

EAA 301 - Rocky Mountain Chapter

August Meeting:

Scott says,

"Patti Arthur, an airline pilot, instructor and attorney, will be presenting on liability issues for homebuilt aircraft builders, buyers and sellers. Topics covered include general liability issues with aircraft, liability for builders, potential problems for buyers and sellers, estate issues, and donating the homebuilt aircraft."

- **Date:** Fri., August 15th
- **Time:** 7:00 p.m.
- **Location:** Adam Aircraft
12876 E. Adam Aircraft
Way, Centennial Airport,
Englewood, CO 80112



President's Page

August 9, 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 string-

ers 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 preformed 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

Jim Elliott

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 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

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NOTICE:

Annual Lemen/Kniese 301 Picnic: Saturday, Aug. 23rd, 12 p.m. - ? 37750 Astra Wy., Unit 4W, Front Range Airport. Go to radar dome, look N. to see hangar. Meat & drinks provided. Bring a favorite dessert or salad - if you like.

EAA Chapter 301 Meeting Minutes

July 18, 2008

Called to order at 19:00
hours: VP **Scott Wiseman**

Introduction of Guests:

Jack McGuire
Kent Panter
Joe Graham

June, 2008 minutes approved by voice vote.

Treasurer's Report: **Russ Grell** Financial status for the Organization remains stable. We have 80 members.

Technical Advisor Report:
None

Flight Advisor Report: None

Progress Reports:

Albert Thomas has an RV-8A. Engine wiring is complete and is working on the cowl. He hopes to fly by fall.

John Tedder is working on his RV-7. He is fitting the canopy; working on the windshield.

Young Eagles Report: **Rudy Kniese**

The Young Eagles program continues to go well. Photos are available on the website. 290 kids have taken advan-

tage of the YE Program to date.

Old Business: A recommendation that the Chapter develop a banner system to identify the Chapter at various events. **Jim Elliott** will look into this item.

New Business: The proper use of hangars, owned or rented was discussed.

There is an opportunity to ride in a B-25 for a donation of \$375.00. Contact the Jet Center for details.

Safety Report: **Jerry Knievel** briefed that the ELT system for emergency location is on the way out. UHF GPS products are on the market for review.

The procedures for arrival at Oshkosh were reviewed and explained.

Break

Meeting adjourned.

Submitted by:

Jack Bongberg, Secretary

Announcements:

▪ Mark your calendars for **Saturday, August 23rd., 12 p.m. – ?** It's the **Annual Lemen/Kniese 301 Picnic**, held in Ted's hangar at Front Range Airport: **37750 Astra Way, Unit 4W**. Drive to the radar dome, look north to see the hangar. Meat and drinks provided. Bring a favorite salad or dessert – if you like.

Editor's Notes:

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

► If anyone is having a problem accessing the web site, contact Treasurer and computer guru **Russ Grell** (303-791-3528) and he will change your password to whatever you need. Right now, for the new folks, the *User ID* is: **firstname.lastname** and the *Password* (that should be changed at the first sign-in), is in the e-mail you get automatically from the web site.

You'll have to use your "zoom" feature to read this flyer.

WILD WEST ULTRALIGHT ASSOCIATION & THE
MARKHAM'S INVITE YOU TO ATTEND THE
ANNUAL LABOR DAY



FLY-IN

AT THE MARKHAM'S

30th & 31st OF AUGUST 2008

FRIDAY ARRIVALS ARE WELCOME.

CAMPING AVAILABLE EAST OF THE SHOP. PLEASE LOOK FOR DESIGNATED AREA.

LAT: 40 08 78

LON: 104 41 52

LIMITED TIE DOWNS. PLEASE BRING YOUR OWN.

19231 WCR 22, FORT LUPTON, CO. 6.2 MILES EAST OF HIGHWAY 85 ON WCR 22. HALF MILE WEST OF WCR 41 ON WCR 22. 2 MILES NORTH OF PLATTE VALLEY AIRPORT BY AIR.

CONTACTS: 303-536-9272 MIKE MARKHAM
970-302-2847 TOM NICHOLS

RUNWAYS: MAIN RUNWAY NORTHEAST TO SOUTHWEST 1,900 FEET LONG. SECOND RUNWAY NORTHWEST TO SOUTHEAST 1,900 FEET LONG. THIRD RUNWAY NORTH TO SOUTH 1000 FEET LONG SLIGHT UPHILL AT NORTH END. OBSTRUCTIONS POWER LINES ON SOUTH & WEST SIDES OF PROPERTY. FENCES ALONG WCR 22 EXCEPT AT SOUTH END OF THIRD RUNWAY AND EAST AND WEST END OF PROPERTY.

SATURDAY AND SUNDAY CLUB SPONSORED PANCAKE BREAKFAST. POTLUCK LUNCH BOTH SATURDAY AND SUNDAY. BRING A MAIN DISH. PIG ROAST SATURDAY NIGHT. BRING A SIDE DISH.

COME FOR THE DAY -- COME FOR THE WEEKEND. ALL INTERESTED FLYERS OR WANT-A-BE FLYERS ARE WELCOME!

Hello, Could you all pass this attachment on to your newsletter people. This is a great little fly-in that deserves some attention. This one is out on a farm and these folks know how to put one on. If you cant make the whole fly-in at least try to make it Saturday (for the pig roast). I recommend it highly. The planes that have attended in the past go from ultralights, powered parachutes, Piper Cubs, Champs, Huskies ect. There is lots of room there. Please come and visit.

Greg Hall – EAA Chapter 43 President

President's Page Continued

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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 basic airspeed and altimeter 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 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 note-

book 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

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The picture below represents the result of a design by committee. The red half of the committee is on the right wing, the blue half....well, you get the drift. Ed.



