

# CALLBACK

From NASA's Aviation Safety Reporting System



Issue 506

March 2022

## What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to “interact” with the information given in a selection of ASRS reports. In “The First Half of the Story,” you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

The selected ASRS reports may not provide all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation judgment and decision-making skills. In “The Rest of the Story...” you will find the actions that were taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action, and there may not be a “right” answer. Our intent is to stimulate thought, training, and discussion related to the type of incidents that were reported.

### The First Half of the Story

#### An Insidious Incapacitation

Cessna 206 Pilot's Report

■ *While conducting an aerial survey operating a Cessna 206, I noticed that the camera crew person did not respond appropriately to my questioning and had what appeared to be a sense of confusion during the flight. ... After takeoff, I leveled the airplane at 16,100 feet to start the aerial survey. I checked to see how much oxygen was flowing through my supplemental oxygen cannula and confirmed it to be set at 17,000 feet. I noticed my camera crew person, who was sitting in the right seat next to me, increasing his oxygen level intake. I asked him if he was OK, and he responded, “I don't know.” I then asked him if we are doing lidar work. He replied, “No, why would you ask me that?” Shortly thereafter, I started to feel uneasy and woozy. I felt my heart rate increase. I was slow to talk, and making decisions was a bit more difficult.*

**What Would You Have Done?**

#### Anatomy of a Late Go-Around

SF50 Vision Jet Pilot's Report

■ *I was carrying too much speed on final and proceeded to float for what I felt like was too long. My training beat into my head, “When in doubt go around,” so...*

**What Would You Have Done?**

#### An Encounter Too Close

Flight Instructor's Report

■ *I was with an instrument student. We were taking off and were departing to the north. As we began our takeoff roll, I saw that there were skydivers in the area. I was not concerned, as they do not cross the runway below 1,000 feet. I mentioned to my student that we had to keep an eye on the skydivers. My student had the throttle all the way in and was getting ready to rotate. I noticed a skydiver getting closer to the runway at a low altitude. The skydiver was on the southeast side of the runway.*

**What Would You Have Done?**

#### Compounded Problems

BE1900 Captain's Report

■ *Operating at FL190, ...the cabin altitude was indicating approximate 10,000 feet. ... I felt a change in pressure inside the aircraft. When I crosschecked the cabin altitude, [rate of] climb was indicating 4,000 feet [per minute]. ... A minute later, the cabin altitude warning illuminated. This was followed by the aircraft memory item and checklist. I pulled the O<sub>2</sub> knob, ...and as I pulled the mask, I placed the oxygen mask on emergency mode, but no oxygen was flowing. I placed it back on normal operation and nothing happened. I switched the microphone to the oxygen mask and advised ATC for an urgent descent to 10,000 feet. I discovered that ATC was unable to hear me at all. I looked over, and the switch for the microphone was placed in “OXYGEN MASK.” ... Nothing seemed to fix the problem. The cabin altitude was indicating roughly about 20,000 to 21,000 feet, from what I recall.*

**What Would You Have Done?**

## Evaluating Credible Risk

### C525 Captain's Report

■ *When checking on with Departure after a normal takeoff and climb, ATC informed us that ground personnel reported sparks exiting from our...Number 2 Engine during takeoff. We observed no abnormalities of any kind to indicate a problem (vibration, noise, engine parameter readings, power output, etc.). After a short discussion, ...*

#### What Would You Have Done?

## The Rest of the Story...

### An Insidious Incapacitation

■ *I decided to increase my supplemental oxygen cannula to 22,500 feet to increase the oxygen intake. I looked over at the camera person to see how he was doing and noticed what appeared to me as a discoloration of his face. At this point, I...started a descent, turned off the cabin heat, opened the air vents, notified ATC, and activated the autopilot for the descent (in the event I passed out). Upon reaching a lower altitude and knowing that I was not going to pass out, I disengaged the autopilot and accelerated the descent to 3,500 feet and continued directly to ZZZ and landed. After speaking with the mechanics, it was learned that the flange was bent, causing the Number 2 Cylinder to leak exhaust gases into the cabin.*

