Hangar Talk

EAA CHAPTER 590

Chapter Officers:

President	Paul Rachels
Vice President	Albert Gardner
Secretary	Greg Ertl
Treasurer	Rick Smith

Experimental Aircraft Association #590
1463 East 10th Street
Yuma, Arizona 85365
www.eaa590.org

Meetings:
1st Tuesday of the Month
at 7 PM
Visitors Welcome

Newsletter Editor: Albert Gardner (ibspud@adelphia.net phone 343-2792)

May 2006

Next Chapter Meeting

The next chapter meeting will be Tuesday, May 2nd, 7 PM at Therole Miller's.

Scheduled Events

Apr. 29th, Sat. Brawley, FAA Seminar. 9 AM there.
May 2nd, Tue. 7 PM, Chapter Meeting at T. Miller's.
May 3rd, Wed. TO @ 7 PM. Night flight to Imperial.
May 4th, BBQ at Somerton. About 7 PM.
May 6th, Sat. Sedona. Arrive at 8 AM.
May 17th, Wed. Night Flight. TO about 7 PM.
May 31st, Wed. Night Flight. TO about 7 PM
Jul. 24-30th, Oshkosh Airventure 2006.

Don't Turn Back

By Doug Rozendaal

In response to the RV-List thread on turning back to the airport in the event of an engine failure after Take Off I have assembled this editorial. To save bandwidth I am posting this here. I had an engine failure during a low approach and it resulted in an off airport landing. I will share some details of that debacle where it might make the reading more interesting.

One of the most terrifying prospects in any airplane is an engine failure after take off. By definition we are near the airport and these are often found in populated areas offering few alternatives for landing. In the (good) old days pilots landed their plane nearly anywhere. Today, most pilots today have never landed an airplane on anything other than an airport. This has undoubtedly contributed to the improvement in safety we have seen over the years. Unfortunately, because of this we have deep in our psyche is a desire to land only at airports. If we practiced off airport landings, to a full stop, we might have less apprehension about an off airport landing. (just kidding, sort of)

When the engine quits after take off, or any other emergency occurs we respond. AC 61-21A, the "Flight Training Handbook," a.k.a. the Blue Book you must memorize to be a flight instructor, quotes a NTSB study that identified factors which interfere with the prompt and proper response to an emergency.

1. Reluctance to Accept the Emergency. This can't be happening to me. This is a bad dream. I will wake up and it will be all over. Wrong.

2. Desire to Save the Aircraft. My guess this is a really big interference for builders. Remember preserve your assets in this order, Skin, Tin, Ticket. (I stole that from someone but can't remember who or where)

3. Undue Concern about Getting Hurt. If you fly your airplane to the ground before you hit something your chances of survival are really high. If you stall spin you have ZERO chance for survival.

This all seems quite terminal and depressing, but fear not, the answers lie in AC 61-XX "The Fundamentals of Instruction," a.k.a. the hated and much maligned red book. The solution to this interference is instruction. When an emergency occurs your first response will most likely be one of the above. In my accident it was #2, and I had an overwhelming desire was to turn back to the airport. These are called normal responses to stress. There is another entire chapter on abnormal responses to stress. Some are quite humorous, however if you displayed any of these in your training it is the responsibility of a "professional flight instructor" to help you pursue another line of work. If you have been properly trained, the red book says, you will quickly put aside these thoughts and take proper action.

Before we have a forced landing at the worst possible time lets discuss them in general. Prudent pilots plan for worst. This involves having a "plan B" in mind at all times. That includes forced landing sites. Obviously the higher we are the less time we need to spend considering sites. Conversely on takeoff often our options are quite limited. In this scenario, plan B is to sacrifice the airplane to save our skin.

No matter how high or low you are it still comes down to landing with out power. If given a choice of landing sites, when you get down near the ground you need to use an approach that you have

practiced. The trick is to do a short field, soft field, dead-stick, accuracy landing. No big deal right? When was the last time you practiced that?

The choices are:

1. The Overhead 360. This is a military pattern and altitude permitting, the preferred method. I involves flying over the desired point of landing flying a 360 deg turn and landing out of it. The "blue book" says this should be started at 2000 ft above the ground. In a T-6 it takes 3000 ft.

2. The 180 Approach. This involves flying abeam you desired touch down point and flying a descending turn to it. The blue book says a 1000 ft here.

3. The 90 Approach pick a point on the 45 deg line and turn to it. Interpolation would indicate that 500 ft would be the number here.

All of these methods allow you to increase or decrease the radius of turn to burn up excess altitude.

You notice we did not discuss the straight in approach. Let's look at some problems with the straight in approach. All of the approaches are turns you notice. Since you have no throttle, by changing the radius of the turn you increase or decrease distance to the landing point. In the straight-in you can S-turn if you are high but if you are low you are screwed. A straight in truly is the last resort. Then why is it the first thing we are supposed to do? It is about training. If you are at 100 ft when the engine quits you don't have any time to think. You must put aside the normal responses and resort to your training. Your training must be to lower the nose and land straight ahead.

