

EAA 301 - Rocky Mountain Chapter

September Meeting:

Ted says,

"I'm in Nevada, listen to Stan." Who says, "The presentation will be by Chapter 43 Scholarship Committee members Lynn Miller & Steve Beach, with 2010 recipient Destiny Krell."

- **Date:** Fri., September 17th
- **Time:** 7:00 p.m.
- **Location:** The meeting will be held at the Parker Fire Station #75 (5), 16801 Northgate Dr., Parker, CO. The station sits on the corner of Keystone and Northgate, is just west of Jordan Rd. and a few blocks north of Lincoln Ave.



President's Page

Reprinted from August, 2008

Test and Validation play critical roles in the construction of aircraft. Everything about your project needs to be tested and verified for the 3F's of form, fit and function. Most of the current kits are very well-defined and the form and fit are neatly taken care of by your kit supplier. There is a bit of work you will need to tackle with the fit from time to time. No matter how well the kit is engineered and manufactured for ease of assembly, you will find yourself spending lots of hours tweaking the fit of just about every piece/part.

Plan on spending time with the intricate innards and the every piece you place. From the fuselage stringers to the panels and skins, there is going to be much to trim and adjust to make the fit work. As for function, the mechanical structure has its function

well-defined. The kit manufacturer has normally addressed all functions and provided a well-defined process to build from pre-formed parts or to create (on your own) parts from the full description(s) in the plans.

The quality of today's kit aircraft is very high. There has been much thought spent on the end product and we are the benefactors of the superb effort placed into the kit structures. So, the test and validation we need to go through is normally just formality, as we complete the paperwork for certification and step through the processes of check-out. At least that is true for the aircraft mechanical form, fit and function.

There is another aspect to an experimental aircraft these days. That is the avionics that is now available is so powerful and provides so much capability, that you may need to go

by Jim Elliott

through special schooling to just run the avionics package you chose for your aircraft. For that portion of your dream machine, you looked at form and fit to begin with. Then after completing the avionics (or if you could afford to have it done) you now need to check the functionality.

Unlike the aircraft structure where the function was fully defined by the kit designer, your avionics package function can be a factor of many features or maybe just a few features. The actual functioning system must be thoroughly checked over before you make use of it in your maiden flight.

Depending on how complex your craft, you might have a

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EAA Chapter 301 Meeting Minutes

August 20, 2010

President **Jim Elliott** called the meeting to order at 7:07 p.m. He invited visitors and guests to identify themselves and tell us something about their aviation interests and experience.

Peter Wells is building an *RV-7A*.

Peter Darouze is a recent graduate in aerospace engineering.

John Robinson is working on a *Bearhawk*.

Joe Bennet is building a *Sonex*.

On motion the minutes of the previous meeting were accepted as published.

Treasurer **Russ Grell** reported we are still financially sound. There are currently 100 paid members. On motion the report was accepted.

There were no Tech Counselor reports.

There was no Flight advisor report.

Jim invited members to give progress reports on their building projects. .

Brain North reported his *Pazmany 4A* and *FE5A* replica are on their way from England; should be here shortly.

Tex Arnold is building a *Nieuport 28* replica and ordered a Rotec 2800 (7 cylinder radial, 110 horsepower) for it while at Oshkosh. He is looking for experienced help with fabric covering. He attended the Polyfiber forums at Oshkosh. His fuselage is on the gear, empennage is done and the center wing panels are done.

Jesse Wright has flown off all but 3 hours of the test time on his *KIS*. He has been trouble shooting a rough running engine and concluded he was running it too rich.

Bill Rathton has the fuselage tail and wing (metal parts) on his *RV-10* done and is starting on the fiberglass parts

Lyn Langer is done with wiring his *RV-7A* except for hooking up the Arinc 429 module from Dynon and installing an ELT. Panel is ready to paint. He's almost ready to install top skin from **firewall** to panel.

