

# EAA 301 - Rocky Mountain Chapter

## March Meeting:

### Scott says,

"The presentation for this month will feature Brian Beatty, one of the owners of XPanel Software 5000, the software that helps you design and build an instrument panel."

**Editor's note:** See the press release on Page 5, describing the new version with some great, added features.

- **Date:** Fri., March 21st
- **Time:** 7:00 p.m.
- **Location:** APA ATCA Main floor meeting room at base of Centennial Airport control tower. *You are all cleared for landing.*



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## President's Page

### "EAA CHAPTER 301 – MEETING AGENDA FOR March 21, 2008"

**Editor's Note:** Did you enjoy it? Well, that wasn't the President's message, as you will see. Miscommunication and an errant attachment led to this minor snafu. And now, for the rest of the story.....

March 16, 2008

As the year gets further along, so does the technology that we use. You have probably seen many of the robotic pieces of equipment available. From the simple escalators that are often called people-movers, to the complex space probes used to reach the planets that capture fantastic pictures, crawl around the terrain and view the places in space where we can not yet go.

For the most part, to get one of those vehicles off our

mother earth and on its way to a distant planet, requires air-space. That's right, the air-space just like you and I fly our magic carpets around in. However, there is something very special about that air-space. It is "Restricted" air-space where you and I can't normally go. That way when the missile used to carry this neat package departs the earth and accelerates to 17,500 mph, there is a channel in which no other aircraft is allowed to occupy.

As our technology gains capability, we find that there is a way to allow an aircraft to take off from one airport and land somewhere on the other side of the world, without having a pilot on board – using equipment referred to as UAS (Unmanned Aerial Systems). Very interesting capabilities, I might add. So far, these flights are confined to controlled military ops and are in well-defined channels, almost

## Jim Elliott

as well as the channels used for the missile launch.

Wouldn't it be nice if the UAS's could take off and go over areas devastated by natural disasters, or even man-made disasters and examine everything about the problem area -without carrying a human -who might be in danger if they were on board? Sure it would! They even tried to get UAV's (Unmanned Aerial Vehicles) over the New Orleans area after the Katrina hurricane, but wouldn't you know it, the FAA couldn't let them operate in the area, because there was and still isn't a defined process to allow UAS' equipment in the air space!

We have the technology to fly around the world with an un-

*(Continued on page 3)*

## EAA Chapter 301 Meeting Minutes

### February 15, 2008

Meeting called to order at 19:00 by Jim Elliot, President.

Introduction of guest:

DJ Molny

Minutes of January 18, 2008 were reviewed and approved as written.

Treasurer: Russ Grell

Reported that the Laptop and Printer were purchased and on hand, along with tools for the tool crib. Financial status for the Organization remains stable.

Technical Report: None

Flight Advisory: Ted Lemen

The RV-7A of Bob Meer is about ready to fly.

Members progress Reports:

Your Secretary is having trouble keeping up with the progress reports. A summary sheet will be provided for those who provide a statement at the March 21, 2008 meeting.

Flight Report: None

Young Eagles Report:

Russ Grell reported the schedule for February; the program is going well and is fully staffed with pilots and aircraft.

Old Business: None

New Business:

Meeting location for the months of March, April, and May will be at the Centennial Operations Center at the base of the Control Tower. Access can be gained by pushing the "Intercom" button at the gate. 303 877-7307 is the ops # if there is no response to the but-

ton. It would be best to be on time if at all possible.

There are about 70 chairs and a table at Adams Aircraft that belong to the Chapter. Gaining access is a problem, but Jack Bongberg has a trailer and is willing to pick them up, if we get a chance.

Lynn Schwankl requested some pictures for the Newsletter.

Safety Report: Jerry Knievel

Jerry reviewed the proper flight tourniquets in the traffic pattern. Most General Aviation accidents are a result of over banking from down wind to base or base to final, and/or allowing the airspeed to fall below minimum.

Break

Coffee and Donuts provided by John Tedder.

Program provided by DJ Molny, "Aerobatic Aircraft" and how to get involved.

Respectfully submitted,

Jack Bongberg

#### Editor's Note:

Thanks to DJ Molny for an excellent presentation on aerobatic flying and competition – where thinking inside the box is good. It was also a relief to learn that I'm not the only one who is not naturally inclined to fly upside down under 3 g's of force. LRS

#### Announcements:

▪ New tools: For the firewall forward area, we have tubing benders: sizes 3/8 inch and 1/2 inch; also one tubing bender. **Mel Kuethe**

▪ Regarding the temperature measuring equipment recently acquired by the chapter. This equipment allows the user to instrument at six locations and conveniently switch to any of the six channels to view the readout while in flight. This is a thermocouple based system. The sensors have a broad temperature range and will most likely be compatible with any the requirements we have. **Mel Kuethe**

▪ As a result of a suggestion I made to a Reno racer, which worked well, I have received some interest from Aerospace Welding Inc. ([www.awi-ami.com](http://www.awi-ami.com)) in tuned exhaust systems. A particular focus is RV-7 and RV-8 aircraft, and others are possible. Kent Paser detailed requirements and gains in his book very well--including how to integrate revised cowling to the total engine system. So, if a member is interested in creating an upgraded cowl and exhaust system design for his aircraft, we should get some exhaust parts help from AWI, and make a slick system in the process!

#### **Allan H. Lockheed, Golden, CO**

▪ Saturday, April 5, 2008 7:30 a.m.-11:00 a.m.

