



Airfreddy's Flying Stories

Stories That *All Pilots* Can Learn From

Story #4 The Day I Met My Buddy

Back in my first days of flight instructing, I was flying Cessna 150's for primary flight training. There are two big differences between the 152 and the 150; first the 150 has about 15 hours power less, second the older Cessna's have 40 degrees of flaps and not 30 like the 152's I was trained in.

Back in flight school we were trained to bring in full flaps on final approach once the runway could be made without power. While training students in the Cessna 150 I taught the same thing. One thing about the older planes is the flap lever. On the newer 152's and 172's there are notches on the flap switch so you can feel when you are at 10, 20 and 30 degrees flaps. In the older 150's and 172's the switch is different. You have to hold the switch to bring the flaps down and when you push the flap lever up to retract the flaps, they will go up all the way if you don't stop them.

One thing I drill into students heads is, that you NEVER bring the flaps up at once if you are close to the ground. If you are going around, you bring the nose to climb attitude then bring the first 10 degrees up, fly the plane, get it trimmed and set, then bring the rest of the flaps up 10 degrees at a time.

I was out with a student one day in August and we were flying about 2 o'clock in the afternoon and we were out in the traffic pattern doing touch and goes. The density altitude was probably about 6,000 feet or more. We were doing fine for a while. Then the surprise came. We landed a little long (not too bad but enough) and the student added power to go. He forgot to retract the flaps so they stayed at 40 degrees. The plane got in the air and in ground effect. The takeoff was turning

into a soft field takeoff without the student knowing it. A little time went by and we were still flying in ground effect about 20 feet off the ground “With full Flaps”. We were then approaching the end of the runway. After the runway there is about 400 feet of dirt and then a 15 foot fence at the airport boundary, then there is a road and on the other side is the Boeing helicopter plant parking lot with light poles that are about 30 feet high.

As we approached the end of the runway the student finally realized the flaps were down and hit the flap switch to bring the flaps up. I was waiting for him to do this and at the time was focusing on the fence that was quickly approaching. The plane started to sink and we were past the end of the runway. I grabbed the flap switch and stopped the flaps from retracting. By now we were at about 10 degrees flaps and we had a problem. The plane stopped sinking but I was stuck because it wasn't climbing either.

We were still in ground effect headed for the fence. We had to get over the fence. If we aborted the takeoff and pulled the power we would have met the fence very quickly. I only had two split second options; one was either pitch the nose up some more and pray, second was to add just a few degrees flaps and pray. I acted on instinct and nudged the flaps down. We cleared the fence but were headed for the light poles. I slowly worked the flaps up and down and made it past the light poles. Now the third factor was the desert rises up at that end of the runway and the ground was getting smaller.

At this point in time there was a bunch of stuff going on over the radios. I don't remember exactly what it was or even if the controller was trying to get us on the radio. I immediately turned the radios off. My job was to fly the plane. Now at the time I was acting as cool as I could and I didn't think the student knew we were in a potentially “VERY BAD SITUATION “. I know he knew we were close to the ground and figured the flight instructor had it under control. I milked the plane to a safe altitude and then turned crosswind and continued on for another touch and go. We finally turned and realized that the radios were off, so I called the tower and told the controller I turned the radio down to talk to the student and forgot to bring it back up. The controller came back on and said “ok, cleared for touch and

go runway 4 left, “Roger that. I was still shaking and trying to hide it from the student. We did a few more touch and go’s and then went in. One thing I was not in the habit of was leaning the engine for takeoff either so we were running full rich just as the checklist said.

On the taxi, in the controller came back on the radio; “Cessna ABC can you write this phone number down”? Great, my first real life conflict with the FAA—boy, am I in trouble. This was a long time ago when there were no control tower restrictions. Since I was Airfreddy the friendly flight instructor, I just replied “can I come up”? The voice turned very friendly all of a sudden” SURE COME ON UP” just ring the buzzer outside.

I finished signing the student’s logbook and I think I was still shaking. I did tell the student the controller was mad because I turned the radio off. So I hopped in my car and headed to the control tower. I got in and up the elevator I went. After the elevator there is a set of stairs and my heart started pumping a little bit as I got to the top. I was a little surprised, as I was expecting a bunch of guys in stiff white shirts. They were all in shorts, Hawaiian shirts and cool shades.

I sat down with the one controller who said” you are new here” “Yup”. “Where have you been flying”? I explained that I trained in California and did a lot of flying in New York. He gave me that funny look and just said “AH SEA LEVEL-- IT IS A LITTLE DIFFERENT HERE”. Come to find out he was a pilot and also an instructor. Then he pointed over to the red phone sitting there and said “my hand was on that phone until you turned crosswind”. I think I just said "thank you" and then we went over a few things and talked for a while.

At one point in the conversation he said,” you are one of the very few instructors that will even talk to us. Everyone has this big fear of us and we just want to work with you guys”. From that day on I brought every student up into the tower to meet the controllers. To this day I have a beer once in a while with my buddy.

Now back to the lesson. Once again I was trained on density altitude at school. The light bulb didn't go on until that day. Sometimes I will tell people some of my stories and they will look at me as though I am an idiot and say "how did you let that happen"? I always just look at them and say, "when you have 10,000 hours of flight experience, you will know exactly what I am talking about".

The Main factor was not leaning the engine. The standard checklist states mixture – rich below 3000 feet. So we were below 3000 feet MSL but not density altitude. Now I have everyone lean the engine for takeoff in the run-up checklist ALWAYS-EVERY FLIGHT- NO EXCEPTIONS.

Here is my simple thinking and hopefully it makes sense to you:

If you are at sea level and lean the engine every time it isn't going to hurt anything. If you are in flagstaff Arizona and forget it, it will kill you. So part of flight training is getting you into habits. Get into the habit of leaning the engine for max takeoff power EVERY FLIGHT. I can guarantee you if you are not in this habit, you will forget it when you need it most. Yes you may have also had training on this, but until a scary light bulb comes on it is not going to be set into your brain as habit.

If you are used to flying at sea level and go somewhere that is 2500 feet and it is 80 degrees you are going to have a high density altitude. Depending on the atmospheric pressure it could be between 4,000 feet and 7,000 feet. If you have the wife and kids and a fully loaded plane, I guarantee you it will grab your attention when you takeoff even when you lean for max power.

Another factor is the 40 degrees flaps and the flap lever. Unless we are in a plane that has a lot of extra power such as a C-182, I tell students not to go 40 Degrees flaps unless you absolutely have to. The newer Planes only have 30 degrees flaps therefore it will depend on the plane you are flying. Next habit you want embedded in your brain is FLAPS UP 10 DEGREES AT A TIME. In the event above, the student just retracted them. Now I always call this out to students so hopefully when they are out with the wife and kids my ghost is sitting next to the

student tapping him / her on the shoulder “ten degrees at a time”. I still hear my old instructor when I am on any instrument approach.



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