



EAA 442's Chapter Newsletter

EAA 442 Chapter Officers:

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The chapter webpage is <http://www.eaa442.com>

Minutes of the December 30, 2006 Chapter meeting.

Mike Hathaway called the meeting to order at 7:35

Minutes of the November meeting were accepted as published

Treasurer report: dues are being accepted

Secretary report: nothing to report

Young Eagles: Bob Barlow gave out recognition pins to those who had flown Young Eagles and for those who had assisted with ground support

Technical Counselor Jim Summers weighed and assisted with Gary Musick's Durand, working on the weight & balance

Mike Hathaway gave out chapter service awards

New officers were not nominated because we are on a two-year cycle

Discussed possibility of meeting on Sunday afternoons instead of Saturday, will decide at the next meeting

Gave away two chapter jackets

At our next meeting on January 27, there may be some Young Eagles present who will want to fly

Meeting adjourned at 7:56

Upcoming Events

January Chapter meeting January 27 at HawkinsCounty Airport, 1 PM

Bill Kershner Memorial Fly-In, at Winchester Municipal Airport (KGBF) of February 17, 2007. 1-4 PM. For more info on lodging, transportation etc, <http://spin.winchester-airport.com/>

If you know about any fly-ins or events in the area, or any last-minute changes of event dates, please pass them on to me for posting, rp

For a (hopefully) up to date list of chapter activities, go to <http://www.eaa442.com>

The Unplanned Landing by Ben Methvin

I have lots of glorious hours in Ultralights behind the Rotax family of engines. I have lots of unplanned landings over the last ten years. I have been very lucky. After my most recent landing in a sod field I am compelled to pass on some observations. Hanging upside down in an ultralight in a sod field focus the mind somewhat. My observations and some details of the causes follow:

A Sod Field - Mini Max 103 - Engine Seizure While climbing out from an "E" airport, the single cylinder 277 Rotax engine abruptly stopped. I had pulled the throttle back after reaching the first climb segment. Luck was with me and below was a beautiful sod field in a circular style due to the round-track sprinkler system. An easy dead-stick (I hate that expression) landing in one of the curved segments followed. The manager of the sod farm was most pleasant and said that I had not damaged his crop and offered any help to get me on my way. I turned the prop, heard a sharp metallic clink and found it turned easily with the reassuring feel of compression. I pulled on the prop and it started with a healthy sound. Thanking the nice man I took off and spiraled to an altitude sufficient to reach my home airport less than two miles away - if the engine again stopped. Landing at my home airport was uneventful. Observation: I was lucky twice. Once when I found the great field below me and the second when I broke one of my later rules of never taking off after an unexplained failure. Cause: Although the engine was running fine I checked the cylinder and piston and found a melted scar of aluminum on the wall of the piston. The engine has seized when I suddenly retarded the throttle. I later learned that this was not unusual and from then on retarded the throttle slowly whenever possible after a climb.

A Cow Field - Mini Max 103 - Engine seizure Flying low levels in unoccupied fields is always fun but the low level severely limits the pilot's options should the engine quit. It quit at 50 feet AGL landing was immediate and fortunately into a pasture without much hoof damage. There was just enough residual energy to clear a fence before the flare. Landing was uneventful and the low time pilot (me) elected to start the engine and take off for the four-mile return to the airport.

This was before cell phones. Luck again and the landing at the airport was uneventful. Observation: Again twice lucky. With only 50 feet of altitude there are almost no options except to "Fly the Airplane" and to land straight ahead. The fence could easily have stopped this narrative. By flying the airplane and maintaining the airspeed I had just enough energy to Plop over the fence. Cause: Engine seizure (I have no idea why Rotax quit making the 277 but this might have had something to do with it.) Again a new piston and honed cylinder

A Front Yard - Mini Max 103 - Exhaust Springs failure While flying at 1000 feet AGL, suddenly heard loud exhaust noise and experienced a considerable loss of power. Below were pine trees, a small road, several farms and one tree-laden yard with what appeared to be enough room to land the Mini Max on part power. The yard was rough but was steeply up sloping to the house allowing a quick deceleration to a stop. After discussing my adventure with the owner of the field, I fixed the two broken springs and took off after carefully walking the takeoff path. **Observations:** Luck again. If at all possible land close to a house on property that is usually kept mowed and clean of obstructions. Also should you be hurt or need communications being close to a house is your best bet. **Cause:** Exhaust springs broke allowing exhaust to avoid the muffler. This resulted in over 50% loss of power. Excessive vibration of single cylinder 277 engine wore grooves in spring ends fast and required replacement more frequently than first thought necessary

