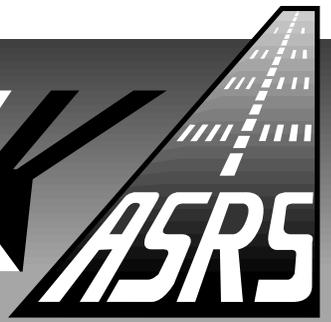


CALLBACK

From NASA's Aviation Safety Reporting System



Number 306

March 2005

Second Annual Award Winning Lessons



One of the purposes of Callback is to provide the opportunity to learn from the experiences of other aviation professionals. While "learning experience" generally has a

negative connotation, not all ASRS reports deal with errors. Many offer a chance to learn from situations in which everything was done right. In the following incidents, various abnormal situations were handled with a high degree of professionalism and skill. These reports were selected as the best examples among recent incidents that document the value of communication, teamwork, and training when things go wrong.

And the Winners Are...

Best Performance by a Cast and Crew in a Short Drama



Although the heroes subdued a snorting, lurching, fire breathing monster in the first scene, there was still plenty of well-coordinated action and effective dialogue to come in this short thriller.

■ We made a normal takeoff. Right after raising the gear, we heard a "snort" and lurched to the left. The left EGT redlined and thrust was gone. The First Officer maintained excellent control. Tower reported that we were trailing fire and smoke. We worked the initial items and declared an emergency. We swapped control and the First Officer worked the checklist. The flight attendants were told to prepare for evacuation on the right side. We made a quick turn to land on the departure runway since visibility was good and the winds were light. The First Officer got the engine secured per the checklist and we touched down a moment later. We told the flight attendants to wait on evacuation as the cabin was not contaminated. The fire crew quickly inspected the engine and reported it secure. We concurred with him that evacuation was not required. After informing the flight attendants and making a PA to the passengers, we taxied to gate.... Blowers were immediately established at the gate and the brakes were cooled quickly. Communication among all crewmembers was excellent. With the evidence from the tower, flight attendants, and cockpit instruments, we operated under the assumption that we might have a sustained fire and could possibly get smoke in the cabin. With that, I decided to minimize flying time and take advantage of the favorable conditions to make a rapid return to the field with an evacuation as a real possibility. Having the fire chief there quickly really helped make the vital evacuation decision. I had direct radio contact with him on tower frequency. I felt that I had excellent support from all authorities and services, and an exemplary performance from my crew, especially given the very short time they had to get things done. We were airborne just seven minutes.

Best Solo Performance - Sports Theme



When your engine is shaking and shedding parts, it's time to do what this C182 pilot did: start looking for that "Field of Dreams." Despite a high and fast delivery, he managed to turn in a winning performance.

■ I was completing a climb to about 2,500 feet AGL when there was a sudden loss of power and severe vibration. I reduced power to control the vibration, communicated on the Unicom frequency that I was losing power and intended to make an emergency landing in a field, and began to set up for the landing. Several good fields were nearby, so gliding range was not an issue. Because of the distractions of communication (responding to several inquiries to confirm position) and the vibration, I did not monitor airspeed as closely as I should have, and turned final to my chosen field early in an effort not to be short.... I realized I was too high (and probably too fast) and with trees at the far end, I elected to turn (approximately 150 degrees) into an adjacent field. Fortunately, I had sufficient energy and altitude to complete the turn and was well positioned for what became an uneventful landing in a pasture. I was unhurt and the aircraft was not damaged in the landing.... The vibration was a significant distraction that the typical engine-out practice with an instructor didn't prepare me for. I'm happy to report a favorable outcome and glad that I'm here to tell the story! Note: When we took off the cowl, we found a baseball-sized hole in the crankcase opposite the #2 cylinder. The decision to accept a forced landing was a good one.

Best Performance by a Duo on a Dark Night



It was obvious that these PA28 pilots had rehearsed well when they were called to action in a real emergency. Their well-coordinated efforts are a testament to the value of timing, training, and teamwork.

■ ...We requested ATC assistance for vectors around the weather.... As soon as we made the turn, we experienced a slight power loss and were forced to begin descending. I ran through the troubleshooting checklist...but nothing seemed to improve the performance. After about 300 feet of altitude loss, we selected "Nearest" on the GPS and advised [ATC] of the engine roughness. Just after that call there was a loud bang followed by a total power loss. We heard loud clanking sounds with the propeller windmilling, so we then ran the "Engine Secure" checklist. We shut the engine down, trimmed for best glide, and declared an emergency. ATC cleared us to land on Runway 15 at ZZZ and dispatched Crash/Fire/Rescue. As soon as we cut fuel to the engine, the propeller stopped and our glide improved. We saw the airport beacon through the clouds and continued for what we planned as an orbiting approach over the runway. My copilot secured loose items in the cockpit for landing and I entered a right downwind at 2,000 feet AGL. I made one 360 [degree turn] which brought us down to 1,000 feet abeam the numbers for a simple, no-power landing. We touched down and rolled off on the first taxiway. Excellent Crew Resource Management and immediate response to the power loss led to our success.... It was a textbook scenario combined with the right amount of luck.

