



emergency services; Gordy Seuell, check radios; Bill McBride, grounds clean-up---NAUA (North Alabama Ultralight Association).

Pres for Jim Harchanko

### Membership

I believe at last count we have 30 paid members for this year. This is up from last year. I must also say we have lots of folks who participate in those activities they can who are not EAA members or chapter members and they are welcome. For all of our full chapter members, remember that you must keep your national membership current in order for the chapter to retain its insurance. This is important.

We will have a board meeting on the 10<sup>th</sup>. We will discuss and formulate our plans for the rest of the year, and also down select a set of options for the chapter to vote on at this month's meeting regarding improvements at the airport and scholarships etc. We have a list, but are always open to additional items, so if you have any, send them in to me.

As you know when the Taylorcraft project was purchased the chapter was donated \$1000 for the work our members put in on it. John Vincent provided a summary of the chapters treasury and it is included on the mailed versions and e-mail versions sent to members.

### Coming Up.

Tell us what you want! We can educate the interested, and entertain the bored, we may even be able to answer the curious, but we are guessing about your current condition. Mark Langford, who is building a KR-2S is about to start his Corvair engine. He has

invited us to come by and see that. Expect that in the next few months

### Tech Points

Lots of nuts and bolts hold our planes together (unless you build plastic ones, then there are fewer). There has been lots of chatter on one of the type aircraft chat rooms of late about grade 8 nuts and bolts versus AN nuts and bolts. Metal aircraft have a large number of AN, MS, and NAS bolts and other special attachment systems. Cost differences between AN and Grade 8 (the closest SAE equivalent) becomes an important factor. For folks like me, I have probably two hundred fasteners and the cost is not an issue.

So what is the difference? Why are commercially developed aircraft maintained with AN bolts? It's mandated in order to retain the certification. Is a grade 8 SAE bolt as good as an AN bolt. That depends. AN bolts have a nickel metal compound and SAE 8 are mild carbon steel. A Grade 8 has a tensile strength that fails at about 150,000 psi a Grade 5 at about 120,000, Shear for a grade 8 is 91,000. and grade 8 have a Rockwell hardness between C-25 and 34 while 8's are between 33 and 39 and are tougher. while an AN has about 125,000 lbs of tensile strength to yield. One of the biggest differences between AN hardware and Grade 8, is the variability in configuration. One can order the AN item with the head drilled or not, the shank drilled or not. The user can look at it and determine if it is a hi strength bolt or closer tolerance bolt easily. AN, MS and NAS bolts are all consistent quality bolts, lot to lot.

AN bolts are made from metals that make them more ductile. SAE bolts of the same general strength are more brittle. That is the may fail after less strain than the

AN bolt. AN bolts are rolled after heat treating while SAE s can be rolled before treating giving the threads different bearing capabilities.

Under the Fastener Quality Act of 1990 all nuts and bolts of 6mm or 1/4 inch and above, must be traceable to the specification, and manufacturer unless they fall in one of about 8 classes – one of which is aircraft hardware. Hardware made for aircraft, specified for specific aircraft, do not necessarily fall under that law, but rather under FAA control of a manufactured aircraft.

Well here are the basic points that you as a builder or maintainer must adhere to. Use the types of bolts specified by the designer/manufacturer. If you are working on your Cessna, you MUST use the correct hardware as called out by the manufacturer to maintain the certification. For the homebuilder, if you are building a plane designed by someone, you MUST build it according to his/her specs if you want him/her to stand behind you. If you modify their design, change the name of the aircraft to indicate it is different than the 'by the book' RV, Rans, Long Ez or such. If you have your own design, you are free to do as you wish – just keep in mind, you may be responsible for someone else's life several years from now, so DESIGN it right. These last two cases are where YOU MUST know the difference. Even the racing community uses fasteners that are spec'd to a higher quality than SAE, they are called ARP Qualified.

### Just a note –

Steve Conyers sent us a note about the Prattville Airport Annual Prattville Airport Fly-in & Open House put on by the Prattville Airport Authority. It's at the Autauga Co. Airport (1A9) Prattville, AL May 8, 2004 9 am - 3 pm. Food and drinks. All aircraft types will be there. Contact data is below

It's the EAA 190 Breakfast. **17<sup>th</sup> of APRIL 2004** at Moontown International (3M5). Please join us and if you are a member please spend an hour and help!

## More Events – Courtesy of Southern Aviator, and EAA

**4/13 - 4/19/2004 Lakeland, FL**

Sun 'n Fun EAA Fly-In, Lakeland Linder Reg. Airport LAL

Contact Information: 863-644-2431 <http://www.sun-n-fun.org>

**4/24/2004 Mobile, Alabama --**

7th annual Spring Fly-in, EAA Chapter 1209. Saint Elmo Airport (2R5)

Email: [EAA1209@aol.com](mailto:EAA1209@aol.com)

**4/30/2004 - 5/2/2004 Lawrenceville, Georgia --**

EAA 690 5th Annual Wings Weekend. Email: [jlevine@akorn.net](mailto:jlevine@akorn.net) Web: [www.eaa690.org](http://www.eaa690.org)

**4/30 - 5/2/2004 Irvington, AL (Mobile), Chapter 416 Fly-In (5R7) Hillery Grice 251-824-4538**

Email Address: [Phillip\\_Grice@Teledyne.com](mailto:Phillip_Grice@Teledyne.com)

**5/1/2004 Meridian, Mississippi --**

Fly-In at Topton Air Estate

**5/8/2004 Prattville, Alabama --**

Prattville Airport Fly-in, Autauga County 1A9 Contact Information: Stephen Conyers 334

3653508 Email Address: [sdconyers@hotmail.com](mailto:sdconyers@hotmail.com) or [rvnavy@bellsouth.net](mailto:rvnavy@bellsouth.net)

**5/15/2004 - 5/16/2004 Huntsville, Alabama --**

Annual Old Time Grass Field Fly-In. Camping, Young Eagles, Aircraft Judging. Moontown Airport (3M5) Contact 256-852-9781

Email: [tacco@aol.com](mailto:tacco@aol.com)

Web: <http://www.fly.to/eaal90>

**5/22/2004 Guntersville, Alabama --**

Lake Guntersville Splash-In at Wally Kirkpatrick's seaplane base on Lake Guntersville (N34-19 W086-23, or 220° radial 7.2 nm from Guntersville Airport),

Email: [wshaver@aol.com](mailto:wshaver@aol.com)



Well here is a group of aviators extraordinaire. Our VP George (Warbirds Star on cap) in tight formation with most of the YAK drivers of the Tennessee Valley. You missed a treat if you were not at 3M5 Moontown Saturday the 3<sup>rd</sup>. They just love the sound or round engines, and they know how to get up close and personal. They have been practicing formation flight.

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