Jim asked if there were any Flight Reports.

Jesse Wright expanded on his test flying experiences.

Dwight Hapeman cited several interesting flight videos he had seen.

Announcements:

► The membership is encouraged share articles, personal experiences, pictures, etc. – related to aviation – to be used in the newsletter. Ed.

► Hi, I'm in Boulder and have a Spezio Tuholer--it's an open-cockpit blue-and-white two-seater (tube and fabric with wood wings, 0290G, 125 hp). This is my first aircraft and I have 100 hours flying her (and she is indeed fun). I spent the last year doing lots of little things to fix her up, but there's still other minor work to be done. However, last week my aircraft took a big step backwards when my mechanic did a prop strike while running her up--still unbelievable to me. Thankfully, I had a wooden prop, so I don't think the engine needs to be overhauled. However, through this whole experience, I've learned that I don't love being a mechanic or a builder--I want to be in the sky rather than in the hanger. This last setback has pulled the wind from my sails. Of course, I am looking for a new prop. But more importantly, I need to find a partner or a mechanic who can work on this aircraft and help me maintain her. Or, I need to let the airplane go and sell it to someone in its current condition. Pictures can be seen at <http://www.jasongore.com/Flying.html>.

It's been such a beautiful journey, and she's a beautiful airplane, but her owner (me) is just not up for this last hurdle alone. If you have any suggestions for mechanics, have a prop that would work, want to partner with me, or want to buy this aircraft, I'm exploring all possibilities. I can be reached by e-mail at Spezio@JasonGore.com or by phone at 415-205-0667 (I still have my California area code even though I live in Boulder).

Jim Elliott told us about his flight to Oshkosh in his Mooney. He was gratified to see the oil consumption and oil temperatures stabilize during this trip which went from 12 to 25 hours on his newly re-built engine.

Rudy Kniese reported about Young Eagles. The next event will be Saturday, September 4. We have flown 2184 kids program to date and 369 year to date. Our 2000th Young Eagle was Nathan who wrote the winning essay and gets the P-51 ride. Rudy was also flown to Oshkosh by **Denis Walsh** to receive the Young Eagles *Chapter Coordinator of the Year*

award. He passed around the plaque he was given for us to see. Needless to say, the chapter is very proud of Rudy and appreciative of his dedication to the Young Eagles program.

Jim asked if there was Old Business to be dealt with.

The issue of purchasing a boroscope was raised. Jim reported that **Ted Lemen** was checking on it. The tool originally proposed was a Snap-On brand that gets through a 3/8ths inch hole. Members suggested desirable features included a removable sd card, that it be fluid proof, and flexible enough to see the valves in the cylinders. **David Julian** who

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President's Page Continued

for avionics (instrumentation). Or, you might have a fully functional six-pack for instrumentation and a nice 720 channel radio to communicate with. Maybe your aircraft has a six-pack, dual Nav/Coms, transponder and DME. That would be super, but now you are looking at several layers of equipment that all need a functional check. You can have your local instrument shop run functional checks on all of this or with a little ingenuity, you can actually set up your own tests to check out your equipment. Be careful, though and when checking the pressure and vacuum instruments, apply very small amounts of each (depending on the type instrument) to verify functionality.

What about those cool avionics that are basically powerful mini computers all over your panel? Due to the interfacing of so many of these devices with each other and other systems, you will need a thorough checklist to run through the total package and functionalities of complex advanced avionics. Take several hours, if not a few days, to make a list of all your panel's equipment and features. Read the manuals carefully on each and make a list of the interconnecting links between units. From

basic airspeed and altimeter

your notes, make a check list that you can easily read (use large font like 24 pt) and have a "notes" column where you can mark a check for "functioning", a question mark for "unknown" or a note about something that needs attention. If you think you need to, take a spiral notebook with you to make your notes.

