



CHAPTER 613 November 2006

(Chapter 613 web site)
www.eaa-chapter613.org

News and Views: Tom Edwards

For those of you that made our fall meeting and potluck at Shelburne were surprised by the number of members that showed up. We had about 50 warm bodies all ready to help and visit after a long summer absence. There were so many I wasn't able to say hi to many at all and I'm sure everyone else felt the same.

We had plenty of food and a great meeting followed. We have planned a couple pancake breakfasts in Shelburne this fall, one in Burlington with the balance at Franklin County. The minutes of this meeting will follow.

I certainly hope everyone has planned for some winter flying and have gotten current for night flying as the time change makes the nights come early.

October Minutes: by Tom Edwards, Secretary

The meeting was held at 1:55 P. M. at the Shelburne Airport on October 29, 2006 and was called to order by President Tony Speranza.

A moment of silence was held for Anita Taylor, Don's wife and long time member of Chapter 613.

Steve Couzelis gave a treasurer's report through today's date. The general fund totaled \$7185.56, Roberti Scholarship fund, \$1086.84, and the Mary J. McGrath Scholarship Fund as of 9/30 had a market value of \$40,747.01. The treasurer's report was accepted as given and additionally a round of applause was given to Tyler Hart for all the extra effort he donated in the process of obtaining the permits for our hangar project.

George Coy reported on the hangar project. The State Department of Transportation has filled in our lot with 4 ½ feet of sand for the hangar base. The state has also filed and received the act 250 permits of our hangar along with a few others. All other permits are in place, thanks to Tyler Hart, so we are ready to pour a concrete slab in the spring. Tom Edwards has designed a brochure to assist in fundraising and will attach it in November's newsletter.

Frank Gibney reported on the Scholarship Committee. Frank read a letter from Ethan Smith who attended EAA Air Academy in 2005. Basically Ethan had a blast and enjoyed every aspect of the camp including all the activities and especially the museum!

Cory Paya attended this past summer and decided he really wants a career in aviation! He has a CD full of pictures and wants to join us at a breakfast and share his experience with us.

Frank wants us to start looking for a 14-16 year old to attend camp next year so we are to all keep our eyes and ears opened for any prospects!

To review the scholarships, EAA 613 sends one kid to camp each summer, Mary J. McGrath assists a candidate to receive his CFI with a cash reimbursement up to \$1400. They must stay in Vermont to receive the funds, and the Roberti fund assists with \$400 to a post solo candidate earn his/her private license.

Don Taylor stated that we will not make our Young Eagles quota and will have a report for the November newsletter. We all decide that we need to advertise the flights a little more. We have always had too many pilots and not enough kids. We have been afraid to advertise in the past because we got over 90 kid with only 3 pilots in the past. We also decided to have a couple of YE flights in Shelburne next summer since we have always gotten a good turnout. Frank Gibney will head up a committee.

We are looking for a slate for elections at the November meeting. The newsletter editor and secretary position(s) are open and any interested people for any of the positions are encouraged.

The next pancake breakfast is November 19th at Shelburne, 9-11, and elections will be held then. The Butterfields have volunteered their culinary talents. Help with the setup is encouraged.

Flight Advisor Corner: Hobie Tomlinson

Changing of the seasons

As I write this during the start of a return to Standard time, I have figured out how to reset about half the clocks I have. It is a good thing aircraft aren't that complicated!

With the changing of the seasons, it seems like a good time to park the seaplane series and talk about some other subjects for a while. We will complete the seaplane series next summer.

Short days, colder temperatures, and rapidly changing weather in the North Country mean a significant shift in the flying conditions. For a lot of us, it also begins a period of lower aircraft use. It is dark after work, late fall activities, poor weather week-ends and the approaching Holiday Season all take their toll on flight activity.

With that in mind, let's give thought to some of the issues that affect our aircraft this time of year. These have to do with the **anticipated lower use, colder temperatures, inclement weather and early darkness**.

The Fuel System is probably a good place to start our discussion. The use of MoGas (automotive fuel) in those aircraft with low compression engines and a Mogas STC is fairly prevalent. This is due to the problem of spark plug, lead fouling with AvGas (aviation fuel). There is also the matter of price differential, and for seaplanes – availability.

There are several issues here and this could well be an article all of its own. "True believers" are on both sides, but here are some thoughts.

- The lead in AvGas is a necessary lubricant for the cylinder assemblies of air cooled engines. Those using straight MoGas will not get the same cylinder life as those using AvGas.
- MoGas has a higher vapor pressure meaning it is more volatile than AvGas. This improves cold weather starting, but it is more of a fire hazard in flooded engines. It is also more prone to "vapor lock" at altitude.

- There is political pressure to put additives in MoGas which are very detrimental to aircraft fuel system components. Pumps at automotive stations do not always have the appropriate warning labels. Be sure of your source for MoGas.
- Mogas production, transportation, storage, and dispensing are not nearly as well controlled for quality, contaminants, and octane level as AvGas. Be sure of your source for MoGas.
- MoGas is meant for immediate consumption and lacks the chemical stabilizers that are placed in AvGas. This means that Mogas will breakdown when stored for long periods of time, depositing gums and resins in the aircraft fuel system. AvGas is suitable for storage and will not decompose.

