost of a decent automobile. The expenses of the airplane, storage, and maintenance can be shared among several partners. If you still think your husband is siphoning off your rightful share of the family finances, why not learn to fly yourself? Instead of drooling over the jewelry display, you'll soon be converting the price tags into equivalent hours of flight instruction.

Oh, no, you say, he'll never get me or the kids up there! Listen, his plane is the love of his life, and if he doesn't hurt it, he won't hurt anyone in it. Of course he will want to share his love of flying with the kids, teaching them math, physics, meteorology, geography and a smattering of history along the way. When they in turn take their flying lessons they will learn the value of planning and clear, concise communication. They will avoid drugs and drunkenness in order to experience the thrill of flight again and again.

Feel like a wingless widow? Well, at least you're the only woman in his life. Any guy who douses himself in Essence of Cessna or acquires an epoxy related skin condition will only be attractive to other pilots. But boy, will he! Since only about 6 percent of all pilots are female, wouldn't you be special if you joined them? Take it from me: avgas is the best aphrodisiac. It's even better if both spouses are pilots. However, I strongly caution you to limit your romantic activities to the ground. Aviation, navigation, and communication, was what I learned. No one said anything about osculation, undulation, or any other form of recreation. However, if you feel you must join the Mile High Club, please do a pre-delight checklist. For crying out loud, make sure your push-to-talk switch isn't stuck in the on position!...



Dumpster Diving for Nieuport Parts

by Wayne Whitaker

Steve Ashby and myself had reached that magic point in the construction of our 7/8ths scale Nieuports: Time to put the fuselage on the gear. In order to accomplish this milestone of aircraft construction we needed sheet stainless steel, preferably .040. Building 'em yourself is full of challenges; now we had three more: where to get stainless steel sheet, how to cut it, and how to bend it to the shape we needed.

And one other challenge: Obtain building materials as inexpensively as possible ("Le Cheap!" is the battle cry of the Stone Mountain Dawn Patrol).

Steve does a lot of our Nieuport construction research, searching diligently for elusive bargains. This time he found a sheet metal fabricator near Conyers who agreed to let us choose from among his stainless scrap. Early one morning Steve and I made a run out to this shop in my trusty airplane-parts-hauling Mercury Wagon.

Steve had done business with this establishment before, and upon our arrival he was greeted as a long-lost friend. Come to think of it, people are always glad to see Steve. Lawyers don't usually get that kind of undiluted affection, which says something for Steve's friendly nature and business acumen.

I was concerned that the ugly specter of liability would appear and dampen enthusiasm for assisting this project, i.e. "what if you kill yourselves in this flying thing made with my steel?" I was tempted to tell our erstwhile suppliers that we needed the stainless for really heavy-duty lawn furniture. But

guileless Steve showed the shop owner photos of completed Nieuports and a copy of the plans as soon as we walked in the door.

I was pleased and surprised when our projects were greeted enthusiastically. The owner took us around and showed his employees just what we were building. They all seemed interested and helpful. One of them noticed the .303 Lewis machine gun on the top wing. I attempted to explain the technical difficulties which compelled a wing-mounted gun, but was interrupted when one of the workers said, "Whatcha gonna do, have a fly-by shooting?" This was met with much guffaws and knee-slapping, completely drowning out my informative historical lecture.

The owner then led us back through his shop, showing us some of their own projects. I was impressed with the switch boxes and other objects made there, many of them from the same kind of steel Steve and I were shopping for. Particularly amazing were the very neat welded seams in small parts. I've tried welding 4130; what would working with stainless be like? Steve and I both did a little oohing and ahing over these well-made components.

At the back of the shop was a loading dock. Next to the dock was a dumpster half-full of jagged chunks of coveted stainless steel sheet, left-overs from the many parts and products fabricated by the shop. The owner said the thicknesses we were looking for were probably in there somewhere. He said to be careful of sharp edges. And he added, "If something happens, I don't know you're back here." We agreed readily to his terms, in fact we were both glad to find someone willing to wink a bit to let us scrounge our own steel.

