

EAA 301 - Rocky Mountain Chapter

March Meeting:

Scott says,

“For this month I chose one episode from the award winning PBS documentary *Carrier*. It features plenty of in-flight footage and landings on a pitching deck.”

- **Date:** Fri., March 20th
- **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

March, 17th 2009

The layout of aircraft systems and the associated wiring can really make a difference in your project progress and the end results. Even working on production certified aircraft, I have noticed significant areas of concern where improvement could make the assembly smoother and the maintenance later on, more reasonable.

Design and build your project for “Maintainability” and you will enjoy the flying and the fixing when it is needed. Your first consideration is the space in which you have to place all your equipment. This

space is the 3D factor of your aircraft – not just the 2D panel layout. Yes, you need to arrange your instrumentation to accommodate the FAA suggested panel orientation of instruments, but in addition to the grouping facing you, the area behind the panel is a reservoir of airspace that will quickly diminish if not carefully planned and considered.

The use of terminal blocks for interconnects and grounds is highly recommended. There are several types of these available. The most basic and least tooling required is the cross-connect terminal block with a metal strip between two screw down terminal posts. These come in

Jim Elliott

several length strips which you could modify as required for the number of interconnects you will use. The most complex terminal blocks are pre-wired in specific patterns to allow interconnects between multiple wires that are properly pinned (requires special tools to crimp these pins on the wire). Each wire is then placed in their specific location on the block and the connections, by design, are completed.

Pre-wiring future applications can be done on these terminal blocks and the terminated wiring provides a

(Continued on page 3)

Inside this issue:

Announcements	2
Meeting Minutes	2,5
Tools	4
Events for 2008	4
Hangar Space	5
Advertisements	4,5

EAA Chapter 301 Meeting Minutes

February 20, 2009

Meeting was called to order at 7:01 p.m. by President **Jim Elliott**.

Visitors:

Jack Buschmann is building an RV-7 and has a Maule for sale.

Bob Casey, Mike's brother.

Shaun Hillis from Elizabeth, has a 1939 J-3 project, plans to replace the C-65 with a C-90 or O-200.

Pete Benton has a C-180 at Everitt Airfield, wants to build an F-1 Rocket

The minutes of the previous meeting were approved as published in the newsletter.

Treasurer's Report: **Russ Grell** reported that we are solvent.

Tech Counselors: No report.

Flight Advisor: No report.

Progress Reports:

Jeff Budney reported his RV-7 empennage is complete and his wing kit is due in May.

Steve Wyman: RV-12 empennage, wing, and fuselage are done, his finish kit is due in March.

Jess Wright ran his O-320 yesterday, it is OK now.

Scott Byerly received his RV-10 fuselage kit.

Al Thomas said after 4-1/2 years, he is now working on the wing of his RV-8A quick-built kit.

Flight Reports:

Howie Cammack took his BFR last week.

Scott Byerly took his daughter for her first flight.

Young Eagles Report: **Russ Grell** reported that they flew over 30 kids last month, the next event is February 28.

Old Business: **Howie** has nametags.

New Business:

Howie has an RV-9 taxi light for free.

John Linz mentioned the Blue Angels air show at FTG June 13-14 and the Rocky Mountain Regional Fly-in at BJC, Aug. 22-23.

Announcements:

► 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.

Overflow parking at the firehouse: park in the lot east of the station.

Jim Elliott mentioned a 1946 Aeronca Champ for sale for \$36,000.

Al Thomas asked about hanger rents in the area, several responses were received.

Safety Report: Be aware of wind shifts near obstructions on the ground on your approaches and take-offs; climb to avoid bird strikes, as the birds will dive to avoid you.

Break.

After the break, **Mike Casey** gave a presentation on the engine and electrical installations on his RV.

Meeting adjourned.

Respectfully submitted,

Don Smith for **Stan Specht**,
Secretary

President's Page Continued

(Continued from page 1)

very nice appearance of organized wiring. However, the installer must conform to the good practices of "combing out" the wire bundles to eliminate cross over wires and spider webbing. While you are making your layout wire bundles, be cautious of pulling a wire or two and short cutting corners. This can cause what's known as "Banjoing" which is highly undesirable.

The use of terminal blocks also provides an excellent point to access every circuit and test it. If you don't provide terminal blocks, be ready to build multiple custom break-out connectors which allow you to get direct access to the wiring. Some applications will be extremely hard to do this. Most experimental aircraft are built with size being a major consideration. That translates to small size and no room behind equipment to access it. This also translates to high difficulty in

maintainability.

Maintainability requires the equipment be easy to test, easy to remove and easy to replace. It is not always possible to attain, but whenever you are building and find yourself stacking two, three or more things on each other, ask yourself every step of the way, "Will I be able to test, remove/repair and or replace this?" If you can answer "yes" to these conditions, you will enjoy the end results. If your answer is "no", reconsider what you are doing and see if there is another path you might follow. Otherwise, you will surely find yourself trying to fix something that should have taken only a few minutes and you are stretching it out to three days.

