

EAA - MILE HIGH CHAPTER 43

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Our Next Meeting:

The next Chapter 43 meeting will take place at 7 PM on November 11th, at the Jeffco Airport Terminal building (our normal meeting time and place).

Minutes From the October Meeting:

The meeting was held on October 14th at the Jeffco Airport Terminal building; Gene Milligan presiding. Minutes from the September meeting were approved as published in the newsletter.

Old Business

- Bud Auman submitted drawings for the chapter patch (included in this issue)
- Bob Lee: Update on the local Young Eagles Squadron. Bob now has five kids ready to start training. He also has the potential for 150 kids to enroll in the program. The program provides training up to the solo for the young folks for only \$500.00. Bob asked for support to buy log books for the young fliers. Gene Horsman made a motion to buy 50 log books at \$1.75 each (motion was carried).
- The chapter received a letter Eire Middle School..."Thank you for providing Sport Aviation Magazine."

New Business

- EAA now has ultralight registration.
- Warning: the folks at Mead Colorado are now using video cameras with telephoto lenses to video tape aircraft, then claiming the aircraft are flying low. Beware of I25 and Hwy. 66.
- Don Coleman presented copies of the new FAA pilot proposal N.P.R.M.
- Nomination of Officers:

President	Gene Milligan	Vice President	Steve Beach
Secretary	Ron Cothorn	Treasurer	Mas Yoshida
Newsletter Editor	Dwight Cresap	Database Editor	Bill Wright
Fly-in Representatives	George Meshko	Coffee Pot	Herrill Davenport
	Pete Clinton		

Brad's Safety Corner:

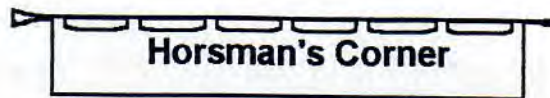
- Metal Props that have been clipped... these props are failing.
- Old fuel from storage tanks... can cause major engine damage.
- The RV-4 crash at Longmont may have been caused by a battery explosion (only opinions at this point).

Visitors:

- Jason Abbey
- Stacy Henze
- Jerrold Meardon
- Brian Welch

Progress/Trip Reports:

- Gene Horsman's Mercury Biplane is on the gear.
- Dean Cochran and John Evens flew to a Fly-in in Placerville Ca.
- Dwight Cresap flew his Jenny to Oshkosh....17 hours out and 6 weeks back!
- Bill Wright flew his Mooney to Muskegon Mich.



→ New FAA NPRM - Pilot Requirements

Items in the FAA NPRM on changes to FAR part 61:

1. Flight Instructors will no longer be CFI's, they will be AFI's or Authorized Flight Instructors, Ditto Ground Instructors (AGI).
2. Self certification of medical condition and changes in rules of Recreational Pilot's license.
3. Split in instrument ratings to single engine and multi-engine, both pilot and flight instructors certificates.
4. "Duration of Certificates," changed from "Until surrendered, suspended or revoked " to read, "Until surrendered, suspended, revoked or otherwise terminated." Does this mean changes to enforcement procedures?
5. Logbooks now must be presented, "Upon a reasonable request from the administrator" changed to add, Federal enforcement officials to the list of those who can make such a request.
6. "Training Time," replaces dual flight time and will include flight instruction with an AFI or an AGI.
7. "Supervised PIC," replaces solo flight time and applies to both student pilots and pilots not rated in the aircraft they are operating under the supervision and authorization of an AFI.
8. PIC time can be logged by both the student (appropriately rated in aircraft) and AFI providing in flight instruction. They both must have at least a 3rd class medical.
9. While logging simulated instrument flight time using a safety pilot, a pilot would have to record the safety pilot's name and certificate number in his logbook.
10. Solo time logged as supervised PIC to be counted as pilot-in-command time towards the requirement of a higher certificate or rating, reducing the total number of hours required.
11. Shared costs would now be limited to costs of fuel, oil and airport fees. No consideration is given to hourly allowances for engine reserves or rental fees. This raises the concerns of higher cost burdens.

12. 90 day currency requirement for carrying passengers of 3 takeoffs and landings would change to 3 full stop landings either day or night.

13. A new private pilot license requirement would be a dual night cross country of 100nm or more and 3 hours of instrument training. The existing 300nm solo day cross country would be reduced to 100nm.

The above are just a small part of the changes proposed. This is a 124 page document and it has been totally rewritten. Nothing in the original has been left untouched. It affects all of us, who fly, in some manner! Please write a letter, even if it is only to encourage the Recreational license medical to go into effect.

→ AM weather - Wayne Winston of PBS reports that they still have financial problems.

† The Presidents Corner: †

This month's meeting is a very important one. Elections are upon us. Please consider running for an office or volunteering for one of the other positions. Chapter 43 would not exist if not for the very few people who do these rewarding jobs. Having filled several of these positions over the last 20 years, I can tell you it's not very hard. I especially urge new members to give it a try. We need you, and it's a great way to meet others and become known by your peers.