A Side Yard - Mini-Max 103 - Rotax 277 Exhaust Horn failure While leading a V formation of six other ultralights (the slowest guy is usually given the lead) I heard a loud exhaust noise followed by significant heat on my foot and one leg. I dropped out of the formation after announcing my plight and shut the engine down from fear of fire. I had 500 feet AGL this time and spotted a house with an up-sloping side yard that looked level but a bit short. Five guys above me in ultralights gave me conflicting advice as to where I might land. I told them in a nervous tone that I had already committed and they could only watch. They saw me land fast on the upslope and kick the Mini Max into a ground loop to keep from running into the fence at the end. Again did not hurt the airplane but needed a part to be welded. As luck would have it, the daughter of the man I was to meet at the airport only two miles away lived in the house I chose and she delivered me to the planned lunch and got to see her father who lived in another city. Her father landed in the same field to deliver me a welded part and broke the nose gear on his Challenger after hitting an unseen pothole. The 70-mile flight back to my home airport was uneventful. **Observations:** More Luck with landing field, mechanical help and friendly faces. **Cause:** Exhaust flange weld broke loose and allowed exhaust into the cockpit (open) and caused loss of power due lost back pressure needed for two stroke operation.

A Beautiful Beach - Mini-Max 103 - Rotax 277 Carburetor needle broke. While part of a flight of other Ultralights at 300 AGL I experienced an abrupt engine failure. Close to my left was a Gulf of Mexico beach of white sand. I announced my intention to land on that beach and was met with a bunch of radio noise telling me it was prohibited. Explaining that it was not an option since my engine had quit they shut up and watched. I landed very close to the water, as I knew the sand would be much firmer there. A quick inspection of the carburetor revealed that the needle had become a nail and dropped down into the jet to shut off the fuel. The engine had only ten hours on it but the steel-retaining clip had milled the brass needle off and allowed the needle to drop. This was near the time when we began to add the "O" ring. I first thought I could use the old needle but found that I was using the lowest setting (richest) and there were no slots left. Fortunately a friend in a Phantom landed in front of me and produced from his fly-away-kit a new needle. Quickly replacing it we both took off before the authorities arrived. The 200-mile trip home was uneventful and an "O" ring was added. **Observations:** Luck again with the natural airport below and a friend with an extra needle. Up to that time I had not heard of the "O" ring fix.

A Grass Flying Field - Flightstar II - Rotax 503 DCDI - Bearing failure 425 hours While teaching a student stalls at 2000 feet, the engine began making unseemly noises and lost power. The engine was shut off and the student was told that the lesson had just gone from stalls to emergency landings. A former helicopter pilot in Viet Nam, he made an unprintable statement as asked if

this was for real. Explaining that this was for real he began to seek the best L/D speed of 55 and started looking for a suitable field. Not spotting one he turned to airplane over to me and an uneventful landing was made into a grass field where we had recently been practicing landings. In the excitement he had forgotten the safe field below us. The aircraft was flown out the same day after another 503 engine was installed. Observations: Experience and Good Instructors had taught me to perform maneuvers such as stalls only over a place where a safe landing could be made. Now that cell phones are in vogue it was easy to call a friend shortly after landing and buy his used 503 engine which he delivered and helped me install that same day. The student never came back. Cause: The engine, overhauled only one hundred hours before, suffered a bearing failure in one of the connecting rods (crankshaft end). No reason was found for the failure but it caused the writer to go longer than 300 hours before overhaul on subsequent engines with good results.

A Weed Field - FlightStar II - Rotax 503 DCDI - Throttle cable broke While teaching turns about a point and other ground reference maneuvers at 1500 feet AGL, the engine abruptly went to idle. The student advised that he had not pulled the throttle back. The lesson went from ground reference maneuvers to emergency landings. The student picked a rough pasture and began an approach on it. With the usual procedure I took over the airplane, suggested cinching up the seat belts and asked the student whose stomach protruded more than mine to suck it in just before the touchdown as I was going to need all the flare I could get. The landing beside a private home was uneventful as we both had pulled in our stomachs. Repairing the cable, I left the student beside the road and took off from the road in front of the house. Making careful note from the air as to where I had left him, I came back in a car for him. He did not come back for lessons. Observations: Practicing maneuvers over suitable landing sites again paid off. Including all parts of the throttle cable system on every pre-flight is a good idea now being included.

Cause: The throttle cable had broken due to an installation that did not allow the keeper on the throttle cable to swivel on each application. This constant bending of the cable caused the break. A greased keeper which swivels is now being used.

