



SAFETY GRAM

July 2016

They say confession is good for the soul, and I've been thinking about a flight I took last Aug for a while now. I'm not the world's greatest storyteller, so please bear with me a bit. But there are just so many good safety lessons in this one flight, I wanted to share it with you and let you examine it from a few different angles. I share it because the old adage is true, "You won't live long enough to make every mistake, so learn from the mistakes of others." Hopefully, you can learn something from my story. Some of the details may not translate directly to Aero Club operations, as this story involves a personal aircraft. However, I think the underlying themes have universal applicability.

The flight was a late afternoon takeoff on Aug 31st from my normal base of operations, the field where I housed the aircraft. At only 3000 feet long, it's a relatively "short" strip for operating the twin. As such, I've done a lot of takeoff and landing data calculations, but I've made the same takeoff plenty of times. After crunching the numbers many times and operating there routinely, I'd become very comfortable going in and out of this field. Landing distance had never been an issue, and takeoff distance was always comfortable, even when relatively heavy. For this flight, I was the only aircraft occupant, no cargo, and I had a light fuel load. It was a hot VFR day with unusually stable air and almost no wind to speak of. I figured this takeoff would just be like all the others I'd made there, minus the bumps/gusts.

I did my run up checks and was ready to go. With full power application the airplane seemed to accelerate normally down the runway. About 1500' into my takeoff roll I realized this takeoff was somehow different. I was lightweight but was still at least 10 knots from rotation speed – I usually got airborne by about 1500'. I wondered if I should abort the takeoff. Now at 2000' of takeoff roll I was still 5 knots below rotation speed, but I could see the needle moving quickly in the right direction. I elected to continue the takeoff even though I was shocked at how long it was taking to get airborne. I finally lifted off about 2400' down a 3000' runway. I stuck the question of "What the heck just happened?" into my subconscious as the airplane flew normally to the nearby field where I accomplished my planned pattern work and a gas stop.

I'm sure if we were in a classroom right now, there'd be a lot of hands in the air all wanting to ask, "What was the density altitude?" All of you "students" who mentally raised your hand get a gold star. There's a reason the FARs and AFMAN require you to check performance data prior to every flight. In this case, the high temp (105F) combined with higher than normal humidity and very low pressure had pushed the density altitude over 6000'. This was about 2-3 times higher than normal and I simply didn't account for it. Turns out, the book said it would take me 2400' to get airborne in those conditions. The obvious lesson learned is, density altitude matters! It's a basic truth we're all taught as students, but it almost bit me. I'd become complacent doing the same thing in the same airplane at the same airport. But that day wasn't the same. If I'd have lost an engine...well I don't want to think about that.

But I have continued to think about exactly that – the picture of tall trees 1000' off the departure end kept haunting me. How did I let myself get into such a predicament? Why didn't I run the numbers this time? Complacency is the obvious answer, but I think discussing some of the

back story sheds light on how and why I got there. I've found complacency is seldom born of malicious or reckless intent. Rather, it tends to sneak up on us. I keep looking back and see how this could have become a classic accident error chain. I don't think I'm a bad pilot or lazy, but I ended up making a poor judgment call.

So here's the back story. The airplane had been down for about 4 months due to maintenance issues. I'd been spending most of my spare evenings for months going down a maintenance rabbit hole that just keep getting deeper. The longer the aircraft sat, the more I wanted to fly it. By the time August rolled around I'd become more frustrated than I care to admit. The evening of Aug 30th we had the plane almost ready to go. We called it a night around 10pm and decided to finish off the last little bit on the morning of the 31st. Did I mention the annual was only good through Aug? I was excited to finally get her back in the air once before starting the annual. That "last little bit" ended up taking us well into the afternoon to complete, but everything was FINALLY working right. I almost had tears of joy welling up. By then it was hotter than blazes; I was hot and tired...and I'm sure I'd become fixated with getting airborne. The result is what I described earlier – a takeoff with no safety margin for error or bad luck. I did a lot of things right that day, but I got sucked into the maintenance variant of get-there-itis: "git-'er-dun" syndrome.

So when I talk about falling prey to get-there-itis, or messing up checklist discipline, or complacency, it can happen to any of us. I hope you'll learn something from my error; we're all human and we all make them. Here's one of the things I've learned from watching great pilots and marginal pilots recover from mistakes. A marginal pilot does something like what I did and tries to justify it by saying, "well it worked out OK, so it wasn't a mistake...and I can do it again." The great pilots I've known look at those situations and realize they cut so far into their safety margins that they were dependent on luck to keep them alive – and swear they'll never do that again. Great pilots depend on skill and judgment (not luck) to keep them alive. I hope I live long enough to become a great pilot. So, I'll never do that again; there's just no good reason to push my luck.

Blue skies and fair winds!

Links:

"Decision Making for Pilots"

<http://www.aopa.org/-/media/Files/AOPA/Home/Pilot%20Resources/ASI/Safety%20Advisors/sa24.pdf>

FLY SAFELY!



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