### Anatomy of a Late Go-Around

■ *Out of an abundance of caution (I thought), I began to execute a go-around. What I failed to realize is the eight seconds that a turbofan engine takes to spool up, so before full power was [achieved], my wheels were on the ground and I was slowing. We sped up and I saw the end of the runway coming too quickly and decided to...stop the go-around and slam on the brakes with very little runway remaining. We were nearing the end of the runway. To avoid slamming into the large runway lights, I turned onto the grass at the last minute and used the dirt to stop us completely. No damage [was done] to the airplane. ... Only some new tires were needed.*

### An Encounter Too Close

■ *I instructed my student to not rotate. At that point, the plane did lift off, so my student pushed the yoke forward to get back on the runway. We had too much momentum, so to prevent any incident, I took the controls and performed evasive*

*maneuvers. We swerved over the grass to the northwest side of the runway and then climbed out safely. We were very low to the ground when I took evasive action; I would estimate below 50 feet. The skydiver landed within a few feet of the runway. The canopy was red or possibly an orange-red.*

## Compounded Problems

■ *I switched again to my headset and requested, "Priority, need to descend now to 10,000 feet, pressurization problems." As soon as I talked to ATC, I started the immediate descent memory items and checklist. While descending, I took the First Officer's mask to [check] for oxygen flow, but no oxygen was flowing, I double checked the O<sub>2</sub> handle. I pulled both upper and lower [handles] located on the Captain's left hand side, but nothing [resolved] the O<sub>2</sub> [mal]function. Since I was indicating 60 miles from my departure airport, I decided to return. ... In my judgment, it was unsafe to continue the flight without O<sub>2</sub> flow, no oxygen mask microphone, and pressurization problems. Upon reaching 10,000 feet, the cabin stabilized, and the cabin altitude indicator was no longer illuminated with a cabin altitude at about 9,000 feet. ATC gave me instructions to descend to 5,000 feet. ... The cabin altitude started to jump 5,500 [FPM] up followed by a descent at 4,000 [FPM], and this continued all the way to 3,000 feet. At that moment, I was feeling uncomfortable since my ears were hurting and I knew I was not feeling 100%. At 3,000 feet, I turned off my bleed air and flew the aircraft unpressurized. ... I landed the aircraft successfully without any [other] major issues.*

## Evaluating Credible Risk

■ *We elected to return to ZZZ as a precaution and received vectors for the ILS. ... We continued to monitor engine indications closely but at no time observed anything abnormal. ATC asked us numerous times if we required assistance or would like to request priority handling, which we declined, as there seemed to be no cause for alarm or need for priority handling. A short time later, ATC advised us that ZZZ Tower was treating us as a priority aircraft, anyway. The remainder of the approach and landing was uneventful. Emergency vehicles escorted us back to the FBO ramp but did not observe any signs of engine trouble. Shutdown was normal, and a post-flight inspection of visible engine areas revealed no abnormality. A subsequent borescope inspection by Maintenance...revealed three missing blades on the Number 2 Engine high-pressure compressor and general damage to the entire compressor due to those blades separating during engine operation. I later learned that this is a known issue for this engine.*

ASRS Alerts Issued in January 2022	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	7
Airport Facility or Procedure	7
ATC Equipment or Procedure	5
<b>TOTAL</b>	<b>19</b>

506  
A Monthly Safety  
Newsletter from  
The NASA  
Aviation Safety  
Reporting System  
P.O. Box 189,  
Moffett Field, CA  
94035-0189  
<https://asrs.arc.nasa.gov>

January 2022 Report Intake	
Air Carrier/Air Taxi Pilots	4,771
General Aviation Pilots	1,132
Flight Attendants	702
Dispatchers	245
Controllers	214
Military/Other	191
Mechanics	164
<b>TOTAL</b>	<b>7,419</b>