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

Jim Elliott



When they took the plane out of the Hudson, they ended up having to detour through East Rutherford, NJ. These roads were not made for planes.

(Neither was the Hudson. 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:

- To view all EAA events go to:

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

FLY IN:

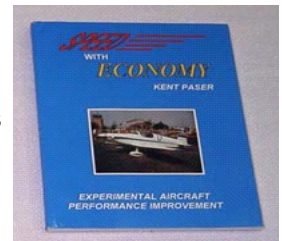
June 20 - Broomfield, CO, USA. **JAA 14th Annual Fly-In** in conjunction with The Italians of America Car Show 6 a.m. - 12 noon. Rocky Mountain Metro Airport (BJC). Registration Fee \$5.00. Italian Pancake Breakfast a.m. Trophies given in 9 aircraft classes. Drawing to be held, for fly-in pilots only, for a flight in a mystery plane to be announced. Contact Daril, Phone 303-423-9846, Email: cq7014@aol.com.

[\(Have a favorite? Let me know. Ed.\)](#)

[Announcements cont'd on next page →](#)

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.)

Announcements cont'd

Announcing the
Sixth Annual AHS Convention
Indianapolis, Indiana
(Wednesday July 15 – Saturday July 18, 2009)

This convention will enjoy three July days in convenient Indianapolis, Indiana. We will have a unique opportunity to explore the archives, storage, restoration, and display areas of the recently dedicated Rolls-Royce Heritage Trust Allison Branch Museum. The James A. Allison exhibition hall contains several dozen engines including the piston Liberty and V-1710, turboprops like the T-40 and T-56, jet engines such as the 578-DX unducted fan, regenerated gas turbines, and the AE1107 that powers the V-22 Osprey tilt rotor. For those with the interest, a working program is being developed that will allow us to partner our diverse talent with the Museum during our visit, from assessing and restoring the Powerama collection of wooden models, archiving, or some hands-on engine experience.

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

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).

C: 720-272-5563

H: 303-841-2994

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. OSMOH by Ron Denight. Contact:

Announcements cont'd

Our scheduled speakers are decidedly Allison-centric, with author and archivist John Leonard discussing some of the unique projects and capabilities of Allison through the years, Rolls-Royce's Dan Jensen tackling small gas turbines and the remarkable Allison Model 250, and Dan Whitney detailing the art and science of turbocharging the V-1710. Tom Fey will chronicle the short but diverse life of AeroProducts contra-rotating propellers, Roush Aviation's Merlin rebuilders Paul Draper will discuss the challenges and approaches to keeping the V-1650's flying, and Museum Chairman Dave Newill will share his insight and experience on the joys and thorns of building an engine collection. Add a silent auction, the ongoing camaraderie of our attendees, and hours of commiseration, all for a great price and free daily breakfast, this is an opportunity not to be missed.

SCHEDULE OF EVENTS

Wednesday July 15

12 noon to 5:00 p.m.

Registration in the hotel lobby. Participants can visit with other conventioners.

6:00 p.m. to 9:00 p.m.

Reception. Light hors d'oeuvres served plus a cash bar.

Thursday July 16

8:00 a.m. to 8:30 a.m.

Welcome and introductions

8:30 a.m. to 9:00 a.m.

Break

9:00 a.m. to 11:00 a.m.

Presentation - John Leonard: Overview of Allison Engines and Products

11:00 a.m. to 12 noon

Lunch program (lunch provided by the AHS)

Presentation - Paul Draper of Rout Engineering: Rebuilding the **Modern Merlin**

12 noon to 5:00 p.m.

Allison Museum

5:30 p.m. until Dutch dinner - optional participation but highly recommended

Friday July 17

8:00 a.m. to

9:30 a.m.

Presentation - Dan Jensen: Allison Small Gas Turbines

9:30 a.m. to 10:00 a.m.

Break

10:00 a.m. to 11:30

Presentation-Dan Whitney: Turbocharging the Allison

11:30 a.m. to 12:30 p.m.

Lunch with informal special interest sessions (lunch provided by the AEHS)

12:30 p.m. to 1:00 p.m.

Travel to Speedway Museum

1:00 p.m. to 5:00 p.m.

Tour Speedway Museum

6:00 p.m. to 9:00 p.m.

Banquet at Days Inn Airport. After dinner speaker-Dave Newill

Saturday July 18

9:00 a.m. to 10:30 a.m.

Presentation - Tom Fey: AeroProducts Contra-Rotating Propellers

10:30 a.m. to 11:00 a.m.

Break

11:00 a.m. to 12 noon

Silent auction winners announced, 2010 Convention discussion, good-byes.

Breaks will include coffee and soft drinks.

This schedule is tentative and subject to change.

For additional information, contact EAA 301 member Allan Lockheed.



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.

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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: Scott Wiseman (720-427-5037)
Secretary: Stan Specht (303-232-8474)
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

Young Eagles Leader

Rudy Kniese (303-841-7180)