We stood there on the dock, and I looked at Steve. He had a meeting or something right after our materials run, so he was dressed in fine lawyer fashion, looking trustworthy, knowledgeable, and downright elegant in his dark suit. I was attired in my favorite flying jeans, which have been carefully broken in by wearing them every weekend since 1972. My shoes also boasted the proud patina of age and comfort. I realized my outfit designated me as the one to go dumpster diving for Nieuport parts.

Most gingerly I lowered myself off the dock and into the rusty black dumpster, stepping carefully amidst the razor-sharp edges of steel shards. I began pulling out sections of sheet that looked about the right



Steve uses hi-tech calibration for gear placement.

thickness. Thanks to 15 years of selecting sheet balsa to build RC models, I can eyeball- guesstimate the thickness of any sheet material to within .001". I handed up several likely suspects to Steve, who had a micrometer along just to confirm my amazing ability. Soon we had a pile of material, some of it even the right thickness.

I began to enjoy carefully lifting out pieces of stainless, speculating on what had been cut out of it, how thick it was, and how much it would be worth if you bought it at an airplane parts store. Even in a dumpster there's something beautiful about stainless steel. It has an aura about it, with that amazing untarnishable finish, immune to rust. Great stuff. We had a huge pile and I wanted it all.

Steve wisely considered how much we would really need, plus some extra for experimenting and the inevitable mistakes. Most of our shining hoard of booty was reluctantly returned to the dumpster.

Dumpster diving wasn't so bad, the picking and choosing actually kind of fun, and the best part was when we went to pay for it. We had enough sheet to make brackets for both planes plus lots of extra. The owner looked at it and said, "Oh, fifteen bucks ought to do it." All this glorious immortal metal with the satiny brushed finish for only \$15! What a deal!

Back at Steve's garage/shop we discovered we had nearly twice the material we needed. But that was okay, the extra came in handy for the next part of the operation: cutting this tough stuff. Again Steve's charm came through as John Popps agreed to let us use his metal-cutting bandsaw (completely unsupervised!) to make our parts. Thanks, John, a tip of the leather flying hat to ya, plus our extra stainless, which we gave him gratefully. While in his hangar/shop we admired his Skybolt project, which is coming along quite nicely. The fuselage is on the gear and the wings look ready for cover. I was amazed at how strong the construction of this aerobatic biplane is, especially when compared to our delicate little Nieuports. The Skybolt looks capable of surviving any maneuver a pilot could possibly throw it into.

Back at Steve's with our brackets rough-cut, we began the slow task of filing them to exact shape. Though not as easily filed as the aluminum we're used to, the stainless shaped up fairly quickly. Now for the bending part.

We made a call to Frank Wilcox, who generously agreed to let us use his hydraulic press. Copying a technique Steve and I learned from Dick Starks' Kansas City Dawn Patrol video, we planned to form the U-brackets by pressing the steel between two wood blocks, using a 3/4" Craftsman socket as a die to get the right radius of bend. On a Saturday evening we made a quick run out to Lenore. Frank helped us get set up and, as usual, seemed to have everything we needed to complete the task right there in his hangar.

We set the first part to be formed over the wood blocks, lay the socket on top, and squeezed the socket down between the blocks until the metal formed an acceptable U-shape. I released the pressure on the press and lifted the part out. Practically perfect! Steve and I were thrilled.

Worked just like the video said it would. Moments such as

this are what makes homebuilding such a joy.

We quickly squeezed the rest. Only one part came out that didn't look quite right. Steve examined it and said, "Okay, that one goes on your airplane." By the time I quit laughing, Frank had taken that bracket and given it a twist here and a bend there, and it looked as fine as any part we made.

On the ride back to Steve's with our newly formed parts, we were proud of the results, though we thought (not for the first time) about how much

easier kitplane builders have it. They just reach in a box and pull out the brackets they need. Maybe they're even pre-drilled. Just bolt 'em on. No wonder Kitfoxes and Avid Flyers are so popular. But when you decide to build something a little unusual, when you march to a different drummer (or maybe you march to oboe and xylophone), you have to be willing to make that extra effort to have something different, like Nieuport Lite: Flies great, less expensive.

Besides, this whole bracket exercise is a perfect demonstration of the camaraderie and can-do spirit that makes the EAA such a great organization. It would practically be impossible for an average guy like myself to build my own flying machine without the technical, moral, and at times physical support of my fellow EAA members. Sincere thanks to Steve, John, Frank, and many others like them who have contributed to the dream. •••



Wayne gets some fantasy stick time in.