The Onion Field - FlightStar II - Rotax 582 - Spark Plugs While at a Fly-In, a friend asked that I give a Discovery ride to his son-in-law. Departing the main airport which was busy I flew to a close-by grass field to simulate a landing. During the climb-out from the small airport, the engine lost considerable power as if one cylinder had failed. The failure occurred at less than 300 feet AGL with hills and trees all about. Remembering a field we had just passed over I made a careful 180-degree back into it. I had not remembered that it sloped sharply downward from the direction we were committed to land. Upon touchdown and application of brakes it was apparent that the field was not going to be long enough so I attempted to ground loop this tricycle machine only to slide sideways over wet grass and wild onions. We hit the brush line at the end of the field with little inertia after hearing the wingtip smack a small sapling. We quickly exited the machine with no further misadventure. Cell phone to the rescue, we soon had friends and a trailer to recover the aircraft. No strong reason for the one cylinder stoppage was found but fouled plugs are suspected. The passenger became a student. Observations: A careful record of maintenance is good practice and will be mandatory when we transition over to Light Sport. The spark plugs in the forward cylinder appear to have been changed at the same time as the aft but showed signs of a substance on the electrodes which was unlike lead accretion. The substance appeared to be thread anti-seizure compound. The gap in the plug was not closed but was dirty and narrowed. A check of all other systems and the replacement of a fuel pump and the plugs returned the engine to good service. Cause: Possible over use and quantity of anti seize compound on the spark plugs.

A Bean Field - Flightstar II - Rotax 582 - 60 hours Shortly after climbing out of a grass field and reaching less than 400 feet AGL, the engine abruptly stopped. We were over trees but had just passed over bean fields. These fields were the best bet at our fast decent on this high-density altitude day. Advising a companion in another ultralight what we were about to do, and asking the passenger (owner) to call out airspeeds, we proceeded to land. It was not possible to line up exactly with the furrows but it was possible to line up into the light wind. We hit hard on the soft field and slid less than thirty feet before the tail went over and we ended up hanging from seatbelts. We made a quick exit as there was fuel dripping from the fuel tank vent just behind. come off and caused the sudden stoppage. The aircraft did not have an auxiliary electric pump and the squeeze pump was difficult to manipulate in the scant time allowed. The owner had planned to install an electric pump in the near future. Observation: The owner is known for his careful preflights but both he and the pilot missed the fact that the clamp on the engine side of the pulse line was not tight. There had been recent preventative maintenance in the area and it may have been loosened at that time. Cause: Failure to tighten the fuel pump pulse line.

Cartersville Airport and Sod Farm Rotax 582 - hours unknown While training the new owner of a Rotax powered RANS -6 the engine abruptly stalled and stopped. The aircraft was less than 200feet over the northern most end of the runway and almost at the end of the runway. It was impossible to land in the remaining length of the runway due to a sharply down-sloped approach to the runway. The sod field in view was reachable in a good L/D glide and caused a sense of complacency to this pilot of many previous out-landings. Soon it was apparent that maybe sod fields were not such a great place to land. The steel sprinkler system cuts deep ruts in its circular path. The sprinkler will destroy any small aircraft hitting it and the field was cut with water drainage ditches. Picking the best stretch of level grass I could find I guided the committed airplane down and gave out of aerodynamics and energy just in time to hit a ditch with the nose gear after a bounce from the mains. Again I was hanging by seat belts after an immediate stop from 30 to 40 mph. I will not soon forget the shock but the four point belts held. Immediately falling out of the airplane with offered help from my passenger I stood up to find that my jaw was no longer in alignment, my tongue was bitten in two places, one eye was not back on line and my chin hurt. This was my worst out-landing in what had promised to be a walk in the park. It scared the complacency and other things out of me. The airplane is still under repair. So am I. Cause. The FAA sent a small team to investigate and both the owner and I were required to submit reports to the NTSB. In it the cause of the engine stoppage is not determined, but stop it did! The engine was sent to overhaul and thoroughly checked out. The fuel system and the electrical systems were carefully examined and no smoking gun found. Lesson: Do the best preflight you know how to do. Keep your equipment in good shape.

The Unplanned Landing by Dana Hague

Hoo boy! I assume we'll not count all the PPG forced landings (two redrive shaft failures resulting in the prop falling off, a presumed ignition failure which put me in the ocean (recovered everything and had it flying two days later), one fuel starvation situation where an out of balance prop caused foaming of a nearly empty tank, and several exhaust system failures where I shut it down to save the propeller), but there were a few in my old Taylorcraft (yes, not even a Rotax but a certified Continental A-65...)

