CALLBACK

From NASA's Aviation Safety Reporting System

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A General Aviation Snapshot

General Aviation (GA) holds a special niche in the aviation world, boasting a unique signature and spectrum of attributes that reaches far and wide. The range of attributes is, perhaps, larger for GA than for any other segment of aviation. GA pilots have accounted for approximately 53,000 and 16 percent of the reports that ASRS has received over the past three calendar years.

Experience and qualification levels among GA pilots vary greatly. GA aircraft designs and flight characteristics, performance, flight profiles, and mission descriptions are equally diverse. The GA reports that ASRS receives often reveal significant differences and occasionally outliers in flight circumstances, airport facilities, environments and capabilities, aircraft equipment, and navigational techniques.

This month, *CALLBACK* offers a small sampling of the wide swath of GA reported incidents. All are Part 91 operations, and all bear some distinctive GA marks. Each one, however, reveals human factors and vulnerability to threats while striving for aviation perfection. Appreciate the GA signatures, but also consider the lessons, both general and specific.

Trapping an Error

This 1400-hour CFI described a student misstep not clearly recognized by the instructor. ATC intervened, no injuries or damage occurred, and sound wisdom was indwelled.

■ *I had a lesson with my student. From an IMSAFE point of view, I did consider not flying. All day, I had been stressed. I realized my stress and emotion put me out of my mind to focus on the lesson. Also, my student would be moving out of the area soon, and [I] wanted to have a lesson with him.… We used an old Cherokee 140. It was a warm day, and performance was not great. I normally carry my flight bag, but to save weight, I just pulled out what I needed. Upon engine start, I found that I did not bring my EFB. I use it to monitor traffic. I then let my student go through [the] checklist while I took another EFB. During the checklist, when the student sets the DG, I then ask them: Does the heading make sense? Is the runway orientation correct, does the GPS desired track make sense, which way will we turn to taxi and onto [the] runway? Because of the EFB issue, this did not get done. We then got our taxi clearance for an intersection takeoff on Runway XX [from] taxiway 1. This would mean a turn to the right. I was aware for the last several days [that] the active runway was XY, which was a turn to the left, and [to] not get used to a taxi clearance that you normally get. I am aware of [the] issue of turning the wrong way at an intersection takeoff and try to watch this closely. Many times, I will ask the student which way we will need to turn. As we were taxing, it still did not appear that my EFB was operational - but [I] then decided to ignore it because I did not want any further distraction. Technology is great when it is working and a horrible distraction when it is not. We then taxied to, and…were holding short of the runway. At this point there was [a] question about the checklist, so I made us go through the checklist again, starting from engine runup to make sure it was complete and to…emphasize the importance of following the checklist. Unfortunately, when [I] checked the DG I did [not] follow my own rules, and we did not do the orientation sanity check, which would have included which way to turn onto the runway. My student called, and we received a takeoff clearance for runway XX, and as we started moving, ATC told us to do left closed traffic. As we were crossing onto the runway my student asked something about left closed traffic. This was a surprise [to] me, since we had discussed this in [the] past and [it] did not seem to be an issue. I quickly [described] it and used the word left a few times. Because of this, I believe we had left stuck in our minds. He turned left and for some reason I did not pick up on this. We stopped; I had alarm bells going off - something did not seem right - then ATC cancelled our taxi clearance, and I realized the mistake.*

Lessons learned: Even though I was aware of [the] IMSAFE issue, I still found my mind wondering on the plane issues, and I had to bring my mind back to the present. I could have stopped…everything and totally focused on the technology issue. Either…[get] it addressed or decide to not use it. I could…have told my student…to take off, and…[explain] the closed traffic at…a less critical point in the flight.

Actions to be taken: Even if I get the same taxi clearance every day, I always write it down. I [am] going to amend this process by adding arrows on which way to turn above the hotspot areas, intersections, and turning onto the runway from…[an] intersection takeoff, like how I write down hold

short or cross at a runway crossing. Remedial training with an instructor. Discuss how other pilots address this issue. Relay lessons learned to my students.

Juggling All the Balls

A high-time ATP described three demanding situations immediately after takeoff that culminated in an important practical and philosophical lesson about handling priorities.