Do not chastise yourself for you initial response to turn back. I did that! I was mad at myself for wanting to turn back. The training finally kicked in and I lowered the nose and went to work solving problems. I had little altitude so I chose the 90 deg approach to get headed into the wind and landed the airplane. Unfortunately it was in a soft soybean field and I went about 60 ft and nosed over. Then the fun began.

Now lets suppose that You are at 1000 feet and the Blue Book says it is OK to do the 180 degree approach right? Wrong, unless you are at Metropolis and there is a parallel runway off your wingtip. If you took off from the 2500 ft of grass at Dump-truck , Iowa after you do that 180 degree turn you still have another 45 to go to point at the end of the runway and then another 45 to get lined up on final. That totals 270 degrees of turn and the Blue Book says that would be around 1500 ft of altitude. Oh, but we are not done yet. Unless you have 2000 ft and can do a 270 degree turn followed by a 90 you are set up for a straight in approach. And if you end up short, most airplanes will, unless there is a 20 knot wind, you will make a downwind crash landing in the road ditch short of the airport. For downwind off-airport landings, I can't think of anywhere short of the Salt Flats where I would choose that option.

Another Tidbit of training that passed through my mind in the moments following the incident and preceding the accident was from my B-25 check pilot, Randy Sohn's wisdom which he credits to Bevo Howard (I think) is, "Fly It to the Ground, don't Fall it to the Ground." If you hit the ground with the wings level and at the slowest possible forward speed your will probably be able to talk with the FAA about your landing. Believe it or not that is now your primary objective.

If on the other hand you chose to turnaround and put that 10 knot wind on your tailfeathers, you have increased your landing speed from 45 to 65 knots. I have long forgotten my physics but it is a 66% increase in landing speed and about 2.75 times the energy.

What's the point? Train, Practice, Take your bird up to altitude and pull the mixture. Find out how fast it comes down. Simulate that decent rate with flaps and power in the pattern. Set that configuration and don't touch it till you wipe it off to land, on the 1000 ft marks and not 1 ft short. Develop a pneumonic checklist like "Glide, Gas, Gear, Mixture, Mags, heat, Help, Harness, Prop, Canopy, and practice it.

So now you are saying even the "Defender of Don't Turn Back" turned. Yes I did, but not back, only into the wind. Would I never turn back? Yes I would. Suppose I am cruising at 8500 ft. and the fan quit. First, lower the nose and fly straight ahead. Then push nearest airport button, find it behind me and fly back. Think about it that way. Flying back to the airport, not turning back to the airport. If you can't fly back to the airport and land into the wind, Don't turn Back.

In closing, don't cut ribbons with a little airplane that doesn't have alternate air and stalls at 95 mph. If you do, and the engine quits, lower the nose (a long ways) and land straight ahead. (at least into the wind)

PS. The altitudes in the Blue Book are not for an RV It will do better. How much? It would depend. Altitude, Temperature, Gross Weight, Cruise prop, Climb prop, or C/S prop, engine compression(the reason it failed). If anyone feels compelled to set a numbers for their airplane I would demo the lowest number you are comfortable with and add at least 25% for the contingencies, 50% would be better.

TSA Warning

TSA WARNS PILOTS ABOUT POSSIBLE ATTACKS ON PRIVATE JETS

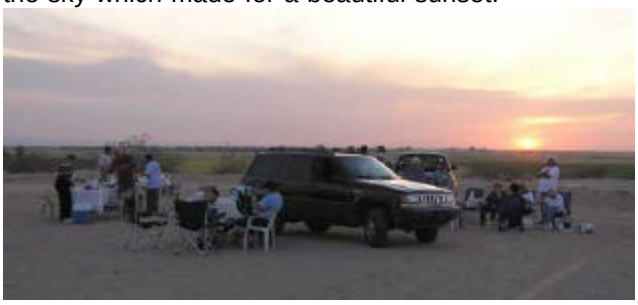
The Transportation Security Administration has issued a security alert warning, urging pilots and airport managers to watch out for extremists bent on destroying private jets. "A message posted in Arabic on a Web forum explained how to identify private

American jets and urged Muslims to destroy all such aircraft," the TSA alert says. The message detailed how to identify U.S.-registered aircraft and gave the tail number of aircraft supposedly used by the CIA. "TSA reminds general aviation aircraft and airport owners and operators to review the security measures contained in the TSA publication, 'Security Guidelines for General Aviation Airports,' and the Aircraft Owners and Pilots Association's Airport Watch Program materials." In addition to securing aircraft, the TSA asks pilots to be alert for persons "masquerading as pilots, security personnel, EMTs, or other personnel using uniforms or vehicles as methods to gain access to aviation facilities," and to immediately report suspicious activity or aircraft theft to the General Aviation Security Hotline (866/GA-SECUR) and local law enforcement.