Pictures of a Rally...



Pilot Whitaker signs off a Young Eagle while another sneaks aboard. Notice that even when Steve Ashby can't make a Rally, the Blue Flamer still flies Eagles!



Steve Dunahoo's Cessna 172 and Frank Flessel's Piper Tripacer await fresh victims...



John Tumblin demonstrates perfect approach technique for Lenore—right down the chute!

Alexander Aero Workshops—Another Success

Alexander Aero is an aviation parts and services company located in Griffin, Georgia. It has gained a fantastic reputation for service and economy. Many Chapter 690 members buy parts from them due to the convenience and pricing. Ron Alexander, founder and president, goes one step further than most supply houses. He is original and not too worried about acting on good ideas. One of those is the Alexander Homebuilder's Workshop Series. The workshops cover many basic skills such as welding, fabric covering (Alexander now owns the Stits Process), composite work, and woodwork. While Mr. Alexander admits they just break

even on the workshops, he feels that the effort is worth it in return business.

The workshops are held all over the country, though one just took place in Griffin and a couple of 690ers attended. Wayne Whitaker, Bob Mackey (from EAA OSH) and I went down in Wayne's car. We were going to fly, but the weather was doubtful. It turned out for the best since the event wasn't even at the airport! The classes were held at Griffin Tech, where the facilities are spacious and clean. This Workshop was whole hog—welding, covering, composites, everything.

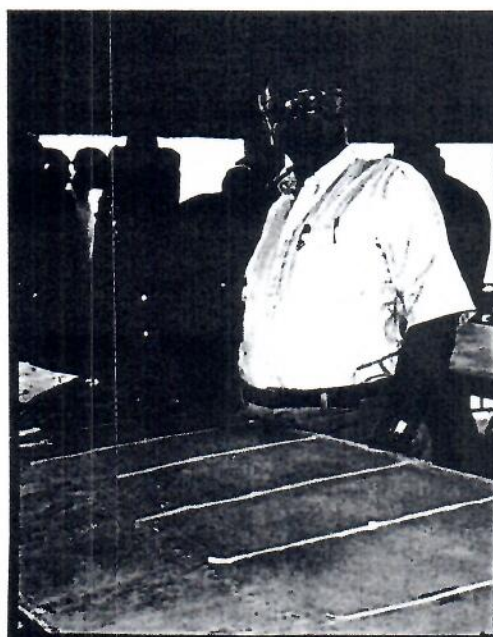
As we milled around, we came across John Connelly and

David Posey, both learning to cover "the Stits way." Alexander uses DC-3 flaps and ailerons for their students to practice on. By the time we got there, John and David had covered theirs and looked like proud papas. They said it had been great fun and easy to learn. There were several guides and the process was straightforward. David has attended previous workshops and says that they are equally informative and well-run.

Everything about the operation seemed to run like a Singer. Plenty of competent instructors, plenty of materials, and plenty of students, all humming along in an efficient learning atmosphere. Congratulations to the folks at Alexander—another winning idea. Call 1-800-831-2949 for their Workshop Schedule.♦♦♦



L-R: Whatisname, Pres. of SystemThree Resins; Ron Alexander, Pres. of Alexander Aero; Wayne Whitaker, 690 member; and Bob Mackey, Head of Chapters and Insurance, EAA HQ



David Posey proudly displays his handiwork.



John Connelly was not too sure about being photographed—playing hooky maybe?



Meeting The Challenge, Accepting The Responsibility

by Lnor Levine

EAA Chapter 690 is entering a new and exciting phase in the Chapter's life. The members have agreed to proceed with the construction of a hangar, to enhance the many aspects of our EAA mission—educational, supportive and social. Committees and sub-committees have been formed and are actively beginning to function to enable us to meet our goals. Members are eagerly anticipating the opportunity to meet in our own space, to have a place to learn or in some cases to teach others more about aviation, a location where a chapter-wide weight and balance event can be conducted, a site to congregate at fly-ins, a facility in which to hold pancake breakfasts and chapter social functions, an area in which our chapter-sponsored Air Explorer Post can meet, where member's projects can have their final assembly, where chapter-owned equipment, materials, books, videos and records can properly be stored, and a spot for members to just gather for hangar flying.