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 2008:

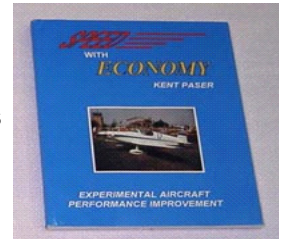
- AirVenture Oshkosh 2008, July 28-August 3
- To view all EAA events go to:

<http://www.eaa.org:80/calendar/>

(Additional events to be announced. Have a favorite? Let me know. Ed.)

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.



KEN AERO Supplies

AN-MS Hardware • Hose & Tube Fittings • Aircraft Supplies
Now located at Platte Valley Airpark

Tel: 303-536-4978

Fax: 303-536-9941

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

EAA Chapter 301 Meeting Minutes – cont'd as needed.

Advertisements

For Sale: Kitfox Series 5 Firewall Back Kit. Could be licensed as either gross weight of 1550 lbs. or as Light Sport at 1320 lbs. Uses the Rotax 912 100 hp engine, a traditional aircraft engine, or similar power plant. Includes many features, such as tube and fabric construction, adjustable rudder pedals, powder coated airframe, conventional spring gear, speed mods and wheel pants, folding wings, short field performance, and a decent cruise speed. Very little work completed so you can finish it your way. Only \$12,500 (compared to over \$22,00 for a new kit). Call me at (303) 807-4699 for further information. Stan Specht, Kitfox Model IV builder and driver.

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

Looking for partner: ½ share in almost complete Mustang 2 project. Mazda 13b Rotary engine, 2.85:1 redrive, 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).

Experimental Aircraft Parts for Sale:

The following inventory of parts comes from the estate of Steve Wheelahan, EAA member recently deceased. I have agreed to help Dorothy (his mother) dispose of these materials in the best manner possible. All offers will be considered, and provided to offset funeral costs. All materials are in my possession, to minimize interruptions and disturbances for Dorothy.

Based on the plans and a limited review of the notes, it appears that most parts were for the building of a set of wings consistent with a Cub or the Kodiak 44, as designed by D&E Aircraft.

To examine the inventory, purchase or speculate on the purpose of some parts, please contact:

Allen Cook, EAA 790374, chapter 301

O: 720-963-6931

C: 720-272-5563

H: 303-841-2994

Email: allen.cook@ngc.com

Item list continued in next column ►

Item #	Count	Description	new/used
1	1	2" VDO Oil Pressure Gauge 0-80psi	used
2	1	3" G-Meter, certified w/docs	new
3	1	2" Stewart-Warner Fuel Level Gauge	new
4	2	Stewart-Warner Thin-film fuel level sensor (L&R)	new
5	1	2" E.T. quartz clock (analog dial) (Mid-Continent)	new?
6	1	2" Oil Pressure gauge (new) VDO	new
7	1	2" electronic tach (analog) Westach	
8	1	3" Altimeter (glass cracked)	used
9	1	Vertical Card Compass (Hamilton)	new
10	25?	Bag, assorted clecos and clamps	used
11	1	3" Airspeed indicator	
12	1	Eyeball air vent, black plastic	new
13	2	Fuel filler caps, w/O-ring seal	new
14	1	2" Oil temperature gauge	
15	1	Coil, Al tubing, approx. 15' X ¼"	new
16	4	Strut-end fittings	new
17	4	Flap bell crank, Al cast	new
18	4	aileron bell crank, Al cast	new
19	2	Al flap mount?	new
20	17	Al spacers or brackets	used
21	19	As above	new
22	Asst.	Several different brackets, Al	new
23	Set?	Wing ribs, Al, Riblett airfoil (Cub)	Shop made
24	Set?	Flap ribs	Shop made
25	Set?	Aileron ribs	Shop made
26	set	Wing rib forms, wood	Shop made
27	2	Forming blocks (plastic) for rib lightening holes	
28	4	8' sections, extruded wing leading edge	new
29	Asst.	Various extruded Al angles, in lengths	new
30	2	Main Spar, extruded 6061T6 Al, 17" X 5 11/16"	new
31	2	False Spar, extruded 6061T6 Al, 16" X 4.5"	new
32	1	Set of Plans, Bearhawk 2-place (Patrol?) R&B Aircraft	
33	1	Set of Wing plans – 66" Riblett airfoil, D&E Aircraft	



EAA 301 - Rocky Mountain Chapter
www.eaa301.org

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First Class

Chapter Mission:

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

This newsletter is published by Chapter 301 of the Experimental Aircraft Association for the use, education, and enjoyment of the members and others to whom it is provided. No claim is made for technical accuracy of material presented. Editorial content is the opinion of the contributor and does not reflect the position of Chapter 301 or the Experimental Aircraft Association.

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 at Adam Aircraft, 12876 E. Jamison Circle, Centennial Airport, Englewood, CO 80112.

Current Officers:

President: Jim Elliott (303-840-2199)
Vice-president: Scott Wiseman (720-427-5037)
Secretary: Jack Bongberg (303-671-6095)
Treasurer: Russ Grell (303-791-3528)

Board of Directors:

Jim Elliott (303-840-2199)
Ted Lemen (303-985-3684)
Lynn Schwankl (303-431-0270)
Mark Brown (303-797-3515)
Denis Walsh (303-756-6543)

Technical Counselors:

Bill Marcy (303-798-6086)
Kent Paser (303-904-3417)
Terry Sickler (303-816-2090)
John Linz (303-771-0685)

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)

Webmaster

Mark Supinski (719-651-3236)

Young Eagles Leader

Rudy Kniese (303-841-7180)