Engine failure on takeoff- I had flown to another airport about 50 miles from my home field in NJ to pick up a co-worker (we were heading to Pax River on business). He got in, I took off, and about 100' in the air the engine started making horrible noises and I lost almost all power. I

pushed the nose down, made a VERY fast wheel landing on what was left of the runway, stood on the brakes as hard as I dared, and stopped in the weeds at the end of the runway about 6' from a ditch. Turned out the hardened intake valve seat had popped out of where it's pressed into the cylinder head. Drove back to my home field and rented a Cessna 172 for the trip.

Sod field out in the sticks- Just flying around NJ, I saw a nice looking farm field amidst the cranberry bogs so I flew down low to check it out on a low approach. When I added power to climb back out again, the engine started running real rough, barely enough power to maintain altitude. I circled around at low altitude and landed on the field. When I got out of the plane I saw the rusted frame of a wind sock laying in the grass (I later learned it was a field that crop dusters used to use years ago). Opened the cowling and saw a whole bunch of water and crud in my gascolator... I had just filled up from the airport's brand new fuel truck, and I guess it hadn't had time to settle out by the time I preflighted. Once I drained it out I had no trouble restarting and flying back home, where I barely resisted the temptation to deck the FBO owner.

Morning Sickness- This one isn't really a forced landing in the usual sense. I had been married about a year, and my wife and I decided to fly to Old Rhinebeck Aerodrome for the show. About halfway there, she started feeling sick, though she normally didn't get airsick... we didn't know then that she was pregnant. Nothing to barf into, so I landed in the first available farm field (not quite fast enough). We cleaned her (and the plane) up with bunches of grass, and continued to Rhinebeck.

Precautionary landing on a pier- We were returning home to NJ from my parent's house in upstate NY on Easter Sunday evening, flying through the NYC TCA "slot" (VFR corridor) over the Hudson River. The T-Craft has a 12 gallon fuselage tank and a 6 gallon wing tank. When it works, the wing tank is supposed to refill the main tank when the main tank is half empty, but sometimes an air bubble or something prevents it from flowing (it's just gravity flow). This time I waited too long to open the valve so the main tank was almost empty... and it wouldn't drain. I wasn't sure I had fuel to make it across New York Bay, and the only nearby airport was Teterboro, with lots of traffic (and I had no radio), and I wasn't exactly sure where it was anyway (no chart, I knew the route by heart but I'd never been to Teterboro), I elected to land on a long (900') concrete pier in Weehawken on the NJ side, adjacent to a heliport, directly across the river from the Empire State Building (I have a great newspaper article of my plane on the pier with the ES building in the background). Of course, as luck would have it, the motion of landing cleared the blockage and I now had 6 more gallons of usable fuel, but by then the police, and fire department, and ambulances had arrived, and the cops wouldn't let me leave... most of the next day was devoted to trying to get permission to fly the plane out, to no avail... we finally snuck down there and flew out anyway, and for the next several months I had to deal with the authorities (in the end everybody decided I hadn't done anything wrong, and in fact did all the right things). That pier is now covered with condominiums.

Throttle linkage failure- The engine started losing power but continued to run smoothly, with not quite enough power to maintain level flight. Moving the throttle had no effect. I headed for the nearest airport as I was high enough to reach it in a long shallow descent, then set up for landing, blipping the ignition on and off like a WWI rotary engine. Pushed the plane off the runway and found a cotter pin had fallen out, allowing a clevis pin in the linkage to drop out. Fortunately the clevis pin landed in the cowling, and I found a scrap of safety wire on the ground to hold it in place to get me home.

Recently I heard a story concerning the Cherokee Indians, and a rite of passage for their young men. A boy's father takes him into the forest blindfolded and leaves him alone. He is required to sit on a stump the whole night and not take off the blindfold until the ray of sun shines through it.

He is all by himself. He cannot cry out for help to anyone. Once he survives the night, he is a MAN. He cannot tell the other boys of this experience.

Each lad must come into his own manhood.

The boy in our story was, naturally, terrified. He could hear all kinds of noise. Beasts were all around him. Maybe even a human would hurt him. The wind blew the grass and earth and it shook his stump. But he sat stoically, never removing the blindfold. It would be the only way he could be a man.

Finally, after an endless night the sun appeared and he removed his blindfold. It was then that he saw his father sitting on the stump next to him - at watch the entire night. So it is with all those who know the Lord as their Savior.

"I will never leave you or forsake you. So we may boldly say, The Lord is my helper, and I will not fear what man may do to me." (Heb. 13:5-6)

You are invited to come worship and learn of Jesus Christ with us at Blountville Community Chapel.

Sunday School starts at 10 AM, Worship at 11, usually done by around 12:15.