Your radios will need to be ground-tested prior to first flight, along with your airspeed indicator and altimeter. Have a plan, stick to it and if there is any question, fly the airplane straight back and take it to the hangar for analysis. DO NOT try to analyze problems in the air! Most of all enjoy!

The possibilities are great. The time is great. The group is great. Happy Building and Flying!

Jim Elliott

Below: Saturday night at AirVenture 2010....and the rockets red glare.....



Maverick flying car from the business end—watch your step.



Chapter Tools

Mel Kuethe is our tool custodian. Give him a call at 303-794-3930 for your tool needs.

Scales

- Aircraft Spruce type
- Electronic/strain gauge type
- (7) - 50 LB cast iron slugs for calibration

Fire Wall Forward

- Oil filter cutter
- Tubing beadings: 3/8" & 1/2"
- Tubing bender
- Continental engine valve lifter tool
- Magneto timer
- Top dead center finder
- Tube flaring tool
- 1/2" cylinder wrench. 9/16" cylinder wrench
- Compression tester
- Bore scope
- Pliers, hose spring clamp
- Temperature measuring device (wide range)

Airframe

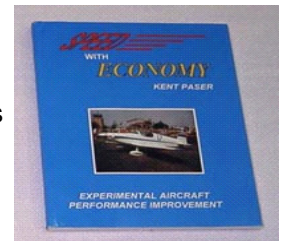
- Nicopress sleeve tool 53XPJ with gauge
- Nicopress sleeve tool 64CGMP without gauge
- De-burring tool
- Hole flanger - sheet metal
- Electrical connector squeezers
- Panel knock-out punches
- Rivet squeezer - w/two new die sets
- Torque wrenches (2), (large and small)
- Hose clamp pliers
- Tubular rivet set for 1/8" rivets
- Drill guide for drilling cotter pin holes through bolts

Events for 2010:

(To view all EAA events go to:
<http://www.eaa.org:80/calendar/>)

For Sale:

Speed with Economy – Kent Paser's book on speed mods. Covers 20 years of modifications to his Mustang II resulting in a 64 MPH speed increase while reducing fuel consumption by 50% at cruise. This book has won acclaim from EAA's Jack Cox and Ben Owen, Tony Bingelis, author of several aviation how-to-do-it books, and Bob Bushby, designer of the Mustang II. Price is \$24.95 plus tax and shipping. Available at Chapter 301 meetings or call 303-904-3417 or e-mail paserpubs@mindspring.com to place your order.



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(This advertisement made possible by a donation to EAA 301.)

Advertisements

Hangar space: John Barrett would like to find someone to share his hangar space with his J-3 at Tri-County for approximately \$110.00/month. Smaller low-wings work the best, but he will consider others. Contact John at: 303-934-1332 (Ext. 31); Fax: 303-934-5756; Email: john.barrett@lwbarrett.com

POLY-FIBER HAS NEW FABRICS: Heavy-3 and Medium-3 Dacron that now shrink the same in both directions are now available. Also, Ranthane, a high solids polyurethane finish paint is now usable under the Poly-Fiber STC as well as Aerothane and Polytone. These products are available through Colorado Classic Aircraft.

Colorado Classic Aircraft in Longmont Colorado (www.coloradoclassicaircraft.com) has been a stocking distributor of Poly Fiber covering materials since 2002 and is now providing fabric covering and painting services. Owner Carol Leyner was Director of the Rocky Mtn. Fly-In for many years and has been a participant at the Montana Aviation Conference presenting Fabric Covering Seminars for the AI refresher courses. We have recently completed recovering a KCAB Citabria after replacing the wood spars with aluminum spars. cca@hughes.net or toll free at 1-888-600-5222.

For sale: Lycoming O-235 C2C, Logs, Receipts, yellow tags. OS-MOH by Ron Denight. Contact: Darl Cinquanta – (303) 423-9846

Partners wanted: 2 or 3 partners for a flying RV7/7A or 8/8A. Based at Front Range airport. Call Bob Spry, 239-437-9146.

