Thomas P. Turner's Mastery of Flight.

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FLYING LESSONS for October 31, 2024

FLYING LESSONS uses recent mishap reports to consider what *might* have contributed to accidents, so you can make better decisions if you face similar circumstances. In most cases design characteristics of a specific airplane have little direct bearing on the possible causes of aircraft accidents—but knowing how your airplane's systems respond can make the difference in your success as the scenario unfolds. So apply these *FLYING LESSONS* to the specific airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence. You are pilot in command and are ultimately responsible for the decisions you make.

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Pursue Mastery of Flight

This week's LESSONS:

First reports on our local news were that a woman on the ramp at the small, nontowered airfield was critically injured when struck by a spinning propeller. The airfield is home to a very active sport parachuting jump zone, across a pasture behind my back deck and about two miles from my home. We hear the jump plane almost constantly in good weather, and frequently watch the canopies open and the jumpers drift downward behind the trees.

Shortly after the first accounts follow-up reports said the woman, in her 30s, was taking photographs of jumpers loading into the jump plane when she backed into the propeller of another airplane idling on the ramp. These reports said the woman was in "extremely critical condition" when being rushed by ambulance to a Wichita-area hospital.

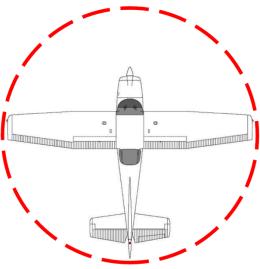
My first thought when hearing these early reports, trying to draw positive *LESSONS* from the tragedy, was about briefing people who are not familiar with lightplane operations before they enter an aircraft operating area. **What would you cover** in such a briefing? I considered briefing points such as these:

- Airplanes can be extremely dangerous to persons walking around airports.
- Propellers are invisible when rotating and depending on other airport activity and noise you may not even know one is spinning.
- Sometimes propellers are on the front of an airplane, sometimes they are on either wing, and sometimes they're behind the wing or even at the end of the tail.
- When walking on a ramp, keep your head up and your eyes and ears open.
- Do not take photos or videos while walking on an airport, because you'll be distracted by your subject and your vision narrowed by the viewfinder or camera display.
- Never walk backwards or sideways on an airport. Face the direction you're walking.
- Still, rapidly scan left and right occasionally to see what's around you.
- Walk in straight lines and well away from aircraft, so pilots can see you and anticipate your movement.
- Always hang on to small children at airports, and keep pets on a leash.

• If you see a sign that says "nonmovement area," don't be complacent. Airplanes and helicopters run and move in nonmovement areas, too.

I also thought about the horrible experience the pilot and any occupants of the airplane had after the woman backed into the Skylane's spinning propeller. What might we pilots do to mitigate the risk on ramps and taxiways accessible to pedestrians? How about this:

- Watch pedestrians carefully to detect and predict their movement.
- Watch children and pets especially closely.
- Shut the engine(s) down before allowing passengers to exit your aircraft.
- Shut the engine(s) down before permitting passengers and others to approach your aircraft.
- Minimize the time on the ramp spent with engine(s) running. Start up, taxi away with your eyes outside, and move to an area more inaccessible to pedestrians before stopping to program your avionics, pick up your clearance or run checklists.
- During the time you are on the ramp where pedestrians may tread, keep your hand on the mixture control(s) or ignition switch(es) ready to immediately stop engines if someone gets close to the aircraft.
- Envision a circle the diameter of your wingspan surrounding your aircraft. In rotary wing aircraft make this twice your rotor width. If anyone comes into that area and headed toward your aircraft shut your engine(s) down immediately.



Another thought: I recall when I learned to fly that airplane marshallers would stand out in front of your wingtip, or close to wingtip distance, as they

flagged pilots into parking. Nowadays (I say in my "impending curmudgeonhood" voice) spotters almost always stand directly in front of your propeller when they direct you to a stop. I think about it every time I have a marshaller—if my brakes fail now that line person is in serious danger.

Yet FAA Advisory Circular 00-34B includes an illustration of the "ideal" marshaller

Figure 2. Position of a Single Marshaller for Maximum Pilot Observation



position for maximum visibility by the pilot...*ahead of the wingtip*, a far safer place for the marshaller to be as well.

(left) Optimal marshaller position, from AC 00-34B.

Maybe we need to go back to the way I think it used to be, and train marshallers to direct pilots from in front of the wingtip, not directly in front of the aircraft—in compliance with AC 00-34B and its international equivalents.

See https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_00-34B.pdf

What will likely be <u>the definitive news report</u> now reveals the deceased woman was a skydiver at the jump zone and professional photographer who sold photos of the jump experience to the jumpers. She was familiar with the operation and airports in general. Like so many pilots I use to derive positive *LESSONS*, this was likely a simple case of distraction, chance, bad luck, and being literally in the wrong place at the wrong time.

See https://www.avweb.com/aviation-news/avid-photographer-remembered-as-a-kind-positive-person/

The <u>FAA preliminary report</u>, though objectively reporting the facts of this horribly subjective accident, tells us:

[The Cessna 182Q] was idling on [the] runway awaiting skydivers and a photographer exited [the] aircraft and backed up into the propeller while taking pictures.

tee https://www.asias.faa.gov/apex/f?p=100:96:10792648165949::::P96_ENTRY_DATE,P96_MAKE_NAME,P96_FATAL_FLG:28-OCT-24,CESSNA

As safety conscious people who control access to airplane movement and nonmovement areas, we all have a responsibility to:

- 1. Educate, brief and escort passengers and persons who will be on the ground near aircraft;
- 2. Follow the best practice of shutting down before loading or unloading passengers;
- 3. Minimize our time spent with the engine(s) running on the ground in places where pedestrians may appear;
- 4. Properly educate line service personnel for their own protection as well as ours; and
- 5. Be vigilant and to **shut down immediately if someone on the ground enters the space** within the wingspan or twice the rotor span of your aircraft.

Can you think of more LESSONS inspired by this awful event?

Questions? Comments? Supportable opinions? Let us know at mastery.flight.training@cox.net.



Debrief

Readers write about past FLYING LESSONS

Frequent Debriefer John Scherer writes about the October 17 LESSONS:

Hi Tom, I have three bird strikes that I remember well. The first was in a T-38 departing Colorado Springs [Colorado]. I was climbing at 300 KIAS. I saw a flash on the right side of the airplane. A small bird dented the right wing honeycomb section outside the engine intake. No effect on controllability. I continued back to my home base of Minot AFB [Air Force Base], North Dakota.

The second was at Minot. On takeoff at about 10 feet, I took a bird in the left engine. I kept the throttles at full afterburner. Once at a safe altitude, I retarded the left engine to idle and did a visual "heavyweight "single engine return to the runway I had just taken off from. Final approach speed was about 180 KIAS as I recall. Landing was routine and the engine had to be replaced.

The third one was on a touch and go at Quantico Marine Corp Base [Virginia]. I taught at the aero club. I was in a Cessna 152 with a student and a seagull hit the windshield just as we were about 10 feet in the air. I sensed no damage and we did a closed pattern and landed. No damage.

I can't remember if I filled out a bird strike form on any of these flight, but I probably did. Keep up your great emails!

And keep sending relevant stories from your flying career, John. Thank you.

See https://thomaspturner.com/flying-lessons-weekly/flying-lessons-for-october-17-2024/

More to say? Let us learn from you, at mastery.flight.training@cox.net



See https://nafisummit.org

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