The recommendation is to fly the aircraft using AvGas during the late fall and to keep it fueled with AvGas during the low use winter season. Most sources recommend only using MoGas in a blend of at least a 50/50 mix of AvGas/MoGas to improve cylinder life. The newer cylinder assemblies and proper leaning technique go a long way toward resolving the lead fouling issue, even when using straight AvGas.

Water contamination of the fuel system is the last consideration. The thermal cycle of warm days and cold nights causes more condensation in partially fueled tanks than during warmer weather. For those fortunate enough to have heated hangars, the thermal cycle is even greater. The recommendation is to keep the tanks topped when possible, thus lowering the space available for condensation and reducing the possibility of water contamination. While I am on the subject, frozen quick drains need to be thawed because they are proof of water in fuel. The problem is that the quantity of water cannot be ascertained until the drain is thawed and the tank “sumped”.

The Electrical System is next on our list, specifically the battery. Modern electronics and the larger airports have placed demands on these electrical systems that the original designers never envisioned. The increased use of aircraft lights on the ground associated with night operations also places additional demands on the system.

Aircraft equipped with alternators should be idled at approximately 1000 rpm, both for adequate engine cooling and to insure the alternator is producing enough output to power the system, rather than draining the battery.

Older aircraft still utilizing generators do not have sufficient output on the ground to carry all electrical demands, so it is crucial to minimize electrical loads. Carefully monitor the battery discharge rate.

Cold Weather Starting puts large demands on the battery due to high cranking loads. Pulling the engine through by hand first (insure switches are **OFF**) will lower the cranking loads somewhat. In case of an unsuccessful start, do not leave a depleted battery, as it will freeze and be damaged. The battery must be removed from the aircraft and properly serviced. Monitoring your aircraft's electrical system's health can pay big cold weather dividends!

The Engine Lubrication System also needs consideration. The same factors producing water contamination in fuel tanks are at work in the engine crankcase. In the engine, moisture is created as a byproduct of the combustion process in addition to its larger thermal cycle. Water suspended in engine oil turns acidic and causes corrosion damage to the engine core.

- Engine oil should be changed prior to a period of low use, thereby removing the oil with suspended acidic water and replacing it with clean oil.
- Do not start an aircraft engine in cold weather unless you intend to fly it. Ground running will not produce engine temperatures high enough to vaporize the suspended water out of the oil. In addition, the partially warm engine generates large amounts of moisture inside the crankcase.
- Do not “pull thru” an engine if you do not intend to start it. This causes the piston rings to scrape the residual oil off the cylinder walls, exposing them to corrosion. Running the engine will replace this oil coating.
- Preheat the engine for cold weather starts. When starting below 20 degrees Fahrenheit, preheat is desirable. Although modern engines can be started at colder temperatures without preheat, it dramatically increases engine wear. The excess priming usually required washes the oil coating off the cylinder walls, causing high wear on initial start. Using multi-viscosity oil and preheating, will save much wear and tear!

The Landing Gear is the last system we want to look at. Insure that shock struts have the correct extension and that tires are checked for proper inflation level. The onset of colder temperatures lowers the tire pressures.

Under inflated tires hydroplane at a much lower speed, causing control difficulties. In addition an under inflated tire has excess sidewall flex, causing overheating and sidewall damage. In cases of severe under inflation, the tire may slip on the rim – breaking the bead and going flat.

Wheel pants are typically removed for cold weather operations. They can become packed with slush and freeze the tire. No matter how this comes out, things get broken and it is not a good deal!

Outside Cold Weather Storage produces it own set of issues.

- Tie down Ropes/Straps should be snug, but not overly tight. Loose tie downs allow the wing to snap against the restraint in windy conditions. This imposes much higher loads. Modern ropes/straps do not have the shrinkage of old types and modern aircraft have “give” in the gear shock system. Insure the ropes are secured with knots that will not slip. When securing to a “cable system” (rather than tie down anchors) secure such that there is not excess slack in the cable.
- Aircraft Cover Sets are a huge advantage. They prevent frost and ice from adhering to the aircraft surface and provide protection when snow is brushed from the aircraft.
- Keep Snow brushed off the aircraft, as water logged snow can impose excess loads on some aircraft surfaces. Use only a clean, soft bristled brush, being careful to not damage fragile aircraft parts, such as control surfaces, windshields, antennas, pitot masts, etc.
- Do not get automotive windshield fluid on the aircraft windshield, as it will damage Plexiglas. Also be careful preheating an aircraft cabin, as the heat can quickly damage plastic parts, including the windshield.
- Be sure to check control surfaces for ice. The weight of ice on/inside control surfaces unbalances them, reducing flutter margins!

Lastly is the pilot. When was the last time we logged any “night” time? Are our night landings current? How comfortable are we with night operations, especially when weather is not ideal? Most of us do not get much night exposure during Daylight Savings Time. Some night dual with our favorite flight instructor can pay big dividends in comfort and safety levels!