But the accomplishment of this several years old dream will take more than committee meetings and planning. It will require a commitment on the part of the membership to raise the funds to build, furnish, and maintain the facility. It is too easy to sit back and let others do the planning and the work. As the chapter treasurer, I especially feel the

responsibility to meet the fiscal requirements of this endeavor. We will soon have to decide upon and commit to ways to finance this project, above and beyond the previously raised funds and underwriters' generous no-interest loans. Occasional pancake breakfasts, planned and conducted by the same small cadre of workers won't suffice—these events will need to be more frequent and better staffed by the membership.

I hope that the membership will consider the continuation of the "Building Fund" assessment to all new members who have not made the original \$100/family assessment. This fee of \$30/year above the current basic annual dues level was voted by the membership for three years, and will expire this year. It is a small fee that is currently equally shared by all old and new members, and is a reasonable expenditure for a very worthwhile cause.

The Finance Committee is pleased to announce the "Challenge" donation of \$20 to the Building Fund by Tom Wilson. The Chapter will gladly accept matches to this donation from the membership, along with your creative fund raising suggestions. Please show your willingness to meet the challenge, to accept the responsibility.♦♦♦

My First Visit to Atlanta and Sun 'n Fun

by Bob Boatright, Guest Columnist

Jeff had been bugging me to visit Atlanta for sometime and he really turned up the heat in early Spring. Of course, I'd met a number of 690 folks at previous trips to Oshkosh and was always impressed by the "go get'em" collective attitude of the group, especially in view of the relatively small number of members. Jeff kept plugging away, so I finally became a reluctant bride.

I have to mention here that my trip was made possible, in large part financially, by Messrs. Whitaker & Ashby. An official subpoena, issued by the DeKalb County Superior Court, Judge Paul Poberezny presiding, was delivered by registered mail with plane tickets. Said document now resides proudly framed on my office/den wall. Thanks, gents.

At the outset, I was having a not-so-hot week prior to leaving and a 1st minute foul-up with the catsitter didn't improve my outlook. But a funny thing happened—the minute I got to Tulsa International, the atmosphere seemed to change—a load beginning to lift? In any event, the flight was pleasant, even restful, 'til near the end. Looking out of the window, the landscape was turning greener the further south we flew.

Now stick close from this point forward—events escalate rapidly, at least for me. Touchdown, then into the terminal—and there's Wayne—he takes me in tow down into the bowels of the edifice

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From My Point of View...Autumn Planning

by Jim Estes, President Chapter 690

Even though it's only Spring or early Summer, do we really have to start thinking about Autumn already this year? Of course we have all heard about how the planning for the next year's super-mega-events like the Oshkosh Convention and Sun 'n Fun start immediately after the current year's event comes to a close. And so it must be for good results in the future. You may remember that after our record-setting Young Eagles Rally in March, our Chairperson, Duane Huff, called a debriefing the very next Saturday morning to start deciding on how suggestions and improvements could be worked into our next rally.

Based on that, we must begin in earnest with planning for our Fall event. I know we have had some preliminary discussions about this and have all pretty much accepted the fact that the event will take place, but now is the time to start putting some concrete ideas together. In the past, we have called

this our Air Fair, Bi-Wing Fall Classic, or a Young Eagles Rally. This year we will have to think on a much larger and broader scale. Larger in scope so we can include as many parts of aviation as possible. We have already proven that we as a Chapter have the talent to pull off a big event, and be successful from the standpoint of money, Chapter membership activity, Community involvement and probably above all—a day of fun centered around our favorite enterprise—Aviation.