We had a wonderful trip to the Copper State fly-in at Mesa, Arizona last month. Our flight through the Monument Valley was spectacular! We made a stop at Sedona for lunch and then went on into Williams/Gateway airport for the fly-in. My father, Mas Yoshida, and I got a room together and we had a great time! The ex-airforce base makes a good fly-in location, with plenty of room and great runways. But man, it was hot - close to 100 F. both days we were there. If you get a chance to go to this one next year, I highly recommend it. *John*

Other Items:

→ Dean Cochran reports that Gale Abels passed away in September. Gale built a highly modified T-18 (*The aircraft is for sale*). The aircraft features a V-Tail and a wing designed by Gale. The workmanship is excellent and aircraft has a 180 HP Lycoming with a constant speed prop. Gale will be missed by all his friends in Chapter 43.

→ Bob Hoover has received a restricted, second-class certificate from the FAA. The story was reported in AVIATION WEEK AND SPACE TECHNOLOGY, October 23, 1995. From the agency administrator: "We didn't give Bob's medical back to him, he earned it."

→ Pitts Biplane loses propeller over Chatfield reservoir. This story appeared in the Rocky Mountain News. Two pilots survived an emergency landing after the propeller departed the aircraft. Both pilots had parachutes but elected to land instead of jump. Nether pilot suffered any apparent injuries. Nice job on the forced landing!

→ EAA Chapter 43 Banquet - Aaron Schomberg - January 14th 1996 at the Ramada Hotel, 4773 Yates Dr., Westminster, CO., \$14.00 each person, Coctails at 6:30PM and dinner at 7:00, Options are beef, chicken, and veggie, Expect a menu choice "sign-up" next newsletter.

→ Nickel-Cadmium Batteries: The following paragraphs were prompted the "Safety Corner" in this issue and, an article in Aviation Safety, October 15 1995 "Beware of 'Bombs' in the Baggage 'The fire could have triggered the nicad batteries to explode like military hand grenades'."

First, it is not known if the RV mentioned in the "Safety Corner" used a nickel-cadmium battery or even if the battery caused any problems! Second, I'm not a nickel-cadmium battery "expert" (there are only a few real experts). Although not an expert, I do have considerable experience with nickel-cadmium batteries.

Explosive Components: Under normal operating conditions, nickel-cadmium batteries are not prone to spontaneous combustion or explosion and are a safe and efficient means of power storage. Nickel-cadmium batteries will produce hydrogen gas if left open circuited for a period of time and then placed on charge. The batteries will produce oxygen gas during overcharge (continued charging after a battery is fully charged). Most sealed cell nickel-cadmium batteries are designed such that the oxygen products generated during overcharge are consumed in recombination within the battery itself. Most sealed cells have pressure vents that prevent the cell case from rupturing as a result of excessive hydrogen and or oxygen evolution. How much and how quickly can hydrogen and oxygen can be produced? This depends on temperatures, charge rates, periods on open circuit, depths of discharge, battery age and condition, etc., etc., etc. **The best policy is to have reasonable ventilation and avoid operations that exceed the manufacturers recommendations.**

Thermal Runaway: Nickel-cadmium batteries placed on constant voltage charging (typical of automobiles and airplanes) may exhibit a phenomena called "thermal runaway." Within the normal temperature ranges that we operate nickel-cadmium batteries, the battery's terminal voltage is inversely proportional to temperature. Additionally, for a fully charged battery, almost all of the charge current is converted to heat. Temperature problems begin when the heat energy produced by the charge current exceeds the heat energy leaving the battery. Thermal run-away is in full swing when an increase in temperature causes a drop in terminal voltage, the drop in terminal voltage causes an increase in charge current, the increase in charge current causes an increase in battery temperature, the increase in temperature causes a reduction in terminal voltage and an increase in charge current....."the proverbial self-eating watermelon." How hot can the batteries get and how fast can they get there? This depends on the ambient temperatures, battery condition, available charge current, and the rate at which heat energy is leaving the battery. **The best policy is to avoid excessive thermal insulation and, when the batteries are fully charged, keep a eye on the charge current and voltage.** For 24 ampere-hour nickel-cadmium spacecraft batteries, I've seen them start a thermal run-away in less than 24 hours at charge rates less than 600 milli-amperes. As a side note, we prefer to keep these batteries below 85°F in order to extend the overall life (once they're in space, you can't just change them).

Finally, I've seen a fire and one small explosion resulting with lead-acid batteries. Lead-acid batteries also produce hydrogen gas and have their own set of gremlins. When I was a kid, my dear old dad decided to check the water level in the pickup's battery. After failing to locate a flashlight (I can never find a flashlight when needed either), dad lit a match and held it over the battery so that he could see the water level. Boom! all the remaining cell caps blew off the battery and made dents in the hood. *I've respected batteries since that day!* Fred Wallace