Located just west of Blountville. For a map of how to get there, click on this link:

<http://www.bcchapel.org/resource/Map/location.html>

The preacher is the same guy that does these newsletters, just so's you'll know...

Copies of the weekly sermon are now being sent out by e-mail every week.

If you would like your name added to the list of people receiving it, just notify

richard@bcchapel.org

Wanted:

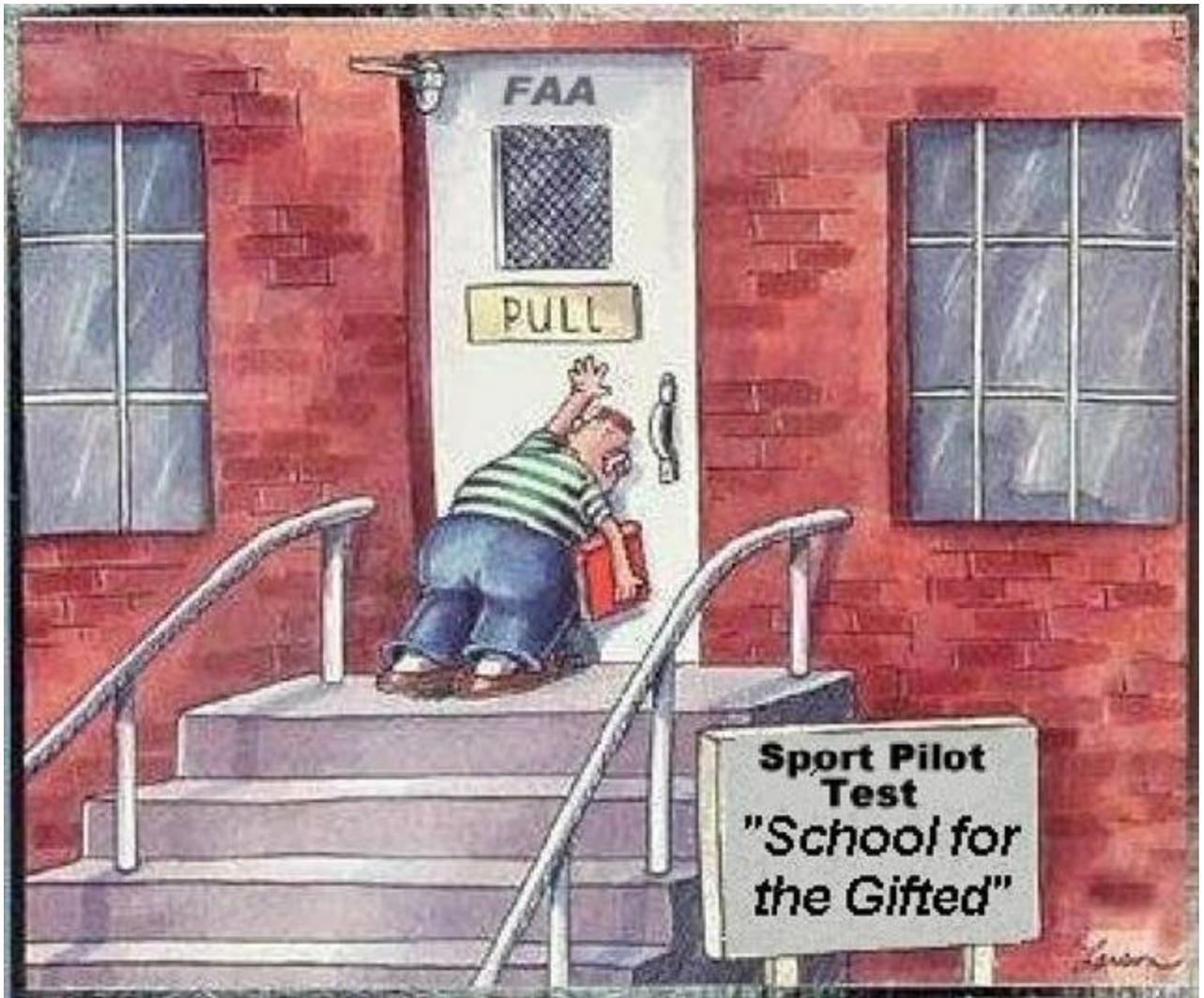
QUICKSILVER SPRINT or SPORT. If you have one in good condition, and it is for sale, or if you know of someone who has one for sale,

please contact Bob Mausolf at

(423) 753 6721 or bobmausolf@ntelos.net

Next Chapter 442 Meeting Saturday January 27, 2007 at Hawkins County Airport at 1 PM.

The End



All initial Propwash mail outs are Blind Carbon Copy to help reduce spam & protect the privacy of our members