ASRS Alerts Issued in February 2005

Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	15
Airport facility or procedure	10
ATC procedure	2
Maintenance procedure	1
Navaid or Airspace structure	1
Chart or Publication	2
Total	31

A Monthly Safety Bulletin from

The Office of the NASA
Aviation Safety Reporting
System,
P.O. Box 189,
Moffett Field, CA
94035-0189
<http://asrs.arc.nasa.gov/>

February 2005 Report Intake

Air Carrier / Air Taxi Pilots	2455
General Aviation Pilots	642
Controllers	35
Cabin/Mechanics/Military/Other	101
TOTAL	3233

Award Winning Lessons Part II



Best Performance in an Original Script



This is one of those obscure, critically acclaimed little gems; a refreshing departure from the usual story line. Rather than follow the familiar script of the typical icing thriller - loss of control; panic and fear; gut-wrenching spiral out of the clouds, this low time C182 pilot opted for a daring display of common sense. By reversing course and avoiding further flight into icing conditions, the pilot made a decision worthy of a seasoned professional.

■ *Enroute at 8,000 feet on an IFR flight plan... I observed an OAT (outside air temperature) of 32-degrees Fahrenheit... Upon entering IMC, I began to develop ice accumulations on the wings and windshield. I immediately requested a lower altitude and momentarily broke out of the clouds. Moments later I entered another layer and again developed ice. While in IMC, I reported to ATC and requested clearance for an immediate course reversal to return in VMC back to [departure airport].*

Best Performance in a Landing "Role"



In this well-catered production, good communications and a thorough review of the script led to a safe and professional performance when the action started.

■ *On Saturday morning, a [passenger] and I took off for breakfast. The gear retracted and locked down normally. We took off [later] for a lunch flight. Gear retracted OK, but upon arrival at ZZZ1, when I lowered the gear, the mains only came part way down. I had two mirrors on each wing to confirm that the gear were half way down. I pulled the emergency gear handle and tried to pump the gear down, then back up. The gear would not move in either direction... I called [departure airport] tower and advised that I had a gear problem. I made a low pass over the runway, confirming the problem with the tower and another airplane flying alongside. Tower had fire trucks on standby along the runway. I advised [my passenger] what the chain of events would be to make her comfortable about the situation. I would come over the runway, pull the mixture, pull the power off, turn the fuel off, master switch off, ignition switch to off, open the doors, and then make the best landing I could. The partially down main gear touched first on the runway. I could hear the skidding sound of the main tires, then the nose wheel touched down. I had full aft pressure on the yoke and was able to steer with the rudder until the speed dropped to about 20 mph. Then the nosewheel pulled to the right and the right wingtip scraped on the runway to a stop. We bailed out the open right door and ran clear of the aircraft until fire*

personnel deemed it safe. The plane was raised with a sling and the main gear were pulled by hand forward and locked into the landing position. [Apparently] a hydraulic line had broken... [There were] no injuries and only minor damage to the aircraft.

Although the reporter did not mention it, the outstanding job of saving the plane, engine, and propeller probably assured that the dinner flight departed without undue delay.

Best Performance in a Medical Drama



The following ASRS reports, submitted by two appreciative Captains, bring some well-deserved attention to the often-overlooked efforts of cabin crews. These Flight Attendants share the medical drama honors for their skill and persistence in challenging circumstances.

■ *During cruise, we were approaching thunderstorms with reports of bad rides at all altitudes. The Number One Flight Attendant advised us of an ill passenger. The cabin crew followed their procedures and enlisted the help of two nurses and a physician. The First Officer and I worked a plan with Dispatch for a divert if necessary. The Flight Attendants called regularly to update us on the passenger's condition. After the physician determined that there was some improvement, we continued to [destination] while coordinating with Dispatch to have paramedics meet our flight. So far this report sounds routine, but I can assure you that the situation was not. Our Flight Attendants were taking care of this occurrence during an all-nighter while riding a bucking airplane. I would characterize the ride as continuous, moderate chop on the flight deck which would make it substantially worse in the rear of the cabin. The Flight Attendants performed flawlessly.*

■ *Soon after level off at FL370, the Purser called and said that a passenger was ill. There were no medical personnel onboard. The passenger's condition changed rapidly. He had a weak pulse and was soon unconscious. We turned back to [departure airport]. Dispatch was notified and they coordinated with ATC, Tower, ramp, and paramedics. The Flight Attendants used the AED [Automated External Defibrillator] and they also accomplished rescue breathing until paramedics boarded the aircraft. The paramedics came back later and reported that the passenger was now responsive. They commended the Flight Attendants for actions that, without doubt, saved the passenger's life. I was extremely proud to be in the company of these wonderful and very professional Flight Attendants.*