With this in mind, I will be talking further with some individuals that I feel should work as a committee on this project and feel certain we will approve this in the form of a motion at the next month's Chapter meeting. Please keep this in mind as we prepare for the meeting so our plans can begin to unfold and we can begin to look forward to that next large function in the Autumn of 1994. •••

Of NIBs and SOPs...

by Jeff Boatright

Remember my editorial on the proposed Outer Perimeter/Commuter boondoggle? (Plans include making Briscoe Field into a mini-Hartsfield.) This past Monday (June 6 - anniversary of a somewhat more memorable invasion), the Atlanta Regional Commission began citizens' hearings on the Outer Perimeter. The Outer Perimeter is the first part of a mega project that includes a commuter rail line out to Athens (???) and an expansion of Gwinnett County/Briscoe Field into a major reliever airport. As I wrote earlier, this gigantic project is very reminiscent of the semi-failed Carter Parkway: No projection, private or governmental, indicates a need; the soon-to-be condemned lands are now mysteriously and personally owned by State officials; several neighborhood and citizens' groups actively oppose it; and it will be AMAZINGLY expensive.

The Outer Perimeter alone will cost 2.2 BILLION (that's nine zeroes) dollars. We could fix every bridge in North Georgia with that amount of money and still have enough left over to fix every pothole, every road drainage problem, and to put sidewalks in front of every school. Which brings me to another point: It is UNBELIEVABLE that many schools in the metro area and beyond have no sidewalks, no crossing guards, and no crosswalks. How can this

be? The State DOT doles out state funds to local municipalities for such projects. Assuring safety on these roads and near schools obviously isn't "sexy" enough for GA DOT. Actually, why should they give "their" money to causes that don't further their goal of self-propagation? I wouldn't.

So, instead of waiting for GA DOT to do what it will not, maybe it is time WE do what we should. We have a system whose policies largely ignore its primary responsibility: providing safe and efficient transportation to the people of Georgia. The system should be changed. That is the overriding and long-term concern. For the immediate future, though, halting this Silly Outer Perimeter (SOP) to nowhere is a necessary first step.

Why this topic in The NavCom? It's not very aeronautical. I write about it here because one of GA DOT's reasons for building the SOP is to link the New and Improved Briscoe (NIB) to civilization. Thus, SOP justifies NIB and NIB justifies SOP. It's circular, but after all, it's a perimeter. And I saw pigs flying yesterday.

Contact ARC and your county commissioners and state representatives. It's just a local phone call or two. What happens is what we allow to happen.

Finally, if you agree or disagree with any of this, write it out for The NavCom!•••

Engine Possibilities for "The Next Project"

by Wayne Whitaker

When Steve and I are working on our Nieuports, thinking ahead to lots of fun flying, sometimes we think really far ahead and speculate on the nature of The Next Project. Our Next Project, we tell ourselves, will almost certainly be another open-cockpit biplane. Since we'll already have our little single-place fighters, we would like to build something larger, with room for a passenger or two. Maybe a Waco, or a DeHavilland DH4, or a Tiger Moth.

We discuss these future projects as we wait for epoxy to dry or for annealed aluminum to cool. A question that always enters my mind is what engine should power The Next Project. We'll need plenty of horsepower (by homebuilder standards), say 150 to 250 hp. We'll need to turn big props at slow, efficient RPM's. The Hispano-Suiza V8's used by the Allies in WWI turned about 1700 rpm at full throttle and produced 140 to 220 hp. The OX-5 V8 in the Curtiss Robin (another dream ship) was rated at 90 hp, also at 1700. Wacos need 200 to 275 hp.

I subscribe to Car Craft magazine, mainly for the engine building articles. Nearly every issue features a story about building up some Detroit V8 and testing it on a dynamometer. It's interesting to see how much horsepower a certain engine configuration will produce at various RPM (well, it's interesting for a gearhead like myself). Over the years, as my attention has focused more and more on flying, I have gone from thinking of these engines powering neat cars to thinking of them in neat airplanes.

Most of the engine build-ups I read about use regular old four-barrel carburetors. The venerable four-barrel is an inexpensive and time-tested method of providing fuel mixture for a big V8. The ignition is usually an aftermarket high-energy distributor with magnetic impulse firing (as opposed to points, which are only used on antiques and airplane magnetos these days).

Some of the engine projects, however, utilize aftermarket fuel injection. This can take several forms, but basically is either throttle-body injected (looks like a carburetor, but fuel is squirted in under pressure as opposed to being drawn in by vacuum) or true multi-point injection, where each cylinder is served by its own injector. Multi-point is superior to throttle body, but either mixes fuel and air better than a carburetor.