Chick Spaur says that Mike Henney's workbench, a really nice grinder and a few small tools are available to anyone from the Chapter for a VERY REASONABLE price. Contact Chuck for details: 720-934-3427/chuck@spaur.com

For rent: Hangar Space at Centennial Airport: Hangar has generator power. Space is suitable for homebuilt-sized aircraft like an RV-7 or Mustang II. Share hangar with Kent Paser and Jess Wright. \$200 per month. Call Kent Paser at 303-904-3417.

Looking for partner: ½ share in almost complete Mustang 2 project. Mazda 13b Rotary engine, 2.85:1 re-drive, redundant ECU, electronic engine monitor, 250XL GPS/comm, etc. Project at 'finishing' stage – hope to be flying by fall. Based at 00V (Meadow Lake – north east of COS. Could relocate to APA or Front Range). Contact: Mark Supinski (mark@supinski.net).C: 720-272-5563; H: 303-841-2994

Aircraft trailer for sale: It is rated for 1500lbs., has a flat-based plywood bed of approx. 6' X 18', with a cable hoist at the front of it and tie downs about mid point, as well as up front. It has a leaf at the rear for loading. Is wired for lights. Has a spare tire. Asking \$750.00. See Jesse Wright at meeting or call at 720-434-3987. E-mail is (flyinisfun@aol.com).

(Meeting minutes cont'd from pg. 2).

has some experience with these things agreed to consult with **Ted Lemen**.

Jim asked if there was any New Business to be considered.

Jim reported that in anticipation of his death, **Jack Bongberg** has sold his hangar to the chapter including the contents. These include tools and equipment as well as a partially completed (estimated 65%) 2/3 scale *P-51D Legend*. After some discussion the issue of what to do with the hangar was referred to the Board of Directors. On motion it was ordered to hire an attorney to help us resolve any uncertainties about the legalities involved. In the meantime, **Ted Lemen** will change the locks/keys to protect our interests.

John Linz representing the Rocky Mountain Regional Fly-in invited pilots to fly in and show their planes. He also enumerated some of the attractions. This will be held August 28 – 29 at Jeffco airport.

Jim asked if there were any Safety Notes.

Jerry Knieval reviewed the new language and procedures for taxiing to and from and crossing runways.

Russ Grell reported seeing a 1/3 scale *Edge 300* R/C model flying near Brighton. It's hard to gauge distance from such aircraft in the air.

Ted Lemen reminded us of the hangar party at Front Range airport tomorrow.

A coffee recess was declared.

After the break, **Ted Lemen** shared his experiences and pictures of flights in and around the Grand Canyon and Monument Valley.

Respectfully submitted,

Lynwood Langer, Secretary



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First Class

Chapter Mission:

To Promote and Encourage the Restoration, Construction, and Safe Operation of Sport Aircraft.

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Submission of articles for publication in the newsletter, comments, or inquiries are encouraged.

Meetings are normally held on the third Friday of each month at 7:00 PM. Current location is: **Parker Fire Station #75 (5), 16801 Northgate Dr., Parker, CO. The station sits on the corner of Keystone and Northgate and is just west of Jordan Rd. and a few blocks north of Lincoln Ave.**

Current Officers:

President: Jim Elliott (303-840-2199)
Vice-president: Ted Lemen (303-985-3684)
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Treasurer: Russ Grell (303-791-3528)

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Ted Lemen (303-985-3684)
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Kent Paser (303-904-3417)
Terry Sickler (303-816-2090)
John Linz (303-771-0685)
Brian North (303-805-9428)

Volunteer Officers:

Librarian: Jack Bongberg (303-671-6095)
Tool Custodian: Mel Kuethe (303-794-3930)
Newsletter Editor: Lynn Schwankl (303-431-0270)

Refreshment Chairman: John Tedder (303-663-7851)

Flight Advisor

Ted Lemen (303-985-3684)

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