■ *On a VFR flight from 7FL6 to ZZZ, I took off on Runway 24, turned to a heading of about 290, and was leveling off at 1000 ft. MSL to stay below the Class C airspace, which starts at 1200 ft. MSL. It was at this moment that the radios, intercom, and GPS all went unpowered, and I entered a cloud of smoke from a wildfire that was burning north of my position. Smelling the smoke and experiencing the avionics failures, I assumed I had an electrical fire. After a few moments, I regained all my avionics when I recycled the Avionics Master Switch. Because my attention was diverted to the problem paired with the reduced flight visibility due to the smoke layer at the same moment, I had begun leveling off, but I inadvertently climbed into the Class C airspace. I believe two or three minutes may have passed before I realized I was in Class C airspace. I then immediately descended below 1200 ft. and I called Daytona Approach and told the Controller what had happened and that the avionics problem seemed to be solved.*

Lessons learned: I have been flying for many years and this is the first time I thought that my aircraft was on fire. All of my attention went to getting the perceived fire out instead of staying out of the Class C. You still have to know where you are and keep other aircraft safe, even though you may have a dire problem to handle.

Bringing Closure to the Situation

Expectation bias during a handoff from Center to CTAF at a non-towered airport led to a surprise for this 3175-hour Bonanza 33 pilot. ATC and colleagues came to the rescue.

■ *I was on an IFR flight plan from ZZZ1 to ZZZ. Weather at ZZZ was clear and 10, but I elected to do the RNAV XX approach to continue to build proficiency with my GFC500 autopilot. At the FAF…the…Center Controller advised there was one plane observed in the pattern at ZZZ, to cancel IFR in the air or on the ground at ZZZ, and change to the CTAF. I observed the reported aircraft via TIS-B, and transmitted to the ZZZ Controller that I was cancelling IFR and would "squawk 1200." I thought I heard the ZZZ Controller acknowledge my IFR cancellation (my "Expectation Bias"), and I changed to the CTAF frequency, communicated with the aircraft in the pattern at ZZZ, and continued on the approach.*

Subsequently, another aircraft came on the CTAF frequency and asked if Aircraft X was on the frequency and stated ZZZ Center had not received my IFR cancellation and did I want them to relay my cancellation. I was surprised…because I thought I'd heard the Controller's acknowledgement (again, my "Expectation Bias"). I replied in the affirmative to the third aircraft, and a minute later they advised they had successfully relayed my IFR cancellation [to] ZZZ Center.

The two lessons learned are: My focus on a potential traffic conflict allowed an "expectation bias" of the Controller receiving my IFR cancellation. Second, don't use the phraseology of "Aircraft X is cancelling IFR and squawking 1200." Instead, only use the phraseology that "Aircraft X is cancelling IFR," and wait for the Controller's acknowledgement and instruction to "Squawk 1200" to be sure the Controller did, in fact, receive the IFR cancellation.

Owed to a Preflight

A 1450-hour private pilot had a problem on the flight deck in this homebuilt in day VMC. The instructor trapped a second threat, and the pilot later detected the source of the problem.

■ *This was a training flight. The subject airplane took off from ZZZ and headed…south. When [we] overflew CHD at 3,200 ft. MSL, both the pilot and instructor, who [was] seated in the back seat, smelled gasoline. The pilot decided to return to ZZZ. During turning to the north, heading 020, the pilot was occupied by the gas leakage and did not maintain the altitude above CHD Class D ceiling (3,000 ft. MSL). The…airplane descended to 2,900 ft. MSL for a few seconds. The instructor immediately warned the pilot regarding 3,000 ft. MSL for CHD Class D ceiling. The pilot applied full power and…climbed to 3,200 ft. MSL. Total time period for violating CHD Class D airspace was…around 15 seconds. After landing [at] ZZZ, the pilot found the gasoline…smell was…coming from the right wing-tank. The vent tube of the fuel tank cap was pointed to the rear. The correct position of the vent tube should be pointed to the front. The pilot fueled up the fuel tank prior to the flight. It was a pilot's negligent of not correctly…tightening the fuel cap.*

Lessons learned: 1) When encountering difficulty in a flight, the pilot in command should first "fly the airplane." 2) The pilot in command must get familiar with the airplane.

The reports featured in CALLBACK are offered in the spirit of stimulating thought and discussion. While NASA ASRS does not verify or validate reports, we encourage you, our readers, to explore them and draw your own conclusions.

ASRS Alerts Issued in February 2025	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	12
ATC Equipment or Procedure	11
Hazard to Flight	1
Other	2
TOTAL	**28**

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February 2025 Report Intake	
Air Carrier/Air Taxi Pilots	4,680
Flight Attendants	1,416
General Aviation Pilots	1,326
Military/Other	778
Controllers	356
Dispatchers	259
Mechanics	205
TOTAL	**9,020**