Somerton BBQ

By Dale Borgman

April 20th was a perfect day for the barbeque. The temperature was mild and only a few clouds in the sky which made for a beautiful sunset.



Those in attendance seemed to be enjoying themselves in conversation. I was talking with Wayne, EAA 590 Charter member, for quite some time. I need to meet with him with a tape recorder and pencil and paper to be able to write down his vast knowledge about Yuma, the surrounding area and the beginning of chapter 590.

A couple of the guys went to check on a kid who happened to get thrown off of his 4 wheeler. Goes to show that flying is safer.

It was decided that another barbeque was in order for May 9, I believe, but meet about 7pm. Watch the calendar for exact date and time. Maybe it should be a fly-in barbeque.

Who Needs Brakes?

By Dale Borgman

The MCAS air show was over and its time to move the airplanes from the show area back to the general aviation side of the airport. Brian and his father spent about 10 years to refurbish this beautiful plane. Brian had the opportunity to taxi the Taylorcraft, a tail dragger, from the MCAS air show area over to Bet-Ko-Air. Brian being a young yet-to-be student pilot was thrilled. Piece a cake, right? Brian climbs into the Taylorcraft, starts the engine and off he goes. First taxing across the parallel runways, then the taxi ways. With the Taylorcraft you have to use the brakes to steer the plane in the direction you want it to go. He is stepping on the brakes to keep the plane on course but it's not going where he wants it to, instead he is zig zagging across runways and taxi ways and even going off the sides.

Soon a peculiar smell is emanating into the cockpit. The smell of burning brakes. Smoke is filling the cabin. What to do, what to do, goes through his mind. "I have to use the brakes to steer this plane but the brakes are getting hotter and are now less effective. Off the side and clip some taxi way lights. Back on the taxi way. Do some donuts. Finally I get the plane to Bet-Ko Air."

"Today I'm to fly the plane to Somerton. With a very qualified CFI in his own right, we departed from Bet-Ko Air. I used minimum brakes as I taxied the plane into position for takeoff, but the brakes were beginning to fade again. But we managed to get the plane off the ground. Onward and upward to Somerton. (54AZ)."

"After a very successful landing at Somerton and as the rudder is getting less effective for keeping the plane straight down the runway I have to start using the brakes to keep the plane on the runway. The brakes are beginning to heat up once again. Now to get the plane from the runway over to the hanger, I have to use the brakes to steer around the hanger buildings down the taxi way. In between the north and south hangers we go. But the brakes are getting hotter and losing their effectiveness once again. But the plane is turning, too much in fact. The tail wheel locks in the turning position and is now heading for the building. The building is now getting very close. My CFI is wondering what I am going to do as he reaches for the mixture control to shut off the fuel. But the engine is still running as it takes a little time before the engine quits. After gaining some presence of mind I reach down and turn off the mags. The propeller stops, the plane stops just inches from the hanger. Whew, that was close, but we stopped. It was a great landing. We walked away and we were

able to fly the plane again. So 'Who needs brakes anyway'"?

Somerton Clubhouse

By Dale Borgman

At the April 4 monthly meeting there was a decision made to start work on a new clubhouse for chapter meetings. With Therole's place possibly to be sold in the near future, the chapter is planning ahead for the eventual loss of the present meeting location. While Therole's place is a great location and a very nice facilities, his property is in a prime location for future development by the regional mall and the city of Yuma. So it is not a matter of if they buy him out but just a matter of when.

The new clubhouse will be at the Somerton airport. Charles Saltzer, the owner of the airport has graciously donated the use of the terminal building at the airport as the new clubhouse. But it does not come without some cost. Charles will be donating most of the material but it is going to take labor to do the work. A little work has begun. On April 8 a few members were at Somerton along with Charles. Some of the interior such as a shelf, a counter with a sink and some other small items were remove. A plan was proposed on how to repair the ceiling. With the existing rafters on 32 inch centers a T-bar ceiling was proposed along with placing 1x4 across the rafters and installing new sheetrock to the 1x4. Charles will be looking into material costs. Some new electrical will also be run to operate lights, a couple of ceiling fans and of course an air conditioning unit

Major renovation started on April 15, 2006. The old ceiling was removed and new sheetrock was installed. The walls were broomed to clean off spider webs, dirt and other crud. The air conditioning unit was relocated. The plan is to have recessed lighting. After completion of the ceiling and running electrical the attic will have some insulation blown in to help keep the building cool.

What the new clubhouse looked like prior to renovation.

There must always be some supervision while others work.

Sheet rock being installed.

Our very own Paul Rachels is not camera shy but a man on a mission. But Charles is camera shy and ducked in behind the ladder and was going to hit me with the T, which is used to hold up the sheetrock to the ceiling while others secured the sheetrock with screws. The next step will be to tape and texture the sheetrock and do some repairs to the plaster on the walls.

The front section was removed leaving a nice porch area.

More pictures of the progress will follow in the next newsletter.