The car magazines can afford to hire an electronics wizard to program the computer chip that drives the injection. Using a laptop computer plugged into the chip, the wiz can adjust numerous fuel-delivery and ignition parameters to make nearly any engine deliver smooth, low-emission

power. Computer controls are why today's muscle cars are not only faster than the old ground-pounders of the 60's, but also get much better fuel economy and emit far fewer toxic emissions.

Electronics to the rescue for powerful sporty cars; why not for powerful sporty airplanes too? And an added benefit is that electronics can keep the mixture at perfect stoichiometry, no matter what the altitude, with no input from the pilot. For example, while reading the shop manual for my little '89 Mercury station wagon, I learned that the injection computer leans the mixture automatically if the car is driven into higher elevations. It even adds an additional three degrees of ignition timing above 3000 feet msl!

But suppose you built your own V8 and converted it for aircraft use: What a steep learning curve it would be to set up your own fuel injection. And could you find an automotive guru who would be willing to work on an auto/airplane engine, or even be willing to teach you?

One solution to this dilemma is to purchase a factory engine ready to run, complete with injection and ignition programmed for that particular engine. Engines of this type are already offered by some enterprising companies out to tap the homebuilder market. Well-known brands such as Honda, Subaru and Mazda can be purchased almost ready to fly, and some have the original fuel injection.

But as a recent article in the Experimenter pointed out, not just any automotive engine makes a good conversion. The article made a valid point about small-car engines being designed to produce horsepower much too high in their RPM ranges to be practical for aircraft use. Yes, the little engines in Japanese cars are smooth-running jewels and quite reliable. But on the street, how often do you use all their rated horsepower? Most of these engines reach their power peak at 6000 or more RPM's. That's fine if you quickly shift up to the next gear, but in an airplane, power demand is continuous. Two-strokers can survive at high crankshaft speed, but how long will a typical automotive engine last at 6500 rpm?



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Besides, what if you need more than the 80 to 120 hp offered by the typical four-cylinder conversion? Let's just suppose, for example, that you want to spin an eight-foot propeller with enough go-power to pull a pair of 40-foot biplane wings (and their associated wires and struts) through the air at 100 mph? We're talking some serious torque here.

The Experimenter article suggested that van and truck engines may hold the key for certain aircraft applications. These engines are designed to produce continuous power at relatively low rpm while under a heavy load. I keep that in mind when I'm perusing my car magazines, and search for engines that make plenty of torque down low in the rpm range. Lately I've come across two that seem promising for that future project Steve and I like to dream about.

First is a heavy-duty version of the ancient 318 cubic inch V8 made by Chrysler. Recently Car & Driver editors test-drove tracked vehicles powered by this engine. These tank-like tractors are used by the U.S. Park Service to reach remote snow-bound areas of Yellowstone during the winter. The editors noticed that the Park Service mechanics had replaced the original diesel engines in these vehicles with the industrial-duty 318. The gear ratios on the tractors permit them to move slowly while the engine runs near its peak power band. Thus the venerable 318's have proven themselves reliable under continuous high-output service.

This version of the Chrysler V8 produces 220 hp at 4200 rpm, and can be purchased complete with multipoint fuel injection and electronic ignition.

Another engine that caught my eye was a Ford truck V8. Like the Chrysler, it's available practically ready to run. The

L-58 is a 351 cubic inch V8 rated at 240 hp at a very low 3200 rpm. Now there's an engine you could run at high output all day, perfect for typical aircraft use. It can be ordered from your local Ford dealer for about \$4100 complete, including a test-run at the factory. Like all Ford engines it has a forged crankshaft and connecting rods. Ford's practice of using forged components on all their engines is why Dave Blanton choose a Ford V6 for his popular conversion. (Most GM engines, by comparison, use cheaper cast crankshafts, which work fine in normal, light-duty driving; only special high-performance applications get the stronger forged parts.)

I might add that flying with Ford engines is a tradition dating back to the 20's, when Bernie Pietenpol designed homebuilt aircraft powered with Model T and Model A engines.

Wouldn't the V8's be heavier than standard aircraft engines? Probably, but a series of articles that ran in Kitplanes magazine showed that auto engines, even including reduction drives and radiators, aren't really that much heavier than Lycomings and Continentals of similar output. Besides, they'd be lighter than the Curtiss, Hispano, and Rolls-Royce engines that originally powered the aircraft we want to replicate. The water-cooled V8's are also more fuel efficient than air-cooled engines, and much cheaper than any certified powerplant, both at initial purchase and at rebuild time.