The thought for this month: The fun of flying a light aircraft is directly proportional to the ambient air temperature and inversely proportional to the wind chill factor!

Until next month, be sure to Think Right to FliRite!



Young Eagles: Donald Taylor

We have only five pilots reporting YE flights for this month.

John Butterfield	4
Chuck Robitaille	3
Donald Taylor	8
John McNerney	7
Bill Yendrzski	3

Total Y. E. Flights so far this year is 221 with 79 left for this year's goal!

Donald Taylor	69
Steve Couzelis	5
Bill Yendrzski	41
Don Nowakowski	5
George Coy	15
Mike Pecue	31
Ron York	30
John Butterfield	4
Chuck Robitaille	14
John McNerney	7



Thursday, October 19, we flew down to Springfield, VT The weather was OK – No Rain! The ceiling was low so we had to go around the mountains at 3000 feet. There were 4 planes to fly and 2 people to do the paperwork. There were supposed to be 30 kids but we flew only 18 Young Eagles and one adult.

Bill Yendrzski	3
Donald Taylor	8
John Butterfield	4
Charles Robitaille	3

Marge Butterfield and Charlie Makin helped with the paperwork.

EAA Air Academy

If you fly 10 or more Young Eagles, you will get our chapter credits worth \$1 each to send someone to the EAA Academy in Oshkosh, WI. EAA Chapters have been at the heart of EAA Academy's success since it began in 1984. For many of the youth that have participated, it has become a stepping stone for both their personal growth and development, as well as their appreciation for aviation.

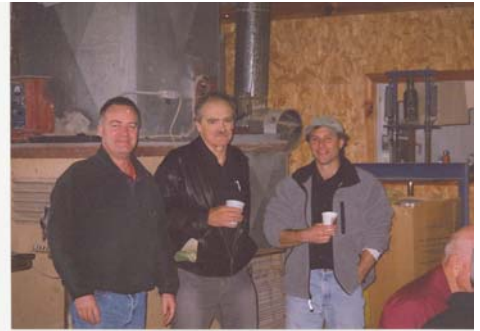
There are 3 camps at Oshkosh:

- EAA Young Eagles Camp for youths aged 12 & 13
- EAA Basic air Academy for youths aged 14&15
- EAA Advanced Air Academy for youths aged 16, 17 & 18

Young Eagle Rally - Springfield



The weather finally did cooperate for the Young Eagle Rally at the Hartness State Airport in Springfield on October 19th. **Bill Yendzieski, Donald Taylor, Chuck Robitaille and John Butterfield** flew 18 Young Eagle flights. Bill wasn't able to stay for the whole event as he developed a problem with his plane and had to leave early. He missed the photo op. **Charlie Mackin and Marge Butterfield** were the ground crew and filled out all the paperwork. The kids had a great time and really enjoyed their flights. Many of them wanted to have another ride, so we definitely made an impression!



Pictures from October's
Potluck!

Pancake Breakfast 9-11 at Shelburne International Airport November 19, 2006

EAA Elections to be held during a meeting following the Breakfast

Be there or be elected!

As Secretary of Chapter EAA 613 I took it upon myself to write the major candidates for the House (Rainville and Welsh) and Senate (Sanders & Tarrant) and ask them questions gleaned from the AOPA website on their opinions on General Aviation User Fees. I received a response from Martha Rainville's office. The questions and her answers appear below. Remember that Martha started her career on the flight line fixing aircraft and moved up the ranks to Adj. General of Vermont National Guard. No other candidate responded in any manner to these questions.

1. Do you oppose replacing the current system of aviation taxes with a user-fee funded system?

Yes, I do oppose a fee-based system. We must ensure that the safety and efficiency of our flight programs stay in place and we should not add additional costs onto private pilots to solve a system that isn't broken.

2. Do you support continuing to fund approximately 25 percent of the FAA's budget with general fund dollars?

Yes, because under the current system it appears as if a reliable funding stream has remained in place for decades. The FAA should continually be updated to ensure safety, and I believe the revenue sources that are current in place with allow for the continued growth.

3. Do you oppose eliminating congressional oversight of the FAA?

Yes.

4. Do you support comprehensive aviation planning and zoning regulations to protect airports?

Yes.

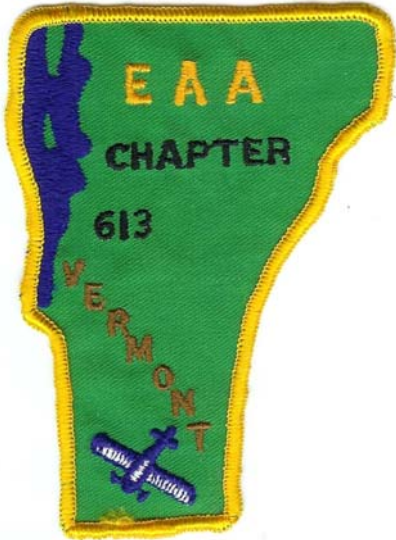
EAA CHAPTER 613

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