Snow Buster Fly-In: Erie Municipal Airport, Erie, CO, USA

On Saturday, April 5th, say good-bye to winter with the first fly-in breakfast of the season at Erie Municipal EIK (Tri-County), sponsored by EAA Chapter 43 "The Mile High Chapter". Pancakes will start coming off the grill at 7:30 a.m. and won't stop until 11:00 a.m. This Colorado tradition, which was started in Greeley many years ago, is moving to Erie in 2008. There is only one objective; to have fun with the flying community and enjoy some great hanger flying.

Cheers,

**Don Smith  
Lakewood CO**

## President's Page Continued

(Continued from page 1)

manned aerial vehicle being controlled from some remote station in the desert via satellite, but we can't let one of those devices loose in our air space, because of a minor, little glitch. When you fly around with your personally hand-made vehicle, you are either VFR or IFR, and are the one completely responsible for the operation of that vehicle. You must follow all the rules for flight in VFR conditions – like clear of clouds (by "x" amount of feet) and you are to see and avoid other air-borne traffic, and give right away to other aircraft in the area using the well-defined FAA rules.

There is even a FAA rule that says that you can forego *ALL* rules in the event of an emergency and if the officiating office so requests after the emergency, you will need to submit a written report as to why you voided the rules.

The problem for the UAS equipment is multi-faceted. First of all, in a standard aircraft that you build and get certified under "Experimental", you are part of the aircraft and will share the same fate as that aircraft if you make the wrong judgment. The UAS does not have the pilot on board, so

the fate of it and the pilot are not the same (unless the firing squad is brought back, but that is highly unlikely).

Even with the best of current technology in optical cameras, estimation of distance to clouds is not as clearly done, as if you are in the airplane and seeing it with your own eyes. Maybe in the future it will be better.

What about the communication link between the ground pilot and the UAS?

There can be a disconnect and a period of time that the two are not in sync. What is to be done then? A software program with highly-refined GPS data can take over and make the remaining portion of the flight.

But that would let a machine hold the fate of possibly another aircraft that might not see the UAS (often very small) and in hitting the UAS, loose the ability to stay in flight.

These are not the best of scenarios, but you know what? These are right around the corner and will be solved, and then the skies will be filled with UAS's. That might just possibly include the next commercial flight you take to visit the folks or to go on vacation! Just imagine, the pilot coming over the intercom and indicating that he's Hal and he just came off the assembly line

in Taiwan, and he'll have the flight clearance to (name your destination) shortly, so sit back and relax.

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

*Jim Elliott*

*P.S. Check out this link related to this P-38 wannabe (below & belower), it's a blast:*

<http://www.vansairforce.com/community/showthread.php?t=26818>

### RV - 82 R Prototype ( SC Mod. 1 )



By Roofman

**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 bead-ers: 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

**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).

**Events for 2008:**

- Snow Buster Fly-In, April 5th. Erie Municipal Airport (See "Announcements" on pg. 2 for particulars.)
- Sun 'n Fun Fly-In, April 8-13
- International Young Eagles Day. Saturday, June 14, as EAA volunteers continue an outstanding aviation tradition.
- AirVenture Oshkosh 2008, July 28-August 3

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

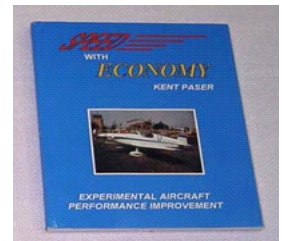
**For Sale**

**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**

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

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

### **NEWS RELEASE: For Immediate Release**

Contact: Brian Beatty, 303-547-8454; BBeatty@XPanelSoftware.com

#### **XPanel 5000 Instrument Panel Design Software Goes International with Added Features**

##### ***Next Generation Aviation Panel Software is Now Offered with Metric Conversions, Foreign Currency Costs and More***

**Atlanta, GA – February 8, 2008** – XPanel Software announced today the release of the company's newest version of instrument panel design software made for aircraft builders, avionics shops and aircraft owners. XPanel now offers weight and dimension calculations in metric format, and cost calculations in 23 foreign currencies. In addition, the company's website will now include a forum page for users to swap panels, exchange comments and post general advice for other builders.

"We are continually working to answer the demands of our customers," says founder and owner of XPanel 5000, Scott Wilkinson. "It has been an incredible ride to this point. We have added these new international features because our customer base is growing to include builders worldwide." Wilkinson continued on, "we are most excited about the upcoming development of our CAD cutout capability." XPanel will partner with avionics companies that have the ability to cut out the panels to the builder's specifications. This will allow users to create their own panels with customized layout and configurations, and email the saved images to an XPanel partner to have the instrument panel cut or built entirely.

"We believe in our product, and want users to have a full and satisfactory experience," Wilkinson says. "That's why we provide regular upgrades – including these new enhancements – and expand our database of information at no charge to existing customers."

#### **About XPanel Software**

XPanel Software has long been recognized as a leader in the airplane instrument panel layout and configuration market providing user-friendly options that enable users to select, align, modify, email and manipulate their own designs or those of fellow builders. Selecting from hundreds of instruments and cabin controls, on dozens of preloaded instrument panels, users can keep track of cost, weight and amps and more while they build a panel to suit their needs. XPanel 5000 software is available for download at [www.XPanelSoftware.com](http://www.XPanelSoftware.com). The software will be offered at a promotional price of \$29.95 through Sun 'N Fun airshow in Lakeland, FL in April 2008. Beginning May 1, 2008, the price will increase to \$49.95. For more information, contact XPanel at [Sales@XPanelSoftware.com](mailto:Sales@XPanelSoftware.com) or [BBeatty@XPanelSoftware.com](mailto:BBeatty@XPanelSoftware.com).



*EAA 301 - Rocky Mountain Chapter*  
*www.eaa301.org*

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## First Class

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## **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 Adam Aircraft – Centennial Airport – 12876 E. Jamison Cir., 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)

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