Either the Chrysler or the Ford, hooked up to one of the many reduction drives now available, could make a powerful, reliable airplane powerplant. With enough torque to fly a Waco, DeHavilland, Curtiss Robin, or maybe a Spad...♦♦♦

My First Visit... continued from page 10

and onto an unmanned mode of transportation reminiscent of the NYC subway or the tube in London—and it speaks in a strange voice—several, in fact—then in a flash we're at the baggage area where luggage regurgitates onto many large merry-go-rounds—none of this phases Wayne and he retrieves my little all and we're on our way out to one a number of enormous parking lots. Wayne locates his car, stows the bags, and holds the door open for me. Somewhat dazed, I clamber in and there on the front seat is the latest issue of "Sport Pilot" with Jack McKinney's beautiful Pietenpol on the cover and a lengthy write-up with color pix inside. I have to confess that my dream is to build a lo-n-slo 2-hol Pietenpol for river flying. Before I can glance at the mag it's off into expressway traffic Atlanta-style with the intrepid Monsieur Whitaker flailing away with the best of them. The Mazda is at full tilt and the tall pines just blur past.

Suddenly we turn off into a residential area and the peaceful contrast is startling. Within a few blocks we're at Jeff and Claudia's home. First things first—have a beer—I think I've just experienced ground-bound jetlag. Then Claudia brings out chilled strawberry soup and Jeff puts thick pork steaks on the "barbie."§♦♦

Stayed tuned next month for Part Two: "The Trip Down to Sun 'n Fun."

P.S. Congrats Chapter 690 on your outstanding Young Eagle efforts. Here's to your continued success!♦♦♦

International Young Eagles Day is June 11

Please participate in a Young Eagle Flight on that Saturday. This is a good time to catch up on all those flights that fell through the cracks. Or, it's a good time to start flying Young Eagles.

The new PDK EAA chapter is holding a Rally. Chapter 690 will help with the pancake breakfast. If you would like to join in the fun, call Sue Adams: 986-0644 or 672-2666(beeper).

To volunteer for the 690 breakfast, call Mike North at 925-9552.

Chapter 690 NavCom is published by, for, and about the local (Gwinnett County and vicinity) chapter of the Experimental Aviation Association. EAA is made up of over 300,000 aviation freaks from around the world. There are about 1000 local chapters. The association's annual convention in Oshkosh, WI hosts nearly 1,000,000 (that's one million) guests every year. Chapter 690 is rather more modest, though we have our moments. Most members are active pilots and over half are building or restoring their own aircraft. Several of our members have been recognized at the national and international level for contributions to aviation. We recently hosted the world's largest Young Eagle Rally, where more than 600 young people were given airplane rides for free. In the Fall, we host one of the largest Biplane Fly-Ins in the South. If you would like to join an exciting, involved, and fun-loving organization, think about Chapter 690. Our membership chairman, Duane Huff, will treat you right if you call him at 921-4423. We meet the second Friday of every month, 8 pm in the Administration Building of the Gwinnett Co. Briscoe Field Airport.

Local Monthly Fly-Ins:

1st Sat.	Winchester, TN	Winchester Muni (BGF) B'fast	Dan Greeson (615) 967-0143
2nd Sat.	McMinnville, TN	Warren Co (RNC) B'fast	Joe Howard (615) 668-4806
3rd Sat.	Chattanooga, TN	Collegedale (3M3) B'fast	Pilot's Club (615) 236-5008
3rd Sun.	Russelville, AL	Russellville Muni (M22)	Hans Pauli (205) 332-0050

Thanks to Dave Shaw, Editor of *Talefeathers*, newsletter of EAA 268.

Quick Calendar

June 10 - Briscoe Field Admin. Bldg., 8 pm - Chapter monthly meeting. Topic: ACF Corrosion protection for light A/C.
June 11 - International Young Eagles Day. Chapter 690 does breakfast at PDK, helps with their YED.
June 18 - Project visit to Jim Estes' RANS S-12. Lenore Field, 9-12, doughnuts and coffee!

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